Checklist of aquatic and marshy Monocotyledons from the Araguaia River basin, Brazilian Cerrado

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Abstract

Background

The Araguaia River basin runs through the states of Goiás, Mato Grosso, Tocantins, and Pará, covering 373,000 Km², mostly within the Brazilian Cerrado. The region has a wide variety of wetlands. The climate is characterized by high temperatures and strongly seasonal precipitation. There are two well defined seasons: the dry season (winter-spring) and the rainy season (summer-fall). The Araguaia River basin is dominated by plinthosols that are found in low flat areas, poorly drained and prone to flooding, yielding wetland habitats of high plant diversity. Since the 1970s, human activities have led to reduction in both the diversity and area of wetlands. The construction of the Belém-Brasília highway and hydroelectric dams, as well as the expansion of agricultural and mining activities, have had major impacts on the region.

New information

The flora diversity data of the Araguaia River basin was developed through field work, herbarium research, and use of a database (Species Link). The resulting checklist of 162 aquatic and marshy monocotyledons from the Araguaia River basin represents 20 families and 50 genera. Cyperaceae (51 spp.), Poaceae (39 spp.), and Eriocaulaceae (16 spp.) are...
the most representative families. Life form analysis indicates that helophytes predominate (98 spp.; 60.5%). One hundred one species are native to tropical and/or subtropical America and twenty one are endemic to Brazil. Ninety-three species are new occurrences for the Araguaia River basin. Among them, three species are reported in the Brazilian Cerrado for the first time. This work contributes to the understanding of aquatic plant diversity in the Cerrado and other savanna-like vegetation physiognomies; environments and habitats poorly understood taxonomically and undercollected generally.

**Keywords**

Aquatic plants, Brazilian savannah, Central Brazil flora, Lilianae

**Introduction**

The Brazilian Cerrado is one of the most threatened ecosystems in Brazil and was ranked among the 34 most important biodiversity hotspots of the world (Mittermeier et al. 2004). In the first survey of the Cerrado flora, Mendonça et al. (1998) listed ca. 6,000 angiosperm species. After that, efforts to raise the knowledge on biodiversity for this area nearly doubled the number of species, with the monocotyledons (Lilianae) accounting for roughly 25% of the increase (Sano et al. 2008). The Araguaia River basin runs through the states of Goiás, Mato Grosso, Tocantins, and Pará; covering 373,000 Km² (Lima et al. 2004), mostly within the Cerrado. The region is rich in wetlands like rivers, streams, temporary or permanent swamps and pools. The climate is characterized by high temperatures that reach 100.4 ºF in September and October and strongly seasonal precipitation of 1750 to 2000 mm per year. There are two well-defined seasons: the dry season (July-November) and the rainy season (December-June) (IBGE 1989). This basin is dominated by plinthosols, which are poorly drained and usually found in low flat areas prone to flooding (Resende et al. 1995), forming temporary or permanent swamps. The importance of wetland habitats ecologically and in terms of plant biodiversity globally has been emphasized by many authors (e.g. Gopal and Junk 2000, Thomaz and Cunha 2010, Paz and Bove 2011, Mendonça et al. 2012, Moura-Júnior et al. 2013). On the other hand their taxonomic diversity is rarely the focus of wetland studies (e.g. Pedralli et al. 997, Bove et al. 2003, Moreira et al. 2011, Contaifer et al. 2013, Sabino et al. 2015).

The first study to include aquatic plants in Brazil was carried out by Hoehne (1915) in the Cerrado and in the Amazon Forest. The same author published “Plantas Aquáticas” (Hoehne 1948), a pioneer study of aquatic flora from Brazil. Also, species from Pantanal have been studied (Pott and Pott 1997, Pott and Pott 2000). A checklist from the states of Mato Grosso and Mato Grosso do Sul (Dubs 1998) and the vascular flora of the Emas National Park, located in the Araguaia River basin (Batalha and Martins 2002) incidentally included some aquatic plants, though they did not survey aquatic ecosystems. In spite of the vast area encompassed by the Araguaia River basin and the broad diversity of wetland habitats, the aquatic and marshy flora of this region is little known. This work contributes to
a better understanding of the aquatic environments in the Cerrado and other savanna-like vegetation physiognomies. Notably, herbarium collections are depauperate with respect to aquatic plants, reflecting both the difficulty of collecting in wetlands, as well as the scarcity of specialists in the taxonomic groups included. Generally, these plants are incidentally collected by terrestrial plant specialists and the quality of incidental collections may challenge correct identification. Thus, the real diversity of the aquatic flora from the Brazilian Cerrado will be better known through studies carried out by specialists focusing on aquatic habitats on the region. Our efforts to improve the knowledge of the aquatic flora from the Araguaia River basin have resulted in the discovery of new species (Koehler and Bove 2001, Oliveira et al. 2011) and on the better understanding of taxonomic groups such as the Alismatales (Koehler and Bove 2004) and Cyperaceae (Gil et al. 2007, Oliveira et al. 2011). As a result of an intensive search of collections and field work, we provide here an annotated list of aquatic and marshy monocots found in the Araguaia River basin. The results increase our knowledge of biodiversity in this basin and in the Cerrado. Species not previously reported to this area are highlighted. We also include images of the specific habitats and species from the Araguaia River basin.

Materials and methods

Material for this study is from collections made between 5-20°S and 45–55°W, located approximately between the city of Alto Araguaia at the southern limit and the city of Formoso do Araguaia at the northern limit (Fig. 1). Collections were made randomly, primarily along state roads (MT-100, MT-126, MT-326, GO-164, GO-184, GO-173, GO-221, GO-324, GO-334, and GO-530) and federal roads (BR-070, BR-158, BR-242 and BR-251); in both, rainy and dry seasons (1997, 1999, 2004, 2006, and 2007). Part of this material has been used in previous studies (Gil et al. 2007, Koehler and Bove 2001, Koehler and Bove 2004, Oliveira and Bove 2011), which overlap some portion of the study area for the present study. Surveyed habitats included rivers, streams, seasonally and permanently flooded areas (Fig. 2). The specimens were dried following standard techniques (Fidalgo and Bononi 1989). Voucher materials were deposited in the herbarium of the Museu Nacional from the Federal University of Rio de Janeiro (R). Material from the following herbaria: R, RB, UB and UFG (http://sweetgum.nybg.org/science/ih/) were also analyzed. The search in the consulted herbaria was done analyzing all monocotyledonous material from the Araguaia River basin. The database SpeciesLink (2002) was consulted using the searching word “Araguaia”. Only those vouchers identified by experts in each family were added to the checklist. The data were compared to the previous bibliography on the Cerrado above mentioned and to the Lista de espécies da flora do Brasil (2010). The taxa were displayed in alphabetic order by family. The circumscription of families followed APG III (2009), the binomials and the geographic distribution is according the World Checklist of selected plant families (2013). The definition of aquatic plants adopted herein is sensu Cook 1996: “…whose photosynthetically active parts are permanently or, at least, for several months each year submerged in water or floating on the surface of water”. It includes the life form helophytes from the marshy areas as well the strictly aquatic species.
with their related life forms (submerged-fixed or submerged-free, floating-fixed or floating-free, and emergent).

Figure 1.
Araguaia River basin map (Gil et al. 2007, Oliveira et al. 2011).
Natural ecosystems

**a:** Temporay swamp dominated by *Hymenachne amplexicaulis* (Rudge) Nees. Goiás, Aruanã-Peixe road (14°44'34"S, 50°56'34"W).

**b:** Temporay swamp dominated by *Eleocharis retroflexa* (Poir.) Urb. Goiás, Aruanã-Araguapaz road (14°49'10"S, 50°58'36"W).

**c:** Temporay swamp dominated by Poaceae and Cyperaceae. Goiás, GO-184, 49.5km South of Nova Crixás.

**d:** Permanent swamp with *Eriocaulon setaceum* L. Tocantins, BR-242, Formoso do Araguaia-São João do Javaés road.

**e:** Temporay swamp dominated by Pontederiaceae. Tocantins, Alvorada-Peixe road (12°29'46"S, 49°00'51"W).

**f:** Temporary swamp with *Fimbristylis quinquangularis* (Vahl) Kunth. Tocantins, BR-242, Formoso do Araguaia-São João do Javaés road.
Checklist of hydrophyloous Monocots from the Araguaia River basin

**Echinodorus longipetalus** Mich.

**Material**

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Jussara-Aragarças road, 100 Km from Jussara; verbatimLatitude: 15°53'39.52"S; verbatimLongitude: 51°26'14.56"W; verbatimCoordinateSystem: degree minutes; year: 1997; month: 5; day: 26; recordNumber: 158; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

**Echinodorus subalatus** (Mart. ex Schult. f.) Griseb.

**Material**

a. country: Brazil; countryCode: BRA; stateProvince: Mato Grosso; locality: Água Boa-Cocalinho road, 100 Km from Cocalinho; verbatimLatitude: 14°8'58.69"S; verbatimLongitude: 51°32'21.24"W; verbatimCoordinateSystem: degree minutes; year: 1997; month: 10; day: 12; recordNumber: 264; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

**Distribution:** Britain to Ukraine, North Africa - WP.

**Helanthium bolivianum** (Rusby) Lehtonen & Myllys

**Material**

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Jussara-Aragarças road, 100 Km from Jussara; verbatimLatitude: 15°53'39.52"S; verbatimLongitude: 51°26'14.56"W; verbatimCoordinateSystem: degree minutes; year: 1997; month: 10; day: 9; recordNumber: 238; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

**Helanthium tenellum** (Mart. ex Schult.f.) J.G.Sm.

**Material**

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Jussara-Aragarças road, 100 Km from Jussara; verbatimLatitude: 15°53'39.52"S; verbatimLongitude: 51°26'14.56"W; verbatimCoordinateSystem: degree minutes; year: 1997; month: 5; day: 26; recordNumber: 161; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

**Distribution:** Holarctic, Pacific Is.
**Hydrocleys nymphoides** (Willd.) Buchenau

**Material**

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Mozarlândia-Nova Crixás road, 18.6 Km from Mozarlândia; verbatimLatitude: 14°36’25.24”S; verbatimLongitude: 50°30’49.96”W; verbatimCoordinateSystem: degree minutes; year: 1999; month: 11; day: 15; recordNumber: 606; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

**Hydrocleys parviflora** Seub.

**Material**

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Jussara-Britânia road, 54 Km from Jussara; verbatimLatitude: 15°36’26.83”S; verbatimLongitude: 51°12’40.37”W; verbatimCoordinateSystem: degree minutes; year: 1997; month: 5; day: 28; recordNumber: 201; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

**Distribution:** Mediterranean.

**Limnocharis laforestii** Griseb.

**Material**

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Britânia-Aruanã road, 5 Km from Britânia; verbatimLatitude: 15°13’0.38”S; verbatimLongitude: 51°11’39.86”W; verbatimCoordinateSystem: degree minutes; year: 1997; month: 5; day: 28; recordNumber: 205; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

**Distribution:** Holarctic.

**Sagittaria guayanensis** Kunth

**Material**

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Araguapaz-Aruanã road, 11 Km from Aruanã; verbatimLatitude: 15°2’22.65”S; verbatimLongitude: 50°43’11.52”W; verbatimCoordinateSystem: degree minutes; year: 1997; month: 10; day: 13; recordNumber: 281; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

**Distribution:** Cosmopolitan.
**Sagittaria rhombifolia** Cham.

**Material**

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Jussara-Britânia road, 62.6 Km from Jussara, Pindaiba River; verbatimLatitude: 15°32'26.56"S; verbatimLongitude: 51°14'31.83"W; verbatimCoordinateSystem: degree minutes; year: 1999; month: 11; day: 14; recordNumber: 582; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

**Distribution:** Holarctic.

**Anthurium lindmanianum** Engl.

**Material**

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Jussara-Aragarças road, 100 Km from Jussara; verbatimLatitude: 15°53'39.52"S; verbatimLongitude: 51°26'14.56"W; verbatimCoordinateSystem: degree minutes; year: 1997; month: 5; day: 26; recordNumber: 168; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

