

# *Montrichardia Crueg.*

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This treatment is composed of the following taxa: *Montrichardia*, *Montrichardia arborescens*, *Montrichardia linifera*.

## HOW TO CITE

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## DESCRIPTION

Robust to gigantic arborescent evergreen herbs, stem erect, multiplying at base from hypogeal rhizomes, internodes well-developed, smooth or aculeate, ± slender to massive. Leaves several, borne in terminal crown. Petiole not geniculate, sheath half as long as petiole or longer, with free apical ligule. Leaf blade cordate to sagittate, hastate to trifid, rarely trisect, posterior lobes often longer than anterior lobe; primary vein of posterior lobes well-developed, secondary veins of anterior lobe pinnate, running into marginal vein, tertiary veins ± parallel-pinnate, higher order venation reticulate. Inflorescences 1(–2) in each floral sympodium, peduncle shorter than petiole. Spathe erect, thick, entirely deciduous after anthesis, ± constricted between tube and blade, tube convolute, blade longer than tube, widely gaping at anthesis, ± boat-shaped. Spadix sessile, erect, subequal to spathe, female zone cylindric, male zone subconoid, contiguous with and much longer than female zone, fertile to apex. Flowers unisexual, perigone absent, sterile flowers usually absent. Male flower 3–6-andedrous, stamens free, obpyramidal-prismatic, truncate at apex, anthers sessile, connective thick, overtopping thecae, thecae oblong-ellipsoid, dehiscing by longitudinal slit. Female flower with prismatic-cylindric gynoecia, ovary 1-locular, ovules 1–2, anatropous, funicle short, placenta subbasal to basal, stylar region prismatic, thick, excavated and rugulose at apex, stigma small, on low central boss, irregular to elliptic or roundish. Berries free, large, subcylindric, somewhat compressed, pericarp spongy, excavated and radiately furrowed at apex, 1-seeded. Seed large, obovoid to ellipsoid, testa smooth or rough, brown, embryo large, endosperm absent.

## COMMENTS

*Montrichardia* plants are adapted to colonize the silt that accumulates along river margins (Lins, 1994; Lins & Oliveira, 1995, Silva et al. 2012). The stem consists of a subterranean branching rhizome that produces numerous vertical branches, the visible stems of the colony. Mature vertical stems can reach up to 6 m in height or more and typically bear a terminal crown of three to six leaves; the leaves produced during its main extension growth are soon deciduous leaving a bare stem with conspicuous annular scars. After the first flowering, a new article (module) is formed from the penultimate foliage leaf before the spathe, so that the mature plant may create a relatively short apical sympodium, but these secondary flowering articles have much shorter internodes. Even when there is a sympodium present, the leaves are always found as a crown on the most distal article.

## Life Form

Herb

## Substrate

Aquatic, Terrestrial

## DISTRIBUTION

Native, Not endemic to Brazil

**Phytogeographic Domains**

Amazon Rainforest, Caatinga, Central Brazilian Savanna, Atlantic Rainforest

**Vegetation Types**

Amazonian Campinarana, Riverine Forest and/or Gallery Forest, Inundated Forest (Várzea), Coastal Forest (Restinga), Aquatic vegetation

**Geographic Distribution**Confirmed occurrences

North (Acre, Amazonas, Amapá, Pará, Rondônia, Roraima)

Northeast (Bahia, Ceará, Maranhão, Paraíba, Pernambuco, Piauí, Rio Grande do Norte, Sergipe)

Central-west (Mato Grosso)

Southeast (Espírito Santo, Minas Gerais, Rio de Janeiro)

Possible occurrences

Northeast (Paraíba, Rio Grande do Norte)

**IDENTIFICATION KEY**

1. Leaf blade of mature leaves usually strongly sagittate with posterior lobes usually equalling or longer than anterior lobe, secondary veins (= primary lateral veins) of anterior lobe 3-4 on each side of primary vein (=midrib); posterior lobes usually non-overlapping with open sinus and with major vein externally denuded of blade tissue for more than 1 cm towards the petiole insertion; stem often aculeate

*Montrichardia arborescens*

1'. Leaf blade of mature leaves usually broadly sagittate to cordate with posterior lobes shorter than anterior lobe, secondary veins (= primary lateral veins) of anterior lobe 4-8 on each side of primary vein (=midrib); posterior lobes often overlapping with closed sinus and with major vein not denuded of blade tissue externally; stem usually smooth, sometimes tuberculate basally

*Montrichardia linifera*

**REFERENCE**

- Barabé, D. & Lacroix, C. (2001). The developmental floral morphology of *Montrichardia arborescens* (Araceae) revisited. *Botanical Journal of the Linnean Society* 135: 413-420.
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- Lopes, A., Wittmann, Schöngart, J., Householder, J.E. & Piedade, M.T.F. (2016). Modeling of regional- and local-scale distribution of the genus *Montrichardia* Crueg. (Araceae). *Hydrobiologia* DOI 10.1007/s10750-016-2721-y.
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- Mayo, S.J. (1986). Araceae. In: Cope, F. & Philcox, D. (eds.), *Flora of Trinidad and Tobago*, Vol. III, Part IV. Trinidad Ministry of Agriculture, Lands and Food Production, pp. 326-328 (*Montrichardia*).
- Mayo, S.J., Bogner, J. & Boyce, P.C. (1997). *The Genera of Araceae*. Kew: Royal Botanic Gardens.
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Silva, J.V.S., Rosário, D.M., Veiga, A.S.S., Vasconcelos, F., Percário, S. & Dolabela, M.F. (2013). Uma revisão bibliográfica sobre Araceae com foco nos gêneros *Pistia*, *Philodendron* e *Montrichardia*: botanical, phytochemical and biological activity aspects. *Revista Fitos*, Rio de Janeiro, Vol. 8(2): 73-160.

