Preliminary Angiosperm Checklist in an Area South of the Madeira River, Manicoré, Amazonas, Brazil

Caroliny Almeida Coelho*, Marta Regina da Silva Pereirab, Bruno Sampaio Amorimc,d

*Universidade do Estado do Amazonas, Manicoré, 69280-000, Amazonas, Brazil. caarolinyalmeida07@gmail.com
bInstituto Nacional de Pesquisas da Amazônia, Manaus, 69067-375, Amazonas, Brazil.
cPrograma de Pós-Graduação em Biotecnologia e Recursos Naturais, Universidade do Estado do Amazonas, Manaus, 69058-807, Amazonas, Brazil.
dMuseu da Amazônia, Manaus, 69099-415, Amazonas, Brazil.

Received: September 14, 2019 / Accepted: November 21, 2019 / Published online: January 20, 2020

Abstract
Due to the large extent of the Amazon rainforest, research has historically focused on easily accessible locations. Thus, much of this region has little information available about its richness and plant distribution. Located south of the Madeira river, Municipality of Manicoré has a high number of phytosociomnies, which may indicate the existence of a greater diversity of plant species. Therefore, from the compilation of previously collected records and based on botanical expeditions, this study evaluated the diversity and richness of angiosperms in Manicoré. We found 801 species, 409 genera and 106 families. Our data record 47 new occurrences for Amazonas State. Of these new occurrences, 12 are also the first record for the northern region. In addition, we have identified a new vine species of the genus Mandevilla Lindl. Given the well-known sample deficiency of the Amazon region, and considering the countless anthropogenic pressures that cities south of the Madeira river have been facing, knowledge of flora becomes increasingly urgent.

Keywords: Brazilian Flora, Amazon Rainforest, Collection Gaps, Taxonomic novelties, Anthropogenic Pressures.

Checklist preliminar de angiospermas em uma área ao sul do rio Madeira, Manicoré, Amazonas, Brasil

Resumo
Devido a grande extensão da Floresta Amazônica, historicamente as pesquisas tem se concentrado em locais de fácil acesso. Sendo assim, grande parte desta região apresenta poucas informações disponíveis sobre sua riqueza e distribuição de plantas. Localizado ao sul do rio Madeira, o município de Manicoré apresenta um elevado número de fitofisionomias, o que pode indicar a existência de uma maior diversidade de espécies vegetais. Diante disso, o objetivo deste trabalho é avaliar a diversidade e riqueza de angiospermas do município de Manicoré, a partir da compilação de registros coletados anteriormente e da realização de expedições botânicas. Foram listadas 801 espécies, 409 gêneros e 106 famílias. Nossos dados registram 47 novas ocorrências para o Estado do Amazonas, sendo que destas novas ocorrências, 12 são também o primeiro registro para a Região Norte. Além disso, identificamos uma nova espécie de trepadeira do gênero Mandevilla Lindl. Diante da conhecida deficiência amostral da região Amazônica, e considerando as inúmeras pressões antrópicas que os municípios da região sul do rio Madeira vem enfrentando, o conhecimento da flora se torna cada vez mais urgente.

Palavras-chave: Flora brasileira, Floresta Amazônica, Lacunas de coletas, Novidades taxonômicas, Pressões antrópicas.

Introduction

The Amazon rainforest is an extensive cluster of landscapes and ecosystems that form an exuberant mosaic of vegetation and hydrography. Its area covers 8 million km², distributed in nine South American countries (Araújo, 2008; Porto-Gonçalves, 2015). It is the largest tropical rainforest in the world, being considered the largest reservoir of biodiversity on the planet (Porto-Gonçalves, 2015), besides being the main source of all biodiversity in the neotropical region (Antonelli et al., 2018).

Despite containing all this biodiversity, much of the Amazon rainforest is still unknown and for many reasons the most of its area remain undersampled (Hopkins, 2007; ter Steege et al., 2016). Approximately 33,300 angiosperm species are listed for Brazil, of which more than 12,000 occur in the Amazon and more than 8,500 in Amazonas State (Flora do Brasil 2020, under construction). However, estimates of the total number of species are much higher (BFG, 2015; ter Steege et al., 2016; Domingos et al., 2017). Due to the large extent of the Amazon rainforest, research
has focused on easily accessible locations such as forest areas near the urban centers of large cities (Hopkins, 2007; BFG, 2015). Thus, much of the Amazon basin, in hard-to-reach areas, has little available information about its richness and plant distribution (Hopkins, 2007, 2019; Forzza et al., 2010).

The Madeira river, which makes up the Amazon basin, has a total length of approximately 3,240 km, of which about 1,425 km are located in Brazil (Siqueira, 2013). Located on the south side of the river, the municipality of Manicoré has a high number of plant typologies, which may indicate a great diversity of plant species (Silva & Pereira, 2005). Nevertheless, Manicoré is inserted in an area of little botanical research, with a high proportion of unidentified species, and is likely to contain many species not yet described (Hopkins, 2007; Forzza et al., 2010; BFG, 2015; ter Steege et al., 2016).

Considering anthropogenic actions aimed at economic interests, such as illegal logging and timber processing (Fearnside, 2006), land grabs (Silva & Pereira, 2005; Carvalho, 2010), and the existence of countless gold rafts that cause siltation of rivers and can destroy vegetation even before it is known (Siqueira, 2013), it is essential to draw up a floristic list for the municipality.

Therefore, this study evaluated the diversity and richness of angiosperms in Manicoré and recorded new species for the Amazon.

Materials and Methods

Study area characterization

The municipality of Manicoré (05° 48’33” S, 61° 18’ 01” W) covers an area of approximately 48,315 km² and is located in northern Brazil, south of Amazonas State, on the banks of the Madeira river (IBGE, 2017; Figure 1).

According to the Köppen classification, the climate of the region is type Am, monsoon, with annual rainfall ranging from 2,250 mm to 2,750 mm. The highest rainfall rates occur from January to March, with a short dry season in July (Brasil, 1978). The average annual temperature ranges from 24 °C to 26 °C, and the relative humidity is very high, ranging from 85 to 90% (Brasil, 1978). The topography is flat, with well-drained soil, predominantly classified as Alic Yellow Latosol - A, originated from sediments of the Solimões Formation. The litter layer reaches approximately 10 cm in height (Brasil, 1978).

The vegetation cover of the area is predominantly classified as Lowland Dense Ombrophilous Forest in association with other plant typologies, accounting for approximately 65.4% of the existing natural vegetation (Silva & Pereira, 2005; Figure 2). Other registered vegetation types are Submontane Dense Ombrophilous Forests and, along the main rivers, Open Alluvial Ombrophilous Forests and Dense Alluvial Ombrophilous Forests occur to a lesser extent (IBGE, 2004).

Data collection

Records of angiosperm collections in Manicoré were obtained from the database of the Herbarium Collection of the National Institute for Amazonian Research - INPA and from the digital collection of the Environmental Information Reference Center - CRIA (2018), via consultation in the collections of the following herbaria: ASU, BHCB, CEN, CGMS, EAFM, HRCB, HUEFS, HUFSJ, NYBG, MBM, MO, RON, SP, SPF, UB, UEC, UFG, UNOP, UPCB, and US, from May to August 2018 (herbarium acronyms according to Thiers, continuously updated).

With the purpose of collecting new samples for the region, 28 botanical expeditions were carried out from May 2018 to February 2019 through random walks in forest areas of different phytosociologicals. These expeditions prioritized ‘terra firme’ forests, meadows, and campinaranas, totaling approximately 90h of field sampling in these areas.

The botanical material was collected according to guidelines for herbarium collection (Peixoto & Maia, 2013). To classify species habit, the definitions presented by Gonçalves and Lorenzi (2007) were considered. For the samples obtained from the herbarium database, the habits described by the collectors were considered.

To identify the species, we used specialized bibliographies and comparisons between images available in...
Flora do Brasil 2020 (under construction) was consulted to verify species nomenclature and confirm the records for Amazonas State and by phytogeographic domain. When this was unavailable, the synonyms and spellings of the taxa were updated by consulting The Plant List (2010) database.

Specimens unidentified at the species level were not included in the checklist, which contains only one voucher per species occurring in Manicoré.

The map of the location of the studied municipality (Figure 1) was generated in ArcGIS 10.3. The map of the distribution of angiosperm collections in the municipality was generated in Quantum GIS 1.7. For the elaboration of this map, geographic coordinates available in the INPA and CRIA databases (2018) were used. However, 313 species were not included because records did not have geographic coordinates or because species were incorrectly georeferenced. The map of angiosperm records for cities south of the Madeira river was also generated in Quantum GIS 1.7, using data obtained from the CRIA digital archive (2018), which were manually analyzed and filtered.

Results and Discussion

A total of 106 families, 409 genera, and 801 species were listed for the municipality of Manicoré (Table 1). The richest family was Fabaceae (117 spp.), followed by Euphorbiaceae (35 spp.), Rubiaceae (34 spp.), Apocynaceae (30 spp.), Melastomataceae (29 spp.), Moraceae (27 spp.), Arecaceae (24 spp.), Myrtaceae (20 spp.), Malvaceae (19 spp.), Annonaceae, and Burseraceae (18 spp. each), accounting for 46.3% of the listed species.

For Brazil (2,756 spp.), as well as for the Amazon biome (1,119 spp.) and Amazonas State (825 spp.), Fabaceae is the family with the highest species richness (BFG, 2015; Fabaceae in Flora do Brasil 2020, under construction). In the Ducke Reserve Flora Project, which is the best studied area of the Brazilian Amazon, Fabaceae (still considered in the circumscription of subfamilies Mimosoideae - 68 spp., Papilionoideae - 66 spp., and Caesalpinioideae - 54 spp.) is also the best represented botanical family (Ribeiro, Nelson, Silva, Martins & Hopkins, 1994; Hopkins, 2005). In addition to this family, all the other richest families in our study (except Malvaceae) are in the ranking of the thirty richest families in number of taxa, being also found in the Ducke Reserve (Ribeiro et al., 1994; Hopkins, 2005).

Other studies also conducted in the Amazon showed that Fabaceae has been consistently cited as one of the families with the largest number of species (Amaral, Matos & Lima, 2000; Oliveira et al., 2008; Silva, Matos & Ferreira, 2008; Pinheiro et al., 2010). The presence of representatives of Fabaceae, Euphorbiaceae, Moraceae, and Malvaceae among the richest families is a common point among the floristic surveys conducted in the Amazon Forest (Gonçalves & Santos, 2008; Sardinha, Freitas, Santos, Cruz-Junior & Santos, 2017).

Of the 409 genera, the most representative are Inga and Miconia (16 spp. each), Protium (13 spp.), Byrsonima, Myrcia, Palicourea, and Swartzia (10 spp. each), Bactris and Eugenia (8 spp. each), Annona, Piper, and Senna (7 spp. each), accounting for 29.8% of the angiosperm richness of Manicoré. This composition is similar to that pointed out by Ribeiro et al. (1994), who cite Miconia (27 spp.), Protium (24 spp.), Inga (21 spp.), and Swartzia (19 spp.) among the ten most representative genera in the Ducke Reserve Flora Project. Oliveira et al. (2008) and Pinheiro et al. (2010) also cite Protium and Swartzia among the most representative genera in other studies conducted in the Amazon.
Also corroborating our findings, a study of a forest fragment in southwestern Amazonia mentions *Inga*, *Miconia*, and *Byrsonima* as the richest genera (Oliveira, Nagy, Barros, Martins & Murta-Junior, 2015).

Of the remaining genera, 256 are represented by only one species, 68 by two species, and 30 by three species, which together amount to 44.2% of the municipality richness. The large number of genera represented by few species may reflect the high number of plant typologies (44) found in Manicoré, as already mentioned by Silva & Pereira (2005). Notwithstanding, other factors may also be considered, such as the absence of dispersers, nutrient-poor soils, among other factors, indicating that further studies should be carried out.

Distributed among these distinct phytosociognomies, 45.7% (366 spp.) of the species are trees, 27.5% (220 spp.) are shrubs, 13.2% (106 spp.) are herbs, 4.7% (38 spp.) are lianas, 3.5% (28 spp.) are herbaceous vines, 3.2% (26 spp.) are subshrubs, and 2.2% (17 spp.) are palms.

In Manicoré, there is a ratio of four woody species (tree, shrub, liana, and subshrub) to one herbaceous species (herb, herbaceous vine, and palms). The predominance of trees over other types of habits has already been observed in another study conducted in the Amazon Forest (Garcia, Silva, Zonetti & Romagnolo, 2011) and follows the general pattern recorded for the Amazon phytogeographic domain (BFG, 2015). In turn, the herbaceous habit is better represented in open areas, as already reported by Mota et al. (2018).

Regarding distribution, 49.2% (394 spp.) of the registered species are exclusive to the Amazon domain and 48.4% (388 spp.) occur in the Amazon and other Brazilian domains, especially Cerrado (10.2% - 82 spp.), Atlantic Forest (5% - 40 spp.), Pantanal (0.5% - 4 spp.), and Caatinga (0.4% - 3 spp.). Moreover, 29% (232 spp.) of species share between three to five domains and 3.4% (27 spp.) are cited for six Brazilian biomes. It is noteworthy that 1.5% (12 spp.) of the total species had no association with the Amazon phytogeographic domain so far (BFG, 2015). Therefore, *Asystasia gangetica* (L.) T.Anderson, *Bauhinia rufa* (Bong.) Steud, *Byrsonima laxiflora* Griseb, *Citrus x aurantium* L., *Connarbus suberosus* Planch, *Dioscorea hassleriana* Chodat, *Hibiscus sabdariffa*, *Libidibia ferrea* (Mart. ex Tul.) L.P.Queiroz, *Mandevilla sp.* Nova, *Ouratea spectabilis* (Mart.) Engl, *Paepalanthus guaraensis* Moldenke, and *Persea americana* Millare are considered new occurrences for the Amazon and 0.9% (7 spp.) lack information.

Species dispersal and exchange among different phytogeographic domains are related to numerous evolutionary processes and historical geological events (Fiaschi & Pirani, 2009; Batalla-Filho & Miyaki, 2014). Thus, the occurrence of species with disjoint distribution patterns between the Amazon and the Atlantic Forest shows a possible connection between the floras of these regions through the Cerrado in the past (Fiaschi & Pirani, 2009). In this sense, gallery forests were responsible for the connection between the two largest neotropical rainforests: the Amazon Rainforest and the Atlantic Forest (Méio et al., 2013).

Regarding origin, 96% (769 spp.) of the species are native and 4% (32 spp.) exotic. During floristic-phytosociological surveys or taxonomic reviews, it is common to find exotic plants in the study areas (Moro et al., 2012). In this regard, *Althelanthera tenella* Colla (Amaranthaceae), *Jatropha gossypifolia* L. (Euphorbiaceae), *Lantana camara* L. (Verbenaceae), *Lippia alba* (Mill.) N.E.Br. ex P. Wilson (Verbenaceae), *Merremia umbellata* L.Haller f. (Convolvulaceae), *Mimoso invisa* Mart. ex Colla (Fabaceae), and *Ricinus communis* L. (Euphorbiaceae) are found in disturbed areas of Manicoré. These plants are typical of secondary succession, are able to grow in adverse conditions, and are an integral part of the urbanized landscape (Souza, Machado-Filho & Andrade, 2012). Exotic plants are more likely to be found in these areas, with only a small fraction of them being naturalized, such as *L. camara* and *R. communis* for example. Thus, the presence of naturalized species in the study area is a strong evidence of the anthropogenic influence on the environment (Schneider, 2007).

The degree of aggressiveness that an exotic species can present to the natural environment is not always known (Schneider, 2007). Considering that botanical surveys are the basis for establishing criteria for the prevention and control of possible damage to the natural environment, it is recommended that all naturalized or invasive exotic species be clearly named as such and recorded for the study area (Schneider, 2007; Moro et al., 2012).

In this checklist, as well as in Flora do Brasil 2020 (under construction), *Asystasia gangetica* (L.) T. Anderson (Acanthaceae), *Cenchrus purpureus* (Schumach.) Morrone (Poaceae), *Citrus x aurantium* L. (Rutaceae), and *Gossypium barbadense* L. (Malvaceae) are labeled as naturalized. In Cuba, these species are considered invasive, with high capacity for growth, proliferation, and dispersal, and are often able to compete aggressively for dominance of the environment. In this sense, *C. purpureus* and *G. barbadense* are examples of species that still behave as transformers of natural and agricultural ecosystems in Cuba (Prieto & González-Obia, 2015).

For floristic and phytosociological studies, it is only interesting to report the occurrence of exotic species merely cultivated to the site if they are clearly labeled in the study description (Moro et al., 2012). Thus, of the exotic species recorded here, 68.7% (22 spp.) are naturalized and 31.3% (10 spp.) cultivated. Among exotic species, eight had not been cited for Amazonas State in Flora do Brasil 2020 (under construction) and four occur in other northern states.

Hence, *Combretum indicum* (L.) Jongkind [Combretaceae] (Cultivated), *Cymbopogon citratus* (DC.) Stapf [Poaceae], *Gynanthemum amygdalinum* (Delile) Sch. Bip. ex Walp [Asteraceae] (Cultivated), and *Petiveria alliacea* L. [Phytolaccaceae] are recorded as new occurrences for Amazonas State. Moreover, *Asystasia gangetica* [Acanthaceae], *Citrus x aurantium* [Rutaceae], *Panicum capillare* L. [Poaceae], and *Persea americana* Mill. [Lauraceae] are recorded as new occurrences for Amazonas State and the northern region.

During field expeditions for this work, material from *Hibiscus sabdariffa* L. was collected from a disturbed area of secondary forest (Figure 3a-b). Coelho and Amorim (2019) found that this fact corresponds to an indication of naturalization of this species in the Brazilian Amazon.

Acta Brasiliensis 4(1): 1-29, 2020
Prior to the study by Coelho and Amorim (2019), H. sabdariffa was only recorded as cultivated (Esteves, Duarte & Takeuchi, 2014), being absent from the records of Brazilian angiosperms (BFG, 2015; H. in Flora do Brasil 2020, under construction).