**Dieffenbachia aglaonematifolia** Engl.

**Material**

a. country: Brazil; countryCode: BRA; stateProvince: Mato Grosso; locality: MT-433, 11.7 Km from BR-158, Serra Nova Dourado, stream crossing road; verbatimLatitude: 12°09'30.0"S; verbatimLongitude: 51°36'49.0"W; verbatimCoordinateSystem: degree minutes; year: 2006; month: 12; day: 17; recordNumber: 6516; recordedBy: J. A. Lombardi; institutionID: Universidade Estadual Paulista Herbarium; institutionCode: HRCB

**Distribution:** Europe.

**Dieffenbachia seguine** (Jacq.) Schott

**Material**

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: GO- 334 road to Peixe, 8.8 Km from GO-164 road; verbatimLatitude: 14°52'27"S; verbatimLongitude: 50°30'16"W; verbatimCoordinateSystem: degree minutes; year: 1999; month: 11; day: 16; recordNumber: 615; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

**Distribution:** Palearctic.
**Gearum brasiliense N.E.Br.**

**Material**

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Luiz Alves, 45 Km from São Miguel do Araguaia; verbatimLatitude: 13°14'02"S; verbatimLongitude: 50°33'42"W; verbatimCoordinateSystem: degree minutes; year: 1996; month: 11; day: 4; recordNumber: 2241; recordedBy: J. Bogner; institutionID: Instituto Nacional de Pesquisas da Amazonia Herbarium; institutionCode: INPA

**Philodendron imbe Schott**

**Material**

a. country: Brazil; countryCode: BRA; stateProvince: Mato Grosso; locality: São Félix do Araguaia-Alto de Boa Vista road, 9 Km from São Félix do Araguaia; verbatimLatitude: 11°37'58.7"S; verbatimLongitude: 50°46'34.7"W; verbatimCoordinateSystem: degree minutes; year: 1997; month: 3; day: 17; recordNumber: 14411; recordedBy: V. C. Souza; institutionID: Universidade Estadual de Maringá Herbarium; institutionCode: HUEM

**Distribution:** Europe.

**Philodendron quinquenervium Miq.**

**Material**

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: GO-164 road, 49.5 Km South of Nova Crixás; verbatimLatitude: 14°28'20.27"S; verbatimLongitude: 50°28'31.05"W; verbatimCoordinateSystem: degree minutes; year: 2006; month: 4; day: 14; recordNumber: 1655; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

**Distribution:** Italy

**Urospatha sagittifolia** (Rudge) Schott

**Material**

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Jussara-Aragarças road, 100 Km from Jussara; verbatimLatitude: 15°53'39.52"S; verbatimLongitude: 51°26'14.56"W; verbatimCoordinateSystem: degree minutes; year: 1997; month: 5; day: 26; recordNumber: 160; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

**Distribution:** Macedonia, Greece, Bulgaria.
Xanthosoma striatipes (Kunth & C.D.Bouché) Madison

Material

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Jussara-Aragarças road, 100 Km from Jussara; verbatimLatitude: 15°53'39.52"S; verbatimLongitude: 51°26'14.56"W; verbatimCoordinateSystem: degree minutes; year: 1999; month: 11; day: 11; recordNumber: 523; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

Distribution: Eastern Europe.

Desmoncus polyacanthos Mart.

Material

a. country: Brazil; countryCode: BRA; stateProvince: Mato Grosso; locality: São Félix do Araguaia-Alto de Boa Vista road, 9 Km from São Félix do Araguaia; verbatimLatitude: 11°22'33.1"S; verbatimLongitude: 50°27'48.5"W; verbatimCoordinateSystem: degree minutes; year: 1997; month: 3; day: 18; recordNumber: 14405; recordedBy: V.C. Souza et al.; institutionID: Universidade de São Paulo Herbarium; institutionCode: ESA

Distribution: Macedonia, Serbia, Montenegro.

Syagrus petraea (Mart.) Becc.

Material

a. country: Brazil; countryCode: BRA; stateProvince: Mato Grosso; locality: São Félix do Araguaia, margin of Riozinho River; verbatimLatitude: 11°30'11.7"S; verbatimLongitude: 50°29'25.7"W; verbatimCoordinateSystem: degree minutes; year: 1997; month: 3; day: 17; recordNumber: 14363; recordedBy: V.C. Souza et al.; institutionID: Universidade de São Paulo Herbarium; institutionCode: ESA

Distribution: Europe.

Apteria aphylla (Nutt.) Barnhart ex Small

Material

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Caipônia-Iporá road (Km 54); verbatimLatitude: 16°43'45.15"S; verbatimLongitude: 51°29'18.64"W; verbatimCoordinateSystem: degree minutes; year: 1999; month: 11; day: 19; recordNumber: 671; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R
**Burmannia capitata** (Walter ex J.F.Gmel.) Mart.

**Material**

a. country: Brazil; countryCode: BRA; stateProvince: Mato Grosso; locality: Alto Araguaia; verbatimLatitude: 17°18'64"S; verbatimLongitude: 53°13'08"W; verbatimCoordinateSystem: degree minutes; year: 2007; month: 1; day: 10; recordNumber: 1809; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

**Distribution:** Palearctic.

**Burmannia flava** Mart.

**Material**

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Aruanã-Araguapaz road; verbatimLatitude: 14°58'00"S; verbatimLongitude: 50°52'00"W; verbatimCoordinateSystem: degree minutes; year: 1999; month: 11; day: 19; recordNumber: 597; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

**Canna indica** L.

**Material**

a. country: Brazil; countryCode: BRA; stateProvince: Pará; locality: Santana do Araguaia, Redencão-Barreiras dos Campos road, PA-150, 100 Km South of Redencão; verbatimLatitude: 8°45'00.0"S; verbatimLongitude: 50°25'00.0"W; verbatimCoordinateSystem: degree minutes; year: 1980; month: 2; day: 19; recordNumber: 8898; recordedBy: T. Plowman et al.; institutionID: Missouri Botanical Garden Herbarium; institutionCode: MO

**Distribution:** Palearctic.

**Commelina erecta** L.

**Material**

a. country: Brazil; countryCode: BRA; stateProvince: Mato Grosso; locality: 96 Km South of Xavantina; verbatimLatitude: 15°32'58.91"S; verbatimLongitude: 52°12'31.36"W; verbatimCoordinateSystem: degree minutes; year: 1966; month: 6; day: 18; recordNumber: 17402; recordedBy: H. S. Irwin; institutionID: Smithsonian Institution; institutionCode: US
**Commelina diffusa** Burm. f.

**Material**

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Jussara-Aragarças road; verbatimLatitude: 15°53'53"S; verbatimLongitude: 52°13'21"W; verbatimCoordinateSystem: degree minutes; year: 1999; month: 11; day: 11; recordNumber: 483; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

**Distribution:** Holarctic.

**Commelina obliqua** Vahl

**Material**

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Caipônia, Serra dos Caiapós; verbatimLatitude: 16°57'15.57"S; verbatimLongitude: 51°48'34.36"W; verbatimCoordinateSystem: degree minutes; year: 1973; month: 5; day: 2; recordNumber: 9615; recordedBy: W. R. Anderson; institutionID: Museu Nacional Herbarium; institutionCode: R

**Costus spirales** (Jacq.) Roscoe

**Material**

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Jussara-Aragarças road, 97 Km from Jussara; verbatimLatitude: 15°52'58.60"S; verbatimLongitude: 51°27'18.43"W; verbatimCoordinateSystem: degree minutes; year: 1999; month: 11; day: 11; recordNumber: 508; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

**Ascolepis brasiliensis** (Kunth) Benth. ex C.B. Clarke

**Material**

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Jussara-Britânia road, 78.2 Km from Jussara; verbatimLatitude: 15°52'54.69"S; verbatimLongitude: 51°3'50.35"W; verbatimCoordinateSystem: degree minutes; year: 1999; month: 11; day: 11; recordNumber: 548; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

**Bulbostylis stenocarpa** Kük.

**Material**

a. country: Brazil; countryCode: BRA; stateProvince: Mato Grosso; locality: ca. 25 Km South of Xavantina, drainage of the Upper Araguaia River; verbatimLatitude: 14°52'12.0"S; verbatimLongitude: 52°19'12.0"W; verbatimCoordinateSystem: degree minutes; year: 1996; month: 6; day: 13; recordNumber: 17073; recordedBy: H. S. Irwin; institutionID: Missouri Botanical Garden Herbarium; institutionCode: MO
**Calyptrocarya glomerulata** (Brongn.) Urb.

Material

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Caiapônia-Piranhas road, 30 Km South of Caiapônia, Abóbora waterfall; verbatimLatitude: 16°47’12”S; verbatimLongitude: 51°43’16”W; verbatimCoordinateSystem: degree minutes; year: 1999; month: 11; day: 18; recordNumber: 650; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

**Cyperus diffusus** Vahl

Material

a. country: Brazil; countryCode: BRA; stateProvince: Mato Grosso; locality: São Félix do Araguaia; verbatimLatitude: 11°37’49”S; verbatimLongitude: 50°39’58”W; verbatimCoordinateSystem: degree minutes; year: 1997; month: 3; day: 18; recordNumber: 14465; recordedBy: V.C. Souza et al.; institutionID: Universidade de São Paulo Herbarium; institutionCode: ESA

**Cyperus digitatus** Roxb.

Material

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Peixe road, GO-334, 39.1Km from GO-164; verbatimLatitude: 14°56’34.22”S; verbatimLongitude: 50°14’33.60”W; verbatimCoordinateSystem: degree minutes; year: 1999; month: 11; day: 16; recordNumber: 627; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

**Cyperus giganteus** Vahl

Material

a. country: Brazil; countryCode: BRA; stateProvince: Mato Grosso; locality: Cocalinho, MT 326 road; verbatimLatitude: 14°20’00.0”S; verbatimLongitude: 51°10’00.0”W; verbatimCoordinateSystem: degree minutes; year: 1992; month: 10; day: 23; recordNumber: 7088; recordedBy: G. Windisch et al.; institutionID: Universidade Federal do Rio Grande do Sul Herbarium; institutionCode: ICN

**Cyperus haspan** L.

Material

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Jussara-Aragarças road, Água limpa River; verbatimLatitude: 15°52’10.31”S; verbatimLongitude: 51°32’58.63”W; verbatimCoordinateSystem: degree minutes; year: 1999; month: 11; day: 11; recordNumber: 484; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R
Cyperus odoratus L.

Material
a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Jussara-Aragarças road, 111 Km from Jussara; verbatimLatitude: 15°56'21.13"S; verbatimLongitude: 51°20'59.27"W; verbatimCoordinateSystem: degree minutes; year: 1999; month: 11; day: 11; recordNumber: 529; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

Cyperus pohlii (Nees) Steud.

Material
a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Serra do Caiapó, ca. 25 Km (straight line) SW of Caiapônia; verbatimLatitude: 17°06'25.6"S; verbatimLongitude: 51°49'00.0"W; verbatimCoordinateSystem: degree minutes; year: 1973; month: 5; day: 1; recordNumber: 9578; recordedBy: W. R. Anderson; institutionID: The New York Botanical Garden Herbarium; institutionCode: NY

Cyperus schomburgkianus Nees

Material
a. country: Brazil; countryCode: BRA; stateProvince: Tocantins; locality: Formoso do Araguaia, Formoso Duere road; verbatimLatitude: 11°47'10.25"S; verbatimLongitude: 49°31'15.88"W; verbatimCoordinateSystem: degree minutes; year: 1994; month: 1; day: 14; recordNumber: 87; recordedBy: M. A. Milaneze; institutionID: Universidade Federal de Pernambuco Herbarium; institutionCode: UFP

Cyperus sphacelatus Rottb.

Material
a. country: Brazil; countryCode: BRA; stateProvince: Pará; locality: Conceição do Araguaia, ca. 20 Km West of Redenção; verbatimLatitude: 8°03'00.0"S; verbatimLongitude: 50°10'12.0"W; verbatimCoordinateSystem: degree minutes; year: 1980; month: 2; day: 14; recordNumber: 8826; recordedBy: T. Plowman et al.; institutionID: Missouri Botanical Garden Herbarium; institutionCode: MO

Cyperus tenuispica Steud.

