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巴西竹类生物多样性

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摘要: 巴西是全球生物多样性最丰富的地区,其竹类多样性也极为丰富。结合现存资料及野外调查,对巴西全境的竹类分布格局进行了讨论。巴西全国有原生竹亚科植物 256 种(含 2 亚种及 3 变种),北部地区草本竹类(莪莉竹族)最丰富,有 61 种,而东南部地区木本竹类(箭竹族)最丰富,有 96 种。偏穗竹属(*Merostachys*)(43 种)和丘斯夸竹属(*Chusquea*)(45 种)是最常见的属,并是最具潜在经济利用的竹类。属种的特有性分别高达 32.4% 和 68.8%。特有属有 11 个,分别为莪莉竹族的双药莪利草竹属(*Diandrolyra*)、独焰草竹属(*Eremitis*)、小百瑞草竹属(*Parianella*)、赖茨草竹属(*Reitzia*)、苏克蕾草竹属(*Sucrea*)和箭竹族的南美梨藤竹属(*Alvimia*)、离枝竹属(*Apoclada*)、密穗竹属(*Athroostachys*)、卡姆巴珠瓦竹属(*Cambajuva*)、菲尔盖拉斯竹属(*Filgueirasia*)、无枝竹属(*Glaziophyton*)。

关键词: 竹亚科; 禾本科; 特有性; 地理分布
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Diversity of Bamboo in Brazil

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Abstract: The purpose of this work is to update and discuss the list of Bambusoideae species and its natural distribution in Brazil. According to the data collected, there are in total 256 native taxa (including 2 subspecies and 3 varieties) of Bambusoideae in Brazil, belonging to 34 genera and 2 tribes in this country. Among them, 164 taxa of 17 genera are woody bamboo, and the rest are herbaceous bamboo. The North region is most rich in herbaceous bamboo with 61 species of the tribe Olyreae, while the woody bamboo are mostly found in the Southeast region with 96 species of the tribe Bambuseae. *Merostachys* (43 species) and *Chusquea* (45 species) are the most common genera with most potential utilization for the Guadua (18 species). The endemism at generic and species level is 32.4% and 68.8%, respectively. The endemic genera in Brazil are *Diandrolyra*, *Eremitis*, *Parianella*, *Reitzia* and *Sucrea* for tribe Olyreae, and *Alvimia*, *Apoclada*, *Athroostachys*, *Cambajuva*, *Filgueirasia* and *Glaziophyton* for tribe Bambuseae.

Key words: Bambusoideae; Poaceae; Endemism; Geographical distribution

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Bamboos are plants belonging to the subfamily Bambusoideae, one of the 12 subfamilies of the grass family —— Poaceae. Except for Europe and Antarctica[1], the members of Bambusoideae occur naturally almost in all other continents of the globe and distributed worldwide between 46° N and 47° S latitude, at altitudes ranging from sea level to 4300 m[2]. Moreover, it is the only lineage of Poaceae with great diversification in forest environment[3].

In relation to the distribution of Bambusoideae, 62% of the species are native to Asia, 34% are native to Americas and 4% are from Africa and Oceania[4]. However, it is believed that the diversity of bamboos in American continent is equivalent to Asia, since many species has not been described[5].

Bambusoideae, with 1439 species[6] in 116 genera, is divided into three tribes: Arundinarieae which includes the temperate woody bamboos; Bambuseae includes the tropical woody bamboos and Olyreae which includes the herbaceous bamboos[6–8]).

Among the American countries, Brazil has the greatest diversity of species; the main centers of diversity are the area of Amazon Rainforest and the Atlantic Rainforest. Furthermore some species occur in the "cerrado" (savannah), in high altitude grasslands and in rocky fields[2].

The early studies of Brazilian bamboo can be traced back to the nineteenth century, from 1829 to 1835, the German agrostologist Nees von Esenbeck, (father of the Bambusoideae[9]), published important works for understanding the taxonomy of bamboos as a whole. First, he drafted a chapter on the grasses of the Flora Brasiliensis in Brazil, which included bamboos[10]. Six years later he published a monograph devoted entirely to the Brazilian bamboos[11], which is the first work exclusively devoted to this group of plants worldwide.

After the publications of Nees von Esenbeck, other important works on Brazilian bamboos have also highlighted in that century, such as Ruprecht's *Bambuseas Monographice Exponit*[12], Munro's *A Monograph of the Bambusaceae*[13] and Doell's account on Tribe Bambusaceae[14], which is a part of the second volume of the *Flora Brasiliensis*[15]. In the twentieth century, a lot of new species has been described, the highlight being the works of Camus[16], McClure[17] and Sendulsky[18]. The first checklist for the subfamily Bambusoideae was published by Filgueiras and Santos-Gonçalves in 2004. In this publication 34 genera and 232 species were listed[19].

In 2010, the Research Institute of Rio de Janeiro Botanical Garden published a catalogue of Brazilian plants and fungi[20]. In this catalogue the very few Brazilian botanists working on Bambusoideae reviewed and updated the knowledge about this Poaceae subfamily in Brazil. Nowadays this publication generate a homepage: floradobrasil.jbrj.gov.br[21–22], which is interactive, and the taxonomists are able to update the data at any moment.

Both lists are very important and useful, but the taxonomy studies in Brazil developed very quickly in recent years and render an update of those information necessary. The 2004 list was published only in Portuguese language, and the 2010 is general for all the fungi and higher plants, where the Bambusoideae is only one part of Poaceae, moreover, the distribution of species and genus is not accurately located.

1 Bamboo usage in Brazil

The native Bambusoideae is very poorly known by the Brazilian people. Only exotic species are cultivated for ornamental or for making handcrafts and small rural constructions.

The best examples of success in exploitation of this culture is its energetic and paper pulp utilization in the Northeast of the country, where the João Santos Group and the Forte Ceramics have developed an area of 35 thousand hectares of *Bambusa vulgaris* Schrad. ex J. C. Wendl. in the states of Pernambuco and Paraíba, and also in Piauí and Maranhão.

São Paulo is the only state with large scale production of bamboo culms, mainly *Phyllostachys edulis* (Carrière) J. Houz., *Phyllostachys aurea* Carrière ex Rivière & C. Rivière and *Dendrocalamus asper* (Schult. & Schult. f.) Baker ex K. Heyne. These cultivated

Bamboos are also partially used for shoot production.

2 Agricultural research at IAC

From the agriculture point of view of the Agronomic Institute (IAC), from the State of São Paulo, was the pioneer to study and develop bamboo culture in the country. This Institute keeps the largest *ex situ* national bamboo collection, which formerly had only exotic Asian species, but from 2012 it started to introduce and collect native species.

The Asian bamboo species were introduced during the years 1950s and 1960s by the Botanic Section (existing that time) throughout the Introduction and Quarantine System. Nowadays it maintains about 150 species, including exotics and natives (Author's notes).

Because of this research on maintaining and improving the IAC bamboo collection, a screening of existing Bambusoideae species and their distribution in the country was made. These data were important to locate the natural populations and make possible to collect specimens for *ex situ* conservation.

3 Bamboo as a new crop in the country

In Brazil the cultivation of bamboo is possible in almost all regions and farmlands of its territory, except the marshes and wetlands (swamps) as well as the extreme dry areas, such as the Northeast, in the biome named "caatinga", from Indian language, "white woods".

The use of this culture can be beneficial to the country, since the cultivation of bamboo prevents silting soil, contributes to its revitalization and fertility restore. It is also able to maintain the moisture on the shadow produced by the forest, creating a favorable environment for the effective installation of native pioneer species of sub grove. This benefit also translates as a possible means for rapid reforestation of riparian gallery forest, since in a short period of time and depending on climatic and environmental conditions, coverage of degraded land could be taken between the third and fourth year after initial planting. For this usage, species with clumping characteristics, pachymorphic rhizomes (sympoidal) and less aggressive to anthropic environments must be chosen.