In this checklist, as in the study by Coelho and Amorim (2019), this species is labeled as naturalized and recorded as new occurrence for Brazil (Table 1). In addition to the new occurrences of exotic species, 39 new occurrences of native species were recorded for Amazonas State, eight of which are also new occurrences for the northern region (Table 1). It is noteworthy that of the new occurrences for Amazonas State, 20.5% (8 spp.) do not occur in the Amazon phytogeographic domain. However, they used to occur exclusively in the Cerrado or associated with this domain, showing great floristic heterogeneity for the study area.

Figure 3. Photographic records of the sampling region; a. Naturalized occurrence of H. sabdariffa L. in a disturbed area; b. H. sabdariffa L. flower with white petals, fleshy chalice involving the fruit, and leaves (Almeida, C. et al., p. 97); c. Mandevilla sp. nov. axillary, puberulent inflorescence (Almeida, C. & Castro, A. 205 (INPA); d. Place of collection of the new species of Mandevilla Lindl. (05º 53’ 17” S, 61º 16’ 53” W). Photos by Caroliny Almeida Coelho.

In the southern area of the Amazon, fields or scrublands are supposedly growing due to a shift in a 200-kilometer-long segment of the Madeira river to the east. This shift occurred a few years ago from a rearrangement of tectonic faults, changing the location of many of the right bank tributaries (Pivetta, 2011). A new type of vegetation emerges over the old beds of these rivers that were buried with sandy sediments, forming fields and scrublands in the Amazon (Pivetta, 2011).

Our data indicate that the first botanical collections in Manicoré were performed in the early twentieth century, precisely in 1923 (n = 1 collection). By 1970, only 32 species had been collected. In this sense, collection expeditions were amplified from the 70’s (n = 47) and 80’s (n = 152), decreased in the 90’s (n = 1), and expanded again in 2007 (n = 209) and 2018 (n = 176). Although the 1980s accounted for the largest collection peak of the last century, no study addressed the floristic composition of the municipality. However, these collections constituted works of greater geographical scope, such as the RADAMBRASIL Project.

Despite collection efforts made in the last century, about 70% of the species presented in this study were collected in the 21st century, with two major collection peaks in 2007 and 2018. Botanical collections performed in 2007 are part of an ethnobotanical survey (Junqueira, 2008). Collection peaks between 2018 and 2019 are the result of 28 botanical expeditions made for this checklist, which accounted for 25.2% of the total species listed for Manicoré, making the sites of these collections become the areas with the highest record of angiosperm species for the municipality (Figure 4).

Collection gaps, mainly in the central region of Manicoré, indicate the lack of research in much of the municipality. For botanical collections, forest areas with easier access are generally better researched (Hopkins, 2007). Collection records for Manicoré are concentrated near the urban area, on the banks of the Madeira river and on part of the BR 319 Highway, where the main communities of the municipality are located (Figure 4).

In the expeditions carried out in this study, we collected 240 individuals from 63 families, 145 genera, and 202 species (Figure 4). In just 90 h of field sampling, besides finding evidence to prove the naturalization of H. sabdariffa (Coelho & Amorim, 2019), it was also possible to identify a new species of Mandevilla Lindl. (Apocynaceae) endemic to the southern Amazon region (Coelho et al., in press) (Figure 3c). Therefore, we estimate that the areas that have collection gaps in Manicoré also have the potential to harbor new taxa for science.

During floristic surveys, it is common to discover new occurrences (Ivanaukas, Monteiro & Rodrigues, 2004; Lopes, Ribeiro, Rodrigues, Cabral & Silva, 2014) and occasionally new taxa for science (Baitello, Arzolla & Vilela, 2017). This shows part of the advances made in recent years, but mainly indicates how much the Brazilian flora still needs to be known (Peixoto & Morim, 2013).
Figure 4. Distribution of angiosperm species collections in Manicoré-AM.

The new species of *Mandevilla* was found on the edge of a newly opened road in a primary forest fragment located in the municipality countryside (Figure 3d). This new species is described as *Mandevilla manicorensis* C.A. Coelho, B.S. Amorim & J.F. Morales (Coelho *et al*., in press.). The species shows foliate bracts and hypocrateriform corolla and is part of the Exothostemon group. In this group, twelve species have hypocrateriform corolla and only four species have foliate bracts. Easier road access contributed to this botanical discovery. However, ease of access may compromise local flora in the future, with the expansion of the municipality urban center (Salles, Grigio & Silva, 2013).

Among the cities south of the Madeira river, Beruri, Tapauá, Apuí, Novo Aripuanã, and Manicoré are, respectively, those with the largest gaps in angiosperm collections (Coelho & Amorim, unpublished data), which could be indicative of low richness (Figure 5). Nonetheless, collection gaps in these cities are due to low sampling effort rather than absence of species, as we can find a large number of species in neighboring areas of similar forests. Thus, we can affirm that these areas are subsampled and consequently prone to contain species not yet identified or described (Hopkins, 2007; ter Steege *et al*., 2016).

Comparing Manicoré to neighboring municipalities, some factors help to understand why Humaitá is less subsampled. The municipality of Humaitá has access roads through Amazonas State and Rondônia. In addition, it houses a larger number of higher education institutions, which facilitates research in ‘terra firme’ and floodplain areas (Campos, Ribeiro, Souza-Junior, Ribeiro-Filho & Almeida, 2012), Cerrado fields (Martins, Ferreira, Curi, Vitorino & Silva, 2006), and meadows (Kubitski, 1979). Notwithstanding, although Humaitá and Borba have the largest number of species records among the cities south of the Madeira river, subsampling may occur due to the low proportion of angiosperm species per 10 km² (Figure 5).

Collection gaps are large for angiosperms, but much larger for other groups such as bryophytes, ferns, lycophytes, gymnosperms, and fungi (Coelho & Amorim, unpublished data). In this sense, it is necessary to continuously create intensive projects to make local floras (Hopkins, 2007, 2019; Forzza *et al*., 2010; Lopes *et al*., 2014). These projects should ensure that new collection data are incorporated into herbariums so that the true biological diversity of these areas can be known and rare species unknown to science can be found (Ribeiro *et al*., 1994; Hopkins, 2007, 2019; Forzza *et al*., 2010).

Figure 5: Representation of angiosperm collection records in the cities south of the Madeira river. Tree sizes correspond to the proportion of number of species recorded for each municipality (number of species per ten square kilometers of the municipality).
Tabela 1: Preliminary angiosperm checklist in an area south of the Madeira River (Manicoré, Amazonas, Brazil). (*) Species not mentioned for Amazonas in Brazil 2020 Flora under construction. (**) Species not mentioned in the Northern region of Brazil 2020 Flora under construction. (***) Species not cited for Brazil in Flora do Brasil 2020 under construction. (#) Naturalized species for a Brazilian flora. (##) Species cultivated in the Brazilian flora. (!) New species for Brazilian flora. Habit: shrub (ARB), tree (ARV), weed (ERV), liana (LIA), palm tree (PAL), shrub (SUB) and creeper (TRE). Phytogeographic domain: Anthropic Area (AA) Amazon (AM), Caatinga (CAA), Cerrado (CE), Atlantic Forest (MA), Pampas (PAM), Pantanal (PAT) and Unknown (DES).

| Scientific name          | Habit | Phytogeographic domain | Voucher                  |
|--------------------------|-------|-------------------------|--------------------------|
| Acanthaceae              |       |                         |                          |
| Asystasia gangetica      | ARB   | MA                      | Almeida, C. & Castro, A. 133 (INPA) |
| Justicia comata          | ARB   | AM, CE, MA              | Mendes, R.F. et al. 2 (EAFM) |
| Justicia pectoralis Jacq | ARB   | AM, CE                  | Mendes, R.F. et al. 15 (EAFM) |
| Mendancia velloziana     | TRE   | AM, MA                  | Almeida, C. & Castro, A. 246 (INPA) |
| Pachystachys coccinea    | ARB   | AM                      | Almeida, C. & Castro, A. 145 (INPA) |
| Prancecanthus coccineus Wash | ERV   | AM, CE                  | Almeida, C. & Castro, A.109 (INPA) |
| Achiriaiceae             |       |                         |                          |
| Lindackeria paludosa     | ARV   | AM                      | Junqueira, A.B. & Barros, R.N.S. 353 (EAFM) |
| Amaranthaceae            |       |                         |                          |
| Aconitryhthas aspera     | ERV   | AM, CAA, CE, MA         | Almeida, C. & Castro, A. 241 (INPA) |
| Alternanthera dentata    | SUB   | AM, CAA, CE, MA         | Mendes, R.F. et al. 49 (EAFM) |
| Alternanthera tenella    |ERV    | AM, CAA, CE, MA, PAM, PAT | Almeida, C. & Castro, A. 22 (INPA) |
| Celosia argentea         | ARB   | AM, CAA, CE, MA         | Almeida, C. & Castro, A. 40 (INPA) |
| Dysphania ambrosioides   | SUB   | AM, CAA, CE, MA, PAM, PAT | Mendes, R.F. et al. 29 (EAFM) |
| Amaryllidaceae           |       |                         |                          |
| Hippeastrum puniceum     | ERV   | AM, CAA, CE, MA, PAM, PAT | Almeida, C. & Castro, A. 144 (INPA) |
| Anacardiaiceae           |       |                         |                          |
| Anacardium giganteum     | ARV   | AM                      | Amoêdo, S.C. et al. 57 (EAFM) |
| Anacardium occidentale   | ARB   | AM, CAA, CE, MA, PAM, PAT | Almeida, C. & Souza, S.A. 696 (EAFM) |
| Astronium lecointei      | ARV   | AM                      | Junqueira, A.B. & Souza, S.A. 615 (EAFM) |
| Mangifera indica         | ARV   | AM, CAA, CE, MA, PAM, PAT | Junqueira, A.B. & Neto, R.F. 430 (EAFM) |
| Spondias mombin          | ARV   | AM, CAA, CE, MA, PAM, PAT | Junqueira, A.B. 441 (INPA) |
| Tapirira guianensis      | ARV   | AM, CAA, CE, MA, PAM, PAT | Junqueira, A.B. & Barros, R.N.S. 373 (INPA) |
| Thysodium spruceanum     | ARV   | AM, MA                  |                           |
| Annonaceae               |       |                         |                          |
| Anaxagorea brevipes      | ARV   | AM                      | Ferreira, C.A.C. 5763 (INPA) |
| Anonna annonoides        | ARV   | AM                      | Junqueira, A.B. 468 (INPA) |
| Anonna cuspidata         | ARV   | AM                      | Junqueira, A.B. 248 (INPA) |
| Anonna excellens         | ARV   | AM                      | Ferreira, C.A.C. 5511 (INPA) |
| Anonna exsucca DC.       | ARV   | AM                      | Junqueira, A.B. 215 (INPA) |
| Anonna foetida Mart.     | ARV   | AM                      | Junqueira, A.B. & Souza, S.A. 667 (EAFM) |
| Anonna montana Macfad.   | ARV   | AM, CE, MA, PAT         | Viana, G.P. 92 (INPA) |
| Anonna muricata L. #     | ARB   | DESC                    | Mendes, R.F. et al. 48 (EAFM) |
| Diclinanona calycina     | ARV   | AM                      | Junqueira, A.B. & Souza, S.A. 669 (EAFM) |
| Ephedranthus amazonicus  | ARV   | AM                      | Junqueira, A.B. & Neto, R.F. 516 (EAFM) |
| Guatteria foliosa        | ARV   | AM                      | Junqueira, A.B. & Neto, R.F. 516 (EAFM) |
| Guatteria punctata       | ARB   | AM                      | Almeida, C. & Castro, A. 239 (INPA) |
Table 1: continuation.

| Scientific name                      | Habit | Phytogeographic domain | Voucher                       |
|--------------------------------------|-------|-------------------------|-------------------------------|
| **Guatteria scyrophylla** Diels.      | ARV   | AM                      | Junqueira, A.B. & Barros, R.N.S. 352 (EAFM) |
| **Oxandra riedeliania** R.E.Fr.       | ARB   | AM                      | Albernaz, A.L.K.M. 180 (INPA)  |
| **Pseudoxandra lucida** R.E.Fr.       | ARV   | AM                      | Ferreira, C.A.C. 5538 (INPA)  |
| **Unonopsis stiitita** Diels          | ARV   | AM                      | Ferreira, C.A.C. 5768 (INPA)  |
| **Xylopia aromatica** (Lam.) Mart.    | ARB   | AM, CE                  | Ferreira, C.A.C. 5606 (INPA)  |
| **Xylopia nitida** Dunal              | ARV   | AM                      | Albernaz, A.L.K.M. 176 (INPA)  |
| **Apocynaceae**                       |       |                         |                               |
| **Allamanda carthatica** L.           | TRE   | AM, CE, MA              | Almeida, C. et al. 44 (INPA)  |
| **Allamanda nobilis** T.Moore         | TRE   | AM                      | Almeida, C. & Castro, A. 73 (INPA) |
| **Anbelania acida** Aubl.             | ARV   | AM                      | Almeida, C. et al. 86 (INPA)  |
| **Aspidosperma excelsum** Benth.      | ARB   | AM, CE                  | Ferreira, C.A.C. 5566 (INPA)  |
| **Baronia cymosa** E.Fourn. **         | SUB   | AM, CE                  | Lima, L.C.P. 655 (HUEFS)     |
| **Ditassa franciscoi** (Morillo) Liede| SUB   | AM                      | Ferreira, C.A.C. 5577 (INPA)  |
| **Galactophora calycina** (Huber) Woodson | ARV   | AM                      | Ferreira, C.A.C. 5798 (INPA)  |
| **Hancornia speciosa** Gomes          | ARB   | AM, CAA, CE, MA         | Silveira, A.L.P. 289 (UEC)    |
| **Himatanthus articulatus** (Vahl) Woodson | ARV   | AM, CE                  | Almeida, C. et al. 99 (INPA)  |
| **Himatanthus obovatus** (Müll.Arg.) Woodson | ARV   | AM, CAA, CE            | Lima, L.C.P. 653 (HUEFS)     |
| **Himatanthus semilunatus** Markgr.   | ARB   | AM                      | Ferreira, C.A.C. 5514 (INPA)  |
| **Himatanthus revolutus** (Huber) Spina & Kinoshita | ARV   | AM                      | Junqueira, A.B.; Souza, S.A 593 (EAFM) |
| **Lacmellea gracilis** (Müll.Arg.) Woodson | ARV   | AM                      | Almeida, C. et al. 96 (INPA)  |
| **Malouetia duckei** Markgr.          | ARB   | AM                      | Ferreira, C.A.C. 5542 (INPA)  |
| **Malouetia tamaquarina** (Aubl.) A.DC. | ARB   | AM                      | Ferreira, C.A.C. 5559 (INPA)  |
| **Mandevilla sp. nov.**               | TRE   | AM                      | Almeida, C. & Castro, A. 205 (INPA) |
| **Mandevilla hissuta** (A.Rich.) K.Schum. | TRE   | AM, CAA, CE, MA       | Almeida, C. & Castro, A. 231 (INPA) |
| **Mandevilla scabra** (Hoffmanns.ex Roem. & Schult.) K.Schum. | TRE   | AM, CAA, CE, MA     | Lima, L.C.P. 651 (HUEFS)     |
| **Meschites trifidus** (Jacq.) Müll.Arg. | ARB   | AM, CE, PAT            | Ferreira, C.A.C. 5779 (INPA)  |
| **Nephradenia linearis** Benth. ex E.Fourn. |ERV   | AM, CAA, CE, MA | Ferreira, C.A.C. 5580 (INPA)  |
| **Nephradenia reflexa** Malme. **      |ERV   | AM                      | Ferreira, C.A.C. 5807 (INPA)  |
| **Odontadenia nitida** (Vahl) Müll.Arg. | AM    | AM                      | Ferreira, C.A.C. 5577 (HRCB)  |
| **Rauwolfia sprucei** Müll.Arg.       | ARV   | AM                      | Almeida, C. & Castro, A. 151 (INPA) |
| **Spongiosperma grandiflorum** (Huber) Zarucchi* | ARB   | AM                      | Junqueira, A.B. & Souza, S.A. 678 (EAFM) |
| **Tabernaemontana cymosa** Jacq.*     | ARV   | AM                      | Almeida, C. & Castro, A. 219 (INPA) |
| **Tabernaemontana heterophylla** Vahl | ARB   | AM                      | Ferreira, C.A.C. 250 (INPA)   |
| **Tabernaemontana linkii** A.DC.      | ARB   | AM                      | Almeida, C. & Castro, A. 138 (INPA) |
| **Tabernaemontana muricata** Link ex. Roem. & Schult. | ARV   | AM                      | Krukoff, B.A 6067 (Usw)   |
| **Tabernaemontana siphilitica** (L.) Leeuwenb. | ARB   | AM, CE                  | Viana, G.P. 60 (INPA)         |
| **Araliaceae**                        |       |                         |                               |
| **Schefflera morototoni** (Aubl.) Maguire, Steyerm. & Frodin. | ARV   | AM, CAA, CE, MA, PAT | Junqueira, A.B. & Souza, S.A. 610 (EAFM) |
| **Arecaceae**                         |       |                         |                               |
| **Astrocaryum acaule** Mart.          | ERV   | AM                      | Almeida, C. & Castro, A. 200 (INPA) |
| **Astrocaryum aculeatum** G.Mey.      | ERV   | AM                      | Almeida, C. & Castro, A. 209 (INPA) |

8

Acta Brasiliensis 4(1): 1-29, 2020
Table 1: continuation.