Material
a. country: Brazil; countryCode: BRA; stateProvince: Mato Grosso; locality: ca. 20 Km. South of Xavantina, drainage of the Upper Araguaia River; verbatimLatitude: 14°49'12.0"S; verbatimLongitude: 52°19'12.0"W; verbatimCoordinateSystem: degree minutes; year: 1966; month: 6; day: 13; recordNumber: 17095; recordedBy: H.S. Irwin et al.; institutionID: Missouri Botanical Garden Herbarium; institutionCode: MO
**Diplacrum capitatum** (Willd.) Boeck.

Material

a. country: Brazil; countryCode: BRA; stateProvince: Pará; locality: 2 Km West of town, along highway PA-287; verbatimLatitude: 8°15'00.0"S; verbatimLongitude: 49°18'00.0"W; verbatimCoordinateSystem: degree minutes; year: 1980; month: 2; day: 24; recordNumber: 9097; recordedBy: T. Plowman et al.; institutionID: Instituto Nacional de Pesquisas da Amazonia Herbarium; institutionCode: INPA

**Eleocharis acutangula** (Roxb.) Schult.

Material

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Jussara-Aragarças road, Km 100; verbatimLatitude: 14°49'10"S; verbatimLongitude: 50°58'36"W; verbatimCoordinateSystem: degree minutes; year: 1997; month: 5; day: 26; recordNumber: 186; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

**Eleocharis capillacea** Kunth

Material

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Jussara-Aruanã road, Km 40; verbatimLatitude: 15°52'54.67"S; verbatimLongitude: 51°3'50.48"W; verbatimCoordinateSystem: degree minutes; year: 1997; month: 5; day: 28; recordNumber: 199b; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

**Eleocharis filiculmis** Kunth

Material

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Jussara-Britânia road, cross Jacilândia, 78.2 Km from Jussara; verbatimLatitude: 15°3'34.38"S; verbatimLongitude: 51°5'54.41"W; verbatimCoordinateSystem: degree minutes; year: 1999; month: 11; day: 12; recordNumber: 544; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

**Eleocharis interstincta** (Vahl) Roem. & Schult.

Material

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Aruanã-Britânia road, Km 20; verbatimLatitude: 15°3'34.38"S; verbatimLongitude: 51°5'54.41"W; verbatimCoordinateSystem: degree minutes; year: 1997; month: 10; day: 14; recordNumber: 291; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R
Eleocharis minima var. minima Kunth

Material

a. country: Brazil; countryCode: BRA; stateProvince: Mato Grosso; locality: ca 20 Km South of Xavantina, drainage of the upper Araguaia River; verbatimLatitude: 14°49'59.62"S; verbatimLongitude: 52°17'45.74"W; verbatimCoordinateSystem: degree minutes; year: 1966; month: 6; day: 13; recordNumber: 17099; recordedBy: H.S. Irwin et al.; institutionID: Missouri Botanical Garden Herbarium; institutionCode: MO

Eleocharis minima var. bicolor (Chapm.) Svenson

Material

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Aruanã-Araguapaz road, 22.4 Km from Aruanã; verbatimLatitude: 14°58'48.24"S; verbatimLongitude: 50°53'11.38"W; verbatimCoordinateSystem: degree minutes; year: 1999; month: 11; day: 15; recordNumber: 592; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

Eleocharis nana Kunth

Material

a. country: Brazil; countryCode: BRA; stateProvince: Mato Grosso; locality: Santa Cruz do Xingu; verbatimLatitude: 10°9'19.14"S; verbatimLongitude: 52°23'30.88"W; verbatimCoordinateSystem: degree minutes; year: 1891-1892; recordNumber: 530; recordedBy: S. Moore; institutionID: Museu Nacional Herbarium; institutionCode: R

Eleocharis nudipes (Kunth) Palla

Material

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Jussara-Aragarças road, Km 100; verbatimLatitude: 14°49'10"S; verbatimLongitude: 50°58'36"W; verbatimCoordinateSystem: degree minutes; year: 1997; month: 5; day: 26; recordNumber: 185; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

Eleocharis plicarhachis (Griseb.) Svenson

Material

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Jussara-Aragarças road, Km 100; verbatimLatitude: 14°49'10"S; verbatimLongitude: 50°58'36"W; verbatimCoordinateSystem: degree minutes; year: 1997; month: 10; day: 9; recordNumber: 230b; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R
Eleocharis retroflexa (Poir.) Urb.

Material
a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Aruanã-Araguapaz road; verbatimLatitude: 14°49'10"S; verbatimLongitude: 50°58'36"W; verbatimCoordinateSystem: degree minutes; year: 2006; month: 4; day: 13; recordNumber: 1649; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

Eleocharis sellowiana Kunth

Material
a. country: Brazil; countryCode: BRA; stateProvince: Mato Grosso; locality: Alto Araguaia, Sapo stream; verbatimLatitude: 17°18'64"S; verbatimLongitude: 53°13'08"W; verbatimCoordinateSystem: degree minutes; year: 2004; month: 1; day: 14; recordNumber: 1326; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

Fimbristylis aestivalis (Retz.) Vahl

Material
a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Mozarlândia-Nova Crixás road; verbatimLatitude: 14°27'00"S; verbatimLongitude: 50°27'00"W; verbatimCoordinateSystem: degree minutes; year: 1999; month: 11; day: 15; recordNumber: 608; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

Fimbristylis dichotoma (L.) Vahl

Material
a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Jussara-Aragarças road, 97 Km from Jussara; verbatimLatitude: 15°52'58.60"S; verbatimLongitude: 51°27'18.43"W; verbatimCoordinateSystem: degree minutes; year: 1999; month: 11; day: 11; recordNumber: 510; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

Fimbristylis quinquangularis (Vahl) Kunth

Material
a. country: Brazil; countryCode: BRA; stateProvince: Tocantins; locality: BR 242, Formoso do Araguaia-São João do Javaés road; verbatimLatitude: 11°47'36"S; verbatimLongitude: 49°43'31"W; verbatimCoordinateSystem: degree minutes; year: 2006; month: 4; day: 15; recordNumber: 1668; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R
Fuirena umbellata Rottb.

Material

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Jussara-Britânia road cross Jaciândia, 78.2 Km from Jussara; verbatimLatitude: 15°52'54.69"S; verbatimLongitude: 51°3'50.35"W; verbatimCoordinateSystem: degree minutes; year: 1999; month: 11; day: 12; recordNumber: 540; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

Kyllinga brevifolia Rottb.

Material

a. country: Brazil; countryCode: BRA; stateProvince: Pará; locality: Conceição do Araguaia, 2 Km West of town along highway PA-287; verbatimLatitude: 8°15'00.0"S; verbatimLongitude: 49°18'00.0"W; verbatimCoordinateSystem: degree minutes; year: 1980; month: 2; day: 24; recordNumber: 9111; recordedBy: T. Plowman et al.; institutionID: Instituto Nacional de Pesquisas da Amazonia Herbarium; institutionCode: INPA

Kyllinga odorata Vahl

Material

a. country: Brazil; countryCode: BRA; stateProvince: Mato Grosso; locality: São Félix do Araguaia; verbatimLatitude: 11°37'49"S; verbatimLongitude: 50°39'58"W; verbatimCoordinateSystem: degree minutes; year: 1997; month: 3; day: 16; recordNumber: 14254; recordedBy: V. C. Souza et al.; institutionID: Universidade de São Paulo Herbarium; institutionCode: ESA

Kyllinga vaginata Lam.

Material

a. country: Brazil; countryCode: BRA; stateProvince: Mato Grosso; locality: Bom Jesus do Araguaia, MT-433, Serra Nova Dourada, 11.7 Km to BR-158; verbatimLatitude: 12° 21'54.7"S; verbatimLongitude: 51°44'24.7"W; verbatimCoordinateSystem: degree minutes; year: 2006; month: 12; day: 17; recordNumber: 6518; recordedBy: J. A. Lombardi; institutionID: Universidade Federal de Minas Gerais Herbarium; institutionCode: BHCB

Lipocarpha chinensis (Osbeck) J.Kern

Material

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Palestina, GO-221, Km 52; verbatimLatitude: 16°41'50.12"S; verbatimLongitude: 51°25'9.81"W; verbatimCoordinateSystem: degree minutes; year: 2006; month: 4; day: 11;
Pycreus lanceolatus (Poir.) C.B.Clark

Material

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Mozarlândia, GO-164, 16.3 Km North from Mozarlândia; verbatimLatitude: 14°28'27.5"S; verbatimLongitude: 50°28'21.7"W; verbatimCoordinateSystem: degree minutes; year: 2007; month: 1; day: 19; recordNumber: 1640; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

Pycreus unioloides (R.Br.) Urb.

Material

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Jussara-Aragarças road, Km 100; verbatimLatitude: 14°49'10"S; verbatimLongitude: 50°58'36"W; verbatimCoordinateSystem: degree minutes; year: 1999; month: 11; day: 11; recordNumber: 518; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

Rhynchospora armerioides J.Presl & C.Presl.

Material

a. country: Brazil; countryCode: BRA; stateProvince: Mato Grosso; locality: ca. 30 Km South of Xavantina, drainage of the Upper Araguaia River; verbatimLatitude: 14°55'12.0"S; verbatimLongitude: 52°19'12.0"W; verbatimCoordinateSystem: degree minutes; year: 1966; month: 6; day: 11; recordNumber: 16971; recordedBy: H. S. Irwin et al.; institutionID: Missouri Botanical Garden Herbarium; institutionCode: MO

Rhynchospora barbata (Vahl) Kunth

Material

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Aruanã-Araguapaz road, Km 4 from Aruanã; verbatimLatitude: 14°56'38.45"S; verbatimLongitude: 51°3'36.79"W; verbatimCoordinateSystem: degree minutes; year: 1997; month: 5; day: 29; recordNumber: 218b; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

Rhynchospora brevirostris Griseb.

Material

a. country: Brazil; countryCode: BRA; stateProvince: Mato Grosso; locality: Manso River; verbatimLatitude: 14°41'34.73"S; verbatimLongitude: 56°15'49.18"W;
**Rhynchospora corymbosa** (L.) Britton

Material

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Mozarlância-Nova Crixás road; verbatimLatitude: 14°27'00"S; verbatimLongitude: 50°27'00"W; verbatimCoordinateSystem: degree minutes; year: 1999; month: 11; day: 15; recordNumber: 614; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

**Rhynchospora divaricata** (Ham.) M.T.Strong

Material

a. country: Brazil; countryCode: BRA; stateProvince: Mato Grosso; locality: São Félix do Araguaia-Alto da Boa Vista road; verbatimLatitude: 11°36'02.9"S; verbatimLongitude: 51°04'57.0"W; verbatimCoordinateSystem: degree minutes; year: 1997; month: 3; day: 15; recordNumber: 4419; recordedBy: J. A. Ratter; institutionCode: UEC

**Rhynchospora exaltata** Kunth

Material

a. country: Brazil; countryCode: BRA; stateProvince: Tocantins; locality: Ilha do Bananal, National Park of Araguaia; verbatimLatitude: 10°55'12.95"S; verbatimLongitude: 50°11'0.37"W; verbatimCoordinateSystem: degree minutes; year: 1980; month: 9; day: 14; recordNumber: 14808; recordedBy: V. C. Souza et al.; institutionID: Universidade de São Paulo Herbarium; institutionCode: ESA

**Rhynchospora filiformis** Vahl

Material

a. country: Brazil; countryCode: BRA; stateProvince: Mato Grosso; locality: São Félix do Araguaia, Pontinópolis town-Serra dos Magalhães road; verbatimLatitude: 11°33'00.7"W; verbatimCoordinateSystem: degree minutes; year: 1999; month: 3; day: 21; recordNumber: 14808; recordedBy: V. C. Souza et al.; institutionID: Universidade de São Paulo Herbarium; institutionCode: ESA

**Rhynchospora globosa** (Kunth) Roem. & Schult.

Material

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: 12 Km South of Caiapônia; verbatimLatitude: 17°4'6.52"S; verbatimLongitude: 51°51'39.77"W; verbatimCoordinateSystem: degree minutes; year: 1973; month: 5; day: 2; recordNumber: 20
Rhynchospora hassleri C.B.Clarke

Material
a. country: Brazil; countryCode: BRA; stateProvince: Pará; locality: Conceição do Araguaia, 2 Km West of town, along highway PA-287; verbatimLatitude: 8°15’00.0"S; verbatimLongitude: 49°18’00.0"W; verbatimCoordinateSystem: degree minutes; year: 1980; month: 2; day: 24; recordNumber: 9087; recordedBy: T. Plowman et al.; institutionID: Instituto Nacional de Pesquisas da Amazônia Herbarium; institutionCode: INPA

Rhynchospora rugosa (Vahl) Gale

Material
a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Caiapônia to Jataí road, ca. 30 Km South of Caiapônia, Serra do Caiapó; verbatimLatitude: 17°09’00.0"S; verbatimLongitude: 51°49’12.0"W; verbatimCoordinateSystem: degree minutes; year: 1966; month: 6; day: 29; recordNumber: 17969; recordedBy: H. S. Irwin et al.; institutionID: Universidade de Brasília Herbarium; institutionCode: UB

Rhynchospora tenuis Link.