In 2011, a Memorandum of Understanding was signed by the Ministries of Science and Technology of Brazil and China, and it was also enacted a Federal Law N°. 12.484, which establishes the National Policy to Encourage Stewardship and Sustainable Growing Bamboo in Brazil. These instruments establish guidelines that permit in the near future the country can be equipped with a new commodity.

All this new vision stimulates the interest on the Bambusoideae in all steps of the production chain starting from the research of the native species until their potential utilization. The knowledge of the bamboo resources in this country is essential. The update of the check list is very important for the future study of Bamboo in Brazil, such as the conservation, utilization and exploitation of natural resources.

4 Material and methods

To update the existing lists from Filgueiras & Santos-Gonçalves[19] and Forzza *et al*.[20], a bibliographic review on publications of new species of Bambusoideae after the year 2010 and research on botanical databases were made. Also a direct contact was made with the main Brazilian taxonomists working in Bambusoideae: Tarciso Sousa Filgueiras, Ana Paula Santos Gonçalves, Regina Tomoko Shirasuna, Reyjane Patricia de Oliveira, Fabrício Moreira Ferreira and Pedro Lage Viana. Some of them gave us instructions and information that made possible to update this screening.

Based on the molecular evidence, De Carvalho & Oliveira concluded that *Piresia* Swallen and *Reitzia* Swallen should be combined to one genus and proposed to conserve against *Reitzia* Swallen[23]. Even though *Reitzia* is an older name than Piresia, De Carvalho & Oliveira considered that it should be easier to include *Reitzia* in the *Piresia* because Reitzia is a monotypic genus. In this present work, we still recognize the two genera because they are easily recognized by

morphological characters.

For the locations of the species, the publications of Forzza *et al*.[20], Schmidt & Longhi-Wagner[24] and the homepages of Flora Brasiliensis 2014[25] (http://floradobrasil.jbrj.gov.br) and the *Tropicos*[26] (http://www.tropicos.org) were consulted. The citation of *Opus Princeps* was based on the World Checklist of Selected Plant Families[27] (WCSP 2014) and by reading the original works.

Having obtained the total species name's list and the distribution of the natural populations in the country, it is possible to separate them in groups in the federal states and also in the five political regions as follows (Fig. 1):

South (S): States of Rio Grande do Sul (RS), Santa Catarina (SC) and Paraná (PR);

Southeast (SE): States of São Paulo (SP), Rio de Janeiro (RJ), Minas Gerais (MG) and Espírito Santo (ES);

Centerwest (CW): States of Goiás (GO), Mato Grosso (MT), Mato Grosso do Sul (MS) and Federal District (DF);

Northeast (NE): States of Bahia (BA), Sergipe (SE), Alagoas (AL), Pernambuco (PE), Paraíba (PB), Rio Grande do Norte (RN), Ceará, Piauí (PI) and Maranhão (MA);

North (N): States of Acre (AC), Amazonas (AM), Rondônia (RO), Roraima (RR), Amapá (AP), Pará (PA) and Tocantins (TO).

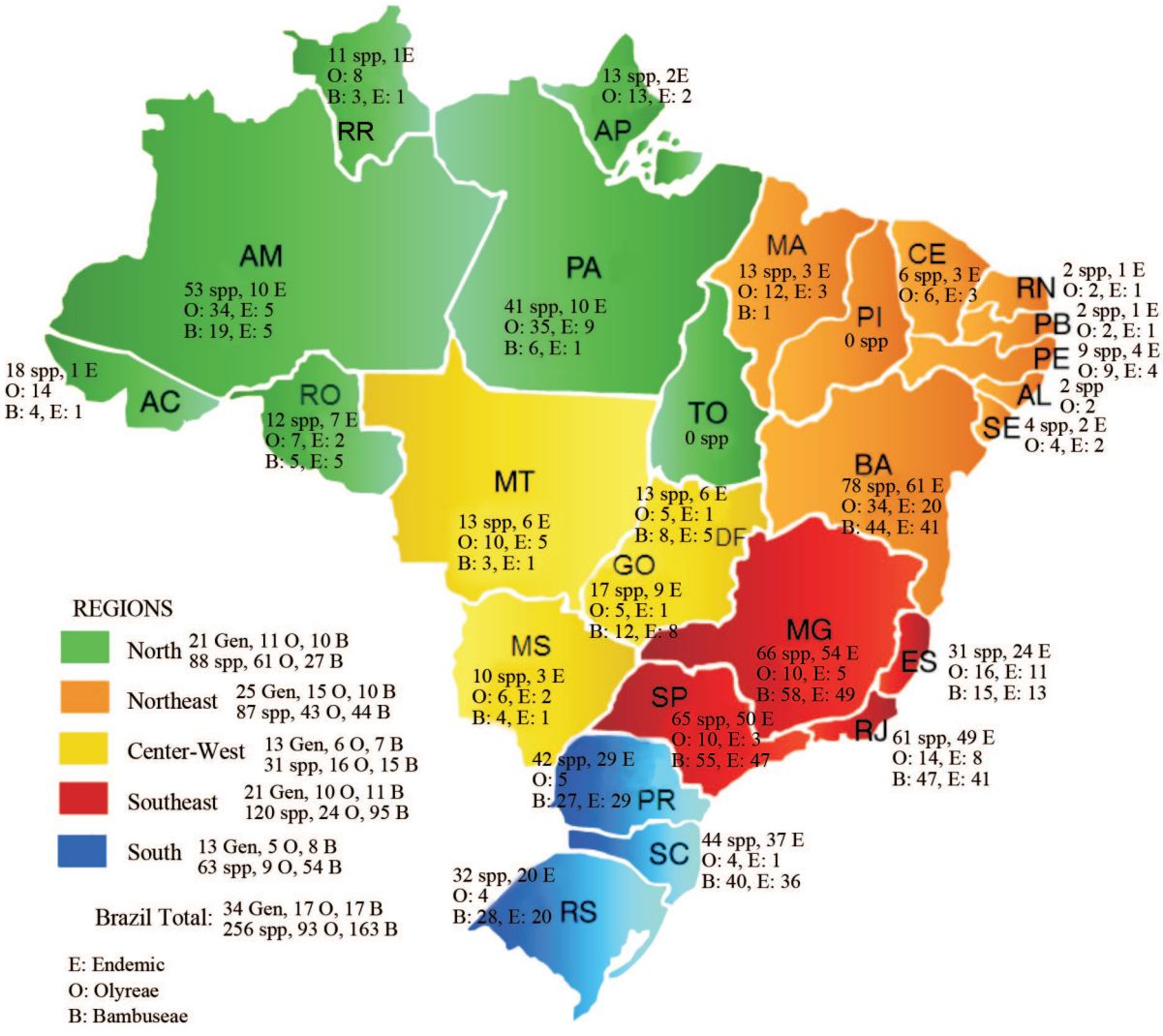

Fig. 1 Geopolitical map of Brazil showing the 5 regions and the 26 states and the Federal District. ssp: Total number of species in each state and region; E: Number of endemic species; O: Number of species for Olyreae; B: Number of species for Bambuseae.

6 Results and discussions

According to all the data collected in this study, there are totally 256 native taxa (Tables 4, 5) of Bambusoideae in Brazil, of which there are 251 native species, two subspecies (*Chusquea mimosa* subsp. *australis* and *Guadua tagoara* var. *glaziovii*) and three varieties (*Chusquea capituliflora* var. *pubescens*, *C. tenuiglumis* var. *laxiuscula* and *C. tenuiglumis* var. *subcilindrica*).

Coincidently, trib. Olyreae and trib. Bambuseae both have 17 genera described in the country. Northeast (73.5%) is the richest region for genera (Table 1), mainly in the remaining spots of Atlantic Rainforest, which along the East coast from South to North. North (61.8%), and Southeast (61.7%) regions have almost the same number of genera. The North region, represented by the Amazon, is believed to be much richer than the Southeast, but the studies have been very limited by the extreme difficulties of access because of its size and the lack of roads for communication. Contrarily, in the Southeast region, the two largest and richest cities in the country —— São Paulo and Rio de Janeiro are located, and there are important Universities and Research Institutes. In this region the geographic formation also favors the genetic diversity of fauna and flora. This is the area where Atlantic Rainforests are well developed and the mountain range goes from the sea level until almost 3000 m high. The rainfall can go up to 2000 mm a year in certain locations[28–29]. But there are also other reasons for this large diversity.