| Scientific name                                           | Habit | Phytogeographic domain | Voucher                      |
|------------------------------------------------------------|-------|-------------------------|------------------------------|
| **Aristolochiaceae**                                        |       |                         |                              |
| Aristolochia sprucei Mast.                                 | TRE   | AM                      | Almeida, C. & Castro, A. 158 (INPA) |
| **Asteraceae**                                             |       |                         |                              |
| Acmella oleracea (L.) R.K.Jansen#                          | ERV   | AM, MA                  | Mendes, R.F. et al. 1 (EAFM) |
| Ayapana amygdalina (Lam.) R.M. King & H. Rob.              | ERV   | AM, CA, CE, MA          | Giacomini, L.L. et al. 1917 (UNOP) |
| Bidens cynapiifolia Kunth.                                 | ARB   | AM, CA, CE, MA, PAM, PAT| Mendes, R.F. et al. 35 (EAFM) |
| *Chromolaena laevigata* (Lam.) R.M. King & H. Rob.         | ARB   | AM, CA, CE, MA, PAM, PAT| Giacomini, L.L. et al. 1927 (UNOP) |
| Eclipta prostrata (L.) L.                                  | ERV   | AM, CA, CE, MA, PAM, PAT| Almeida, C. & Castro, A. 191 (INPA) |
| Emilia fosbergii Nicolson Paratype.                        | ERV   | AM, CA, CE, MA, PAM, PAT| Krukoff, B.A. 6066 (MO)       |
| Ichthyothere terminalis (Spreng.) S.F.Blake                | SUB   | AM, CA, CE              | Almeida, C. et al. 60 (INPA)  |
| Mikania psilostachya DC.                                    | LIA   | AM, CA, CE, MA          | Ferreira, C.A.C. 5521 (INPA)  |
| Gymnanthemum amygdalinum (Delile) Sch.Bip. ex Walp.*##     | ARB   | AM, CA, MA              | Mendes, R.F. et al. 13 (EAFM) |
| Tithonia diversifolia (Hemsl.) A.Gray#                    | ERV   | AM, CA, MA              | Almeida, C. & Castro, A. 27 (INPA) |
| Vernonanthura brasiliana (L.) H.Rob. *                     | ARV   | AM, CA, CE              | Junqueira, A.B. & Barros, R.N.S. 288 (EAFM) |
| Vernonanthura patens (Kunth) H.Rob.                        | ARB   | AM, MA                  | Almeida, C. & Castro, A. 103 (INPA) |
| Wedelia radis (Baker) H.Rob.                               | SUB   | AM                      | Almeida, C. & Castro, A. 193 (INPA) |
| **Bignoniaceae**                                           |       |                         |                              |
| *Amphilophium laeve* (Sandwith) L.G.Lohmann               | ARB   | AM                      | Ferreira, C.A.C. 5808 (INPA)  |
| *Amphilophium magnolifolium* (Kunth) L.G.Lohmann           | LIA   | AM                      | Ferreira, C.A.C. 5539 (NYBG)  |
| *Amphilophium paniculatum* (L.) Kunth                      | LIA   | AM, CA, CE, MA, PAM, PAT| Almeida, C. & Castro, A. 173 (INPA) |
| *Anemopaegma foetidum* Bureau & K.Schum.                   | TRE   | AM                      | Almeida, C. & Turma CB15_ME01 185 (INPA) |
| *Bignonia cf lilacina* (A.H.Gentry) L.G.Lohmann            | TRE   | AM                      | Almeida, C. & Castro, A. 89 (INPA) |
| Scientific name                          | Habit | Phytogeographic domain | Voucher                      |
|------------------------------------------|-------|------------------------|------------------------------|
| Crescentia cujete L. #2                 | ARV   | AM, MA                 | Krukoff, B. A. 6036 (NYBG)   |
| Fridericia bracteolata (DC.) L.G.Lohmann| LIA   | AM                     | Albernaz, A.L.K.M. 178 (INPA)|
| Fridericia chica (Bonpl.) L.G.Lohmann   | LIA   | AM, CAA, CE, MA, PAM, PAT | Junqueira, A.B. & Souza, S.A. 707 (EAFM) |
| Fridericia floridana (DC.) L.G.Lohmann  | LIA   | AM, CE, MA             | Almeida C. & Castro, A. 161 (INPA) |
| Fridericia platyphylla (Cham.) L.G.Lohmann | ARB | AM, CAA, CE, MA, PAT  | Almeida C. & Castro, A. 167 (INPA) |
| Handroanthus impetiginosus (Mart. ex DC.) Mattos* | ARV | AM, CAA, CE, MA, PAT  | Amoêdo, S.C. et al. 39 (EAFM) |
| Jacaranda campinea A.H.Gentry & Morawetz | ARB | AM                     | Ferreira, C.A.C. 5816 (NY)    |
| Lunda densiflora DC.                    | LIA   | AM, CAA, CE, MA        | Junqueira, A.B. & Souza, S.A. 595 (EAFM) |
| Pleonotoma melioides (S.Moore) A.H.Gentry | ARB | AM, CE, MA             | Almeida, C. & Castro, A. 118 (INPA) |
| Pleonotoma pavettiflora Sandwith*       | LIA   | AM, CE, PAT            | Lombardi, J.A. 10095 (INPA)   |
| Pyrostegia venusta (Ker Gawl.) Miers    | ARB   | AM, CAA, CE, MA, PAM, PAT | Almeida, C. & Castro, A. 53 (INPA) |
| Sparattosperma leucanthum (Vell.) K.Schum. | ARB | AM, CAA, CE, MA, PAT  | Almeida, C. & Castro, A. 234 (INPA) |
| Bixaceae                                |       |                        |                              |
| Bixa orellana L.                        | ARB   | AM, CE, MA             | Almeida, C. et al. 82 (INPA)  |
| Cochlospermum orinocense (Kunth) Steud.  | ARB   | AM                     | Almeida, C. & Castro, A. 100 (INPA) |
| Boraginaceae                            |       |                        |                              |
| Cordia decipiens I.M.Johnst.            | LIA   | AM                     | Krukoff, B. A. 6048 (NYBG)    |
| Cordia scabrifolia A.DC.                | ARV   | AM                     | Junqueira, A.B. & Barros, R.N.S. 347 (EAFM) |
| Cordia sellowiana Cham.*                | ARB   | AM, CAA, CE, MA        | Almeida, C & Castro, A. 221 (INPA) |
| Cordia sprucei Mez.                     | ARV   | AM                     | Junqueira, A.B. & Barros, R.N.S. 374 (EAFM) |
| Bromeliaceae                            |       |                        |                              |
| Aechmea cf angustifolia Poepp. & Endl.   | ERV   | AM                     | Almeida, C. & Castro, A. 126 (INPA) |
| Aechmea melinonii Hook.                 | ERV   | AM                     | Ferreira, C.A.C. 5787 (INPA)   |
| Aechmea mertensii (G.Mey.) Schult. & Schult.f. | ERV | AM, MA              | Almeida, C. & Castro, A. 110 (INPA) |
| Ananas ananassoides (Baker) L.B.Sm.     | ERV   | AM, CAA, CE, MA        | Almeida, C. et al. 94 (INPA)   |
| Ananas lucidus Mill.                    | ERV   | AM, MA                 | Almeida, C. et al. 95 (INPA)   |
| Araeococcus micranthus Brongn.          | ERV   | AM                     | Carvalho, F.A. de 1951 (INPA)  |
| Burseraceae                             |       |                        |                              |
| Dacryodes paraensis Cuatrec*            | ARV   | AM, CE                 | Carvalho, F.A. 1927 (INPA)    |
| Protium giganteum Engl. var. giganteum  | ARV   | AM                     | Mota, C.D.A. da 616006 (INPA) |
| Protium glabrescens Swart               | ARV   | AM                     | Viana, G.P. 93 (INPA)         |
| Protium goudotianum (Tul.) Byng & Christenh. | ARV | DESC                | Krukoff, B.A. 6066 (MO)       |
| Protium grandifolium Engl.              | ARV   | AM                     | Mota, C.D.A. da 61462 (INPA)   |
| Protium heptaphyllum (Aubl.) Marchand    | ARV   | AM, CAA, CE, MA        | Amoêdo, S.C. et al. 38 (EAFM)  |
| Protium heptaphyllum (Aubl.) Marchand ssp. ulei (Swart) Daly | ARV | AM, CAA, CE, MA        | Carvalho, F.A. de 1915 (INPA)  |
| Protium nitidifolium (Cuatrec.) Daly.    | ARV   | AM                     | Junqueira, A.B. & Neto, R.F. 482 (EAFM) |
| Protium paniculatum Engl. var. riedelianum (Engl.) Daly | ARB | AM                  | Mota, C.D.A. da 61664 (INPA)   |
| Protium picramnioides Byng & Christenh.  | ARV   | AM                     | Junqueira, A.B. & Neto, R.F. 399 (EAFM) |
| Protium rhoifolium (Benth.) Byng & Christenh. | ARV | AM                  | Junqueira, A.B. & Souza, S.A. 682 (EAFM) |
| Protium robustum (Swart) D.M.Porter.     | ARV   | AM                     | Junqueira, A.B. & Barros, R.N.S. 332 (EAFM) |
| Protium sagotianum Marchand             | ARV   | AM                     | Mota, C.D.A. da 61667 (INPA)   |
| Protium cf spruceanum (Benth.) Engl.     | ARB   | AM, CE, MA             | Almeida, C. & Castro, A. 208 (INPA) |
| Trattinnickia burserifolia Mart.         | ARB   | AM                     | Ferreira, C.A.C. 5571 (INPA)   |
Table 1: continuation.

| Scientific name | Habit | Phytogeographic domain | Voucher |
|-----------------|-------|-------------------------|---------|
| *Trattinnickia glaziovii* Swart. | ARV   | AM                      | Junqueira, A.B. & Neto, R.F. 524 (EAFM) |
| *Trattinnickia peruviana* Loes.  | ARV   | AM                      | Junqueira, A.B. & Souza, S.A. 602 (EAFM) |
| *Trattinnickia rhoifolia* Willd. | ARV   | AM                      | Junqueira, A.B. & Souza, S.A. 591 (EAFM) |
| Calophyllaceae |       |                         |         |
| *Caraipa densifolia* subsp. *rondoniana* Kubitzki | ARV   | AM, CE                  | Silveira, A.L.P. 291 (RON) |
| *Caraipa grandifolia* Mart.       | ARV   | AM                      | Almeida, T.E. 3611 (INPA) |
| *Caraipa savannarum* Kubitzki     | ARB   | AM                      | Junqueira, A.B. 414 (INPA) |
| Cannabaceae |       |                         |         |
| *Celis iguanaea* (Jacq.) Schult.  | ARV   | AM, CAA, CE, MA, PAM, PAT | Junqueira, A.B. & Barros, R.N.S. 327 (EAFM) |
| *Trema micrantha* (L.) Blume      | ARV   | AM, CAA, CE, MA, PAM, PAT | Junqueira, A.B. 414 (INPA) |
| Capparaceae |       |                         |         |
| *Crateva tapia* L.                | ARV   | AM, CAA, CE, MA, PAT    | Viana, G.P. 111 (INPA) |
| Caricaceae |       |                         |         |
| *Carica papaya* L.#               | ARB   | AM, CAA, CE, MA, PAT    | Mendes, R.F. et al. 28 (EAFM) |
| *Jacaranda digitata* (Poepp. & Endl.) Solms | ARV   | AM                      | Junqueira, A.B. & Barros, R.N.S. 225 (EAFM) |
| Caryocaraceae |       |                         |         |
| *Caryocar glabrum* (Aubl.) Pers.  | ARV   | AM                      | Amoêdo, S.C. et al. 37 (EAFM) |
| *Caryocar villosum* (Aubl.) Pers. | ARV   | AM                      | Junqueira, A.B. & Neto, R.F. 582 (EAFM) |
| Celastraceae |       |                         |         |
| *Cheiloclinium cognatum* (Miers) A.C.Sm. | ARV   | AM, CE, MA, PAT         | Junqueira, A.B. & Souza, J.R. 255 (EAFM) |
| *Cheiloclinium obtusum* A.C.Sm.    | LIA   | AM                      | Mota, C.D.A. da 61604 (INPA) |
| *Hippocratea volubilis* L.        | TRE   | AM                      | Ferreira, C.A.C. 5785 (INPA) |
| Chrysobalanaceae |       |                         |         |
| *Acioa guianensis* Aubl.          | ARV   | AM                      | Mota, C.D.A. da 61569 (INPA) |
| *Couepia chr ysocalyx* (Poepp. & Endl.) Benth. ex Hook. f. | ARV   | AM                      | Viana, G.P. 84 (INPA) |
| *Couepia latiloba* Standl.        | ARV   | AM                      | Krukoff, B. A. 6005 (NYBG) |
| *Couepia paraensis* (Mart. & Zucc.) Benth. ssp. *Paraenses* | ARV   | AM                      | Mota, C.D.A. da 61672 (INPA) |
| *Hirtella bullata* Benth.         | ARB   | AM                      | Mota, C.D.A. da 61558 (INPA) |
| *Hirtella burchellii* (Britton)   | ARB   | AM                      | Lombardi, J.A. 10100 (HRCB) |
| *Hirtella elongata* Mart. & Zucc. | ARV   | AM                      | Junqueira, A.B. & Neto, R.F. 428 (EAFM) |
| *Hirtella glandulosa* Spreng.     | ARV   | AM                      | Junqueira, A.B. & Souza, S.A. 654 (EAFM) |
| *Hirtella racemosa* Lam.          | ARB   | AM                      | Junqueira, A.B. & Souza, S.A. 654 (EAFM) |
| *Hirtella supruei* Benth. ex Hook. f. ** | ARB   | AM                      | Junqueira, A.B. & Neto, R.F. 549 (EAFM) |
| *Licania gracilipes* Taub.        | ARV   | AM                      | Silveira, A.L.P. 325 (UEC) |
| *Licania micrantha* Miq.          | ARV   | AM                      | Almeida, C. & Castro, A. 169 (INPA) |
| *Licania oblongifolia* Standl.    | ARV   | AM                      | Mota, C.D.A. da 61613 (INPA) |
| *Licania octandra* (Hoffmanns. ex Roem. & Schult.) | ARB   | AM                      | Junqueira, A.B. & Souza, S.A. 148 (INPA) |
| *Kunzea pallida* (Hook.f.) Prance | ARV   | AM                      | Ferreira, C.A.C. 5732 (INPA) |
| *Licania parvifructa* Fanshawe & Maguire | ARV   | AM                      | Ferreira, C.A.C. 5589 (INPA) |
| *Parinari excelsa* Sabine         | ARV   | AM                      | Viana, G.P. 87 (INPA) |
| Clusiaceae |       |                         |         |
| *Clusia candelabrum* Planch. & Triana | ARV   | AM                      | Silveira, A.L.P. 12 (UEC) |
| *Clusia columnaris* Engl.         | ARB   | AM                      | Mota, C.D.A. da 61557 (INPA) |
### Table 1: continuation.