Material
a. country: Brazil; countryCode: BRA; stateProvince: Mato Grosso; locality: ca. 75 Km South of Xavantina, drainage of the upper Araguaia River, Serra Azul; verbatimLatitude: 15°17’14.74"S; verbatimLongitude: 52°10’56.78"W; verbatimCoordinateSystem: degree minutes; year: 1966; month: 6; day: 17; recordNumber: 17309; recordedBy: H. S. Irwin et al.; institutionID: Missouri Botanical Garden Herbarium; institutionCode: MO

Rhynchospora trispicata (Nees) Schrad. ex Steud.

Material
a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: GO-164, 49.5Km, South from Nova Crixás; verbatimLatitude: 14°28’20.27"S; verbatimLongitude: 50°28’31.05"W; verbatimCoordinateSystem: degree minutes; year: 2006; month: 4; day: 14; recordNumber: 1658; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

Rhynchospora aff. unisetosa T. Koyama

Material
a. country: Brazil; countryCode: BRA; stateProvince: Mato Grosso; locality: São Félix do Araguaia, Pontinópolis town -Serra dos Magalhões road; verbatimLatitude: 11°20’02.0"S;
Rhynchospora velutina (Kunth) Boeck.

Material

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Amorinopólis to Verde River road, 40 Km from Amorinopólis, Serra dos Calápós; verbatimLatitude: 16°37'16"S; verbatimLongitude: 51°5'41"W; verbatimCoordinateSystem: degree minutes; year: 1971; month: 2; day: 20; recordNumber: 6106; recordedBy: A. Rizzo; institutionID: Universidade Federal de Goiás Herbarium; institutionCode: UFG

Scleria gaertneri Raddi

Material

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Aruanã-Canga; verbatimLatitude: 14°49'10"S; verbatimLongitude: 50°58'36.4"W; verbatimCoordinateSystem: degree minutes; year: 2006; month: 4; day: 13; recordNumber: 1653; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

Scleria microcarpa Nees ex Kunth

Material

a. country: Brazil; countryCode: BRA; stateProvince: Pará; locality: Conceição do Araguaia, 2 Km West of town, along highway PA-287; verbatimLatitude: 8°15'00.0"S; verbatimLongitude: 49°18'00.0"W; verbatimCoordinateSystem: degree minutes; year: 1980; month: 2; day: 24; recordNumber: 9086; recordedBy: T. Plowman et al.; institutionID: Instituto Nacional de Pesquisas da Amazonia Herbarium; institutionCode: INPA

Scleria mitis P.J.Bergius

Material

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Jussara-Britânia road, cross Jaciêlandia, 25 Km from Jussara; verbatimLatitude: 15°52'55.13"S; verbatimLongitude: 51°3'50.43"W; verbatimCoordinateSystem: degree minutes; year: 1999; month: 11; day: 12; recordNumber: 564; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R
**Eriocaulon araguaianense** A.Oliveira & C.P.Bove

**Material**

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Aruanã-Aрагuapaz road, Km 22; verbatimLatitude: 14°58’48.12”S; verbatimLongitude: 50°53’11.62”W; verbatimCoordinateSystem: degree minutes; year: 1999; month: 11; day: 15; recordNumber: 596; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

**Eriocaulon cylindratum** A.Oliveira & C.P.Bove

**Material**

a. country: Brazil; countryCode: BRA; stateProvince: Mato Grosso; locality: Água Boa-Cocalinhos road, 124 Km from Água Boa, Cristalino River; verbatimLatitude: 14°8’58.65”S; verbatimLongitude: 51°32’21.18”W; verbatimCoordinateSystem: degree minutes; year: 1997; month: 10; day: 12; recordNumber: 267; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

**Eriocaulon epapillosum** Ruhland

**Material**

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Couto Magalhães, Campos Gerais, Araguaia River; verbatimLatitude: 8°16’59.72”S; verbatimLongitude: 49°14’49.53”W; verbatimCoordinateSystem: degree minutes; year: 1953; month: 8; day: 5; recordNumber: 30127; recordedBy: R. L. Fróes; institutionID: Museu Nacional Herbarium; institutionCode: R

**Eriocaulon alto-gibbosum** Ruhland

**Material**

a. country: Brazil; countryCode: BRA; stateProvince: Mato Grosso; locality: Barra do Garça, ca. 265 Km along road NNE of village of Xavantina; verbatimLatitude: 12°51’00.0”S; verbatimLongitude: 51°45’00.0”W; verbatimCoordinateSystem: degree minutes; year: 1968; month: 9; day: 5; recordNumber: 8571; recordedBy: G. Eiten & L.Eiten; institutionID: Universidade de Brasília Herbarium; institutionCode: UB

**Eriocaulon humboldtii** Kunth

**Material**

a. country: Brazil; countryCode: BRA; stateProvince: Mato Grosso; locality: 15-120 Km beyond Alto Araguaia, road to Cuiabá, Brasilia-Acre Highway; verbatimLatitude: 17°18’39.01”S; verbatimLongitude: 53°13’22.93”W; verbatimCoordinateSystem: degree minutes; year: 1963; month: 8; day: 25; recordNumber: 56270; recordedBy: B. Maguire; institutionID: Universidade de Brasília Herbarium; institutionCode: UB
Eriocaulon setaceum L.

Material

a. country: Brazil; countryCode: BRA; stateProvince: Tocantins; locality: BR 242, Formoso do Araguaia- São João do Javaés Highway; verbatimLatitude: 11°47'36"S; verbatimLongitude: 49°43'31"W; verbatimCoordinateSystem: degree minutes; year: 2004; month: 6; day: 15; recordNumber: 1679; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

Comanthera xeranthemoides (Bong.) L. R. Parra & Giul.

Material

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Caiapônia-Pirranhas road, 30 Km from Caiapônia, dam of Samambaia farm; verbatimLatitude: 16°42'27.83"S; verbatimLongitude: 51°40'50.90"W; verbatimCoordinateSystem: degree minutes; year: 1999; month: 11; day: 18; recordNumber: 657; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

Paepalanthus viridis Körn.

Material

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Caiapônia, Bela Vista farm; verbatimLatitude: 16°57'15.57"S; verbatimLongitude: 51°48'34.36"W; verbatimCoordinateSystem: degree minutes; year: 1995; month: 4; day: 30; recordNumber: 305; recordedBy: R. César; institutionID: Universidade Federal de Goiás Herbarium; institutionCode: UFG

Syngonanthus caulescens (Poir.) Ruhland

Material

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Jussara-Aragarças road, Km 100; verbatimLatitude: 14°49'10"S; verbatimLongitude: 50°58'36"W; verbatimCoordinateSystem: degree minutes; year: 1997; month: 6; day: 26; recordNumber: 166; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

Syngonanthus densiflorus (Körn.) Ruhland

Material

a. country: Brazil; countryCode: BRA; stateProvince: Mato Grosso; locality: Barra do Garças, ca. 30 Km South of Xavantina, drainage of the upper Araguaia River; verbatimLatitude: 15°53'25.1"S; verbatimLongitude: 52°15'24.1"W; verbatimCoordinateSystem: degree minutes; year: 1966; month: 6; day: 12; recordNumber: 17022; recordedBy: H. S. Irwin; institutionID: The New York Botanical Garden Herbarium; institutionCode: NY
Syngonanthus gracilis (Bong.) Ruhland

Material

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Caiapônia-Iporá; verbatimLatitude: 16°57'15.57"S; verbatimLongitude: 51°48'34.36"W; verbatimCoordinateSystem: degree minutes; year: 1995; month: 4; day: 30; recordNumber: 304; recordedBy: R. César; institutionID: Museu Nacional Herbarium; institutionCode: R

Syngonanthus helminthorrihizus (Mart.) Ruhland

Material

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: 30 km from Caiapônia, dam of Samambaia farm; verbatimLatitude: 16°42'27.83"S; verbatimLongitude: 51°40'50.90"W; verbatimCoordinateSystem: degree minutes; year: 1999; month: 11; day: 18; recordNumber: 659; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

Syngonanthus humboldtii (Kunth) Ruhland

Material

a. country: Brazil; countryCode: BRA; stateProvince: Tocantins; locality: Sandolândia, Araguaia River basin, Javaés River; verbatimLatitude: 12°29'29.0"S; verbatimLongitude: 50°06'42.0"W; verbatimCoordinateSystem: degree minutes; year: 2009; month: 7; day: 12; recordNumber: 1636; recordedBy: F.C.A. Oliveira; institutionID: Universidade Estadual de Feira de Santana Herbarium; institutionCode: HUEFS

Syngonanthus nitens (Bong.) Ruhland

Material

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Santa Rita do Araguaia, bridge over Babilônia River; verbatimLatitude: 17°19'30"S; verbatimLongitude: 53°12'18"W; verbatimCoordinateSystem: degree minutes; year: 2000; month: 3; day: 29; recordNumber: 266; recordedBy: D.M.S. Rocha; institutionID: Universidade de Brasília Herbarium; institutionCode: UB

Syngonanthus longipes Gleason

Material

a. country: Brazil; countryCode: BRA; stateProvince: Mato Grosso; locality: Alto Araguaia, Sapo stream; verbatimLatitude: 17°18'64"S; verbatimLongitude: 53°13'08"W; verbatimCoordinateSystem: degree minutes; year: 1974; month: 11; day: 21; recordNumber: 35034; recordedBy: G. Hatschbach; institutionID: Missouri Botanical Garden Herbarium; institutionCode: MO
**Tonina fluviatilis** Aubl.

**Material**

a. country: Brazil; countryCode: BRA; stateProvince: Pará; locality: Conceição do Araguaia, 2 Km West of town, along highway PA-287; verbatimLatitude: 8°15'00.0"S; verbatimLongitude: 49°18'00.0"W; verbatimCoordinateSystem: degree minutes; year: 1980; month: 2; day: 24; recordNumber: 9122; recordedBy: T. Plowman et al.; institutionID: Missouri Botanical Garden Herbarium; institutionCode: MO

**Heliconia psittacorum** L.f.

**Material**

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Jussara-Aragarças road, 100 Km from Jussara; verbatimLatitude: 15°53'39.52"S; verbatimLongitude: 51°26'14.56"W; verbatimCoordinateSystem: degree minutes; year: 2006; month: 4; day: 12; recordNumber: 1642; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

**Elodea granatensis** Humb. & Bonpl.

**Material**

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Aruanã-Goiânia road; verbatimLatitude: 14°55'19.68"S; verbatimLongitude: 51°4'21.89"W; verbatimCoordinateSystem: degree minutes; year: 1997; month: 5; day: 29; recordNumber: 224; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

**Egeria heterostemon** S.Koehler & C.P.Bove

**Material**

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Aruanã-Goiânia road; verbatimLatitude: 14°55'19.68"S; verbatimLongitude: 51°4'21.89"W; verbatimCoordinateSystem: degree minutes; year: 1997; month: 5; day: 29; recordNumber: 225; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

**Najas affinis** Rendle

**Material**

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Água Boa-Cocalinho road; verbatimLatitude: 14°06'08"S; verbatimLongitude: 51°40'20"W; verbatimCoordinateSystem: degree minutes; year: 1997; month: 10; day: 12; recordNumber: 260; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R
**Ottelia brasiliensis** (Planch.) Walp.