Southeast (46.9%) is the richest region for species (Table 2), considering that the flora of North region (34.4%), representing the Amazon region, is still quite badly known. In this North region the number of Olyreae species (61) is much higher than Bambuseae (27). According to the data from Table 4 and 5, Bahia state (78 species) and São Paulo state (65) are the richest states for bamboos species.

Bahia state is located in the Norththeast region, being the driest region of the country, but the main area for bamboo distribution is the Atlantic rainforest, which is along the coast, and has a better rainfall distribution along the year. In this biome occurs most

Table 1 Distribution of Olyreae and Bambuseae genera in the 5 geopolitic regions in Brazil

Region	Number of Genera			%
	Olyreae	Bambuseae	Total	
North	11	10	21	61.8
Centerwest	6	7	13	38.2
Northeast	15	10	25	73.5
Southeast	10	11	21	61.7
South	5	8	13	38.2
Brazil	17	17	34	100

Table 2 Distribution of Olyreae and Bambuseae species in the 5 geopolitic regions in Brazil

Region	Number of species			%
	Olyreae	Bambuseae*	Total	
North	61	27	88	34.4
Centerwest	16	15	31	12.1
Northeast	43	44	87	34.0
Southeast	24	96	120	46.9
South	9	54	63	24.6
Brazil	93	163	256	100

* Including the 2 subspecies and 3 varieties

of the species founded in the South, Southeast and Northeast region. The South region is the poorest for tribe Olyreae with 9 species described and only one endemic (Table 3).

Centerwest and South are the poorest regions for genus (38.2%) (Table 1) and Centerwest for species (12.1%) (Table 2), this must be because of large savannah (Brazilian name: "cerrado") existing in that region. In the state of Tocantins none Bambusoideae is described, and a good reason for this is that Tocantins is a quite new state that, in 1988, was separated from the north part of state of Goiás. A new study should be done considering to update the collect locations if nowadays belongs to Tocantins or still remain in Goiás state.

Another state where none Bambusoideae is mentioned is Piauí. This is certainly because of lack of collection. In September 2013, on one field work the authors of this article, found three species in that state, primarily recognized as *Guadua sp*., *Actinocladum sp*. and an unidentified species of Olyreae. These identifications must be confirmed by the specialists.

The most common species distributed in almost all states of the country are: *Olyra latifolia* and *Parodiolyra micrantha*, both herbaceous belonging to tribe Olyreae (Table 4). *O. latifolia* is also found in the African continent[30]

Among the 256 species found in Brazil, 176 are endemic, of these 57.4% occur in the Southeast region (total 120 species). The Centerwest is the poorest region for endemics with only 9.0% (15 species) (Table 3).

In the world, Brazil is one of the countries where the highest endemism level occurs, especially for the genera *Aulonemia*, *Merostachys* and *Chusquea*. It is a country with the highest number of native and endemic species among all the American countries[2]. Out of the 256 native taxa, 176 are endemic, according to the data showed in Table 3.

The endemic taxa from Brazil are in major concentrated in the regions Southeast (101) and Northeast (64), mainly in the states of São Paulo, with 50 taxa, Minas Gerais, with 54 taxa and Bahia, with 61 taxa. Among the 26 Brazilian states, these are also the ones that possess the largest number of endemism (Tables 4, 5). *Merostachys* (43 species) and *Chusquea* (45 species) are the most common genera of Bambuseae, and also they have the most of the endemics, 41 and 42 species respectively. For the tribe Olyreae, the genera *Pariana* (29 species) and *Olyra* (20 species) are the richest. For endemics the richest genus is also *Pariana* (10 species) followed by *Raddia* (9 species).

Brazil is one of the countries which shows the greater diversity of the native herbaceous bamboos (tribe Olyreae) in the world[2] with 93 species. The bamboos belonging to the tribe Olyreae represent 36.1% of the native bamboos in the country.

The endemic genera for tribe Olyreae are *Diandrolyra*, *Eremitis*, *Parianella*, *Reitzia* and *Sucrea*, and for tribe Bambuseae are *Alvimia*, *Apoclada*, *Athroostachys*, *Cambajuva*, *Filgueirasia* and *Glaziophyton*.

Table 3 Total and percentage of endemic species of Olyreae and Bambuseae occurring in the 5 main Brazilian regions

Region	Number of endemic species			%
	Olyreae	Bambuseae*	Total	
North	15	8	23	13.0
Certerwest	6	9	15	8.5
Northeast	23	41	64	36.3
Southeast	15	86	101	57.4
South	1	44	45	25.5
Brazil	43	133	176	100

* Including the 2 subspecies and 3 varieties

Table 4 Tribe Olyreae: Genera and species occurring in Brazil, endemic species number and distribution per geographical region and state

Genus/species	Source	Distribution/Total species (World & Brazil)
Agnesia Zuloaga & Judz.	Novon 3: 306 (1993)	B (1 species, none endemic), W (1 species)
A. lancifolia (Mez) Zuloaga & Judz.	Novon 3: 307 (1993)	N (PA, AM)
Arberella Soderstr. & C. E. Calderón	Brittonia 31: 433 (1979)	B (2 species, 1 endemic), W (7 species)
A. bahiensis Soderstr. & Zuloaga**	Brittonia 37: 23 (1985)	NE (BA), RO
A. flaccida (Döll) Soderstr. & C. E. Calderón	Brittonia 31: 443 (1979)	N (AM, AC)
Cryptochloa Swallen	Ann. Missouri Bot. Gard. 29: 317 (1942)	B (2 species, 1 endemic), W (8 species)
C. capillata (Trin.) Soderstr.	Brittonia 34: 202 (1982)	N (RR, AP, PA), NE (BA), CW (MT), SE (MG, ES, SP, RJ)
C. unispiculata Soderstr.	Brittonia 34: 200 (1982)	N (AC)
Diandrolyra Stapf*	Bull. Misc. Inform. Kew 1906: 204 (1906)	B (3 species, 3 endemic), W (3 species)
D. bicolor Stapf**	Bull. Misc. Inform. Kew 1906: 204 (1906)	NE (BA), SE (ES, RJ)
D. pygmaea Soderstr. & Zuloaga ex R. P. Oliveira & L. G. Clark**	Novon 19: 211 (2009)	NE (BA)
D. tatianae Soderstr. & Zuloaga**	Brittonia 37: 2 (1985)	NE (BA), SE (MG, ES, SP, RJ)
Eremitis Döll*	C. F. P. von Martius & auct. suc. (eds.), Fl. Bras. 2(2): 338 (1877)	B (3 species, 3 endemic), W (3 species)
E. afimbriata F. M. Ferreira & R. P. Oliveira**	Phytotaxa 84 (1): 33–37 (2013)	SE (ES)
E. magnifica F. M. Ferreira & R. P. Oliveira**	Phytotaxa 84 (1): 37–40 (2013)	SE (MG)
E. parviflora (Trin.) Calderón & Soderstr.**	Smithsonian Contr. Bot. 44: 20 (1980)	NE (BA), SE (ES)
Froesiochloa G. A. Black	Bol. Técn. Inst. Agron. N. 20: 29 (1950)	B (1 species, none endemic), W (1 species)
F. boutelouoides G. A. Black	Bol. Técn. Inst. Agron. N. 20: 30 (1950)	N (AP), NE (MA)
Lithachne P. Beauv.	Ess. Agrostogr.: 135 (1812)	B (2 species, 1 endemic), W (4 species)
L. horizontalis Chase**	J. Wash. Acad. Sci. 25: 189 (1935)	CW (MT), N (AP), NE (MA), SE (MG, ES, SP, RJ)
L. pauciflora (Sw.) P. Beauv.	Ess. Agrostogr.: 135 (1812)	NE (CE), CW (MS), S (RS)
Olyra L.	Syst. Nat. ed. 10, 2: 1261 (1759)	B (20 species, 6 endemic), W (24 species)
O. amapana Soderstr. & Zuloaga	Smithsonian Contr. Bot. 69: 5 (1989)	N (AP, AM, RO)
O. bahiensis R. P. Oliveira & Longhi-Wagner**	Revista Bras. Bot. 28: 835 (2005)	NE (BA)
O. caudata Trin.	Linnaea 10: 292 (1836)	N (RR, PA, AM, AC, RO), CW (MT)
O. ciliatifolia Raddi	Agrostogr. Bras.: 19 (1823)	N(PA, AM, AC), NE (MA, CE, BA, SE), CW(MT, GO, DF, MS), SE(MG, SP, RJ), S (PR)
O. davidseana Judz. & Zuloaga**	Syst. Bot. 17: 27 (1992)	N (PA, AM)
O. ecaudata Döll	C. F. P. von Martius & auct. suc. (eds.), Fl. Bras. 2(2): 326 (1877)	N (PA, AM, AC), NE (BA)
O. fasciculata Trin.	Mém. Acad. Imp. Sci. Saint-Pétersbourg, Sér. 6, Sci. Math., Seconde Pt. Sci. Nat. 3(2): 113 (1834)	N (PA), NE (BA), CW (GO), SE (ES, SP, RJ), S (PR, SC)
O. filiformis Trin.	Mém. Acad. Imp. Sci. Saint-Pétersbourg, Sér. 6, Sci. Math., Seconde Pt. Sci. Nat. 3(2): 115 (1834)	NE (BA)
O. glaberrima Raddi	Agrostogr. Bras.: 19 (1823)	NE (PE, BA), SE (ES, SP, RJ), S (SC)
O. humilis Nees	C. F. P. von Martius, Fl. Bras. Enum. Pl. 2: 304 (1829)	NE (BA), CW (GO, DF), SE (MG), S (PR, RS)
O. juruana Mez	Notizbl. Bot. Gart. Berlin-Dahlem 7: 45 (1917)	N (PA, AC)
O. latifolia L.	Syst. Nat. ed. 10, 2: 1261 (1759)	N (AP, AC), N (MA, CE, PE, BA, SE), CW (MT, MS, DF), SE (ES, SP, RJ), S (RS)
O. latispicula Soderstr. & Zuloaga**	Smithsonian Contr. Bot. 69: 35 (1989)	NE (BA)