| Scientific name                  | Habit | Phytogeographic domain | Voucher                        |
|----------------------------------|-------|------------------------|--------------------------------|
| **Clusia nigrolineata** P.F.Stevens* | TRE   | AM                     | Viana, G.P. 94 (INPA)          |
| **Clusia panaparani** (Aubl.) Choisy | ARB   | AM, CAA, MA            | Ferreira, C. A.C. 5837 (NYBG)  |
| **Garcinia benthamiana** (Planch. & Triana) Pipoly | ARB   | AM                     | Almeida, C; Castro, A. 240 (INPA) |
| **Garcinia gardneriana** (Planch. & Triana) Zappi | ARV   | AM, CAA, CE, MA        | Ferreira, C.A.C. 5778 (NYBG)   |
| **Garcinia macrophylla** Mart.    | ARV   | AM, CE, MA             | Junqueira, A.B. & Souza, J.R. 249 (EAFM) |
| **Garcinia madruno** (Kunth) Hammel | ARV   | AM, CE, MA             | Ferreira, C.A.C. 5778 (INPA)   |
| **Symphonia globalifera** L.     | ARV   | AM, CE, MA             | Mota, C.D.A. da 61461 (INPA)   |
| **Combretaceae**                 |       |                        |                                |
| **Combretum indicum** (L.) Jongkind### | ARV   | DESC                   | Almeida, C & Castro, A. 174 (INPA) |
| **Combretum laxum** Jacq.        | LIA   | AM, CAA, CE, MA        | Almeida, C & Castro, A. 212 (INPA) |
| **Combretum rotundifolium** Rich. | ARB   | AM                     | Almeida, C & Castro, A. 123 (INPA) |
| **Connaraceae**                  |       |                        |                                |
| **Connarus coriaceus** G. Schellenb | ARB   | AM                     | Cid Ferreira, C.A. 5567 (HRCB) |
| **Connarus erianthus** Bent. ex Baker | ARB   | AM                     | Almeida, C & Castro, A. 117 (INPA) |
| **Connarus erianthus** var. stipitatus Forero | ARB   | AM                     | Krukoff, B. A. 6042 (NYBG)    |
| **Connarus ruber** (Poeppl.) Planch. | ARB   | AM                     | Almeida, C & Castro, A. 88 (INPA) |
| **Connarus suberosus** Planch*    | ARB   | AM                     | Ferreira, C.A.C. 5572 (INPA)   |
| **Rourea amazonica** (Baker) Radlk. | LIA   | AM                     | Viana, G.P. 99 (INPA)          |
| **Rourea krukovii** Steyerm.     | ARB   | AM                     | Albernaz, A.L.K.M. 177 (INPA)  |
| **Convolvulaceae**               |       |                        |                                |
| **Calycobolus lanulosus** D.F.Austin* | TRE   | AM, CAA, CE            | Giacomin, L.L. et al. 1918 (INPA) |
| **Distimake aegyptius** (L.) A.R. Simões & Staples | TRE   | PAM, PAT               | Almeida, C & Castro, A. 52 (INPA) |
| **Ipomoea tiliacea** (Willd.) Choisy | TRE   | AM, MA                 | Almeida, C. et al. 33 (INPA)   |
| **Jacquemontia guyanensis** (Aubl.) Meisn. | TRE   | AM                     | Almeida, C & Castro, A. 238 (INPA) |
| **Merrema dissecta** (Jacq.) Hallier f. | TRE   | PAM, PAT               | Almeida, C & Castro, A. 150 (INPA) |
| **Merrema umbellata** (L.) Hallier f. | TRE   | AM, CAA, CE, MA        | Almeida, C & Castro, A. 104 (INPA) |
| **Costaceae**                    |       |                        |                                |
| **Chamaecostus lanceolatus** (Petersen) C.D.Specht & D.W.Stev. ssp. Lanceolatus | ERV   | AM                     | Ferreira, C.A.C. 5617 (INPA)   |
| **Costus arabicus** L.           | ERV   | AM, CE, MA, PAT        | Ferreira, C.A.C. 5832 (INPA)   |
| **Costus spiralis** (Jacq.) Roscoe | ERV   | AM, CE, MA             | Almeida, C & Castro, A. 68 (INPA) |
| **Cucurbitaceae**                |       |                        |                                |
| **Cucumis anguria** L.           | ERV   | AM, CAA, CE, MA        | Almeida, C. et al. 90 (INPA)   |
| **Cucurbita maxima** Duchesne ex Lam. ## | ERV   | AM                     | Almeida, C. & Castro, A. 42 (INPA) |
| **Gurania bignoniacea** (Poepp. & Endl.) C. Jeffrey. | ERV   | AM, CE, MA, PAT        | Krukoff, B. A. 6054 (MO)      |
| **Gurania eriantha** (Poepp. & Endl.) Cogn. | LIA   | AM, CE, MA             | Viana, G.P. 103 (INPA)         |
| **Gurania insolita** Cogn.       | TRE   | AM                     | Mota, C.D.A. da 61677 (INPA)   |
| **Gurania lobata** (L.) Pruski    | TRE   | AM, CE, MA             | Almeida, C & Castro, A. 106 (INPA) |
| **Gurania sinuata** (Benth.) Cogn. | TRE   | AM                     | Almeida, C & Castro, A. 236 (INPA) |
| **Cyperaceae**                   |       |                        |                                |
| **Cyperus brevifolius** (Rotth) Endl. ex Hassk. | SUB   | AM, CAA, CE, MA, PAT   | Almeida, C. & Castro, A. 56 (INPA) |
| **Cyperus luzulce** (L.) Retz.    | ERV   | AM, CAA, CE, MA, PAT   | Almeida, C. et al. 43 (INPA)   |
| **Exochogyne amazonica** C.B.Clarke | ERV   | AM, CE                 | Ferreira, C.A.C. 5803 (INPA)   |
| **Hypolytrum pulchrum** (Rudge) H.Pfeiff.* | ARB   | AM, MA                 | Mota, C.D.A. da 61567 (INPA)   |
| **Lagenocarpus glomerulatus** Gilly | ARB   | AM                     | Mota, C.D.A. da 61562 (INPA)   |
| **Scleria cyperina** Willd. ex Kunth | ERV   | AM, CAA, CE, MA, PAT   | Almeida, C. & Castro, A. 55 (INPA) |
| Scientific name | Habit | Phytogeographic domain | Voucher |
|-----------------|-------|------------------------|---------|
| **Dichapetalaceae** |      |                        |         |
| *Dichapetalum pedunculatum* (DC) Baill. | LIA   | AM | Almeida, C. & Castro, A. 210 (INPA) |
| **Dilleniaceae** |      |                        |         |
| *Davilla nitida* (Vahl) Kubitzki | ARB   | AM, CE MA | Almeida, C. & Castro, A. 152 (INPA) |
| *Dolichocarpus brevipedicellatus* Garcke | ARB   | AM, CE | Almeida, C. & Castro, A. 135 (INPA) |
| **Dioscoreaceae** |      |                        |         |
| *Dioscorea amaranthoides* Presl. | TRE   | AM, CAA, CE | Ferreira, CID. 5585 (UB) |
| *Dioscorea dodecaneura* Vell. | LIA   | AM, CAA, CE MA | Silva, G.P. et al. 341 (TEPB) |
| *Dioscorea hassleriana* Chodat.** | LIA   | CAA, CE | Glocimar P.S. 332 (CEN) |
| *Dioscorea papuensis* var. brasiliensis Moldenke* | ERV   | AM | Carvalho, F.A. de 1908 (INPA) |
| *Syngonanthus allenii* var. brasiliensis Moldenke* | ERV   | AM | Carvalho, F.A. de 1906 (INPA) |
| **Eriocaulaceae** |      |                        |         |
| *Conceveiba guianensis* Aubl. | ERV   | AM | Carvalho, F.A. de 2007 (INPA) |
| **Euphorbiaceae** |      |                        |         |
| *Croton glandulosus* L. | ARB   | AM, CAA, CE MA | Almeida, C. & Castro, A. 141 (INPA) |
| *Croton krukoffianus* Croizat | ARB   | AM, CE | Ferreira, CID. 5813 (UB) |
| *Croton palanostigma* Klotzsch. | ARV   | AM | Junqueira, A.B. & Souza, S.A. 626 (EAFM) |
| *Dendrothrix wurdackii* Ducke | ARV   | AM | Ferreira, C.A.C. 5797 (INPA) |
| *Hevea spruceana* (Benth.) Müll.Arg. | ARV   | AM | Ferreira, C.A.C. 5613 (INPA) |
| *Jatropha curcas* L. # | ARB   | PAT | Mendes, R.F. et al. 24 (EAFM) |
| *Mabea angustifolia* Spruce ex Benth. | ARV   | AM | Almeida, C. & Castro, A. 41 (INPA) |
| *Mabea longibracteata* Esser | ARV   | AM | Mota, C.D.A. da (INPA) |
| *Mabea nitida* Spruce ex Benth. | ARV   | AM, CE | Viana, G.P. 98 (INPA) |
| **Syngonanthus allenii** var. brasiliensis Moldenke* | ERV   | AM | Carvalho, F.A. de 2007 (INPA) |
Table 1: continuation.

| Scientific name                        | Habit | Phytogeographic domain | Voucher                  |
|----------------------------------------|-------|------------------------|--------------------------|
| *Manihot esculenta* Crantz             | ARB   | AM, CE                 | Ferreira, C.A.C. 5822 (INPA) |
| *Manihot quinquepartita* Huber ex D.J.Rogers & Appan | ARB   | AM, CAA, CE             | Almeida, C. & Castro, A. 251 (INPA) |
| *Maprounea guianensis* Aubl.           | ARB   | AM, CE, MA              | Silveira, A.L.P. 232 (UEC) |
| *Microstachys bidentata* (Mart.& Zucc.) Esser | LIA   | AM, CAA, CE, MA        | Ferreira, C.A.C. 5801 (NY) |
| *Microstachys corniculata* (Vahl) Griseb. | SUB   | AM, CAA, CE, MA        | Almeida, C. & Castro, A. 207 (INPA) |
| *Pausandra hirsuta* Laj.               | ARB   | AM                     | Ferreira, C.A.C. 5843 (INPA) |
| *Pausandra macropetala* Ducke          | ARV   | AM                     | Ferreira, C.A.C. 5764 (INPA) |
| *Pirania trifoliata* Baill.            | ARV   | AM                     | Viana, G.P. 78 (INPA)      |
| *Ricinus communis* L.#                 | ARB   | PAM, PAT               | Almeida, C. & Castro, A. 223 (INPA) |
| *Rhodothyrsus macrophyllus* (Ducke) Esser | ARB   | AM                     | Almeida, C. & Castro, A. 247 (INPA) |
| *Sagotia racemosa* Baill.              | ARB   | AM                     | Ferreira, C.A.C. 5759 (NY) |
| *Sandwithia guianensis* Laj.           | ARV   | AM                     | Ferreira, C.A.C. 5759 (INPA) |
| Fabaceae                               |       |                        |                          |
| *Abarema adenophora* (Ducke) Barneby & J.W.Grimes | ARB   | AM                     | Almeida, C. & Castro, A. 124 (INPA) |
| *Abarema campestris* (Spruce ex Benth.) Barneby & J.W.Grimes | ARB   | AM                     | Mota, C.D.A. da 61607 (INPA) |
| *Abarema laeta* (Benth.) Barneby & J.W.Grimes | ARB   | AM                     | Mota, C.D.A. da (INPA) |
| *Alexa grandiflora* Ducke              | ARV   | AM                     | Junqueira, A.B. & Souza, S.A. 617 (INPA) |
| *Amphidon effusus* Huber               | ARV   | AM, CAA, CE, MA        | Junqueira, A.B. & Souza, S.A. 679 (INPA) |
| *Apuleia leiocarpa* (Vogel) J.F.Macbr. | ARV   | AM, CAA, CE, MA        | Amoêdo, S.C. et al. 44 (EAFM) |
| *Bauhinia longicuspis* Benth.          | ARV   | AM                     | Junqueira, A.B. 213 (INPA) |
| *Bauhinia rufa* (Bong.) Steud.**       | ARB   | CE                     | Ferreira, C.A.C. 5818 (INPA) |
| *Cassia fastuosa* Wild. ex Benth.      | ARV   | AM                     | Ferreira, C.A.C. 5505 (INPA) |
| *Cassia fastuosa* Wild. ex Benth. var. fastuosa | ARV   | AM                     | Ferreira, C.A.C. 5505 (NY) |
| *Cassia leandra* Benth.                | ARV   | AM                     | Almeida, C. & Castro, A. 101 (INPA) |
| *Centrosema vexillatum* Benth.         | TRE   | AM, CAA, CE, MA, PAT   | Ferreira, C.A.C. 5802 (INPA) |
| *Chamaecrista desvauxii* (Collad.) Killip | ARB   | AM, CAA, CE, MA, PAT   | Almeida, C. et al. 34 (INPA) |
| *Chamaecrista langsdorffii* (Kunth ex Vogel) Britton ex Pittier | ERV   | AM, CAA, CE, MA, PAT   | Lima, L.C.P. 652 (HUEFS) |
| *Chamaecrista flexuosa* (L.) Greene    | ERV   | AM, CAA, CE, MA, PAM, PAT | Giacomini, L.L. 1919 (BICB) |
| *Clathrotropis nitida* (Benth.) Harms  | ARV   | AM                     | Viana, G.P. 217 (INPA) |
| *Copaifera multituba* Hayne            | ARV   | AM                     | Viana, G.P. 219 (INPA) |
| *Crotalaria micans* Link               | ARB   | AM, CAA, CE, MA, PAM, PAT | Almeida, C. & Castro, A. 232 (INPA) |
| *Crucla amazonica* Spruce ex Benth.    | ARV   | AM                     | Ferreira, C.A.C. 5777 (INPA) |
| *Dalbergia inundata* Spruce ex Benth.  | ARB   | AM                     | Ferreira, C.A.C. 5543 (INPA) |
| *Dalbergia riparia* (Mart. ex Benth.) Benth. | LIA   | AM                     | Viana, G.P. 90 (INPA) |
| *Deguelia angulata* (Ducke) A.M.G.Azevedo & R.A.Camargo | LIA   | AM                     | Krukoff, B.A. 7766 (NY) |
| *Deguelia rariflora* (Mart. ex Benth.) G.P.Lewis & Acev.-Rodr. | LIA   | AM                     | Krukoff, B.A. 7760 (NY) |
| *Deguelia spruceana* (Benth.) A.M.G.Azevedo & R.A.Camargo | LIA   | AM                     | Albernaz, A.L.K.M. 173 (INPA) |
| *Deguelia utilis* (A.C.Sm.) A.M.G.Azevedo | TRE   | AM                     | Krukoff, B.A. 7772 (NYBG) |
| *Desmodium adsendens* (Sw.) DC#        | SUB   | AM, CAA, CE, MA, PAM, PAT | Silva, G.P. 334 (HUEFS) |
| *Desmodium barbatum* (L.) Benth.       | SUB   | AM, CAA, CE, MA, PAM, PAT | Lima, L.C.P. et al. 654 (UEC) |
| *Desmodium distorta* (Aubl.) J.F.Macbr. | ARB   | AM, CE                 | Lima, L.C.P. et al. 630 (UEC) |
| *Desmodium jaruenense* Hoehne          | SUB   | AM, CE                 | Lima, L.C.P. 631 (HUEFS) |
| Scientific name                                      | Habit | Phytogeographic domain | Voucher                      |
|-----------------------------------------------------|-------|-------------------------|------------------------------|
| *Dialium guianense* (Aubl.) Sandwith.               | ARV   | AM, MA                  | Junqueira, A.B. & Barros, R.N.S. 391 (EAFM) |
| *Dinizia excelsa* Ducke                             | ARV   | AM                      | Amoêdo, S.C. et al. 43 (EAFM) |
| *Dioecia coriacea* Benth.                           | TRE   | AM, CE                  | Almeida, C. & Castro, A. 125 (INPA) |
| *Dioecia scabra* (Rich.) Maxwell                    | ARB   | AM                      | Ferreira, C.A.C. 5826 (INPA) |
| *Diplotropis triloba* Gleason.                      | ARV   | AM                      | Junqueira, A.B. & Neto, R.F. 529 (EAFM) |
| *Dipteryx magnifica* (Ducke) Ducke                   | ARV   | AM                      | Amoêdo, S.C. et al. 51 (EAFM) |
| *Dipteryx odorata* (Aubl.) Willd.                   | ARV   | AM                      | Viana, G.P. 96 (INPA) |
| *Dipteryx punctata* (Blake) Amshoff.                 | ARV   | AM                      | Ferreira, C.A.C. 5570 (INPA) |
| *Enterolobium schomburgii* (Benth.) Benth.          | ARV   | AM, CE                  | Junqueira, A.B. & Neto, R.F. 440 (EAFM) |
| *Eperua oleifera* Ducke                             | ARV   | AM                      | Ferreira, C.A.C. 5791 (US) |
| *Eperua oleifera* Ducke var. campestris* Ducke      | ARB   | AM                      | Ferreira, C.A.C. 5791 (INPA) |
| *Hymenaea courbaril* L.                             | ARV   | PAT                     | Mendes, R.F. et al. 14 (EAFM) |
| *Hymenaea reticulata* Ducke                         | ARV   | AM                      | Amoêdo, S.C. et al. 45 (EAFM) |
| *Inga alba* (Sw.) Willd.                            | ARV   | AM, CE                  | Junqueira, A.B. & Neto, R.F. 462 (EAFM) |
| *Inga cylindrica* (Vell.) Mart.                     | ARB   | AM, CE, MA              | Almeida, C. & Castro, A. 147 (INPA) |
| *Inga disticha* Benth.                              | ARV   | AM, CE                  | Junqueira, A.B. & Souza, S.A. 588 (INPA) |
| *Inga edulis* Mart.                                 | ARB   | AM, CAA, CE, MA         | Almeida, C. et al. 35 (INPA) |
| *Inga grandiflora* Ducke                            | ARV   | AM                      | Junqueira, A.B. & Souza, S.A. 582 (EAFM) |
| *Inga heterophylla* Willd.                          | ARV   | AM, CE                  | Junqueira, A.B. & Souza, S.A. 690 (EAFM) |
| *Inga ingoides* (Rich.) Willd.                      | ARV   | AM, CE, MA              | Junqueira, A.B. & Neto, R.F. 448 (EAFM) |
| *Inga lateriflora* Miq.                             | ARV   | AM, CE                  | Ferreira, C.A.C. 5804 (INPA) |
| *Inga longiflora* Spruce ex Benth.                  | ARV   | AM                      | Junqueira, A.B. & Neto, R.F. 464 (EAFM) |
| *Inga macrophylla* Kunth ex Willd.                  | ARV   | AM                      | Junqueira, A.B. & Barros, R.N.S. 302 (EAFM) |
| *Inga marginata* Willd.                             | ARV   | AM, CE, MA              | Junqueira, A.B. & Souza, J.R. 251 (EAFM) |
| *Inga obidensis* Ducke                              | ARV   | AM                      | Junqueira, A.B. & Barros, R.N.S. 326 (EAFM) |
| *Inga panurensis* Spruce ex Benth.                  | ARV   | AM                      | Ferreira, C.A.C. 5804 (NY) |
| *Inga rubiginosa* (Rich.) DC.                       | ARV   | AM, CE                  | Almeida, C. & Castro, A. 67 (INPA) |
| *Inga umbellifera* Vahl. DC.                        | ARV   | AM                      | Junqueira, A.B. & Neto, R.F. 421 (EAFM) |
| *Lecointea amazonica* Ducke                         | ARV   | AM                      | Ferreira, C. A.C. 5829 (NY) |
| *Libidibia ferrea* (Mart. ex Tul.) L.P. Queiroz. **  | ARB   | CAA, CE, MA             | Mendes, R.F. et al. 30 (EAFM) |
| *Limadendron amazonica* (Ducke) J.E. Meireles & A.M.G. Azevedo | ARV   | AM                      | Ferreira, C.A.C. 5829 (INPA) |
| *Limadendron hostmannii* (Benth.) Meireles & A.M.G. Azevedo* | ARV   | AM                      | Junqueira, A.B. & Barros, R.N.S. 301 (EAFM) |
| *Macrolobium arenarium* Ducke                        | ARV   | AM                      | Junqueira, A.B. & Barros, R.N.S. 385 (EAFM) |
| *Macrolobium limbatum* Spruce ex Benth.              | ARV   | AM                      | Ferreira, C.A.C. 5789 (INPA) |
| *Macrolobium microcalyx* Ducke                       | ARV   | AM                      | Junqueira, A.B. & Barros, R.N.S. 359 (EAFM) |

Acta Brasiliensis 4(1): 1-29, 2020
Table 1: continuation.