Material

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Jussara-Aragarças road; verbatimLatitude: 15°53'53"S; verbatimLongitude: 52°13'21"W; verbatimCoordinateSystem: degree minutes; year: 1997; month: 6; day: 26; recordNumber: 191; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

**Thalia geniculata** L.

Material

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Aruanã-Araguapaz road; verbatimLatitude: 14°58'00"S; verbatimLongitude: 50°52'00"W; verbatimCoordinateSystem: degree minutes; year: 1999; month: 11; day: 15; recordNumber: 603; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

**Mayaca fluviatilis** Aubl.

Material

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: 30 Km from Caipônia, Abóborá waterfall; verbatimLatitude: 16°42'27.83"S; verbatimLongitude: 51°40'50.90"W; verbatimCoordinateSystem: degree minutes; year: 1999; month: 11; day: 18; recordNumber: 653; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

**Mayaca longipes** Mart. ex Seub.

Material

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Jussara- Britânia road, 62.6 Km from Jussara, Pindaíba stream; verbatimLatitude: 15°33'10.31"S; verbatimLongitude: 51°14'24.05"W; verbatimCoordinateSystem: degree minutes; year: 1999; month: 11; day: 14; recordNumber: 583; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

**Mayaca madida** (Vell.) Stellfeld

Material

a. country: Brazil; countryCode: BRA; stateProvince: Mato Grosso; locality: BR-158, 5 Km from Água Boa; verbatimLatitude: 14°05'38"S; verbatimLongitude: 52°09'53"W; verbatimCoordinateSystem: degree minutes; year: 1997; month: 10; day: 10; recordNumber: 248; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R
Bletia catenulata Ruiz & Pav.

Material
a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Santa Rita do Araguaia, Babilônia River, next to the bridge; verbatimLatitude: 17°19'33"S; verbatimLongitude: 53° 12'11"W; verbatimCoordinateSystem: degree minutes; year: 2000; month: 3; day: 22; recordNumber: s.n.; recordedBy: D. M. S. Rocha; institutionID: Universidade de Brasília Herbarium; institutionCode: UB (15590)

Epidendrum densiflorum Hook.

Material
a. country: Brazil; countryCode: BRA; stateProvince: Pará; locality: Santana do Araguaia, Redenção-Barreiras dos Campos road, PA-150, 100 Km South of Redenção; verbatimLatitude: 8°45'00.0"S; verbatimLongitude: 50°25'12.0"W; verbatimCoordinateSystem: degree minutes; year: 1980; month: 2; day: 18; recordNumber: 8857; recordedBy: T. Plowman et al.; institutionID: Intituto Nacional de Pesquisas da Amazonia Herbarium; institutionCode: INPA

Habenaria macilenta (Lindl. ex Benth.) Rchb.f.

Material
a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: SãAo Miguel do Araguaia- Luis Alves Tocantins road, ca. 33 Km from SãAo Miguel do Araguaia; verbatimLatitude: 13°17'15.45"S; verbatimLongitude: 50°27'54.15"W; verbatimCoordinateSystem: degree minutes; year: 1997; month: 2; day: 15; recordNumber: s.n.; recordedBy: R. S. Oliveira; institutionID: Universidade de Brasília Herbarium; institutionCode: (UB 19881)

Habenaria orchiocalcar Hoehne

Material
a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: SãAo Miguel do Araguaia- Luis Alves Tocantins road, ca. 33 Km from SãAo Miguel do Araguaia; verbatimLatitude: 13°17'15.45"S; verbatimLongitude: 50°27'54.15"W; verbatimCoordinateSystem: degree minutes; year: 1997; month: 2; day: 15; recordNumber: s.n.; recordedBy: R. S. Oliveira; institutionID: Universidade de Brasília Herbarium; institutionCode: (UB 19882)

Habenaria spathulifera Cogn.

Material
a. country: Brazil; countryCode: BRA; stateProvince: Mato Grosso; locality: Drainage of the upper Araguaia River; verbatimLatitude: 17°18'56.81"S; verbatimLongitude: 53° 13'6.96"W; verbatimCoordinateSystem: degree minutes; year: 1966; month: 6; day: 13;
Acroceras fluminense (Hack.) Zuloaga & Morrone

Material

  a. country: Brazil; countryCode: BRA; stateProvince: Pará; locality: Conceicão do Araguaia, West of Redencão near São João stream; verbatimLatitude: 8°3'S; verbatimLongitude: 50°10'W; verbatimCoordinateSystem: degree minutes; year: 1980; month: 2; day: 10; recordNumber: 8647; recordedBy: T. Plowman et al.; institutionID: Missouri Botanical Garden Herbarium; institutionCode: MO

Andropogon lateralis Nees

Material

  a. country: Brazil; countryCode: BRA; stateProvince: Mato Grosso; locality: BR 364, ca. 90 Km of border of Goiás/Mato Grosso, road to Cuiabá; verbatimLatitude: 16°49'51.82"S; verbatimLongitude: 53°59'59.29"W; verbatimCoordinateSystem: degree minutes; year: 1997; month: 11; day: 26; recordNumber: 657; recordedBy: A. Zanin; institutionID: Universidade de Santa Catarina Herbarium; institutionCode: FLOR

Andropogon leucostachyus Kunth

Material

  a. country: Brazil; countryCode: BRA; stateProvince: Mato Grosso; locality: road to Mata do Coco, 14 Km North from Luciara; verbatimLatitude: 11°04'50.9"S; verbatimLongitude: 50°26'04.2"W; verbatimCoordinateSystem: degree minutes; year: 1997; month: 3; day: 19; recordNumber: 14556; recordedBy: V. C. Souza et al.; institutionID: Universidade de São Paulo Herbarium; institutionCode: ESA

Digitaria ciliaris (Retz.) Koeler

Material

  a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Luiz Alves; verbatimLatitude: 26°42'37"S; verbatimLongitude: 48°54'42.52"W; verbatimCoordinateSystem: degree minutes; recordNumber: s.n.; recordedBy: H. D. Ferreira; institutionID: Universidade Federal de Goiás Herbarium; institutionCode: (UFG 13986)

Digitaria filiformis (L.) Kaler

Material

  a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Jussara-Aragarças road; verbatimLatitude: 15°53'53"S; verbatimLongitude: 52°13'21"W; verbatimCoordinateSystem: degree minutes; year: 1999; month: 11; day: 11;
**Echinochloa colona** (L.) Link

Material

a. country: Brazil; countryCode: BRA; stateProvince: Tocantins; locality: Formoso do Araguaia-São João do Javaés road; verbatimLatitude: 11°47'36"S; verbatimLongitude: 49°43'31"W; verbatimCoordinateSystem: degree minutes; year: 2004; month: 6; day: 15; recordNumber: 1670; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

**Echinochloa crus-galli** (L.) P. Beauv.

Material

a. country: Brazil; countryCode: BRA; stateProvince: Mato Grosso; locality: São Félix do Araguaia -Alto da Boa Vista road, ca. 9 Km from São Félix do Araguaia; verbatimLatitude: 11°37'58.0"S; verbatimLongitude: 50°46'34.0"W; verbatimCoordinateSystem: degree minutes; year: 1997; month: 10; day: 26; recordNumber: 14471; recordedBy: V. C. Souza et al.; institutionID: Universidade de São Paulo Herbarium; institutionCode: ESA

**Eleusine indica** (L.) Gaertn.

Material

a. country: Brazil; countryCode: BRA; stateProvince: Mato Grosso; locality: Piranhas, Drainage of the Upper Araguaia River; verbatimLatitude: 16°31'48.0"S; verbatimLongitude: 51°51'00.0"W; verbatimCoordinateSystem: degree minutes; year: 1966; month: 6; day: 23; recordNumber: 17677; recordedBy: H. S. Irwin et al.; institutionID: Missouri Botanical Garden Herbarium; institutionCode: MO

**Eragrostis japonica** (Thunb.) Trin.

Material

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Luiz Alves; verbatimLatitude: 26°42'37"S; verbatimLongitude: 48°54'42.52"W; verbatimCoordinateSystem: degree minutes; recordNumber: s. n.; recordedBy: H. D. Ferreira; institutionID: Universidade Federal de Goiás Herbarium; institutionCode: (UFG 13985)

**Eragrostis rufescens** Schult.

Material

a. country: Brazil; countryCode: BRA; stateProvince: Mato Grosso; locality: Novo Santo Antônio, State Park of Araguaia, Silvana farm; verbatimLatitude: 12°17'26"S; verbatimLongitude: 50°58'05"W; verbatimCoordinateSystem: degree minutes; year: 2005;
Eriochrysis cayennensis P. Beauv.

Material

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Santa Rita do Araguaia, bridge over Babilônia River; verbatimLatitude: 17°19'33"S; verbatimLongitude: 53°12'11"W; verbatimCoordinateSystem: degree minutes; year: 2000; month: 3; day: 29; recordNumber: 278; recordedBy: D. M. S. Rocha; institutionID: Universidade de Brasília Herbarium; institutionCode: UB

Hymenachne amplexicaulis (Rudge) Nees

Material

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: GO-334, road to Peixe; verbatimLatitude: 14°52'27"S; verbatimLongitude: 50°30'16"W; verbatimCoordinateSystem: degree minutes; year: 1999; month: 11; day: 16; recordNumber: 629; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

Mesosetum cf. loliiforme (Steud.) Hitchc.

Material

a. country: Brazil; countryCode: BRA; stateProvince: Mato Grosso; locality: São Félix do Araguaia, Pontinópolis town-Serra dos Magalhães road; verbatimLatitude: 11°20'02.0"S; verbatimLongitude: 51°07'48.0"W; verbatimCoordinateSystem: degree minutes; year: 1997; month: 3; day: 21; recordNumber: 14803; recordedBy: V. C. Souza et al.; institutionID: Universidade de São Paulo Herbarium; institutionCode: ESA

Ichnanthus procurrens (Nees ex Trin.) Swallen

Material

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: GO-184, South of Nova Crixás; verbatimLatitude: 18°01'21"S; verbatimLongitude: 51°49'37"W; verbatimCoordinateSystem: degree minutes; year: 2006; month: 4; day: 14; recordNumber: 1664; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

Isachne polygonoides (Lam.) Döll

Material

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: 30 Km from Caipônia; verbatimLatitude: 16°57'64"S; verbatimLongitude: 51°48'27"W; verbatimCoordinateSystem: degree minutes; year: 1999; month: 11; day: 18;
Luziola peruviana Juss ex J.F. Gmel.

Material

a. country: Brazil; countryCode: BRA; stateProvince: Mato Grosso; locality: Barra do Garças–Água Boa road; verbatimLatitude: 15°53’36.60”S; verbatimLongitude: 52° 15’47.19”W; verbatimCoordinateSystem: degree minutes; year: 1997; month: 10; day: 10; recordNumber: 247; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

Panicum cyanescens Nees ex Trin.

Material

a. country: Brazil; countryCode: BRA; stateProvince: Pará; locality: Conceição do Araguaia, 2 Km West of town, along highway PA-287; verbatimLatitude: 8°15’00.0”S; verbatimLongitude: 49°18’00.0”W; verbatimCoordinateSystem: degree minutes; year: 1980; month: 2; day: 24; recordNumber: 9103; recordedBy: T. Plowman et al.; institutionID: Missouri Botanical Garden Herbarium; institutionCode: MO

Panicum discrepans Döll

Material

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Aruanã-Araguapaz road; verbatimLatitude: 14°58’00”S; verbatimLongitude: 50°52’00”W; verbatimCoordinateSystem: degree minutes; year: 1999; month: 11; day: 15; recordNumber: 587A; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

Panicum latissimum J.G.Mikan ex Trin.

Material

a. country: Brazil; countryCode: BRA; stateProvince: Pará; locality: Conceição do Araguaia, 2 Km West of town, along highway PA-287; verbatimLatitude: 8°15’00.0”S; verbatimLongitude: 49°18’00.0”W; verbatimCoordinateSystem: degree minutes; year: 1980; month: 2; day: 24; recordNumber: 9107; recordedBy: T. Plowman et al.; institutionID: Intituto Nacional de Pesquisas da Amazonia Herbarium; institutionCode: INPA

Panicum parvifolium Lam.