Continued

Genus/species	Source	Distribution/Total species (World & Brazil)
Olyra longifolia Kunth	Nov. Gen. Sp. 1: 198 (1816)	N (RR, AP, PA, AM), NE (MA)
O. loretensis Mez	Notizbl. Bot. Gart. Berlin-Dahlem 7: 47 (1917)	N (AP, PA, AM, RO)
O. obliquifolia Steud.	Syn. Pl. Glumac. 1: 36 (1853)	N (AP, PA), NE (MA)
O. retrorsa Soderstr. & Zuloaga**	Smithsonian Contr. Bot. 69: 54 (1989)	CW (MT)
O. tamanquareana Soderstr. & Zuloaga**	Smithsonian Contr. Bot. 69: 58 (1989)	N (AM)
O. taquara Swallen**	Phytologia 14: 86 (1966)	N (PA), CW (MT, GO, DF, MS)
O. wurdackii Swallen	Phytologia 14: 85 (1966)	N (AM)
Pariana Aubl.	Hist. Pl. Guiane: 876 (1775)	B (29 species, 10 endemic), W (29 species)
P. bicolor Tutin	J. Linn. Soc., Bot. 50: 355 (1936)	N (AM)
P. campestris Aubl.	Hist. Pl. Guiane: 877 (1775)	N (AP, PA), NE (MA)
P. concinna Tutin	Bot. 50: 358 (1936)	N (AM)
P. distans Swallen**	J. Wash. Acad. Sci. 30: 73 (1940)	N (PA)
P. ecuadorensis Pilg.**	Notizbl. Bot. Gart. Berlin-Dahlem 14: 323 (1939)	N (AM)
P. gleasonii Hitchc.	Contr. U. S. Natl. Herb. 22: 513 (1922)	N (AP)
P. gracilis Döll	C. F. P. von Martius & auct. suc. (eds.), Fl. Bras. 2(2): 337 (1877)	N (AM)
P. imberbis Nees**	C. F. P. von Martius, Fl. Bras. Enum. Pl. 2: 297 (1829)	N (AM)
P. intermedia Döll**	C. F. P. von Martius & auct. suc. (eds.), Fl. Bras. 2(2): 337 (1877)	N (AP, PA, AM)
P. interrupta Tutin	J. Linn. Soc., Bot. 50: 348 (1936)	N (PA, AM)
P. ligulata Swallen**	J. Wash. Acad. Sci. 30: 74 (1940)	N (PA)
P. lunata Nees	C. F. P. von Martius, Fl. Bras. Enum. Pl. 2: 295 (1829)	N (PA)
P. maynensis Huber	Bol. Mus. Goeldi Paraense Hist. Nat. Ethnogr. 4: 526 (1906)	N (PA, AC)
P. modesta Swallen**	J. Wash. Acad. Sci. 30: 77 (1940)	NE (MA)
P. multiflora R. P. Oliveira, Longhi-Wagner & Hollowell**	Syst. Bot. 33: 263 (2008)	SE (ES)
P. nervata Swallen**	J. Wash. Acad. Sci. 30: 71 (1940)	N (PA)
P. ovalifolia Swallen**	J. Wash. Acad. Sci. 30: 72 (1940)	N (PA, AM)
P. pallida Swallen	Mem. New York Bot. Gard. 9: 268 (1957)	N (AM)
P. radiciflora Sagot ex Döll	C. F. P. von Martius & auct. suc. (eds.), Fl. Bras. 2(2): 336 (1877)	N (PA, AM)
P. simulans Tutin	J. Linn. Soc., Bot. 50: 357 (1936)	N (AM)
P. sociata Swallen**	J. Wash. Acad. Sci. 30: 76 (1940)	NE (MA)
P. stenolemma Tutin	J. Linn. Soc., Bot. 50: 350 (1936)	N (AC)
P. tenuis Tutin	J. Linn. Soc., Bot. 50: 348 (1936)	N (AM)
P. trichosticha Tutin	J. Linn. Soc., Bot. 50: 356 (1936)	N (AC)
P. ulei Pilg.	Notizbl. Königl. Bot. Gart. Berlin 6: 112 (1914)	N (AM, AC)
P. velutina Swallen	J. Wash. Acad. Sci. 30: 78 (1940)	N (AM)
P. violascens Swallen	Mem. New York Bot. Gard. 9: 267 (1957)	N (AM)
P. vulgaris Tutin	J. Linn. Soc., Bot. 50: 353 (1936)	N (PA, AM, RO)
P. zingiberina Rich. ex Döll	C. F. P. von Martius & auct. suc. (eds.), Fl. Bras. 2(2): 337 (1877)	N (PA)
Parianella Hollowell, F. M. Ferreira & R. P. Oliveira*	Phytotaxa 77(2): 27 (2013)	B (2 species, 2 endemic)