# *Montrichardia arborescens* (L.) Schott

This treatment is composed of the following taxa: *Montrichardia arborescens*, .

## Has as synonym

heterotypic *Arum aculeatum* (G.Mey.) Steud.  
heterotypic *Arum arborescens* L.  
heterotypic *Caladium aculeatum* G.Mey.  
heterotypic *Caladium arborescens* (L.) Vent.  
heterotypic *Caladium arboreum* Kunth  
heterotypic *Montrichardia aculeatum* (G.Mey.) Crueg.  
heterotypic *Montrichardia arborea* (Kunth) Schott  
heterotypic *Montrichardia arborescens* var. *aculeata* (G.Mey.) Engl.  
heterotypic *Montrichardia fendleri* Schott  
heterotypic *Montrichardia splitgerberi* Schott  
heterotypic *Philodendron arborescens* (L.) Kunth  
heterotypic *Philodendron arboreum* (Kunth) Kunth  
heterotypic *Pleurospa reticulata* Raf.

## DESCRIPTION

**Stem:** surface texture smooth/aculeate. **Leaf:** blade tissue external to primary vein of the posterior lobe(s) absent towards petiolar insertion; **mature blade shape** strongly sagittate; **posterior lobe(s) length** longer than anterior lobe(s)/equal to anterior lobe(s); **secondary veins of the anterior lobe(s) number per side** 3 to 5; **posterior lobe(s) position** not overlapped; **sinus between posterior lobe(s) shape** open; **petiolar sheath ligule length** 0.5 to 1.5 cm.

## Life Form

Herb

## Substrate

Aquatic, Terrestrial

## DISTRIBUTION

Native, Not endemic to Brazil

## Phytogeographic Domains

Amazon Rainforest, Central Brazilian Savanna

## Vegetation Types

Amazonian Campinarana, Riverine Forest and/or Gallery Forest, Inundated Forest (Várzea), Aquatic vegetation

## Geographic Distribution

### Confirmed occurrences

North (Acre, Amazonas, Pará, Rondônia)



Central-west (Mato Grosso)

Southeast (Minas Gerais)

### Possible occurrences

Northeast (Paraíba, Rio Grande do Norte)

## HERBARIUM MATERIAL

Edmundo Pereira, 3285, RB, 101462,   (RB00472434), Pará  
M.L. Soares, 673, INPA

## REFERENCE

- Barabé, D. & Lacroix, C. (2001). The developmental floral morphology of *Montrichardia arborescens* (Araceae) revisited. *Botanical Journal of the Linnean Society* 135: 413-420.
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# *Montrichardia linifera* (Arruda) Schott

## Has as synonym

basionym *Arum liniferum* Arruda

homotype *Caladium liniferum* (Arruda) Nees

heterotypic *Philodendron cyclophyllum* K.Krause

## DESCRIPTION

**Stem:** surface texture smooth/tuberculate. **Leaf:** blade tissue external to primary vein of the posterior lobe(s) always present; **mature blade shape** sagittate/cordate; **posterior lobe(s) length** equal to anterior lobe(s)/shorter than anterior lobe(s); **secondary veins of the anterior lobe(s) number per side** 4 to 8; **posterior lobe(s) position** overlapped; **sinus between posterior lobe(s) shape** open/closed; **petiolar sheath ligule length** 1.5 to 7 cm.

## Life Form

Herb

## Substrate

Aquatic

## DISTRIBUTION

Native, Not endemic to Brazil

## Phytogeographic Domains

Amazon Rainforest, Caatinga, Atlantic Rainforest

## Vegetation Types

Riverine Forest and/or Gallery Forest, Coastal Forest (Restinga), Aquatic vegetation

## Geographic Distribution

### Confirmed occurrences

North (Amazonas, Amapá, Pará, Roraima)

Northeast (Bahia, Ceará, Maranhão, Paraíba, Pernambuco, Piauí, Rio Grande do Norte, Sergipe)

Southeast (Espírito Santo, Rio de Janeiro)

## HERBARIUM MATERIAL

T.A. Pontes, 2000, RB, 513842, Pernambuco

Farias, D.L.S., 104, EAC (EAC0054640), Ceará

Pinheiro, G., 7346, UFRN,  (UFRN00007346), Rio Grande do Norte

Albuquerque, A.C., 09, EAC (EAC0058484), Ceará

Pinheiro, G., 7346, UFRN,  (UFRN00007346), Rio Grande do Norte

Castro, A.S.F., 1675, EAC (EAC0039146), Ceará

Matias, L.Q., 526, EAC (EAC0043593), Ceará

Matias, L.Q., 615, EAC (EAC0052025), Ceará

Sousa, D.J.L., 88, EAC (EAC0044965), Ceará

M.J.G. Hopkins, 610, NY,  (NY01073903), Roraima

Moro, M.F., 397, EAC (EAC0044924), Ceará

Glocimar Pereira-Silva, 9680, CEN (CEN00066793), Maranhão

Moura, E.O., 186, UFRN,  (UFRN00017038), Rio Grande do Norte

Moura, E.O., 225, UFRN,  (UFRN00018104), Rio Grande do Norte

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