Material

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Jussara-Britânia road; verbatimLatitude: 15°52’29.02”S; verbatimLongitude: 50°51’50.59”W;
Panicum repens Berg.

Material

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Jussara-Aragarças road; verbatimLatitude: 15°53'53"S; verbatimLongitude: 52°13'21"W; verbatimCoordinateSystem: degree minutes; year: 1999; month: 11; day: 11; recordNumber: 557; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

Panicum schwackeanum Mez.

Material

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: GO-184, South of Nova Crixás; verbatimLatitude: 18°01'21"S; verbatimLongitude: 51°49'37"W; verbatimCoordinateSystem: degree minutes; year: 2006; month: 4; day: 11; recordNumber: 1663; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

Panicum stenodes Griseb.

Material

a. country: Brazil; countryCode: BRA; stateProvince: Mato Grosso; locality: ca. 30 Km South of Xavantina, drainage of the Upper Araguaia River; verbatimLatitude: 14°55'12.0"S; verbatimLongitude: 52°19'12.0"W; verbatimCoordinateSystem: degree minutes; year: 1966; month: 6; day: 12; recordNumber: 17016; recordedBy: H.S. Irwin et al.; institutionID: Missouri Botanical Garden Herbarium; institutionCode: MO

Panicum trichoides Sw.

Material

a. country: Brazil; countryCode: BRA; stateProvince: Mato Grosso; locality: São Félix do Araguaia-Alto da Boa Vista road, ca. 9 Km from São Félix do Araguaia; verbatimLatitude: 11°22'32.9"S; verbatimLongitude: 50°27'48.2"W; verbatimCoordinateSystem: degree minutes; year: 1997; month: 3; day: 18; recordNumber: 14466; recordedBy: V. C. Souza et al.; institutionID: Universidade de São Paulo Herbarium; institutionCode: ESA

Paspalum cinerascens (Döll) A.G.Burm. & M.Bastos

Material

a. country: Brazil; countryCode: BRA; stateProvince: Pará; locality: Conceição do Araguaia, 2 Km West of town, along highway PA-287; verbatimLatitude: 8°15'00.0"S;
Paspalum convexum Humb. & Bonpl. ex Flüggè

Material
a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Piranhas, drainage of the Upper Araguaia River; verbatimLatitude: 16°31'48.0"S; verbatimLongitude: 51°51'00.0"W; verbatimCoordinateSystem: degree minutes; year: 1966; month: 6; day: 23; recordNumber: 17676; recordedBy: H. S. Irwin et al.; institutionID: Missouri Botanical Garden Herbarium; institutionCode: MO

Paspalum gardnerianum Nees

Material
a. country: Brazil; countryCode: BRA; stateProvince: Mato Grosso; locality: Pontinópolis town-Serra dos Magalhães, road; verbatimLatitude: 11°33'39.4"S; verbatimLongitude: 51°13'00.0"W; verbatimCoordinateSystem: degree minutes; year: 1997; month: 3; recordNumber: 14805; recordedBy: V. C. Souza et al.; institutionID: Universidade de São Paulo Herbarium; institutionCode: ESA

Paspalum glaucescens Hack.

Material
a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Santa Rita do Araguaia; verbatimLatitude: 17°19'33"S; verbatimLongitude: 53°12'11"W; verbatimCoordinateSystem: degree minutes; year: 1930; month: 4; day: 15; recordNumber: 12055; recordedBy: A. Chase; institutionID: Jardim Botânico do Rio de Janeiro Herbarium; institutionCode: RB

Paspalum maritimum Trin.

Material
a. country: Brazil; countryCode: BRA; stateProvince: Pará; locality: Conceição do Araguaia, 2 Km West of town, along highway PA-287; verbatimLatitude: 8°15'00.0"S; verbatimLongitude: 49°18'00.0"W; verbatimCoordinateSystem: degree minutes; year: 1980; month: 2; day: 24; recordNumber: 9104; recordedBy: T. Plowman et al.; institutionID: Missouri Botanical Garden Herbarium; institutionCode: MO
**Paspalum marmoratum** Kuhlm.

Material

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Santa Rita do Araguaia; verbatimLatitude: 17°19'33"S; verbatimLongitude: 53°12'11"W; verbatimCoordinateSystem: degree minutes; year: 1930; month: 4; day: 7; recordNumber: 11866; recordedBy: A. Chase; institutionID: Museu Nacional Herbarium; institutionCode: R

**Paspalum pictum** Eckm.

Material

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Santa Rita do Araguaia; verbatimLatitude: 17°19'33"S; verbatimLongitude: 53°12'11"W; verbatimCoordinateSystem: degree minutes; year: 1930; month: 4; day: 15; recordNumber: 12045; recordedBy: A. Chase; institutionID: Museu Nacional Herbarium; institutionCode: R

**Paspalum repens** Berg.

Material

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Mozarlândia-Nova Crixás road; verbatimLatitude: 14°27'00"S; verbatimLongitude: 50°27'00"W; verbatimCoordinateSystem: degree minutes; year: 1999; month: 11; day: 15; recordNumber: 611; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

**Paspalum trichotomum** Hack.

Material

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Santa Rita do Araguaia, Congolha River; verbatimLatitude: 17°19'33"S; verbatimLongitude: 53°12'11"W; verbatimCoordinateSystem: degree minutes; year: 1930; month: 4; day: 7; recordNumber: 1182; recordedBy: A. Chase; institutionID: Jardim Botânico do Rio de Janeiro Herbarium; institutionCode: RB

**Reimarochloa acuta** (Fluggé) Hitchc.

Material

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Aruanã-Araguapaz road; verbatimLatitude: 14°58'00"S; verbatimLongitude: 50°52'00"W; verbatimCoordinateSystem: degree minutes; year: 1999; month: 11; day: 15; recordNumber: 587b; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: RB
Sacciolepis vilvoides (Trin.) Chase

Material
a. country: Brazil; countryCode: BRA; stateProvince: Mato Grosso; locality: Novo Santo Antônio, State Park of Araguaia. Silvana farm; verbatimLatitude: 12°17'26"S; verbatimLongitude: 50°58'05"W; verbatimCoordinateSystem: degree minutes; year: 2005; month: 6; day: 5; recordNumber: 140; recordedBy: H. Jancoski; institutionID: Universidade Federal do Mato Grosso do Sul; instituteCode: CGMS

Setaria parviflora (Poir.) M.Kerguelen

Material
a. country: Brazil; countryCode: BRA; stateProvince: Pará; locality: Conceição do Araguaia, ca. 20 Km West of Redenção, near São João stream; verbatimLatitude: 8°03'00.0"S; verbatimLongitude: 50°10'00.0"W; verbatimCoordinateSystem: degree minutes; year: 1980; month: 2; day: 12; recordNumber: 8768; recordedBy: T. Plowman et al.; institutionID: Missouri Botanical Garden Herbarium; instituteCode: MO

Steinchisma decipiens (Nees ex Trin.) W.V.Br.

Material
a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Jussara-Aragarças road, ca. 100 Km West from Jussara; verbatimLatitude: 15°52'36"S; verbatimLongitude: 51°49'31"W; verbatimCoordinateSystem: degree minutes; year: 1999; month: 11; day: 11; recordNumber: 516; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; instituteCode: R

Steinchisma laxum (Sw.) Zuloaga

Material
a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Aruanã-Canga road; verbatimLatitude: 14°44'38.8"S; verbatimLongitude: 50°56'34.81"W; verbatimCoordinateSystem: degree minutes; year: 2006; month: 4; day: 13; recordNumber: 1648; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; instituteCode: R

Thrasya thrasyoides (Trin.) Chase

Material
a. country: Brazil; countryCode: BRA; stateProvince: Mato Grosso; locality: São Félix do Araguaia, ca. 31 Km WNW of São Félix do Araguaia, road to Luciara; verbatimLatitude: 11°35'19"S; verbatimLongitude: 50°54'26"W; verbatimCoordinateSystem: degree minutes; year: 1997; month: 3; day: 20; recordNumber: 14695; recordedBy: V. C. Souza et al.; institutionID: Universidade de São Paulo Herbarium; instituteCode: ESA
**Eichhornia azurea** (Sw.) Kunth

**Material**

a. country: Brazil; countryCode: BRA; stateProvince: Tocantins; locality: Alvorada-Peixe road; verbatimLatitude: 12°29'46"S; verbatimLongitude: 49°00'51"W; verbatimCoordinateSystem: degree minutes; year: 2006; month: 4; day: 16; recordNumber: 1799; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

**Eichhornia crassipes** (Mart.) Solms

**Material**

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Jussara-Aragarças road; verbatimLatitude: 15°53'53"S; verbatimLongitude: 52°13'21"W; verbatimCoordinateSystem: degree minutes; year: 1997; month: 10; day: 9; recordNumber: 245; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

**Eichhornia diversifolia** (Vahl) Urb.

**Material**

a. country: Brazil; countryCode: BRA; stateProvince: Tocantins; locality: Alvorada-Peixe road; verbatimLatitude: 12°29'46"S; verbatimLongitude: 40°00'50"W; verbatimCoordinateSystem: degree minutes; year: 2006; month: 4; day: 16; recordNumber: 1692; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

**Pontederia parviflora** Alexander

**Material**

a. country: Brazil; countryCode: BRA; stateProvince: Tocantins; locality: Alvorada-Peixe road; verbatimLatitude: 12°29'46.3"S; verbatimLongitude: 49°00'50"W; verbatimCoordinateSystem: degree minutes; year: 2006; month: 4; day: 16; recordNumber: 1688; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

**Pontederia subovata** (Seub.) Lowden

**Material**

a. country: Brazil; countryCode: BRA; stateProvince: Tocantins; locality: Alvorada-Peixe road; verbatimLatitude: 12°29'46.3"S; verbatimLongitude: 49°00'50"W; verbatimCoordinateSystem: degree minutes; year: 2006; month: 4; day: 16; recordNumber: 1690; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R
**Cephalostemon gracilis** (Poepp. & Endl.) R.H.Schomb.

Material

a. country: Brazil; countryCode: BRA; stateProvince: Mato Grosso; locality: Alto Araguaia, Sapo stream; verbatimLatitude: 17°18'64"S; verbatimLongitude: 53°13'08"W; verbatimCoordinateSystem: degree minutes; year: 2004; month: 1; day: 14; recordNumber: 1323; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

**Typha domingensis** Pers.

Material

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: GO-334, road to Peixe, 8.8 Km from GO-164; verbatimLatitude: 14°52'27"S; verbatimLongitude: 50°30'16"W; verbatimCoordinateSystem: degree minutes; year: 1999; month: 11; day: 16; recordNumber: 616; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

**Abolboda pulchella** Bonpl.

Material

a. country: Brazil; countryCode: BRA; stateProvince: Mato Grosso; locality: São Félix do Araguaia, ca. 13 Km, after entrance to Luciara.; verbatimLatitude: 11°34'21"S; verbatimLongitude: 50°59'13"W; verbatimCoordinateSystem: degree minutes; year: 1997; month: 3; day: 15; recordNumber: 14163; recordedBy: V. C. Souza; institutionID: Universidade Estadual de Campinas Herbarium; institutionCode: UEC

**Xyris caroliniana** Walter

Material

a. country: Brazil; countryCode: BRA; stateProvince: Mato Grosso; locality: ca. 70 Km South of Xavantina, drainage of the Upper Araguaia River; verbatimLatitude: 15°16'12.0"S; verbatimLongitude: 52°15'00.0"W; verbatimCoordinateSystem: degree minutes; year: 1966; month: 6; day: 19; recordNumber: 17473; recordedBy: H. S. Irwin; institutionID: The New York Botanical Garden Herbarium; institutionCode: NY

**Xyris fragilis** Kral & Lor.B.Sm.

Material

Isotype:

a. country: Brazil; countryCode: BRA; stateProvince: Mato Grosso; locality: Barra do Gargas, 260 Km along new road NNE of village of Xavantina, Serra do Roncador; verbatimLatitude: 15°53'42"S; verbatimLongitude: 52°15'18"W; verbatimCoordinateSystem: degree minutes; year: 1968; month: 9; day: 5; recordNumber:
Xyris jupicai Rich.