Continued

Genus/species	Source	Distribution/Total species (World & Brazil)
Parianella carvalhoi (R. P. Oliveira & Longhi-Wagner) F. M. Ferreira & R. P. Oliveira**	Phytotaxa 77(2): 31 (2013)	NE (BA)
P. lanceolata (Trin.) F. M. Ferreira & R. P. Oliveira**	Phytotaxa 77(2): 31 (2013)	NE (BA)
Parodiolyra Soderstr. & Zuloaga	Smithsonian Contr. Bot. 69: 64 (1989)	B (4 species, 1 endemic)
P. lateralis (C. Presl ex Nees) Soderstr. & Zuloaga	Smithsonian Contr. Bot. 69: 66 (1989)	N (PA, AM, RR)
P. luetzelburgii (Pilg.) Soderstr. & Zuloaga	Smithsonian Contr. Bot. 69: 70 (1989)	N (RR, AP, PA, AM), NE (MA), CW (MT)
P. micrantha (Kunth) Davidse & Zuloaga	Novon 9: 590 (1999)	N (RR, PA, AM, AC), NE (MA, PE, BA, AL, SE), CW (MS), SE (MG, ES, SP, RJ), S (PR, SC, RS)
P. ramosissima (Trin.) Soderstr. & Zuloaga**	Smithsonian Contr. Bot. 69: 73 (1989)	NE (BA)
Piresia Swallen	Phytologia 11: 152 (1964)	B (5 species, 1 endemic), W (5 species)
P. goeldii Swallen	Phytologia 11: 153 (1964)	N (PA, AM, RR)
P. leptophylla Soderstr.	Brittonia 34: 206 (1982)	N (AM), NE (PB, PE, BA)
P. macrophylla Soderstr.	Brittonia 34: 203 (1982)	N (AC, RO), NE (BA)
P. apalmula Carvalho, Maria Luiza de & R. P. Oliveira**	Syst. Bot. 37: 135 (2012)	NE (BA)
P. sympodica (Döll) Swallen	Phytologia 11: 153 (1964)	N (PA, AM, AC), NE (PE, BA)
Raddia Bertol.	Opusc. Sci. 3: 410 (1819)	B (9 species, 8 endemic)
R. angustifolia Soderstr. & Zuloaga**	Brittonia 37: 32 (1985)	NE (CE, PE, BA)
R. brasiliensis Bertol.**	Opusc. Sci. 3: 410 (1819)	NE (CE, PE, BA), CW (MS), SE (RJ)
R. distichophylla (Schrad. ex Nees) Chase**	Proc. Biol. Soc. Wash. 21: 184 (1908)	NE (BA)
R. guianensis (Brongn.) Hitchc.	Misc. Publ. U. S. D. A. 243: 373 (1936)	N (AP, PA), NE (RN, PE, BA, AL)
R. lancifolia R. P. Oliveira & Longhi-Wagner**	Pl. Syst. Evol. 270: 175 (2008)	SE (ES)
R. megaphylla R. P. Oliveira & Longhi-Wagner**	Pl. Syst. Evol. 270: 173 (2008)	NE (BA), SE (ES)
R. portoi Kuhlm.**	Arch. Jard. Bot. Rio de Janeiro 4: 350 (1925)	NE (CE, PB, PE, BA, SE), SE (MG)
R. soderstromii R. P. Oliveira, L. G. Clark & Judz.**	Pl. Syst. Evol. 270: 178 (2008)	NE (RN, BA, SE), SE (MG, ES, RJ)
R. stolonifera R. P. Oliveira & Longhi-Wagner**	Pl. Syst. Evol. 270: 176 (2008)	NE (BA)
Raddiella Swallen	Bull. Torrey Bot. Club 75: 89 (1948)	B (5 species, 3 endemic), W (8 species)
R. esenbeckii (Steud.) Calderón & Soderstr.	Smithsonian Contr. Bot. 44: 21 (1980)	N (RR, PA, AM), NE (BA), CW (GO, DF), SE (MG, SP), S (PR)
R. kaieteurana Soderstr.	Mem. New York Bot. Gard. 12(3): 6 (1965)	N (PA)
R. lunata Zuloaga & Judz.**	Ann. Missouri Bot. Gard. 78: 936 (1991)	N (RO), CW (MT)
R. malmeana (Ekman) Swallen**	Bull. Torrey Bot. Club 75: 89 (1948)	N (PA), CW(MT)
R. minima Judz. & Zuloaga**	Ann. Missouri Bot. Gard. 78: 939 (1991)	N (PA)
Rehia Fitjen	Blumea 22: 416 (1975)	B (1 species, none endemic), W (1 species)
R. nervata Fijten	Blumea 22: 416 (1975)	N (PA), NE (MA)
Reitzia Swallen*	Sellowia 7: 7 (1956)	B (1 species, 1 endemic), W (1 species)
R. smithii Swallen**	Sellowia 7: 8 (1956)	SE (SP, RJ), S (SC)
Sucrea Soderstr.*	Brittonia 33: 200 (1981)	B (3 species, 3 endemic), W (3 species)
S. maculata Soderstr.**	Brittonia 33: 205 (1981)	NE (BA), SE (ES, RJ)
S. monophylla Soderstr.**	Brittonia 33: 200 (1981)	NE (BA)
S. sampaiana Soderstr.**	Brittonia 33: 208 (1981)	SE (ES, RJ)

*: Endemic genus; **: Endemic species; South (S): States of Rio Grande do Sul (RS), Santa Catarina (SC) and Paraná (PR); Southeast (SE): States of São Paulo (SP), Rio de Janeiro (RJ), Minas Gerais (MG) and Espírito Santo (ES); Centerwest (CW): States of Goiás (GO), Mato Grosso (MT), Mato Grosso do Sul (MS) and Federal District (DF); Northeast (NE): States of Bahia (BA), Sergipe (SE), Alagoas (AL), Pernambuco (PE), Paraíba (PB), Rio Grande do Norte (RN), Ceará, Piauí (PI) and Maranhão (MA); North (N): States of Acre (AC), Amazonas (AM), Rondônia (RO), Roraima (RR), Amapá (AP), Pará (PA) and Tocantins (TO).

Table 5 Tribe Bambuseae: Genera and species occurring in Brazil, endemic species number and distribution per geographical region and state