| Scientific name | Habit | Phytogeographic domain | Voucher |
|------------------|-------|-------------------------|---------|
| *Mimosa guilandinae* (DC.) Barneby | LIA | AM | Ferreira, C.A.C. 5526 (NY) |
| *Mimosa guilandinae* var. *spruceana* (Benth.) Barneby | ARB | AM | Almeida, C. & Castro, A. 129 (INPA) |
| *Mimosa invisa* Mart. ex Colla | ARB | AM, CAA, CE, MA | Almeida, C. & Castro, A. 198 (INPA) |
| *Mimosa myriadien (Benth.) Benth. var. dispersa* Barneby | ARB | AM | Ferreira, C.A.C. 5823 (INPA) |
| *Mimosa pudica* L. | SUB | AM, CAA, CE, MA | Almeida, C. et al. 5823 (INPA) |
| *Mimosa sensitiva* L. | ERV | AM, CAA, CE, MA | Almeida, C. et al. 57 (INPA) |
| *Ormosia macrocalyx* Ducke | ARV | AM | Almeida, C. 83 (INPA) |
| *Ormosia grossa* Rudd | ARV | AM | Junqueira, A.B. & Souza, S.A. 583 (EAFM) |
| *Pachyrhizus erosus* (L.) Urb.# | TRE | AM, CE | Almeida, C. et al. 32 (INPA) |
| *Parkia discolor* Spruce ex Benth. | ARV | AM | Ferreira, C.A.C. 5562 (INPA) |
| *Parkia nitida* Miq. | ARV | AM | Junqueira, A.B. & Neto, R.F. 539 (EAFM) |
| *Parkia pendula* (Willd.) Benth. ex Walp | ARV | AM, MA | Junqueira, A.B. & Souza, S.A. 583 (EAFM) |
| *Parkia alei* (Harms) Kuhl. | ARV | AM | Ferreira, C.A.C. 5510 (INPA) |
| *Pelogyne paniculata* Bentham. subsp. *Paniculata* | ARB | AM | Ferreira, C.A.C. 5771 (US) |
| *Piptadenia minutiflora* Ducke | TRE | AM | Almeida, C. & Castro, A. 114 (INPA) |
| *Platymenia reticulata* Benth.* | ARV | AM | Almeida, T.E. (HRCB) |
| *Pterocarpus amazonum* (Benth.) Amshoff | ARV | AM | Viana, G.P. 88 (INPA) |
| *Pterocarpus rohrii* Vahl. | ARV | AM, CAA, CE, MA | Junqueira, A.B. & Souza, S.A. 698 (EAFM) |
| *Samaena saman* (Jacq.) Merr. ## | ARV | AA | Junqueira, A.B. 240 (INPA) |
| *Schnella splendens* (Kunth) Bentham. | LIA | AM, CAA, CE, MA | Junqueira, A.B. & Souza, S.A. 673 (EAFM) |
| *Senna alata* (L.) Roxb. | ARB | AM, CAA, CE, MA, PAT | Almeida, C. & Castro, A. 38 (INPA) |
| *Senna cf macrophyllea* (Kunth) H.S.Irwin & Barneby | LIA | AM | Almeida, C. & Castro, A. 214 (INPA) |
| *Senna multijuga* (Rich.) Irwin & Barneby | ARV | AM, CAA, CE, MA, PAT | Ferreira, C.A.C. 5505 (UB) |
| *Senna undulata* (Benth.) Link | ARB | AM, CAA, CE, MA, PAT | Almeida, C. & Castro, A. 569 (INPA) |
| *Senna silvestris* (Vell.) H.S.Irwin & Barneby | ARV | PAT | Junqueira, A.B. 311 (INPA) |
| *Senna tapajoensis* (Ducke) H.S.Irwin & Barneby | SUB | AM, CE | Almeida, C. & Castro, A. 51 (INPA) |
| *Senna undulata* (Benth.) H.S.Irwin & Barneby | ARB | AM | Almeida, C. & Castro, A. 102 (INPA) |
| *Stryphnodendron guianense* (Aubl.) Bentham. | ARV | AM, CAA | Junqueira, A.B.; Barros, R.N.S. 350 (EAFM) |
| *Stryphnodendron pulcherrimum* (Willd.) Hochr. | ARB | AM, MA | Ferreira, C.A.C. 5505 (UB) |
| *Swartzia arborescens* (Aubl.) Pittier | ARV | AM | Almeida, C. & Castro, A. 179 (INPA) |
| *Swartzia cuspidata* Spruce ex Benth | ARV | AM | Ferreira, C.A.C. 5838 (INPA) |
| *Swartzia ingifolia* Ducke | ARB | AM | Junqueira, A.B. & Neto, R.F. 536 (EAFM) |
| *Swartzia laeviscarpa* Amshoff | ARV | AM | Ferreira, C.A.C. 5568 (INPA) |
| *Swartzia laurifolia* Bentham. | ARV | AM | Junqueira, A.B. & Neto, R.F. 551 (EAFM) |
| *Swartzia luciflora* Bourg. ex Bentham. | ARV | AM | Junqueira, A.B. & Barros, R.N.S. 315 (EAFM) |
| *Swartzia lucida* R.S.Cowan | ARV | AM | Krukoff, B.A. 7879 (NY) |
| *Swartzia oraria* R.S.Cowan* | ARB | AM | Almeida, C. & Castro, A. 149 (INPA) |
| *Swartzia polyphylla* DC. | ARV | AM | Junqueira, A.B. & Souza, S.A. 641 (EAFM) |
| *Swartzia tessmannii* Harms. | ARV | AM | Ferreira, C.A.C. 5780 (INPA) |
| *Tachigali candelabrum* van der Werff | ARV | AM | Ferreira, C.A.C. 5512 (INPA) |
| Scientific name | Habit | Phytogeographic domain | Voucher |
|-----------------|-------|------------------------|---------|
| Tachigali paniculata Aubl. | ARV | AM | Silveira, A.L.P. 28 (UEC) |
| Tachigali vulgaris L.G.Silva & H.C.Lima | ARV | AM, CAA, CE | Silveira, A.L.P. 28 (RON) |
| Tephrosia nitens Benth. | ARV | AM, CE | Krukoff, B.A. 7889 (NY) |
| Vatairea sericea (Ducke) Ducke | ARV | AM | Amoêdo, S.C. et al. 53 (EAFM) |
| Vigna lasiocarpa (Mart. ex Benth.) Verdc. | ARV | AM, CAA, CE, MA | Glocimar P.S. 333 (CEN) |
| Zornia latifolia Sm. | ERV | AM, CAA, CE, MA | Amoêdo, S.C. et al. 56 (EAFM) |
| Zygia racemosa (Ducke) Barneby & J.W.Grimes. | ARV | AM | Amoêdo, S.C. et al. 56 (EAFM) |
| Chelonanthus albus (Spruce ex Progel) V.M.Badillo | ERV | AM | Carvalho, F.A. de 2004 (INPA) |
| Chelonanthus acutangulus (Ruiz & Pav.) Gilg | ERV | AM | Almeida, C. et al. 58 (INPA) |
| Schultesia brachyptera Cham. | ERV | AM, CAA, CE, MA | Ferreira, C.A.C. 5520 (INPA) |
| Tachia grandiflora Maguire & Weaver | ARV | AM | Almeida, C. & Castro, A. 71 (INPA) |
| Voyria tenella Hook. | ERV | AM | Ferreira, C.A.C. 5621 (INPA) |
| Voyriella parviflora (Miq.) Miq. | ERV | AM, CE | Ferreira, C.A.C. 5620 (INPA) |
| Codonanthopsis ulei Mansf. | SUB | AM | Almeida, T.E. 3625 (INPA) |
| Drymonia coccinea (Aubl.) Wiehler | TRE | AM, MA | Almeida, C. & Castro, A. 172 (INPA) |
| Drymonia serrulata (Jacq.) Mart. | LIA | AM, CAA, CE, MA | Almeida, C. & Castro, A. 244 (INPA) |
| Goupia glabra Aubl. | ARV | AM, CE | Junqueira, A.B. & Neto, R.F. 423 (EAFM) |
| Heliconia acuminata L. C. Rich | ERV | AM | Almeida, C. et al. 20 (INPA) |
| Heliconia chartacea Lane ex Barreiros | ERV | AM | Almeida, C. & Castro, A. 115 (INPA) |
| Heliconia densiflora Verl | ERV | AM | Almeida, C. & Castro, A. 165 (INPA) |
| Heliconia psittacorum L.f. | ERV | AM, CAA, CE, MA, PAT | Almeida, C. & Castro, A. 76 (INPA) |
| Humiria balsamifera (Aubl.) J.St.-Hil. | ARV | AM, CAA, CE, MA | Ferreira, C.A.C. 5810 (INPA) |
| Vismia cayennensis (Jacq.) Pers. | ARB | AM, CE | Almeida, C. & Castro, A. 157 (INPA) |
| Vismia guianensis (Aubl.) Choisy | ARB | AM, CAA, CE, MA | Almeida, C. & Castro, A. 137 (INPA) |
| Vismia gracilis Hieron. | ARV | AM | Junqueira, A.B. & Neto, R.F. 498 (EAFM) |
| Vismia japurensis Reichardt. | ARV | AM | Junqueira, A.B. & Souza, S.A. 636 (EAFM) |
| Vismia macrophylla Kunth | ARB | AM | Almeida, C. & Castro, A. 218 (INPA) |
| Vismia sandwithii Ewan. | ARV | AM, CE | Junqueira, A.B. & Neto, R.F. 420 (EAFM) |
| Emnotum nitens (Benth.) Miers | ARV | AM, CAA, CE, MA, PAT | Silveira, A.L.P. 247 (RON) |
| Ochtocosmus barrae Hallier f. | ARV | AM, CE | Silveira, A.L.P. 248 (RON) |
| Lacistema aggregatum (Berg) Rusby. | ARB | AM, CE | Almeida, C. & Turma CB15_MEO1 186 (EAFM) |
| Lacistema polystachyum Schnizl. | ARB | AM | Silveira, A.L.P. 255 (RON) |
| Amasonia angustifolia Mart. & Schauer ex Schauer | ARB | AM, CE, MA, PAT | Ferreira, C.A.C. 5579 (INPA) |
| Hyptis brevipes Poit. | ARB | AM, CAA, CE, MA, PAT | Almeida, C. & Castro, A. 194 (INPA) |
| Leonotis nepetifolia (L.) R.Br. | ERV | AM, CAA, CE, MA, PAT | Almeida, C. & Castro, A. 245 (INPA) |
| Scientific name                  | Habit | Phytogeographic domain | Voucher                          |
|----------------------------------|-------|------------------------|---------------------------------|
| Ocimum campechianum Mill.        | ARB   | AM, CAA, CE, MA        | Mendes, R.F. et al. 5 (EAFM)   |
| Scutellaria agrestis A.St.-Hil. ex Benth* | ERV   | AM, MA                 | Mendes, R.F. et al. 56 (EAFM)  |
| Vitex triflora Vahl              | ARV   | AM, CAA, CE            | Albuquerque, B.W.P. de 366 (INPA) |
| **Lauraceae**                    |       |                        |                                 |
| Endlicheria formosa A.C.Sm       | ARV   | AM                     | Junqueira, A.B. & Neto, R.F. 515 (EAFM) |
| Endlicheria glomerata Mez*       | ARV   | AM, CEA, MA            | Ferreira, C.A.C. 5563 (MBM)    |
| Endlicheria macrophylla (Meisn.) Mez | ARV   | AM                     | Ferreira, C.A.C. 5563 (INPA)   |
| Mezilaurus itauba (Meisn.) Taub. ex Mez. | ARB   | AM                     | Almeida, C. et al. 15 (INPA)   |
| Nectandra cuspidata Nees         | ARV   | AM, CAA, CE            | Krukoff, B.A. 6064 (US)        |
| Ocotea cernua (Nees) Mez         | ARV   | AM, CEA, MA            | Albuquerque, B.W.P. de 364 (INPA) |
| Ocotea guianensis Aubl.          | ARV   | AM, CE                 | Junqueira, A.B. & Souza, J.R. 261 (INPA) |
| Ocotea longifolia Kunth.         | ARV   | AM                     | Junqueira, A.B. 471 (INPA)     |
| Ocotea oblonga (Meisn.) Mez      | ARV   | AM, MA                 | Junqueira, A.B. & Neto, R.F. 517 (EAFM) |
| Ocotea splendidos (Meisn.) Baill. | ARV   | AM                     | Junqueira, A.B. & Souza, S.A. 622 (EAFM) |
| Persea americana Mill. **##     | ARV   | MA                     |                                 |
| **Lechthiaceae**                 |       |                        |                                 |
| Allantoma decandra (Ducke) S.A.Mori, Y.-Y.Huang & Prance | ARV   | AM                     | Amoêdo, S.C. et al. 5 (EAFM) |
| Bertholletia excelsa Bonpl.      | ARV   | AM                     | Junqueira, A.B. & Souza, S.A. 676 (EAFM) |
| Couratari stellata A.C.Sm.       | ARV   | AM                     | Junqueira, A.B. & Souza, S.A. 646 (EAFM) |
| Couratari tenuicarpa A.C.Sm.     | ARV   | AM                     | Ferreira, C.A.C. 5544 (INPA)   |
| Eschweileria atropeiotolata S.A.Mori | ARV   | AM                     | Junqueira, A.B. & Barros, R.N.S. 370 (EAFM) |
| Eschweileria chartaceifolia S.A.Mori | ARV   | AM                     | Junqueira, A.B. & Souza, S.A. 663 (EAFM) |
| Eschweileria coriacea (DC.) S.A.Mori | ARB   | AM                     | Almeida, C. et al. 98 (INPA)   |
| Eschweileria micrantha (O.Berg) Miers | ARB   | AM                     | Mota, C.D.A. da 61662 (INPA)   |
| Eschweileria ovalifolia (DC.) Nied. | ARV   | AM                     | Viana, G.P. 65 (INPA)         |
| Eschweileria truncata A.C.Sm.    | ARV   | AM                     | Junqueira, A.B. & Neto, R.F. 514 (EAFM) |
| Gustavia augusta L.              | ARV   | AM, MA                 | Junqueira, A.B. & Souza, J.R. 245 (EAFM) |
| Gustavia hexapetala (Aubl.) Sm.  | ARB   | AM                     | Viana, G.P. 86 (INPA)         |
| Gustavia poeppigiana O.Berg      | ARV   | AM                     | Almeida, T.E. 3641 (INPA)     |
| **Lentibulariaceae**             |       |                        |                                 |
| Utricularia amethystina Salzm. ex A.St.-Hil. & Girard | ERV   | AM, CAA, CE, MA        | Ferreira, C.A.C. 5522 (INPA)   |
| *Utricularia simulans* Pilg.     | ERV   | AM, CAA, CE, MA        | Lima, L.C.P. 650 (HUEFS)      |
| Utricularia triflora Benj.       | ERV   | AM, CAA, CE, MA        | Lima, L.C.P. 637 (HUEFS)      |
| **Loganiaceae**                  |       |                        |                                 |
| Antonia ovata Pohl.              | ARV   | AM, CE, MA             | Silveira, A.L.P. 328 (UEC)     |
| Bonyunia antonifolia Progel      | ARB   | AM, CE                 | Giacomini, L.L. et al. 1915 (INPA) |
| Bonyunia minor N.E. Be*          | ARV   | AM                     | Silveira, A.L.P. 15 (UEC)      |
| Strychnos hirsuta Spruce         | ARB   | AM                     | Mota, C.D.A. da 61573 (INPA)   |
| **Loranthaceae**                 |       |                        |                                 |
| Passovia brasiliana Kuijtt       | ERV   | AM, CAA, CE, MA        | Ferreira, C.A.C. 5504 (INPA)   |
| Passovia pedunculata (Jacq.) Kuijtt | ERV   | AM, CE                 | Ferreira, C.A.C. 5783 (INPA)   |
| Struthanthus marginatus (Desr.) Blume | ERV   | AM, CAA, CE, MA        | Almeida, C. & Castro, A. 171 (INPA) |
### Table 1: continuation.