Material

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Jussara-Aragarças road, 100 Km from Jussara; verbatimLatitude: 15°53’19.94"S; verbatimLongitude: 51° 18’19.02"W; verbatimCoordinateSystem: degree minutes; year: 1997; month: 10; day: 9; recordNumber: 227; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

Xyris savanensis Miq.

Material

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Caiapônia to Piranhas road, 30 Km from Caiapônia; verbatimLatitude: 16°47’12"S; verbatimLongitude: 51° 43’16"W; verbatimCoordinateSystem: degree minutes; year: 1999; month: 11; day: 18; recordNumber: 664; recordedBy: C. P. Bove et al.; institutionID: Museu Nacional Herbarium; institutionCode: R

Xyris tenella Kunth

Material

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: 40 Km from Amorinópolis, Verde River, Serra dos Caiapós; verbatimLatitude: 16°37’16"S; verbatimLongitude: 51° 5’41"W; verbatimCoordinateSystem: degree minutes; year: 1971; month: 4; day: 17; recordNumber: 6237a; recordedBy: J. A. Rizzo & A. Barbosa; institutionID: Universidade Federal de Goiás Herbarium; institutionCode: UFG

Xyris tortula Mart.

Material

a. country: Brazil; countryCode: BRA; stateProvince: Mato Grosso; locality: Alto Araguaia, Rancho stream; verbatimLatitude: 17°14’55"S; verbatimLongitude: 53°15’00"W; verbatimCoordinateSystem: degree minutes; year: 1974; month: 2; day: 14; recordNumber: 34211; recordedBy: G. Hatschbach; institutionID: Universidade Estadual de Campinas Herbarium; institutionCode: UEC

Hedychium coronarium J.König

Material

a. country: Brazil; countryCode: BRA; stateProvince: Goiás; locality: Iporá-São Luiz dos Montes Belos road, GO-060, 45.8 Km from Iporá; verbatimLatitude: 16°41’51"S; verbatimLongitude: 50°45’10"W; verbatimCoordinateSystem: degree minutes; year: 1999;
Discussion

We report 162 species of aquatic and marshy monocotyledons, distributed in 20 families and 50 genera (Table 1). Cyperaceae (51 spp.) (Fig. 2b), Poaceae (39 spp.) (Figs 2a, 3) and Eriocaulaceae (16 spp.) (Figs 4, 5, 6) are the most common families of this class. Among the monocots, the first two families are the most diverse in both aquatic and terrestrial ecosystems in Brazil (e.g. Moura-Júnior et al. 2013, Souza et al. 2009, Wanderley et al. 2011). Nonetheless, Eriocaulaceae has its greatest diversity in the Cerrado (e.g. IBGE 2004, Munhoz and Felfili 2006). Regarding life form, most plants are helophytes (98 spp.; 60.5%) or emergents (45 spp.; 27.8%); nine species floating (5.5%), six species emergent and/or submerged (3.7%), and four species are exclusively submerged (2.5%) (Table 1). The life form categories represent different degrees of adaptation to aquatic life and are widely convergent among aquatic angiosperms (Philbrick and Les 1996); so the high percentage of helophytes and emergent forms are expected for temporarily flooded swamps, pools and their margins.

| Family          | Species                                      | Lf | Gd  | NoA | NoC | Sh | Ss |
|-----------------|----------------------------------------------|----|-----|-----|-----|----|----|
| Alismataceae    | *Echinodorus longipetalus* Mich.             | Em | A   | +   | +   | +  |    |
|                 | *E. subalatus* (Mart. ex Schult. f.) Griseb. | Em | A   |     |     |   |    |
|                 | *Helanthium bolivianum* (Rusby) Lehtonen & Myllys | Em/Sf | A | +   | +   | +  |    |
|                 | *H. tenellum* (Mart. ex Schult.f.) J.G.Sm.   | Em/Sf | A |     |     |   |    |
|                 | *Hydrocleys nymphoides* (Willd.) Buchenau     | Ff | A   |     |     |   |    |
|                 | *H. parviflora* Seub.                        | Ff | A   |     |     |   |    |
|                 | *Limnocharis laforestii* Griseb.             | Em | A   |     |     |   |    |
|                 | *Sagittaria guayanensis* Kunth               | Fr | W   | +   | +   |   |    |
|                 | *S. rhombifolia* Cham.                       | Em | A   |     | +   |   |    |
| Araceae         | *Anthurium lindmanianum* Engl.               | He | B   | +   | +   | +  |    |
|                 | *Dieffenbachia aglaonematifolia* Engl.       | He | A   | +   | +   | +  |    |
|                 | *D. seguine* (Jacq.) Schott                 | He | A   | +   | +   |   |    |
|                 | *Gearum brasiliense* N.E.Br.                 | He | B   |     |     |   |    |
|                 | *Philodendron imbe* Schott                   | He | B   | +   | +   | +  |    |
| Family            | Species                                                                 | Local | A | B | C |
|-------------------|-------------------------------------------------------------------------|-------|---|---|---|
| Arecaceae         | *P. quinquenervium* Miq.                                                 | He    | A | + | + |
|                   | *Urospatha sagittifolia* (Rudge) Schott                                 | He    | A | + | + |
|                   | *Xanthosoma striatipes* (Kunth & C.D.Bouché) Madison                    | He    | A | + | + |
|                   | *Desmoncus polyananthos* Mart.                                          | He    | A | + | + |
|                   | *Syagrus petraea* (Mart.) Becc.                                          | He    | A | + | + |
| Burmanniaceae     | *Apteria aphylla* (Nutt.) Barnhart ex Small                              | He    | A | + |   |
|                   | *Burmannia capitata* (Walter ex J.F.Gmel.) Mart.                        | He    | A | + | + |
|                   | *B. flava* Mart.                                                        | He    | A | + | + |
| Cannaceae         | *Canna indica* L.                                                       | He    | A |   | + |
| Commelinaceae     | *Commelina erecta* L.                                                   | He    | W |   | + |
|                   | *Commelina diffusa* Burm. f.                                            | He    | W | + | + |
|                   | *C. obliqua* Vahl                                                       | He    | A |   | + |
| Costaceae         | *Costus spiralis* (Jacq.) Roscoe                                        | Em    | A | + | + |
| Cyperaceae        | *Ascolepis brasiliensis* (Kunth) Benth. ex C.B. Clarke                  | Em    | W | + | + |
|                   | *Bulbostylis stenocarpa* Küök.                                          | He    | A | + | + |
|                   | *Calyptrocharya glomerulata* (Brongn.) Urb.                             | Em    | A | + | + |
|                   | *Cyperus diffusus* Vahl                                                 | He    | W | + | + |
|                   | *C. digitatus* Roxb.                                                    | Em    | W |   | + |
|                   | *C. giganteus* Vahl                                                    | Em    | A | + | + |
|                   | *C. haspan* L.                                                         | Em    | W | + | + |
|                   | *C. odoratus* L.                                                        | He    | W | + | + |
|                   | *C. pohlii* (Nees) Steud.                                               | Em    | A | + | + |
|                   | *C. schomburgkiannus* Nees                                              | He    | A | + | + |
|                   | *C. sphaeleatus* Rottb.                                                 | He    | W | + | + |
|                   | *C. tenuispica* Steud.                                                  | He    | W | + | + |
|                   | *Diplacrum capitatum* (Willd.) Boeck.                                   | Em    | A | + | + |
|                   | *Eleocharis acutangula* (Roxb.) Schult.                                 | Em    | W |   | + |
|                   | *E. capillacea* Kunth                                                   | Em/Sf | A |   | + |
|                   | *E. filiculmis* Kunth                                                   | Em    | A |   | + |
|                   | *E. interstincta* (Vahl) Roem. & Schult.                               | Em    | A |   | + |
|                   | *E. minima var. minima* Kunth                                           | Em/Sf | A | + | + |
|                   | *E. minima var. bicolor* (Chapm.) Svenson                              | Em/Sf | A | + | + |
|                   | *E. nana* Kunth                                                         | Em    | A | + | + |
|                   | *E. nudipes* (Kunth) Palla                                              | Em    | A | + | + |
|                   | *E. plicarhachis* (Griseb.) Svenson                                     | Em    | A | + | + |
|                   | *E. retroflexa* (Poir.) Urb.                                            | Em    | W | + | + |
|                   | *E. sellowiana* Kunth                                                   | Em    | A | + | + |
| Species                                              | Author               | Em | W | + |
|------------------------------------------------------|----------------------|----|---|---|
| Fimbristylis aestivalis                             | (Retz.) Vahl         | Em | W | + +|
| F. dichotoma                                         | (L.) Vahl            | Em | W | + |
| F. quinquangularis                                   | (Vahl) Kunth         | Em | W | + |
| Fuirena umbellata                                    | Rottb.               | Em | W | + +|
| Kyllinga brevifolia                                  | Rottb.               | Em | W | + +|
| K. odorata                                           | Vahl                 | Em | W | + |
| K. vaginata                                          | Lam                  | He | W | + +|
| Lipocarpha chinensis                                | (Osbeck) J.Kern      | Em | W | + +|
| Pycreus lanceolatus                                  | (Poir.) C.B.Clark    | He | W | + +|
| P. unioloides                                        | (R.Br.) Urb.         | He | W | + +|
| Rhynchospora armerioides                            | J.Presl & C.Presl.   | He | A | + |
| R. barbata                                           | (Vahl) Kunth         | He | A | + +|
| R. brevirostris                                     | Griseb.              | He | W | + +|
| R. corymbosa                                         | (L.) Britton         | Em | W | + |
| R. divaricata                                        | (Ham.) M.T.Strong    | Em | A | + +|
| R. exaltata                                          | Kunth                | He | A | + |
| R. filiformis                                        | Vahl                 | He | A | + +|
| R. globosa                                           | (Kunth) Roem. & Schult.| Em | A | + +|
| R. hassleri                                          | C.B.Clarke           | Em | A | + +|
| R. rugosa                                            | (Vahl) Gale          | He | W | + +|
| R. tenuis                                            | Link.                | Em | A | + +|
| R. trispicata                                        | (Nees) Schrad. ex Steud.| Em | A | + +|
| R. aff. unisetosa                                    | T. Koyama            | He | A | + + + +|
| R. velutina                                          | (Kunth) Boeck.       | Em | A | + +|
| Scleria gaertneri                                    | Raddi                | He | W | + +|
| S. microcarpa                                        | Nees ex Kunth        | Em | A | + +|
| S. mitis                                             | P.J.Bergius          | He | A | + |
| Comanthera xerantheroidoides                         | (Bong.) L.R. Parra & C. P. Giul. | Em/B | + | + |
| Paepalanthus viridis                                 | Körn.                | He | B | + +|
| Syngonanthus caulescens                              | (Poir.) Ruhland      | He | B | + +|
| S. densiflorus                                       | (Körn.) Ruhland      | Em | A | + |

Eriocaulaceae

| Species                                              | Author               | Em | B | + + |
|------------------------------------------------------|----------------------|----|---|---|
| E. alto-gibbo sum Ruhland                            |                      | Em | B | + +|
| Eriocaulon araguaense                                | A.Oliveira & C.P.Bove| Em | B | + |
| E. cylindratum                                       | A.Oliveira & C.P.Bove| Em | B | + |
| E. epapillosum                                       | Ruhland              | He | B | + +|
| E. humboldtii                                        | Kunth                | Em | B | + +|
| E. setaceum                                          | L                    | Em/Sf | B | + |

Comanthera xerantheroidoides (Bong.) L.R. Parra & C. P. Giul.