Genus/species	Source	Distribution/Total species (World & Brazil)
Actinocladum McClure ex Soderstr.	Amer. J. Bot. 68: 1201 (1981)	B (1 species, none endemic), W (1 species)
A. verticillatum (Nees) McClure ex Soderstr.	Amer. J. Bot. 68: 1204 (1981)	CW (MT, GO, DF, MS), N (PA, AM), NE (BA), SE (MG, SP)
Alvimia C. E. Calderón ex Soderstr. & Londoño*	Amer. J. Bot. 75: 833 (1988)	B (3 species, 3 endemic), W (3 species)
A. auriculata Soderstr. & Londoño**	Amer. J. Bot. 75: 834 (1988)	NE (BA)
A. gracilis Soderstr. & Londoño**	Amer. J. Bot. 75: 835 (1988)	NE (BA)
A. lancifolia Soderstr. & Londoño**	Amer. J. Bot. 75: 837 (1988)	NE (BA)
Apoclada McClure*	Fl. Ilustr. Catarin. 1 (Gramin., Supl. Bambus.): 57 (1967)	B (1 species, 1 endemic), W (1 species)
A. simplex McClure & L. B. Sm.**	Fl. Ilustr. Catarin. 1 (Gramin., Supl. Bambus.): 59 (1967)	SE (SP), S (SC)
Arthrostylidium Rupr.	Mém. Acad. Imp. Sci. Saint-Pétersbourg, Sér. 6, Sci. Math., Seconde Pt. Sci. Nat. 3(2): 117 (1839)	B (4 species, 2 endemic), W (32 species)
A. fimbrinodum Judz. & L. G. Clark**	Syst. Bot. 18: 84 (1993)	N (AM, RO)
A. grandifolium Judz. & L. G. Clark**	Syst. Bot. 18: 88 (1993)	N (PA, AM, RO)
A. scandens McClure	Mem. New York Bot. Gard. 10(5): 4 (1964)	N (PA)
A. simpliciusculum (Pilg.) McClure	Smithsonian Contr. Bot. 9: 20 (1973)	N (AM)
Athroostachys Benth.*	Gen. Pl. 3: 1208 (1883)	B (1 species, 1 endemic), W (1 species)
A. capitata (Hook.) Benth.**	Gen. Pl. 3: 1209 (1883)	NE (BA)
Atractantha McClure	Smithsonian Contr. Bot. 9: 42 (1973)	B (6 species, 5 endemic), W (6 species)
A. amazonica Judz. & L. G. Clark	Novon 1: 78 (1991)	N (AM)
A. aureolanata Judz.**	Ann. Missouri Bot. Gard. 79: 166 (1992)	NE (BA)
A. cardinalis Judz.**	Ann. Missouri Bot. Gard. 79: 170 (1992)	NE (BA)
A. falcata McClure**	Smithsonian Contr. Bot. 9: 48 (1973)	NE (BA)
A. radiata McClure**	Smithsonian Contr. Bot. 9: 50 (1973)	NE (BA)
A. shepherdiana Santos-Gonc., Filg. & L. G. Clark**	Syst. Bot. 36: 311 (2011)	SE (ES)
Aulonemia Goudot	Ann. Sci. Nat., Bot., sér. 3, 5: 75 (1846)	B (16 species, 15 endemic), W (44 species)
A. amplissima (Nees) McClure**	Smithsonian Contr. Bot. 9: 56 (1973)	SE (MG, ES, SP, RJ), S (PR)
A. aristulata (Döll) McClure**	Smithsonian Contr. Bot. 9: 56 (1973)	NE (BA), CW (GO, DF), SE (MG, ES, SP, RJ), S (PR, SC)
A. cincta P. L. Viana & Filg.**	Phytotaxa 156 (4): 235–249 (2014)	S (PR)
A. deflexa (N. E. Br.) McClure	Smithsonian Contr. Bot. 9: 56 (1973)	N (RR)
A. effusa (Hack.) McClure**	Smithsonian Contr. Bot. 9: 56 (1973)	NE (BA), SE (MG)
A. fimbriatifolia L. G. Clark **	Revista Brasil. Bot. 27: 31 (2004)	SE (SP), S (PR, SC)
A. glaziovii (Hack.) McClure**	Smithsonian Contr. Bot. 9: 56 (1973)	SE (MG)
A. goyazensis (Hack.) McClure**	Smithsonian Contr. Bot. 9: 56 (1973)	SE (RJ)
A. lanciflora McClure & L. B. Sm.**	Fl. Ilustr. Catarin. 1 (Gramin., Supl. Bambus.): 47 (1967)	SE (MG, RJ), S (SC, RS)
A. prolifera P. L. Viana & Filg.**	Phytotaxa 156 (4): 235–249 (2014)	SE (MG, ES)
A. radiata (Rupr.) McClure & L. B. Sm.**	Fl. Ilustr. Catarin. 1 (Gramin., Supl. Bambus.): 56 (1967)	SE (MG, SP, RJ), S (PR, SC)
A. ramosissima (Hack.) McClure**	Smithsonian Contr. Bot. 9: 58 (1973)	SE (RJ)
A. setigera (Hack.) McClure**	Smithsonian Contr. Bot. 9: 58 (1973)	NE (BA), SE (RJ)

Continued

Genus/species	Source	Distribution/Total species (World & Brazil)
Aulonemia setosa (Londoño & L. G. Clark) P. L. Viana & Filg.**	Brittonia 63: 104 (2011)	SE (RJ, SP, MG, ES)
A. soderstromii P. L. Viana, Filg. & Judz.**	Phytotaxa 156(4): 235–249 (2014)	SE (ES, MG), NE (BA)
A. xerophylla P. L. Viana & Filg.**	Novon 22(3): 372 (2013)	CW (GO, DF)
Cambajuva P. L. Viana, L. G. Clark & Filg.*	Syst. Bot. 38: 98 (2013)	B (1 species, 1 endemic); W (1 species)
C. ulei (Hack.) P. L. Viana, L. G. Clark & Filg.**	Syst. Bot. 38: 98 (2013)	S (SC, RS)
Chusquea Kunth	Syn. Pl. Aequin. 1: 254 (1822)	B (45 species, 1 subspecies, 3 varieties, 42 endemic); W (163 species)
C. acuminata Döll**	C. F. P. von Martius & auct. suc. (eds.), Fl. Bras. 2(3): 204 (1880)	SE (RJ)
C. anelythra Nees**	Linnaea 9: 491 (1835)	SE (MG, RJ), S (PR, SC)
C. anelytroides Rupr. ex Döll**	C. F. P. von Martius & auct. suc. (eds.), Fl. Bras. 2(3): 206 (1880)	SE (MG, SP, RJ), S (PR)
C. attenuata (Döll) L. G. Clark**	Novon 3: 237 (1993)	SE (MG, SP)
C. baculifera Silveira**	Arq. Mus. Nac. Rio de Janeiro 22: 99 (1919)	SE (MG)
C. bahiana L. G. Clark**	Brittonia 48: 250 (1996)	SE (MG)
C. bambusoides (Raddi) Hack.**	Denkschr. Kaiserl. Akad. Wiss., Wien. Math.-Naturwiss. Kl. 79: 81 (1908)	NE (BA), SE (ES, SP, RJ), S (PR, SC, RS)
C. bradei L. G. Clark**	Brittonia 48: 254 (1996)	NE (BA), SE (ES)
C. caparaoensis L. G. Clark**	Brittonia 44: 408 (1992)	SE (MG)
C. capitata Nees**	Linnaea 9: 489 (1835)	SE (MG, ES, SP, RJ), S (PR, SC)
C. capituliflora Trin.**	Mém. Acad. Imp. Sci. Saint-Pétersbourg, Sér. 6, Sci. Math., Seconde Pt. Sci. Nat. 3(6): 613 (1835)	SE (MG, SP, RJ), S (PR, SC, RS)
C. capituliflora var. *pubescens* McClure & L. B. Sm.**	Fl. Ilustr. Catarin. 1 (Gramin., Supl. Bambus.): 28 (1967)	SE (MG, SP, RJ), S (PR, SC, RS)
C. ciliatifolia A. C. Mota, R. P. Oliveira & L. G. Clark**	Phytotaxa 161 (3): 201–210 (2014)	SE (MG), NE (BA)
C. clemirae A. C. Mota, R. P. Oliveira & L. G. Clark**	Syst. Bot. 38: 95 (2013)	NE (BA)
C. diversiglumis (Soderstr.) L. G. Clark	Syst. Bot. 34: 680 (2009).	N (AM)
C. erecta L. G. Clark**	Brittonia 44: 397 (1992)	SE (SP)
C. fasciculata Döll**	C. F. P. von Martius & auct. suc. (eds.), Fl. Bras. 2(3): 202 (1880)	SE (MG)
C. gracilis McClure & L. B. Sm.**	Fl. Ilustr. Catarin. 1 (Gramin., Supl. Bambus.): 43 (1967)	S (PR, SC, RS)
C. hatschbachii L. G. Clark**	J. Amer. Bamboo Soc. 22: 29 (2009)	S (SC)
C. heterophylla Nees**	Linnaea 9: 488 (1835)	SE (MG, SP, RJ)
C. ibiramae McClure & L. B. Sm.**	Fl. Ilustr. Catarin. 1 (Gramin., Supl. Bambus.): 40 (1967)	SE (ES, SP), S (PR, SC)
C. juergensii Hack.	Repert. Spec. Nov. Regni Veg. 7: 325 (1909)	SE (MG, SP), S (PR, SC, RS)
C. leptophylla Nees**	Linnaea 9: 489 (1835)	SE (MG, ES, SP, RJ), S (PR, SC, RS)
C. linearis N. E. Br.**	Trans. Linn. Soc. London, Bot. 6: 76 (1901)	N (RR)
C. longispiculata L. G. Clark**	Revista Brasil. Bot. 27: 34 (2004)	SE (SP, RJ)
C. magnifolia L. G. Clark**	Syst. Bot. 34: 681 (2009)	N (AM)
C. meyeriana Rupr. ex Döll**	C. F. P. von Martius & auct. suc. (eds.), Fl. Bras. 2(3): 203 (1880).	SE (MG, SP, RJ), S (PR, SC, RS)