| Scientific name                  | Habit | Phytogeographic domain | Voucher                        |
|----------------------------------|-------|-------------------------|--------------------------------|
| **Lythraceae**                   |       |                         |                                |
| *Cuphea antisyphilitica* Kunth.  | SUB   | AM, CAA, CE, MA         | Ferreira, C.A.C. 5523 (INPA)   |
| *Cuphea sabulosa* S.A.Graham     | ARB   | AM                      | Ferreira, C.A.C. 5811 (INPA)   |
| *Physocalymma scaberrimum* Pohl  | ARV   | AM, CE                  | Viana, G.P. 216 (INPA)         |
| **Malpighiaceae**                |       |                         |                                |
| *Blepharandra heteropetala* W.R.Anderson | ARB | AM                      | Ferreira, C.A.C. 5790 (NYBG)   |
| *Byronima arthropoda* A.Juss.    | ARV   | AM, CE                  | Krukoff, B.A. 6035 (NY)        |
| *Byronima chrysophylla* Kunth    | ARV   | AM, CE, MA              | Silveira, A.L.P. 41 (UEC)      |
| *Byronima coccolobifolia* Kunth  | ARV   | AM, CE, MA              | Silveira, A.L.P. 229 (UEC)     |
| *Byronima crassifolia* (L.) Kunth| ARB   | PAT                     | Junqueira, C. et al. 92 (INPA)  |
| *Byronima crispa* A.Juss.        | ARV   | AM, MA                  | Ferreira, G.P. 102 (INPA)      |
| *Byronima laxiflora* Griseb.*    | ARV   | AM, MA                  | Viana, G.P. 102 (INPA)         |
| *Byronima lingufera* Cuatrec.    | ARB   | AM                      | Ferreira, C.A.C. 5503 (INPA)   |
| *Byronima poepigiana* A.Juss.    | ARV   | AM                      | Silveira, A.L.P. 24 (RON)      |
| *Byronima umbellata* Mart. ex A.Juss. | ARB | AM, CE                  | Ferreira, C.A.C. 5800 (INPA)   |
| *Excentradenia primaeva* (W.R.Anderson) W.R.Anderson | TRE | AM                      | Almeida, C. & Castro, A. 63 (INPA) |
| *Lophanthera longifolia* (Kunth) Griseb. | ARV | AM, CE                  | Almeida, C. & Castro, A. 154 (INPA) |
| *Niedenzuella stannea* (Griseb.) W.R.Anderson | LIA | AM, PAT                 | Ferreira, C.A.C. 5507 (INPA)   |
| *Pterandra arborea* Ducke        | ARV   | AM, CE                  | Silveira, A.L.P. 24 (UEC)      |
| *Stigmaphyllon sinuatatum* (DC.) A.Juss. | LIA | AM                      | Krukoff, B.A. 6038 (NY)        |
| **Malvaceae**                    |       |                         |                                |
| *Apeiba membranacea* Spruce ex Benth. | ARV | AM                      | Junqueira, A.B. & Neto, R.F. 460 (EAFM) |
| *Apeiba tibourbou* AUBL.         | ARB   | AM, CAA, CE, MA         | Almeida, C. & Castro, A. 87 (INPA) |
| *Ceiba pentandra* (L.) Gaertn.*  | ARV   | AM                      | Junqueira, A.B. & Barros, R.N.S. 291 (EAFM) |
| *Eriotheca globosa* (Aubl.) A.Robyns. | ARV | AM, CE                  | Junqueira, A.B. & Barros, R.N.S. 386 (EAFM) |
| *Eriotheca longibulosa* A.Robyns. | ARV | AM                      | Junqueira, A.B. & Neto, R.F. 520 (EAFM) |
| *Gossypium barbadense* L.#       | ARB   | AM, CAA, MA             | Almeida, C. & Castro, A. 140 (INPA) |
| *Guazuma ulmifolia* Lam.         | ARV   | AM, CAA, CE, MA         | Mendes, R.F. et al. 57 (EAFM) |
| *Helicocarpus americanus* L.**  | ARV   | DESC                    | Junqueira, A.B. 300 (INPA)     |
| *Hibiscus farcellatus* Lam.      | ARB   | AM, CE, MA              | Lima, L.C.P. 641 (HUEFS)      |
| *Hibiscus sabdariffa* L.***#     | ARB   | DESC                    | Almeida, C. & Castro, A. 97 (INPA) |
| *Huberodendron swietenioides* (Gleason) Ducke | ARV | AM                      | Lemos F.R. 20541 (NY)   |
| *Stereocaulina frondosa* Rich    | ARV   | AM                      | Junqueira, A.B. & Barros, R.N.S. 328 (EAFM) |
| *Pachira insignis* (Sw.) Savigny  | ARV   | AM                      | Viana, G.P. 221 (INPA)        |
| *Pachira nitida* Kunth           | ARV   | AM                      | Ferreira, C.A.C. 5554 (INPA)   |
| *Scleronema micranthum* (Ducke) Ducke | ARV | AM                      | Mota, C.D.A. da 61658 (INPA)   |
| *Theobroma cacao* L. #           | ARV   | AM, MA                  | Junqueira, A.B. & Souza, J.R. 268 (EAFM) |
| *Theobroma obovatum* Klotzsch ex Benth. | ARV | AM                      | Junqueira, A.B. & Neto, R.F. 400 (EAFM) |
| *Theobroma speciosum* Spreng.    | ARV   | AM                      | Junqueira, A.B.; Barros, R.N.S. 396 (EAFM) |
| *Vasivaea podocarpa* Kuhl.       | ARV   | AM                      | Albernaz, A.L.K.M. 183 (INPA)  |
| **Marantaceae**                  |       |                         |                                |
| *Goepertia picturata* (K.Koch & Linden) Borches. & S.Suárez | ERV | AM, CE, MA              | Viana, G.P. (INPA)             |
| *Ischnosiphon obliquus* (Rudge) Körn. | ERV | AM                      | Almeida, C. & Castro, A. 202 (INPA) |
| Scientific name                         | Habit | Phytogeographic domain | Voucher                          |
|----------------------------------------|-------|------------------------|----------------------------------|
| Monotagma densiflorum (Körn.) K.Schum. | ERV   | AM, CE                 | Almeida, C. & Castro, A. 170 (INPA) |
| Monotagma floribundum Hagberg & R. Erikkss. | ARB   | AM                     | Mota, C.D.A. da 61578 (INPA)      |
| Maregraviaceae                         |       |                        |                                  |
| Souroubea guianensis Aubl.             | LIA   | AM, MA                 | Viana, G.P. 101 (INPA)           |
| Melastomataceae                        |       |                        |                                  |
| Adelobotrys microcarpus Schulman       | SUB   | AM                     |                                  |
| Bellucia acutata Pilger                | ARV   | AM, CE                 | Almeida, C. et al. 16 (INPA)     |
| Bellucia dichotoma Cogn                | ARB   | AM                     | Almeida, C. & Castro, A. 49 (INPA) |
| Bellucia grossularioides (L.) Triana.  | ARV   | AM, CE                 | Lombardi, J.A. et al. 10105 (UNOP) |
| Clidemia capitellata (Bonpl.) D.Don    | SUB   | AM, CAA, CE, MA        | Almeida, C. et al. 47 (INPA)     |
| Clidemia hirta (L.) D.Don              | ARV   | AM, CAA, CE, MA        |                                  |
| Clidemia rubra (Aubl.) Mart.           | ARB   | AM, CE                 | Almeida, C. & Castro, A. 229 (INPA) |
| Macairea multinervia Benth.            | ARB   | AM                     | Ferreira, C.A.C. 5516 (INPA)     |
| Macairea thyrsiflora DC.               | ARB   | AM, CE                 | Mota, C.D.A. da 61553 (INPA)     |
| Miconia affinis DC.                    | ARV   | AM, CE, MA             |                                  |
| Miconia ciliata (Rich.) DC.            | ARB   | AM, CAA, CE, MA        | Silveira, A.L.P. 324 (UEC)       |
| Miconia cuspidata Naudin               | ARV   | AM, CE                 | Junqueira, A.B. & Neto, R.F. 495 |
| Miconia dolichorrhyncha Naudin         | ARV   | AM, CE                 |                                  |
| Miconia dispar Benth.                  | ARB   | AM                     | Almeida, C. & Castro, A. 77 (INPA) |
| Miconia fallax DC.                     | ARB   | AM                     | Silveira, A.L.P. 32 (UEC)        |
| Miconia ibaguensis (Bonpl.) Triana.    | ARB   | AM, CAA, CE, MA        | Silveira, A.L.P. 36 (UEC)        |
| Miconia minutilflora (Bonpl.) DC.      | ARV   | AM, CAA, CE, MA        | Junqueira, A.B. 211 (INPA)       |
| Miconia nervosa (Sm.) Triana           | ARB   | AM, CAA, CE, MA        | Ferreira, C.A.C. 5532 (INPA)     |
| Miconia poeppigii Triana               | ARV   | AM                     | Almeida, C.; Castro, A. 120 (INPA) |
| Miconia prasina (Sw.) DC.              | ARV   | AM, CAA, CE, MA        | Junqueira, A.B. 521 (INPA)       |
| Miconia rhytidophylla Naudin           | ARB   | AM                     | Mota, C.D.A. da 61669 (INPA)     |
| Miconia rubiginosa (Bonpl.) DC.         | ARB   | AM, CE                 | Silveira, A.L.P. 305 (RON)       |
| Miconia stenostachya DC.               | ARB   | AM, CAA, CE, MA        | Almeida, C. & Castro, A. 180 (INPA) |
| Miconia fallax DC.                     | ARB   | AM                     | Junqueira, A.B. 558 (INPA)       |
| Siphanthera subtilis Pohl ex DC.        | ERV   | AM, CE                 | Ferreira, C.A.C. 5793 (US)       |
| Tococa bullifera DC.                   | ARB   | AM                     |                                  |
| Tococa guianensis Aubl.                | ARB   | AM, CE, PAT            | Almeida, C. & Castro, A. 134 (INPA) |
| Meliaceae                              |       |                        |                                  |
| Cedrela odorata L.                      | ARV   | AM, CAA, CE, MA        | Viana, G.P. 105 (INPA)           |
| Guarea humaitensis T.D.Penn             | ARV   | AM                     | Junqueira, A.B. & Souza, J.R. 283 (EAFM) |
| Guarea cf kunthiana A.Juss.            | ARB   | AM, CE                 | Almeida, C. & Castro, A. 228 (INPA) |
| Guarea silvatica C.D.C.                | ARV   | AM                     | Ferreira, C.A.C. 5612 (INPA)     |
| Miconia tomentosa (Rich.) D.Don         | ARB   | AM, CE, MA             | Almeida, C.; Castro, A. 153 (INPA) |
| Mouriri acutiflora Naudin              | ARB   | AM, CE                 | Albernaz, A.L.K.M. 169 (INPA)    |
| Trichilia fasciculata T.D.Penn.         | ARV   | AM                     | Ferreira, C.A.C. 5529 (INPA)     |
| Trichilia micrantha Benth.              | ARV   | AM, CE                 | Ferreira, C.A.C. 5555 (INPA)     |
| Trichilia rubra C.D.C.                 | ARV   | AM                     | Junqueira, A.B. & Neto, R.F. 469 |
| Menispermaceae                          |       |                        | (EAFM)                           |
| Abuta grandifolia (Mart.) Sandwith      | ARB   | AM, CAA, CE, Pat       | Ferreira, C.A.C. 5534 (INPA)     |
| Moraceae                               |       |                        |                                  |
| Brosimum acutifolium Huber              | ARV   | AM, PAT                | Junqueira, A.B. & Souza, S.A. 693 (EAFM) |
| Brosimum acutifolium subsp. interjectum C.C.Berg | ARV   | AM                     | Moreira, L.P. (INPA)             |
| Scientific name | Habit | Phytogeographic domain | Voucher |
|-----------------|-------|------------------------|---------|
| **Brosimum guianense** (Aubl.) Huber | ARV | AM, CAA, CE, MA | Junqueira, A.B. & Souza, S.A. 644 (EAFM) |
| **Brosimum lactescens** (S.Moore) C.C.Berg. | ARV | AM, CE, MA | Junqueira, A.B.& Barros, R.N.S. 318 (EAFM) |
| **Brosimum rubescens** Taub. | ARV | AM, CE, MA | Amoêdo, S.C. et al. 52 (EAFM) |
| **Castilla ulei** Warb. | ARV | AM | Junqueira, A.B. & Barros, R.N.S. 333 (EAFM) |
| **Clarisia biflora** Ruiz & Pav. | ARV | AM | Junqueira, A.B. & Souza, J.R. 278 (EAFM) |
| **Clarisia ilicifolia** (Spreng.) Lanj. & Rossberg. | ARV | AM, MA | Junqueira, A.B. & Barros, R.N.S. 322 (EAFM) |
| **Ficus amazonica** (Miq.) Miq. | ARV | AM | Junqueira, A.B. & Souza, J.R. 273 (EAFM) |
| **Ficus eximia** Schott | ARV | AM | Junqueira, A.B. & Souza, J.R. 279 (EAFM) |
| **Ficus maxima** Mill. | ARV | AM | Junqueira, A.B. & Souza, J.R. 279 (EAFM) |
| **Ficus obtusiuscula** (Miq.) Miq. | ARB | AM, CAA, CE, MA | Viana, G.P. 63 (INPA) |
| **Helianthostylis sprucei** Baill. | ARV | AM | Junqueira, A.B. & Souza, J.R. 273 (EAFM) |
| **Maclura tinctoria** (L.) D. Don ex Steud. | ARV | AM, CAA, CE, MA, PAM, PAT | Junqueira, A.B. & Souza, J.R. 279 (EAFM) |
| **Maquira calophylla** (Poepp. & Endl.) C.C.Berg | ARV | AM, CAA, CE | Viana, G.P. 100 (INPA) |
| **Maquira coriacea** (H.Karst.) C.C.Berg | ARV | AM, CAA, CE | Viana, G.P. 100 (INPA) |
| **Maquira sclerophylla** (Ducke) C.C.Berg | ARV | AM | Junqueira, A.B. & Souza, J.R. 279 (EAFM) |
| **Naucleopsis stipularis** Ducke | ARV | AM | Ferreira, C.A.C. 5584 (INPA) |
| **Perebea guianensis** Aubl. | ARV | AM, CAA, CE | Mota, C.D.A. da 61602 (INPA) |
| **Perebea mollis** (Poepp. & Endl.) Huber. | ARV | AM, CAA, CE | Junqueira, A.B. & Neto, R.F. 451 (EAFM) |
| **Pseudomedia laevis** (Ruiz & Pav.) J.F.Macbr. | ARV | AM | Junqueira, A.B. & Souza, J.R. 257 (EAFM) |
| **Sorocea muriculata** Miq. | ARV | AM, PAT | Almeida, T.E. 3618 (INPA) |
| **Sorocea muriculata** Miq. subsp. muriculata | ARV | AM, PAT | Almeida, T.E. 3623 (INPA) |
| **Sorocea pubivena** Hemsl. | ARV | AM | Junqueira, A.B. 256 (INPA) |
| **Sorocea muriculata** subsp. uaupensis (Baill.) C.C.Berg | ARV | AM | Junqueira, A.B. 256 (INPA) |
| **Trymatococcus amazonicus** Poepp. & Endl. | ARB | AM | Viana, G.P. 85 (INPA) |
| **Muntingia calabura** L. | ARB | AM | Krukoff, B.A. 6016 (US) |
| **Osteophloeum platyspermum** (Spruce ex A.DC.) Warb. | ARV | AM | Ferreira, C.A.C. 5588 (UPCB) |
| **Virola calophylla** Warb. | ARV | AM | Mota, C.D.A. da 61603 (INPA) |
| **Virola elongata** (Benth.) Warb. | ARV | AM | Ferreira, C.A.C. 5614 (NY) |
| **Virola obovata** Ducke | ARV | AM | Almeida, T.E. 3623 (INPA) |
| **Virola sebifera** Aubl. | ARV | AM, CAA, CE | Mota, C.D.A. da 61619 (INPA) |
| **Virola surinamensis** (Rol. ex Rotthb.) Warb. | ARV | AM, CAA | Lombardi, J.A. 60664 (HECB) |
| **Cybianthus fulvopulverulentus** subsp. *magnoliifolius* (Mez) Pipoly | ARB | AM | Mota, C.D.A. da 61552 (INPA) |
### Table 1: continuation.

| Scientific name               | Habit | Phytogeographic domain | Voucher                        |
|-------------------------------|-------|-------------------------|--------------------------------|
| **Myrtaceae**                 |       |                         |                                |
| Eugenia caducibracteata Mazine | ARV   | AM                      | Junqueira, A.B. 527 (INPA)     |
| Eugenia citrifolia Poir       | ARV   | AM                      | Junqueira, A.B. & Neto, R.F. 531 EAFM |
| Eugenia cf. cuspidifolia DC.  | ARB   | AM                      | Almeida, C. & Castro, A. 216 (INPA) |
| Eugenia ferriraeana O.Berg    | ARB   | AM                      | Ferreira, C.A.C. 5537 (INPA)   |
| Eugenia gomesiana O.Berg      | ARV   | AM                      | Viana, G.P. 97 (INPA)          |
| Eugenia lambertiana DC.       | ARB   | AM, CAA, CE, MA, PAT    | Ferreira, C.A.C. 5775 (INPA)   |
| Eugenia omissa McVaugh        | ARV   | AM                      | Junqueira, A.B. & Neto, R.F. 427 EAFM |
| Eugenia patens Poir.          | ARV   | AM                      | Krukoff, B. A. 6021 (US)       |
| Myrtus aliena McVaugh         | ARV   | AM                      | Albuquerque, B.W.P. de 365 (INPA) |
| Myrica bracteata (Rich.) DC.  | ARV   | AM, CE                  | Junqueira, A.B.; Souza, S.A. 692 (EAFM) |
| Myrica guianensis (Aubl.) DC. | ARB   | AM, CAA, CE, MA         | Almeida, C. & Castro, A. 196 (INPA) |
| Myrica inaequiloba (DC.) Lemée| ARV   | AM, MA                  | Krukoff, B.A. 5997 (SP)        |
| Myrica multiflora (Lam.) DC.  | ARV   | AM, CAA, CE, MA         | Almeida, C. & Castro, A. 195 (INPA) |
| Myrica paivae O.Berg.         | ARB   | AM                      | Junqueira, A.B. & Souza, J.R. 247 (EAFM) |
| Myrica splendens (Sw.) DC.    | ARV   | PE                      | Silveira, A.L.P. 318 (UEC)     |
| Myrica sylvatica (G.Mey.) DC. | ARV   | AM, CAA, CE             | Junqueira, A.B. 507 (INPA)     |
| Myrica umbraticola (Kunth) E.Lucas & C.E.Wilson| ARB | AM | Krukoff, B.A. 5997 (NY) |
| Psidium guineense Sw.         | ARV   | AM, CAA, CE, MA         | Junqueira, A.B. & Souza, S.A. 586 (EAFM) |
| Neea filipes Huber.           | ARV   | DESC                    | Krukoff, B.A. 6014 (SP)        |
| Neea madeirana Standl.        | ARV   | AM                      | Viana, G.P. 67 (INPA)          |
| Neea oppositifolia Ruiz & Pav.| ARV   | AM                      | Krukoff, B.A. 6058 (NYBG)      |
| Neea virens Poepp. ex Heimerl | ARB   | DESC                    | Viana, G.P. 67 (INPA)          |
| **Nyctaginaceae**             |       |                         |                                |
| Guapira opposita (Vell.) Reitz| ARV   | AM, CAA, CE, MA         | Junqueira, A.B. & Souza, J.R. 250 (EAFM) |
| Neea filipes Huber.           | ARV   | DESC                    | Junqueira, A.B. & Souza, J.R. 281 (EAFM) |
| Neea madeirana Standl.        | ARV   | AM                      | Mota, C.D.A. da 61460 (INPA)   |
| Neea oppositifolia Ruiz & Pav.| ARV   | AM                      | Krukoff, B.A. 6058 (NYBG)      |
| Neea virens Poepp. ex Heimerl | ARB   | DESC                    | Viana, G.P. 67 (INPA)          |
| **Nympheaceae**               |       |                         |                                |
| Nymphaea glandulifera Rodschi| ERV   | AM, CE                  | Almeida, C. & Bacuri, J. 48 (INPA) |
| **Ochnaceae**                 |       |                         |                                |
| Orotatea castaneifolia (DC.) Engl. | ARV | AM, CAA, CE, MA       | Junqueira, A.B. & Souza, J.R. 260 (EAFM) |
| Orotatea spectabilis (Mart.) Engl.* | ARV | CE     | Silveira, A.L.P. 241 (RON)    |
| Sauvagesia longifolia Eichler  | ARV   | AM, MA                  | Gicomin, L.L. et al. 1928 (BHCB) |
| Sauvagesia racemosa A.St.-Hil.| ARB   | AM, CAA, CE, MA         | Ferreira, C.A.C. 5796 (INPA)   |
| Wallacea insignis Spruce ex Benth. & Hook.f.| ARV | AM | Ferreira, C.A.C. 5536 (INPA) |
| **Olacaceae**                 |       |                         |                                |
| Aptandra tubicina (Poepp.) Benth. ex Miers. | ARV | AM, MA | Junqueira, A.B. & Barros, R.N.S. 299 (EAFM) |
| Heisteria densifrons Engl.    | ARV   | AM                      | Junqueira, A.B. & Neto, R.F. 398 (EAFM) |
| **Onagraceae**                |       |                         |                                |
| Ludwigia hyssopifolia (G.Don) Exell | ARB | AM, MA, PAT | Almeida, C. & Castro, A. 192 (INPA) |
| Ludwigia octovalvis (Jacq.) P.H. Raven. | SUB | AM, CAA, CE, MA, PAT | Lima, L.C.P. 643 (CGMS) |
| **Orchidaceae**               |       |                         |                                |
| Coryanthes macrantha (Hook.) Hook. | ERV | AM | Garcia, K. (INPA)              |
| Habenaria glazioviana Kraenzl. | ERV   | AM, CAA, CE             | Ferreira, C.A.C. 5575 (INPA)   |
| Ionopsis satyiroides (Sw.) Lindl. | ERV | AM | Krukoff, B.A. 6062 (NY)        |
Table 1: continuation.