| Species                                              | Author               | Em | B | + + |
|------------------------------------------------------|----------------------|----|---|---|
| Paepalanthus viridis                                 | Körn.                | He | B | + +|
| Syngonanthus caulescens                               | (Poir.) Ruhland      | He | B | + +|
| S. densiflorus                                       | (Körn.) Ruhland      | Em | A | + |
| Scientific Name | Common Name | Family | Distribution |
|-----------------|-------------|--------|--------------|
| *S. gracilis* (Bong.) Ruhland | Stromanthe gracilis | Heliconiaceae | B + |
| *S. helminthorrhizus* (Mart.) Ruhland | Stromanthe helminthorrhizus | Heliconiaceae | B + |
| *S. humboldtii* (Kunth) Ruhland | Stromanthe humboldtii | Heliconiaceae | A + |
| *S. longipes* Gleason | Stromanthe longipes | Heliconiaceae | + |
| *S. nitens* (Bong.) Ruhland | Stromanthe nitens | Heliconiaceae | A + |
| *Tonina fluviatilis* Aubl. | Tonina fluviatilis | Heliconiaceae | A + |
| *Heliconia psittacorum* L.f. | Heliconia psittacorum | Heliconiaceae | B + |
| *Elodea granatensis* Humb. & Bonpl. | Elodea granatensis | Hydrocharitaceae | A + |
| *Egeria heterostemon* S.Koehler & C.P.Bove | Egeria heterostemon | Hydrocharitaceae | B + |
| *Najas affinis* Rendle | Najas affinis | Hydrocharitaceae | W + |
| *Ottelia brasiliensis* (Pianch.) Walp. | Ottelia brasiliensis | Hydrocharitaceae | A + |
| *Thalia geniculata* L. | Thalia geniculata | Marantaceae | W + |
| *Mayaca fluviatilis* Aubl. | Mayaca fluviatilis | Marantaceae | A + |
| *Mayaca longipes* Mart. ex Seub. | Mayaca longipes | Marantaceae | A + |
| *Mayaca madida* (Vell.) Stellfeld | Mayaca madida | Marantaceae | A + |
| *Bletia catenulata* Ruiz & Pav. | Bletia catenulata | Orchidaceae | A + |
| *Epidendrum densiflorum* Hook. | Epidendrum densiflorum | Orchidaceae | A + |
| *Habenaria macilenta* (Lindl. ex Benth.) Rchb.f. | Habenaria macilenta | Orchidaceae | A + |
| *H. orchiocalcar* Hoehne | Habenaria orchiocalcar | Orchidaceae | B + |
| *H. spathulifera* Cogn. | Habenaria spathulifera | Orchidaceae | A + |
| *Acroceras fluminense* (Hack.) Zuloaga & Morrone | Acroceras fluminense | Poaceae | A + |
| *Andropogon lateralis* Nees | Andropogon lateralis | Poaceae | A + |
| *A. leucostachyus* Kunth | Andropogon leucostachyus | Poaceae | A + |
| *Digitaria ciliaris* (Retz.) Koeler | Digitaria ciliaris | Poaceae | W + |
| *D. filiformis* (L.) Kaler | Digitaria filiformis | Poaceae | A + |
| *Echinocloa colona* (L.) Link | Echinocloa colona | Poaceae | W + |
| *E. crus-galli* (L.) P. Beauv. | Echinocloa crus-galli | Poaceae | W + |
| *Eleusine indica* (L.) Gaertn. | Eleusine indica | Poaceae | W + |
| *Eragrostis japonica* (Thunb.) Trin. | Eragrostis japonica | Poaceae | W + |
| *E. rufescens* Schult. | Eragrostis ruessii | Poaceae | A + |
| *Eriochrysis cayennensis* P. Beauv. | Eriochrysis cayennensis | Poaceae | A + |
| *Hymenachne amplexicaulis* (Rudge) Nees | Hymenachne amplexicaulis | Poaceae | A + |
| *Mesosetum cf. loliiforme* (Steud.) Hitchc. | Mesosetum loliiforme | Poaceae | A + |
| *Ichnanthus procurrens* (Nees ex Trin.) Swallen | Ichnanthus procurrens | Poaceae | A + |
| *Isachne polygonoides* (Lam.) Döll | Isachne polygonoides | Poaceae | W + |
| *Luziola peruviana* Juss ex J.F. Gmel. | Luziola peruviana | Poaceae | W + |
| *Panicum cyanescens* Nees ex Trin. | Panicum cyanescens | Poaceae | A + |
| Species                                      | Authority       | Identification | Status 1 | Status 2 | Status 3 |
|----------------------------------------------|-----------------|----------------|----------|----------|----------|
| *P. discrepans* Döll                         |                 | He             | A        | +        | +        |
| *P. latissimum* J.G.Mikan ex Trin.           |                 | He             | B        | +        | +        |
| *P. parvifolium* Lam.                        |                 | He             | W        | +        | +        |
| *P. repens* Berg.                            |                 | He             | W        | +        |          |
| *P. schwackeanum* Mez.                       |                 | He             | A        | +        | +        |
| *P. stenodes* Griseb.                        |                 | He             | A        | +        | +        |
| *P. trichoides* Sw.                          |                 | He             | A        | +        | +        |
| *Paspalum cinerascens* (Döll) A.G.Burm. & M.Bastos |                 | He             | A        | +        |          |
| *P.convexum* Humb. & Bonpl. ex Flüggé        |                 | He             | A        | +        |          |
| *P. gardnerianum* Nees                       |                 | He             | A        | +        |          |
| *P. glaucescens* Hack.                       |                 | He             | A        | +        |          |
| *P. maritimum* Trin.                         |                 | He             | A        | +        |          |
| *P. marmoratum* Kuhlm.                       |                 | He             | A        | +        |          |
| *P. pictum* Eckm.                            |                 | He             | A        | +        | +        |
| *P. repens* Berg.                            |                 | He             | A        | +        | +        |
| *P. trichotomum* Hack.                       |                 | He             | B        | +        |          |
| *Reimarochloa acuta* (Fluggé) Hitchc.        |                 | He             | A        | +        |          |
| *Sacciolepis vilvoides* (Trin.) Chase        |                 | He             | A        |          | +        |
| *Setaria parviflora* (Poir.) M.Kerguelen     |                 | He             | A        |          | +        |
| *Steinchisma decipiens* (Nees ex Trin.) W.V.Br. |                 | Em             | A        |          | +        |
| *S. laxum* (Sw.) Zuloaga                     |                 | He             | W        |          | +        |
| *Thrasya thrasyoides* (Trin.) Chase          |                 | He             | A        |          | +        |

**Pontederiaceae**

| Species                                      | Authority       | Identification | Status 1 | Status 2 | Status 3 |
|----------------------------------------------|-----------------|----------------|----------|----------|----------|
| *Eichhornia azurea* (Sw.) Kunth              |                 | Ff             | A        |          | +        |
| *E. crassipes* (Mart.) Solms                 |                 | Fr/ Ff         | A        |          | +        |
| *E. diversifolia* (Vahl) Urb.                |                 | Ff             | A        |          | +        |
| *Pontederia parviflora* Alexander            |                 | Ff             | A        |          | +        |
| *P. subovata* (Seub.) Lowden                 |                 | Ff             | A        |          |          |

**Rapateaceae**

| Species                                      | Authority       | Identification | Status 1 | Status 2 | Status 3 |
|----------------------------------------------|-----------------|----------------|----------|----------|----------|
| *Cephalostemon gracilis* (Poepp. & Endl.) R.H.Schomb. |                 | Em             | B        |          | +        |

**Typhaceae**

| Species                                      | Authority       | Identification | Status 1 | Status 2 | Status 3 |
|----------------------------------------------|-----------------|----------------|----------|----------|----------|
| *Typha domingensis* Pers.                    |                 | He             | W        |          | +        |

**Xyridaceae**

| Species                                      | Authority       | Identification | Status 1 | Status 2 | Status 3 |
|----------------------------------------------|-----------------|----------------|----------|----------|----------|
| *Abolboda pulchella* Bonpl.                  |                 | He             | A        |          | +        |
| *Xyris caroliniana* Walter                   |                 | He             | A        |          | +        |
| *X. fragilis* Kral & Lor.B.Sm.               |                 | Em             | B        |          | +        |
| *X. jupicali* Rich.                          |                 | He             | A        |          | +        |
| *X. savanensis* Miq.                         |                 | He             | A        |          | +        |
| *X. tenella* Kunth                           |                 | He             | A        |          |          |
| *X. tortula* Mart.                           |                 | He             | A        |          | +        |

**Zingiberaceae**

| Species                                      | Authority       | Identification | Status 1 | Status 2 | Status 3 |
|----------------------------------------------|-----------------|----------------|----------|----------|----------|
| *Hedychium coronarium* J.König               |                 | He             | W        |          | +        |
Figure 3.
*Ichnanthus procurrens* (Nees ex Trin.) Swallen C.P. Bove et al. 1664

a: habit
b: inflorescence

Figure 4.
*Eriocaulon cylindratum* A.Oliveira & C.P.Bove.
a: habit
b: Inflorescence
In terms of floristics, 101 species are native to tropical and/or subtropical America, 40 are widely distributed and twenty are endemic to Brazil. Ninety-three species are new occurrences to the Araguaia River basin (Table 1). Floristic analysis generally emphasizes arboreal and shrub species. Among the studies that includes the herbaceous species; the aquatic taxa are rarely included or, at least, underestimated. This is reflected in the scarcity of aquatic vouchers in collections (Paz and Bove 2007). The few exceptions are herbaria associated with institutions having aquatic plant specialists. The checklist of the Emas National Park (Batalha and Martins 2002), cites 601 vascular species, nonetheless no strict aquatic taxa are included but only some helophytes as *Commelina obliqua* Vahl, *Rhynchospora rugosa* (Vahl) Gale and *Ichnanthus procurrens* (Nees ex Trin.) Swallen. Even in checklists from broader regions in Cerrado such as Vão do Paranã (Silva et al.)
2004), only 13 out of 1273 vascular species are common with the list we produce herein. Clearly there is a need for more field work specifically focused on aquatic environments. Also, the detailed search through the database SpeciesLink (2002) added three families (Arecaceae, Cannaceae and Orchidaceae) and 62 species to the previous list based on field efforts (Table 1), showing the importance of a database as a tool in analyzing floristic diversity. The Araguaia River basin is far richer in aquatic and marshy species than previously realized. In addition to the new species described for this region mentioned above, the description of another new species of *Eriocaulon* is in progress.

Three species are not cited to the Brazilian Cerrado in any publication: *Panicum latissimum* J.G.Mikan ex Trin., *Philodendron imbe* Schott, and *Rhynchospora aff. unisetosa* T. Koyama. *Panicum latissimum* and *Philodendron imbe* are endemic from Brazil and *Rhynchospora unisetosa* is not reported to occur in Brazil (Alves et al. 2010) but it is found in Colombia and Venezuela; neighboring countries of Brazil (World Checklist of selected plant families 2013). The specimen identified as affinis *R. unisetosa* could also be another new species to the Araguaia region that needs attention from taxonomists. These species were, probably, overlooked and undercollected, highlighting the importance of field work by specialists, and points to the problem of relying on existing collections to determine real aquatic plant diversity. Incongruent data on geographic distribution and/or taxonomic identity were observed in some species; although *Syagrus petraea* (Mart.) Becc. and *Xyris caroliniana* Walter are recognized for the Cerrado and reported for the Araguaia basin using herbarium collections, these species are not mentioned in database of the Brazilian species list (Coelho et al. 2010, Wanderley et al. 2010 respectively). These apparent inconsistencies need the notice of the specialists to be resolved. We opted to keep these taxa in our survey in order to call attention to this matter and, moreover, we prefer to superestimate rather than subestimate the diversity. We consider that the consequences regarding conservation actions are worse given subestimates.

Since the 1970s, many projects have led to reduction in both diversity and area of wetlands. The construction of the Belém-Brasília highway and hydroelectric dams, as well as the expansion of agricultural and mining activities (Moss and Moss 2005), caused major impacts to wetlands in those areas. Notably, no species in this study is mentioned in the official list of Brazilian endangered species (Martinelli and Moraes 2013) probably as a result of insufficient data. *Burmannia flava* Mart. and *Paspalum cinerascens* (Döll) A.G.Burm. & M.Bastos are in redlists compiled by SpeciesLink (2002); *Eriocaulon araguaianense* and *E. cylindratum* are considered endangered by Oliveira and Bove (2015), both belonging to the ENB2 category (IUCN 2001).

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