Continued

Genus/species	Source	Distribution/Total species (World & Brazil)
Chusquea microphylla (Döll) L. G. Clark**	Brittonia 44: 420 (1992)	SE (MG, RJ)
C. mimosa McClure & L. B. Sm.**	Fl. Ilustr. Catarin. 1 (Gramin., Supl. Bambus.): 37 (1967)	S (PR, SC, RS)
C. mimosa subsp. *australis* L. G. Clark**	Brittonia 44: 414 (1992)	S (PR, SC, RS)
C. mirabilis A. C. Mota, R. P. Oliveira & L. G. Clark**	Phytotaxa 161 (3): 201–210 (2014)	SE (MG), NE (BA)
C. nudiramea L. G. Clark**	Brittonia 44: 415 (1992)	S (SC)
C. nutans L. G. Clark**	Brittonia 44: 398 (1992)	NE (BA), SE (MG)
C. oligophylla Rupr.**	Mém. Acad. Imp. Sci. Saint-Pétersbourg, Sér. 6, Sci. Math., Seconde Pt. Sci. Nat. 5: 124 (1839)	SE (SP, RJ), S (PR, SC)
C. oxylepis (Hack.) Ekman**	Ark. Bot. 13(10): 65 (1913)	NE (BA), SE (MG, SP, RJ), S (PR, SC)
C. pinifolia (Nees) Nees**	Linnaea 9: 490 (1835)	SE (MG, SP, RJ)
C. pulchella L. G. Clark**	Novon 3: 236 (1993)	SE (SP, RJ)
C. ramosissima Lindm.	Kongl. Svenska Vetensk. Acad. Handl., n.s., 34(6): 24 (1900)	NE (BA), SE (ES, SP, RJ), S (PR, SC, RS)
C. riosaltensis L. G. Clark**	Brittonia 44: 403 (1992)	SE (MG)
C. sclerophylla Döll**	C. F. P. von Martius & auct. suc. (eds.), Fl. Bras. 2(3): 200 (1880)	SE (RJ)
C. sellowii Rupr.**	Mém. Acad. Imp. Sci. Saint-Pétersbourg, Sér. 6, Sci. Math., Seconde Pt. Sci. Nat. 5: 125 (1839)	SE (MG, SP, RJ), S (PR, SC, RS)
C. tenella Nees**	Linnaea 9: 492 (1835)	SE (MG, SP), S (PR, SC, RS)
C. tenuiglumis Döll**	C. F. P. von Martius & auct. suc. (eds.), Fl. Bras. 2(3): 199 (1880)	SE (MG, SP), S (SC)
C. tenuiglumis var. *laxiuscula* Döll**	C. F. P. von Martius & auct. suc. (eds.), Fl. Bras. 2(3): 200 (1880)	SE (MG)
C. tenuiglumis var. *subcylindrica* Döll**	C. F. P. von Martius & auct. suc. (eds.), Fl. Bras. 2(3): 199 (1880)	SE (MG)
C. tenuis Glaz. ex E. G. Camus**	Bambusées: 90 (1913)	SE (RJ)
C. urelytra Hack.**	Oesterr. Bot. Z. 53: 158 (1903)	SE (ES, SP, RJ), S (PR)
C. wilkesii Munro**	Trans. Linn. Soc. London 26: 63 (1868)	SE (MG)
C. windischii L. G. Clark**	Brittonia 44: 405 (1992)	S (SC)
Colanthelia McClure & L. B. Sm.	Smithsonian Contr. Bot. 9: 77 (1973)	B (6 species, 4 endemic); W (6 species)
C. burchellii (Munro) McClure**	Smithsonian Contr. Bot. 9: 79 (1973)	SE (SP, RJ)
C. cingulata (McClure & L. B. Sm.) McClure**	Smithsonian Contr. Bot. 9: 79 (1973)	SE (SP, RJ), S (SC, RS)
C. distans (Trin.) McClure**	Smithsonian Contr. Bot. 9: 79 (1973)	SE (MG)
C. intermedia (McClure & L. B. Sm.) McClure**	Smithsonian Contr. Bot. 9: 79 (1973)	SE (RJ), S (SC, RS)
C. macrostachya (Nees) McClure	Smithsonian Contr. Bot. 9: 79 (1973)	SE (SP, RJ)
C. rhizantha (Hack.) McClure	Smithsonian Contr. Bot. 9: 79 (1973)	S (PR, RS)
Eremocaulon Soderstr. & Londoño	Amer. J. Bot. 74: 37 (1987).	B (4 species, 3 endemic); W (4 species)
E. amazonicum Londoño**	Syst. Bot. 27: 716 (2002)	N (AC, AM, RO)
E. asymmetricum (Soderstr. & Londoño) Londoño**	Syst. Bot. 27: 711 (2002)	NE (BA)
E. aureofimbriatum Soderstr. & Londoño**	Amer. J. Bot. 74: 37 (1987)	NE (BA), SE (MG)
E. capitatum (Trin.) Londoño	Syst. Bot. 27: 714 (2002)	CW (MT)
Filgueirasia Guala*	J. Amer. Bamboo Soc. 17: 2 (2003)	B (2 species, 2 endemic); W (2 species)

Continued

Genus/species	Source	Distribution/Total species (World & Brazil)
Filgueirasia arenicola (McClure) Guala**	J. Amer. Bamboo Soc. 17: 3 (2003)	NE (BA), CW (MT, GO, MS), SE (MG)
F. cannavieira (Silveira) Guala**	J. Amer. Bamboo Soc. 17: 3 (2003)	CW (GO, DF), SE (MG)
Glaziophyton Franch.*	J. Bot. (Morot) 3: 277 (1889)	B (1 species, 1 endemic); W (1 species)
G. mirabile Franch.**	J. Bot. (Morot) 3: 277 (1889)	SE (RJ)
Guadua Kunth	J. Phys. Chim. Hist. Nat. Arts 95: 150 (1822)	B (18 species, 1 subspecie, 6 endemic); W (27 species)
G. calderoniana Londoño & Judz.**	Novon 1: 27 (1991)	NE (BA)
G. chacoensis (Rojas) Londoño & P. M. Peterson	Novon 2: 41 (1992)	CW (MS), S (PR, RS)
G. ciliata Londoño & Davidse	Novon 1: 21 (1991)	N (PA, AM)
G. glomerata Munro	Trans. Linn. Soc. London 26: 79 (1868)	N (PA, AM)
G. latifolia (Bonpl.) Kunth	Syn. Pl. Aequin. 1: 254 (1822)	N (AM)
G. macrospiculata Londoño & L. G. Clark	Novon 12: 65 (2002)	N (AM)
G. macrostachya Rupr.	Mém. Acad. Imp. Sci. Saint-Pétersbourg, Sér. 6, Sci. Math., Seconde Pt. Sci. Nat. 5: 129 (1839)	N (AM)
G. maculosa (Hack.) E. G. Camus**	Bambusées: 106 (1913)	N (AM)
G. magna Londoño & Filg.**	Anais Seminário Nac. Bambu: 27 (2006)	CW (GO)
G. paniculata Munro	Trans. Linn. Soc. London 26: 85 (1868)	CW (MS, GO, DF), SE (MG, SP), S (RS)
G. paraguayana Döll	C. F. P. von Martius & auct. suc. (eds.), Fl. Bras. 2(3): 179 (1880)	SE (SP), S (PR)
G. refracta Munro**	Trans. Linn. Soc. London 26: 84 (1868)	CW (GO, DF), SE (MG)
G. sarcocarpa Londoño & P. M. Peterson	Syst. Bot. 16: 631 (1991)	N (AC)
G. superba Huber	Bol. Mus. Goeldi Paraense Hist. Nat. Ethnogr. 4: 479 (1906)	N (AC, AM)
G. tagoara (Nees) Kunth	Enum. Pl. 1: 434 (1833)	Include CW (GO), NE (Exclude MA, BA), SE (MG, ES, SP, RJ), S (PR, SC, RS)
G. tagoara subsp. *glaziovii* (Hack.) Londoño & L. G. Clark**	Novon 12: 76 (2002)	SE (RJ)
G. trinii (Nees) Nees ex Rupr.	Mém. Acad. Imp. Sci. Saint-Pétersbourg, Sér. 6, Sci. Math., Seconde Pt. Sci. Nat. 5: 130 (1839)	SE (MG), S (SC, RS)
G. virgata (Trin.) Rupr.**	Mém. Acad. Imp. Sci. Saint-Pétersbourg, Sér. 6, Sci. Math., Seconde Pt. Sci. Nat. 5: 130 (1839)	CW (GO)
G. weberbaueri Pilg.	Repert. Spec. Nov. Regni Veg. 1: 152 (1905)	N (AC)
Merostachys Spreng.	Syst. Veg. 1: 132, 249 (1824)	B (43 species, 41 endemic); W (49 species)
M. abadiana Send.**	Novon 5: 77 (1995)	SE (SP)
M. annulifera Send.**	Novon 7: 286 (1997)	NE (BA)
M. argentea Send.**	Novon 7: 287 (1997)	NE (BA)
M. argyronema Lindm.**	Kongl. Svenska Vetensk. Acad. Handl., n.s., 34(6): 22 (1900)	SE (SP)
M. bifurcata Send.**	Novon 7: 290 (1997)	NE (BA)
M. bradei Pilg.**	Notizbl. Bot. Gart. Berlin-Dahlem 10: 114 (1927)	SE (SP)
M. brevigluma Send.**	Kew Bull. 56: 629 (2001)	SE (MG, SP)
M. burmanii Send.**	Novon 2: 111 (1992)	NE (BA), SE (SP, RJ)
M. calderoniana Send.**	Novon 7: 290 (1997)	NE (BA)
M. caucaiana Send.**	Novon 5: 80 (1995)	SE (SP), S (RS)