| Scientific name                     | Habit | Phytogeographic domain | Voucher                      |
|-------------------------------------|-------|-------------------------|------------------------------|
| Liparis nervosa (Thumb.) Lindl.     | ERV   | AM, CAA, CE, MA         | Ferreira, C.A.C. 5574 (INPA) |
| Passifloraceae                      |       |                         |                              |
| Passiflora coccinea Aubl.           | LIA   | AM, CAA                 | Almeida, C. et al. 21 (INPA) |
| Passiflora glandulosa Cav.          | TRE   | AM                      | Almeida, C. & Castro, A. 107 (INPA) |
| Passiflora misera Kunth             | TRE   | PAT                     | Almeida, C. & Castro, A. 142 (INPA) |
| Passiflora nitida Kunth             | TRE   | AM, CAA, CE             | Almeida, C. & Castro, A. 233 (INPA) |
| Pentaphylacaceae                    |       |                         |                              |
| Ternstroemia cf kruckoffiana Kobuski| ARV   | AM                      | Almeida, C. et al. 91 (INPA) |
| Peraceae                            |       |                         |                              |
| Chaetocarpus echinocarpus (Baill.) Duce. | ARV   | AM, CAA, CE             | Lombardi 10090 (HRBC)        |
| Chaetocarpus schomburgkianus (Kunze) Pax & K.Hoffm. | ARV   | AM                      | Junqueira, A.B. & Neto, R.F. 544 (EAFM) |
| Pera bicolor (Klotzsch) Müll.Arg.   | ARV   | AM                      | Ferreira, C.A.C. 5564 (INPA) |
| Pera decipiens (Müll.Arg.) Müll.Arg| ARB   | AM                      | Silveira, A.L.P. 16 (UEC)    |
| Phyllanthaceae                      |       |                         |                              |
| Phyllanthus stipulatus (Raf.) G.L.Webster | SUB   | AM, CE, MA              | Lima, L.C.P. 642 (HUEFS)    |
| Petiveria alliacea L.*#             | ARB   | AM, CAA, MA, PAM        | Mendes, R.F. et al. 32 (EAFM) |
| Phytoleaceae                        |       |                         |                              |
| Petiveria alliacea L.*#             | ARB   | AM, CAA, MA, PAM        | Mendes, R.F. et al. 32 (EAFM) |
| Phytoleacca rivinoides Kunth & Bouché | ARB   | AM, CAA, MA, PAT        | Almeida, C. & Castro, A. 159 (INPA) |
| Picramniaceae                       |       |                         |                              |
| Picramnia sellowii G.Planch.*       | LIA   | AM, CAA, CE, MA         | Almeida, T.E. 3639 (INPA)    |
| Piperaceae                          |       |                         |                              |
| Piper aduncum L.                    | ARV   | AM, CAA, CE, MA         | Junqueira, A.B. 210 (INPA)   |
| Piper cyrtopodon (Miq.) C.DC.       | ARB   | AM                      | Almeida, C. et al. 18 (INPA)  |
| Piper erectipilum Yunck.            | ARB   | AM                      | Almeida, T.E. 3613 (INPA)    |
| Piper hispidum S.w                 | ARB   | AM, CE, MA              | Almeida, C. & Castro, A. 72 (INPA) |
| Piper macapaeense Yunck.            | ARB   | AM                      | Mota, C.D.A. da 61674 (INPA) |
| Piper mollicomum Kunth             | ARB   | AM, CAA, CE, MA         | Almeida, C. & Castro, A. 74 (INPA) |
| Piper peltatum L.                  | ARB   | AM, CE                  | Almeida, C. et al. 84 (INPA)  |
| Poaceae                             |       |                         |                              |
| Andropogon leucostachyus Kunth      | ERV   | AM, CAA, CE, MA, PAM, PAT | Almeida, C. et al. 31 (INPA) |
| Anthaenantia lanata (Kunth) Benth.  | ERV   | AM, CAA, CE, MA         | Almeida, TE et al. 3314 (BHCIB) |
| Cenchrus purpureus (Schumach.) Morrone# | ERV   | AM, CAA, CE, MA         | Almeida, C. et al. 30 (INPA)  |
| Coleaetaenia stenodes (Griseb.) Soreng | ERV   | AM, CE                  | Carvalho, F.A. de 2008 (INPA) |
| Cymbopogon citratus (DC.) Stapf**   | ERV   | AM, CAA, CE, MA         | Mendes, R.F. et al. 11 (EAFM) |
| Eragrostis hypnoides (Lam.) Britton, Sterns & Poggenb. | ERV   | PAM                     | Silva, G.P. 339 (CEN)        |
| Homolepis cf aturentis (Kunth) Chase | ERV   | AM, CAA, CE, AM         | Almeida, C. & Castro, A. 213 (INPA) |
| Ichnanthus calvescens (Nees ex Trin.) Döll | ERV   | AM, CAA, CE, MA, PAT    | Almeida, C. & Castro, A. 25 (INPA) |
| Olyra latifolia L.                  | ERV   | AM, CAA, CE, MA         | Almeida, C. & Castro, A. 132 (INPA) |
| Panicum capillare L.**#             | ERV   | PAM                     | Almeida, C. et al. 46 (INPA)  |
| Pariana ulei Pilg.                  | ERV   | AM                      | Ferreira, C.A.C. 5616 (INPA)  |
| Paspalum gardnerianum Nees          | ERV   | AM, CAA, CE, MA         | Almeida, C. & Castro, A. 105 (INPA) |
| Urochloa fusca (Sw.) B.F.Hansen & Wunderlin# | ERV   | PAM                     | Almeida, C. & Castro, A. 39 (INPA) |
| Polygalaceae                        |       |                         |                              |
| Bredemeyeria myrtifolia (A.W.Benn.) Marques | ARB   | AM                      | Ferreira, C.A.C. 5583 (INPA)  |
| Caemembeca spectabilis (DC.) J.F.B.Pastore | ARB   | AM, CAA, MA             | Almeida, C. & Castro, A. 127 (INPA) |
| Polygala adenophora DC.             | SUB   | AM, CE, MA              | Ferreira, C.A.C. 5524 (INPA)  |
| Scientific name | Habit | Phytogeographic domain | Voucher |
|-----------------|-------|------------------------|---------|
| **Pontederiaceae** |       |                        |         |
| Eichhornia crassipes (Mart.) Solms | ERV | AM, CAA, CE, MA, PAM, PAT | Almeida, C. & Castro, A. 189 (INPA) |
| **Proteaceae** |       |                        |         |
| Panopsis rubescens (Pohl) Rusby | ARB | AM, CE, MA | Ferreira, C.A.C. 5540 (INPA) |
| **Rapateaceae** |       |                        |         |
| Cephalostemon gracilis (Poepp. & Endl.) R.H.Schomb. | ERV | AM | Ferreira, C.A.C. 5794 (INPA) |
| Rapatea paludosa Aubl. | ERV | AM, MA | Ferreira, C.A.C. 5587 (INPA) |
| Rapatea spectabilis Pilg. | ERV | AM | Mota, C.D.A. da 61675 (INPA) |
| **Rhamnaceae** |       |                        |         |
| Ampelozizyphus amazonicus Ducke. | LIA | AM | Mendes, R.F. et al. 25 (EAFM) |
| **Rubiaceae** |       |                        |         |
| Alibertia edulis (Rich.) A.Rich. | ARB | AM, CE | Silveira, A.L.P. 266 (UEC) |
| Alibertia edulis (Rich.) A.Rich. var. edulis | ARB | AM, CE | Ferreira, C.A.C. 5605 (INPA) |
| Coffea liberica Hiern | LIA | AM | Mendes, R.F. et al. 25 (EAFM) |
| Cordiera myrciifolia (K.Schum.) C.H.Perss. & Delprete. | ARB | AM, CAA, CE, MA | Silveira, A.L.P. 261 (RON) |
| Faramea capillipes Múll.Arg. | ARB | AM | Ferreira, C.A.C. 5607 (INPA) |
| Faramea occidentalis (L.) A.Rich. | ARB | AM | Ferreira, C.A.C. 5607 (INPA) |
| Ferdinandusa rudgeoides (Benth.) Wedd. | ARV | AM, CE | Junqueira, A.B. & Neto, R.F. 543 (EAFM) |
| Isertia hypoleuca Benth. | ARV | AM | Almeida, C. & Castro, A. 23 (INPA) |
| Kutchubaea insignis Fisch. ex DC. | ARB | AM | Ferreira, C.A.C. 5609 (INPA) |
| Mussaenda erythrophylla Schumach & Thonn. ## | ARB | AM, CE, MA | Almeida, C. & Castro, A. 188 (INPA) |
| Pagamea coriacea Spruce ex Benth. | ARV | AM | Vicentini, A. 2211 (INPA) |
| Palicourea amapaensis Standl. | ARB | AM | Ferreira, C.A.C. 5760 (INPA) |
| Palicourea bracteosa Standl. | ARB | AM | Mota, C.D.A. da 61550 (INPA) |
| Palicourea charianthema Standl. | ARB | AM | Almeida, C. & Castro, A. 163 (INPA) |
| Palicourea corymbifera (Müll.Arg.) Standl. | ARB | AM | Almeida, C. & Castro, A. 166 (INPA) |
| Palicourea fastigiata Kunth | ARB | AM | Viana, G.P. 62 (INPA) |
| Palicourea grandifolia (Willd. ex Roem. & Schult.) Standl. | ARV | AM | Junqueira, A.B. 224 (INPA) |
| Palicourea guianensis Aubl. | ARV | AM, CAA, CE, MA | Junqueira, A.B. 305 (INPA) |
| Palicourea lasiantha K.Krause | ARB | AM, CAA, CE, MA | Almeida, C. & Castro, A. 164 (INPA) |
| Palicourea marcgravii A.St.-Hil* | ARB | AM, CAA, CE, MA | Almeida, C. & Castro, A. 139 (INPA) |
| Palicourea racemosa (Aubl.) Borhidi | SUB | AM, CAA, CE, MA | Ferreira, C.A.C. 5528 (INPA) |
| Palicourea rosea (Benth.) Müll.Arg. | SUB | AM | Almeida, C. & Castro, A. 70 (INPA) |
| Psychotria apoda Steyerm. | SUB | AM | Almeida, C. & Castro, A. 136 (INPA) |
| Psychotria bracteocardia (DC.) Müll.Arg. | ARB | AM, CAA, CE, MA | Ferreira, C.A.C. 5840 (INPA) |
| Psychotria iodotricha Müll.Arg. | ARB | AM, CAA, CE, MA | Ferreira, C.A.C. 5815 (MO) |
| Psychotria platypoda DC. | ARB | AM, CAA, CE, MA | Ferreira, C.A.C. 5615 (INPA) |
| Psychotria rosea (Benth.) Müll.Arg. | ARB | AM | Almeida, C. & Castro, A. 156 (INPA) |
| Psychotria subundulata Benth. | ARB | AM, CE | Viana, G.P. 66 (INPA) |
| Psyllocarpus campinorum (Krause) J.H. Kirkr. | ARB | AM | Ferreira, C.A.C. 5815 (MO) |
| Rudgea lancefolia Salisb. | ARB | AM | Ferreira, C.A.C. 5615 (INPA) |
| Sabicea cf velutina Benth | TRE | AM | Almeida, C. & Castro, A. 156 (INPA) |
| Tocoyena guianensis K.Schum. | ARB | AM | Almeida, C. & Castro, A. 243 (INPA) |
| Uncaria guianensis (Aubl.) J.F.Gmel.* | ARB | AM, CE | Ferreira, C.A.C. 5825 (INPA) |
| Warszewiczia coccinea (Vahl) Klotzsch | ARB | AM, CAA, CE, MA | Almeida, C. & Castro, A. 136 (INPA) |
| **Rutaceae** |       |                        |         |
| Citrus x aurantium L.**# | ARB | AM, CAA, CE, MA | Mendes, R.F. et al. 51 (EAFM) |
| Conchocarpus grandis Kallunki | ARB | AM | Mota, C.D.A. da 61661 (INPA) |
| Raputia ulei (K.Krause) Kallunki | ARV | AM | Ferreira, C.A.C. 5767 (INPA) |
| Scientific name                      | Habit | Phytogeographic domain | Voucher                  |
|-------------------------------------|-------|------------------------|--------------------------|
| **Santalaceae**                     |       |                        |                          |
| Phoradendron poeppigii (Tiegh.) Kuijt | ERV   | AM                     | Krukoff, B.A. 6011 (NY)  |
| Casearia arborea (Rich.) Urb.       | ARB   | AM, CE, MA             | Almeida, C. & Castro, A. 225 (INPA) (EAFM) |
| Casearia duckeana Sleumer.          | ARV   | AM                     | Junqueira, A.B. & Barros, R.N.S. 383 (INPA) |
| Casearia grandiflora Cambess.       | ARV   | AM, CAA, CE, MA        | Junqueira, A.B. 627 (INPA) |
| Casearia javitensis Kunth           | ARV   | AM, CAA, CE, MA        | Junqueira, A.B. 638 (INPA) |
| Casearia pitumba Sleumer            | ARB   | AM, CE                 | Albuquerque, B.W.P. de 367 (INPA) |
| Casearia ulmifolia Vahl ex Vent.    | ARV   | AM, CAA, CE            | Junqueira, A.B. 655 (INPA) (EAFM) |
| Laetia procera (Poeppl.) Eichler    | ARV   | AM, CE                 | Junqueira, A.B. & Neto, R.F. 411 |
| Hasseltia floribunda Kunth          | ARB   | AM                     | Viana, G.P. 75 (INPA)    |
| **Salicaceae**                      |       |                        |                          |
| Allophylus pilosus (J.F.Macbr.) A.H.Gentry | ARB   | AM                     | Albernaz, A.L.K.M. 174 (INPA) (EAFM) |
| Allophylus punctatus (Poeppl.) Radlk. | ARB   | AM                     | Ferreira, C.A.C. 5611 (INPA) |
| Cepania rubiginosa (Poir.) Radlk.    | ARV   | AM, CE                 | Junqueira, A.B. & Souza, S.A. 683 (INPA) |
| Cepania scrobiculata Hook. & Arn.   | ARV   | AM, MA                 | (EAFM)                   |
| Matayba purgans Radlk.              | ARV   | AM, CE                 | Krukoff, B. A. 6059 (US) |
| Paullinia calopetra Radlk.           | TRE   | AM                     | Ferreira, C.A.C. 5775 (INPA) |
| Paullinia dasystachya Radlk.         | TRE   | AM                     | Almeida, C. & Castro, A. 113 (INPA) |
| Paullinia dasygonia Radlk.           | TRE   | AM                     | Almeida, C. & Castro, A. 217 (INPA) |
| Paullinia elegans Cambess.           | ARB   | AM, CAA, CE, MA        | Junqueira, A.B. & 160 (INPA) |
| Pseudima frutescens Radlk.          | ARV   | AM, MA                 | Junqueira, A.B. & Barros, R.N.S. 336 (EAFM) |
| Talisia cerasina (Benth.) Radlk.     | ARV   | AM, CE, MA             | Junqueira, A.B. 6000 (NY) (EAFM) |
| Talisia guianensis Aubl.             | ARV   | AM                     | Junqueira, A.B. & Barros, R.N.S. 343 (EAFM) |
| **Sapindaceae**                     |       |                        |                          |
| Ecclinsa lanceolata (Mart. & Eichler) Pierre. | ARV   | AM                     | Junqueira, A.B. & Souza, S.A. 651 (EAFM) |
| Elaeoluma schomburgkiana (Miq.) Baill. | ARB   | AM                     | Mota, C.D.A. da 61556 (INPA) |
| Manilkara elata (Allemão ex Miq.) Monach. | ARV   | AM, MA                 | Amoêdo, S.C. et al. 42 (EAFM) |
| Manilkara inundata (Ducke) Ducke     | ARV   | AM                     | Viana, G.P. 82 (INPA)    |
| Micropholis egensis (A.DC.) Pierre   | ARV   | AM                     | Viana, G.P. 81 (INPA)    |
| Micropholis guayanensis (A.DC.) Pierre | ARV   | AM, CE, MA             | Mota, C.D.A. da 61459 (INPA) |
| Micropholis guayanensis (A.DC.) Pierre subsp. Guyanensis | ARV   | AM, CE, MA             | Mota, C.D.A. da 61660 (INPA) |
| Micropholis melinoniana Pierre       | ARV   | AM                     | Viana, G.P. 61 (INPA)    |
| Micropholis venulosa (Mart. & Eichler) Pierre | ARB   | AM, CE, MA             | Viana, G.P. 72 (INPA)    |
| Pouteria caimito (Ruiz & Pav.) Radlk. | ARV   | AM, CE, MA             | Junqueira, A.B. & Neto, R.F. 562 (EAFM) |
| Pouteria elegans (A.DC.) Baehni      | ARV   | AM                     | Viana, G.P. 404 (INPA)   |
| Pouteriaglomerata (Miq.) Radlk.      | ARV   | AM, CE, MA             | Ferreira, C.A.C. 5769 (INPA) |
| Pouteria macrophylla (Lam.) Eyma.    | ARV   | AM, CE, MA             | Junqueira, A.B. & Neto, R.F. 540 (EAFM) |
| Pouteria opposita (Ducke) T.D.Penn.  | ARV   | AM                     | Mota, C.D.A. da 61605 (INPA) |
| Sarcaulus brasiliensis (A.DC.) Eyma subsp. Brasiliensis | ARV   | AM, MA                 | Krukoff, B. A. 6009 (NY) |
| **Sapotaceae**                      |       |                        |                          |
| **Scrophulariaceae**                 |       |                        |                          |
| Lindernia crustacea (L.) F.Muell.    | TRE   | AM, CE, MA, PAM, PAT   | Ferreira, C.A.C. 5792 (INPA) |
| **Simaroubaceae**                   |       |                        |                          |
| Homalolepis cedron (Planch.) Devecchi & Pirani | ARV   | AM                     | Junqueira, A.B. & Neto, R.F. 579 (EAFM) |
| Simaba polyphylla (Cavalcante) W.W.Thomas | ARV   | AM, MA                 | Junqueira, A.B. & Souza, S.A. 633 |

Acta Brasiliensis 4(1): 1-29, 2020

25
| Scientific name                     | Habit | Phytogeographic domain | Voucher                      |
|-------------------------------------|-------|------------------------|------------------------------|
| Simarouba amara Aubl.               | ARV   | AM, CAA, CE, MA        | Silveira, A.L.P. 27 (RON)    |
| Siparunaceae                        |       |                        |                              |
| Siparuna cymosa Tolm.               | ARV   | AM, MA, AM, CAA, CE, MA, PAT | Junqueira, A.B. & Neto, R.F. 3280 (EAFM) |
| Siparuna guianensis Aubl.           | ARB   | AM, CAA, CE, MA, PAT   | Almeida, C. & Castro, A. 203 (INPA) Junqueira, A.B. & Barros, R.N.S. 329 (EAFM) |
| Siparuna sarmentosa Perkins         | ARV   | AM                      |                              |
| Solanaceae                          |       |                        |                              |
| Solanum leucocarpum Dunal           | ARB   | AM, CE, MA             | Almeida, C. & Castro, A. 203 (INPA) |
| Solanum crinitum Lam.               | ARB   | AM, CAA, CE, MA        | Almeida, C. & Castro, A. 203 (INPA) |
| Solanum quaesitum C.V.Morton        | ARV   | AM                      | Junqueira, A.B. & Neto, R.F. 3280 (EAFM) |
| Solanum rugosum Dunal               | ARB   | AM                      | Almeida, C. & Castro, A. 119 (INPA) |
| Solanum sessiliflorum Dunal         | ARB   | AM                      | Almeida, C. & Castro, A. 203 (INPA) |
| Solanum thelopodium Sendtn.         | ARB   | AM                      | Krukoff, B.A. 6020 (NY)      |
| Sphenocleaceae                      |       |                        |                              |
| Sphenoclea zeylanica Gaertn.#       | ARB   | AM, CAA, MA, PAT       | Almeida, C. & Castro, A. 190 (INPA) |
| Theophrastaceae                     |       |                        |                              |
| Clavija umbrosa (Linden) Regel      | ARB   | AM                      | Viana, G.P. 71 (INPA)        |
| Trigoniacae                         |       |                        |                              |
| Trigonia spruceana Benth. ex Warm.  | TRE   | AM                      | Ferreira, C.A.C. 5553 (INPA)  |
| Turneraeae                          |       |                        |                              |
| Piriqueta cistoides (L.) Griseb.     | ERV   | AM, CAA, CE, MA, PAT   | Almeida, C. & Castro, A. 45 (INPA) |
| Turnera subulata Sm.                | SUB   | AM, CAA, CE, MA        | Almeida, C. & Castro, A. 50 (INPA) |
| Ulmaceae                            |       |                        |                              |
| Ampelocera edentula Kuhl.           | ARV   | AM                      | Junqueira, A.B. & Barros, R.N.S. 323 (EAFM) |
| Urticaceae                          |       |                        |                              |
| Cecropia ficifolia Warb. ex Snethl. | ARV   | AM                      | Junqueira, A.B. & Souza, J.R. 236 (EAFM) |
| Cecropia purpurascens C.C.Berg      | ARV   | AM                      | Junqueira, A.B. & Souza, J.R. 243 (EAFM) |
| Cecropia sciadophylla Mart.         | ARV   | AM                      | Junqueira, A.B. & Souza, S.A. 647 (EAFM) |
| Cecropia ulei Snethl.               | ARV   | AM                      | Junqueira, A.B. & Souza, S.A. 703 (EAFM) |
| Coussapoa orthoneura Standl.        | ARV   | AM                      | Junqueira, A.B. 490 (INPA)    |
| Pourouma acipulata Spruce ex Benoist.| ARV   | AM                      | Kuhlmann, J.G. 255 (INPA)    |
| Pourouma guianensis Aubl.           | ARV   | AM, MA                  | Junqueira, A.B. & Barros, R.N.S. 362 (EAFM) |
| Pourouma minor Benoist.             | ARV   | AM                      | Junqueira, A.B. & Souza, J.R. 269 (EAFM) |
| Pourouma villosa Trécul             | ARV   | AM                      | Junqueira, A.B. & Neto, R.F. 483 (EAFM) |
| Verbenaceae                         |       |                        |                              |
| Lantana camara L.#                  | SUB   | AM, CAA, CE, MA        | Almeida, C. et al. 37 (INPA) |
| Lippia alba (Mill.) N.E.Br. ex P. Wilson.| ERV | AM, CAA, CE, MA | Mendes, R.F. et al. 22 (EAFM) |
| Lippia origanoides Kunth.           | ARB   | AM, CAA, CE, MA        | Mendes, R.F. et al. 12 (EAFM) |
| Petrea volubilis L.                 | LIA   | AM, MA                  | Almeida, C. & Castro, A. 215 (INPA) |
| Stachytarpheta cayennensis (Rich.) Vahl | ARB | AM, CAA, CE, MA, PAM, PAT | Almeida, C. & Castro, A. 143 (INPA) |
| Violaceae                           |       |                        |                              |
Table 1: continuation.

| Scientific name                  | Habit | Phytogeographic domain | Voucher                        |
|----------------------------------|-------|------------------------|--------------------------------|
| **Vochysiaceae**                 |       |                        |                                |
| **Qualea dinizii** Ducke*         | ARV   | AM                     | Amoêdo, S.C. et al. 40 (EAFM)   |
| **Qualea grandiflora** Mart.     | ARV   | AM, CAA, CE, MA        | Almeida, T.E. 3322 (BHCW)      |
| **Qualea parviflora** Mart.      | ARB   | AM, CAA, CE, MA        | Silveira, A.L.P. 227 (UEC)     |
| **Rutizerrania retusa** (Spruce ex Warm.) Marc.-Berti | ARB   | AM                     | Ferreira, C.A.C. 5517 (INPA)   |
| **Salvertia convallariodora** A.St.-Hil. | ARV   | AM, CAA, CE, MA        | Silveira, A.L.P. 44 (RON)      |
| **Vochysia haenkeana** Mart.     | ARB   | AM, CE                 | Ferreira, C.A.C. 5513 (INPA)   |
| **Vochysia maxima** Ducke.*      | ARV   | AM                     | Junqueira, A.B. & Neto, R.F. 466 (EAFM) |
| **Vochysia obscura** Warm.       | ARV   | AM                     | Ferreira, C.A.C. 5561 (INPA)   |
| **Xyridaceae**                   |       |                        |                                |
| **Abolboda grandis** Griseb.     | ERV   | AM                     | Carvalho, F.A. de 1986 (INPA)  |
| **Abolboda macrostachya** Spruce ex Malme | ARB   | AM                     | Mota, C.D.A. da 61564 (INPA)   |
| **Xyris ferreirae** Kral          | ERV   | AM                     | Ferreira, C.A.C. 5506 (INPA)   |
| **Xyris lanulobractea** Steyerm. | ARB   | AM                     | Mota, C.D.A. da 61561 (INPA)   |
| **Xyris palpilula** Kral & Wand. | ARB   | AM                     | Mota, C.D.A. da 61565 (INPA)   |
| **Xyris stenocephala** Malme     | ERV   | AM, CE, MA             | Ferreira, C.A.C. 5788 (INPA)   |
| **Xyris uleana** Malme           | ERV   | AM, CE                 | Ferreira, C.A.C. 5809 (INPA)   |
| **Zingiberaceae**                |       |                        |                                |
| **Alpinia zerumbet** (Pers.) B.L.Burtt & R.M.Sm## | ERV   | AM, CAA, CE, MA        | Almeida, C. et al. 80 (INPA)   |
| **Renealmia breviscapa** Poepp. & Endl. | ERV   | AM                     | Ferreira, C.A.C. 5618 (INPA)   |
| **Zingiber officinalis** Roscoe## | ERV   | DESC                   | Mendes, R.F. et al. 4 (EAFM)   |

**Conclusion**

This study highlights the importance of floristic studies in the Brazilian Amazon. Given the well-known sample deficiency of the Amazon region, and considering the countless anthropogenic pressures that cities south of the Madeira river have been facing, this preliminary angiosperm checklist provides the first tool for further botanical studies in this region. The survey highlights the record of 47 new occurrences for Amazonas State. Of these new occurrences, 12 are also the first record for the northern region. In addition, a new species of vine of the genus *Mandevilla* Lindl was identified.

**Acknowledgements**

The first author thanks the University of Amazonas State for providing opportunity for the development of this project. To Amauri Castro, Arnoldo Azevedo, Ellen Passos, Lucy Laura, Jeimiciane Coutinho, Jone Bitencourt, Neiza Paixão, Nilson Pinheiro, and Raimunda Albertina for the company and support during botanical expeditions. The authors thank Cassio Toledo for identifying Connaraeaceae species, and anonymous experts for their contribution in identifying some species. To Michael Hopkins and Mariana Mosque for access to the INPA Herbarium collection and for their attention and support. To Jefferson R. Maciel for preparing the distribution map of angiosperms in Manicoré city, and to Fernanda Cabral for reviewing the abstract. The last author thanks CAPES for the postdoctoral scholarship granted.

**References**

Amaral, I. L. do.; Matos, F. D. A. & Lima, J. (2000). Composição florística e parâmetros estruturais de um hectare de floresta densa de terra firme no rio Uatumã, Amazônia, Brasil. Acta Amazônica, 30(3), 377-377. doi: 10.1590/1809-43922000303392.

Antonelli, A.; Ziska, A.; Carvalho, F. A.; Scharn, R.; Bacon, C.D.; Silvestro, D. & Condamine, F. L. (2018). Amazonia is the primary source of Neotropical biodiversity. Proceedings of the National Academy of Sciences of the United States of America, 115(23), 6034-6039. doi: 10.1073/pnas.1713819115.

Araújo, R. A. (2011). Florística e estrutura da comunidade arbórea em fragmento florestal urbano no município de Sinop, Mato Grosso. (Dissertação de Mestrado). Universidade Federal de Mato Grosso, Cuiabá, Mato Grosso. Recuperado de http://www.dominiopublico.gov.br/pesquisa/DetailObraForm.do?select_action=&co_obra=127174.

Baitello, J. B.; Arzolla, F.A. R. dal P. & Vilela, F. E. S. P. (2017). Nova
espécie de Lauraceae da Floresta Ombrófila Densa Alto Montaña, Serra da Mantiqueira, Pindamonhangaba, SP, Brasil. Rodriguesia, 68(2) 481-487. doi: 10.1590/S0085-58502017680201566411. 

Batalha-Hilho, F. & Miyaki, C. Y. (2014). Processos evolutivos na Amazônia e na Mata Atlântica. FRONTEIRAS: Journal of Social, Technological and Environmental Science, 3(2), 34-44. doi: 10.21664/2238-8869.2014v3i2.p34-44.

BFG (the Brazil Flora Group) (2015). Growing knowledge: an overview of Seed Plant diversity in Brazil. Rodriguesia, 66(4), 1085-1113. doi: 10.1590/0085-5850201566411.

Brasil (1978). Ministério das Minas e Energia Departamento Nacional da Produção Mineral: Projeto Radam Brasil - folha SB – Purus (Levantamento de recursos naturais, v. 17). Rio de Janeiro: DNPM. Recuperado de http://www.bdnqua.pr.gov.br/bdimp/questao.do?acao=desc&questao=2.

Brasil (2018). Encontros de Produção Científica Cesumar. Recuperado de http://www.cesumar.br/pppgpe/pesquisa.epc2011/anais/leticia_monica_garcia.pdf.

Brasil (2012). A importância dos levantamentos florístico e de fauna em uma unidade de manejo florestal sustentável na Floresta Nacional do Tapajós, Pará. Acta Amazônica, 38(2), 229-244. doi: 10.1590/S0044-596720080002000066.

Forzza, R.G. & Lorenzi, H. Morfologia Vegetal: Organografia e Dicionário Ilustrado de Morfologia das Plantas Vasculares (1ª ed.). São Paulo: Instituto Plantarum de Estudos da Flora.

Gonçalves, F. G. & Santos, J. R. (2008). Composição florística e estrutura de uma unidade de manejo florestal sustentável na Floresta Nacional do Tapajós, Pará. Acta Amazônica, 38(2), 229-244. doi: 10.1590/S0044-596720080002000066.

Gonçalves, R. (2019). V. 3.2. 5776 (64-bit), Manicoré, Amazonas, Brasil. 28 maio 2019. Image Landsat/Copernicus 2019.

Hibiscus in Flora do Brasil 2020 em construção em 2020. (2019). Jardim Botânico do Rio de Janeiro. Recuperado de http://floradobrasil.jbrj.gov.br/reflora/floradobrasil/FB9079.

Hopkins, M. J. G. (2005). Flora da Reserva Duree. Amazonas, Brasil. Rodriguesia, 56(86), 9-25. doi: 10.1590/0085-49392199242030.

Hopkins, M. J. G. (2007). Modelling the known and unknown plant biodiversity of the Amazon Basin. Journal of Biogeography, 34(8), 1400-1411. doi: 10.1111/j.1365-2699.2007.01737.x.

Hopkins, M. J. G. (2019). Are we close to knowing the plant diversity of the Amazon? Anais da Academia Brasileira de Ciências, 91(3), 1-7. doi: 10.1590/0044-28052019010936.

IBGE - Instituto Brasileiro de Geografia e Estatística. (2004). Mapa de vegetação do Brasil. Recuperado de https://www.ibge.gov.br/planeta/geo/vegetacao.

IBGE - Instituto Brasileiro de Geografia e Estatística. (2017). Mapa de localização do município de Manicoré. Recuperado de https://cidades.ibge.gov.br/brazil/am/manicore/panorama.

Ivanauskas, N. M.; Monteiro, R. & Rodrigues, R. R. (2004). Composição florística de trechos florestais na borda sul-amazônica. Acta Amazônica, 34(3), 399-413. doi: 10.1590/S0044-59672004000300006.

Jardim Botânico do Rio de Janeiro – JABOT. (2019). Banco de Dados da Flora Brasileira. Recuperado de http://rb.jbrj.gov.br/2/jabotconsulta.

Junqueira, A.B. (2008). Uso e manejo da vegetação secundária sobre terra preta por comunidades tradicionais na região do médio rio Madeira, Amazonas, Brasil. (Dissertação de mestrado). Instituto Nacional de Pesquisas da Amazônia/Universidade Federal do Estado do Amazonas, Manaus, Amazonas.

Kubitski, K. (1979). Ocorrência de Kielmeyera nos “campos de Humidade” e a natureza dos “campos” – Flora da Amazônia. Acta amazônica, 9(2), 401-404. doi: 10.1590/0102-660519790204.

Lopes, C. R. A. S.; Ribeiro, R. da S.; Rodrigues, L.; Cabral, F.F. & Silva, D. R. (2014). Checklist de angiospermas da região de influência da Uhe Sinop, médio Teles Pires, Mato Grosso. Enciclopédia Bioterra, Centro Científico, 10(19), 2036-2048. doi: 10.13140/RG.2.1.7797.432.

Martins, G. C.; Ferreira, M. M.; Curi, N.; Vitorino, A. C. T. & Silva, M. L. N. (2006). Campos nativos e matas adjacentes da região de Humitação (AM): atributos diferenciais dos solos. Ciência e Agrotecnologia, 30(2), 221-227. doi: 10.1590/S0103-84032006000200005.

Méo, B. B.; Freitas, C. V.; Jatobá, L.; Silva, M. E. F.; Ribeiro, J. F. & Heithaus, R. P. B. (2010). Flora do Rio Madeira, Amazonas e Atlântica na vegetação do cerrado brasileiro. Revista Brasileira de Botânica, 26(4), 437-444. doi: 10.1590/S0100-84402010000300002.

Moru, M. F.; Araújo, F. S.; Souza, V. C.; Oliveira-Filho, A. T.; Queiroz, L. P.; Fraga, C. N.; Rodal, M. J. N. & Martins, F. R. (2012). Aliénigenas na sala: o que fazer com espécies exóticas em trabalhos de taxonomia, florística e fitossociologia? Acta Botânica Brasileira, 26(4), 991-999. doi: 10.1590/S0102-33062012000400002.

Mota, N. F. O.; Watanabe, M. T. C.; Zappi, D. C.; Hiura, A. L.; Pallos, J.; Viveros, R. S.; Giuletti, A. M. & Viana, P. L. (2018). Cargas da Amazônia: a vegetação única de Carajás evidenciada pela lista de panferomãs. Rodriguesia, 69(3), 1435-1488. doi: 10.1590/S0085-58502017680201869336.

Oliveira, A. N.; Amaral, I. L.; Ramos, M. B. B.; Nobre, A. D.; Couto, L. B. & Sáduno, R. M. (2008). Composição e diversidade florístico-estrutural de um hectare de floresta densa de terra firme na Amazônia Central, Amazonas, Brasil. Acta Amazônica, 38(4), 627-642.
License: Creative Commons CC BY 4.0

This article was published with open access for distribution under the terms of the Creative Commons Attribution License, which allows unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.