Continued

Genus/species	Source	Distribution/Total species (World & Brazil)
Merostachys ciliata McClure & L. B. Sm.**	Fl. Ilustr. Catarin. 1 (Gramin., Supl. Bambus.): 71 (1967)	S (PR, SC)
M. clausenii Munro	Trans. Linn. Soc. London 26: 48 (1868)	CW (GO), SE (MG), S (PR, RS)
M. exserta Munro**	E. G. Camus, Bambusées: 74 (1913)	SE (MG)
M. filgueirasii Send.**	Novon 5: 80 (1995)	CW (DF)
M. fimbriata Send.**	Novon 7: 302 (1997)	N (RO)
M. fischeriana Rupr. ex Döll**	C. F. P. von Martius & auct. suc. (eds.), Fl. Bras. 2(3): 215 (1880)	NE (BA), SE (MG, RJ), S (PR)
M. fistulosa Döll**	C. F. P. von Martius & auct. suc. (eds.), Fl. Bras. 2(3): 209 (1880)	SE (MG, SP), S (PR)
M. glauca McClure & L. B. Sm.**	Fl. Ilustr. Catarin. 1(Gramin., Supl. Bambus.): 74 (1967)	S (SC)
M. kleinii Send.**	Novon 5: 84 (1995)	S (SC)
M. kunthii Rupr.**	Mém. Acad. Imp. Sci. Saint-Pétersbourg, Sér. 6, Sci. Math., Seconde Pt. Sci. Nat. 5: 127 (1839)	SE (RJ)
M. lanata Send.**	Novon 7: 292 (1997)	NE (BA)
M. leptophylla Send.**	Novon 7: 295 (1997)	NE (BA), SE (SP)
M. magellanica Send.**	Novon 5: 86 (1995)	SE (SP, RJ)
M. magnispicula Send.**	Novon 7: 296 (1997)	NE (BA)
M. medullosa Send.**	Novon 7: 298 (1997)	NE (BA)
M. multiramea Hack.	Repert. Spec. Nov. Regni Veg. 7: 326 (1909)	NE (BA), CW (GO), SE (SP, RJ), S (PR, SC, RS)
M. neesii Rupr.**	Mém. Acad. Imp. Sci. Saint-Pétersbourg, Sér. 6, Sci. Math., Seconde Pt. Sci. Nat. 5: 127 (1839)	NE (BA), SE (SP, RJ)
M. petiolata Döll**	C. F. P. von Martius & auct. suc. (eds.), Fl. Bras. 2(3): 216 (1880)	NE (BA), SE (MG, SP, RJ)
M. pilifera Send.**	Novon 5: 90 (1995)	S (RS)
M. pluriflora Munro ex E. G. Camus**	Bambusées: 77 (1913)	SE (SP, RJ), S (SC)
M. polyantha McClure**	Smithsonian Contr. Bot. 9: 91 (1973)	SE (SP)
M. procerrima Send.**	Novon 7: 300 (1997)	NE (BA), SE (ES)
M. ramosissima Send.**	Novon 7: 300 (1997)	NE (BA)
M. riedeliana Rupr. ex Döll**	C. F. P. von Martius & auct. suc. (eds.), Fl. Bras. 2(3): 213 (1880)	SE (MG, SP)
M. rondoniensis Send.**	Novon 7: 305 (1997)	N (RO)
M. scandens Send.**	Novon 5: 92 (1995)	SE (SP)
M. sellovii Munro**	Trans. Linn. Soc. London 26: 51 (1868)	NE (BA)
M. skvortzovii Send.**	Novon 5: 94 (1995)	SE (SP), S (PR, SC, RS)
M. sparsiflora Rupr.**	Mém. Acad. Imp. Sci. Saint-Pétersbourg, Sér. 6, Sci. Math., Seconde Pt. Sci. Nat. 5: 127 (1839)	NE (BA)
M. speciosa Spreng.**	Syst. Veg. 1: 249 (1824)	SE (MG, SP), S (PR, SC, RS)
M. tatianae Santos-Gonçalves, Carvalho-Okano & Filg.**	Syst. Bot. 37(4): 938 (2012)	SE (MG)
M. ternata Nees**	C. F. P. von Martius, Fl. Bras. Enum. Pl. 2: 529 (1829)	NE (BA), SE (MG, SP, RJ), S (PR, SC, RS)
M. vestita McClure & L. B. Sm.**	Fl. Ilustr. Catarin. 1 (Gramin., Supl. Bambus.): 72 (1967)	S (SC)

Continued

Genus/species	Source	Distribution/Total species (World & Brazil)
Myriocladus Swallen	Fieldiana, Bot. 28: 34 (1951)	B (4 species, none endemic); W (12 species)
M. grandifolius Swallen	Mem. New York Bot. Gard. 9: 245 (1957)	N (AM)
M. neblinaensis Swallen	Mem. New York Bot. Gard. 9: 240 (1957)	N (AM)
M. paludicolus Swallen	Mem. New York Bot. Gard. 9: 246 (1957)	N (AM)
M. virgatus Swallen	Fieldiana, Bot. 28: 34 (1951)	N (AM)
Rhipidocladum McClure	Smithsonian Contr. Bot. 9: 101 (1973)	B (2 species, none endemic); W (15 species)
R. parviflorum (Trin.) McClure	Smithsonian Contr. Bot. 9: 105 (1973)	N (PA, RR), CW (GO, DF), SE (MG, RJ, SP), S (PR)
R. racemiflorum (Steud.) McClure	Smithsonian Contr. Bot. 9: 106 (1973)	SE (RJ)

*: Endemic genus; **: Endemic species; South (S): States of Rio Grande do Sul (RS), Santa Catarina (SC) and Paraná (PR); Southeast (SE): States of São Paulo (SP), Rio de Janeiro (RJ), Minas Gerais (MG) and Espírito Santo (ES); Centerwest (CW): States of Goiás (GO), Mato Grosso (MT), Mato Grosso do Sul (MS) and Federal District (DF); Northeast (NE): States of Bahia (BA), Sergipe (SE), Alagoas (AL), Pernambuco (PE), Paraíba (PB), Rio Grande do Norte (RN), Ceará, Piauí (PI) and Maranhão (MA); North (N): States of Acre (AC), Amazonas (AM), Rondônia (RO), Roraima (RR), Amapá (AP), Pará (PA) and Tocantins (TO).

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