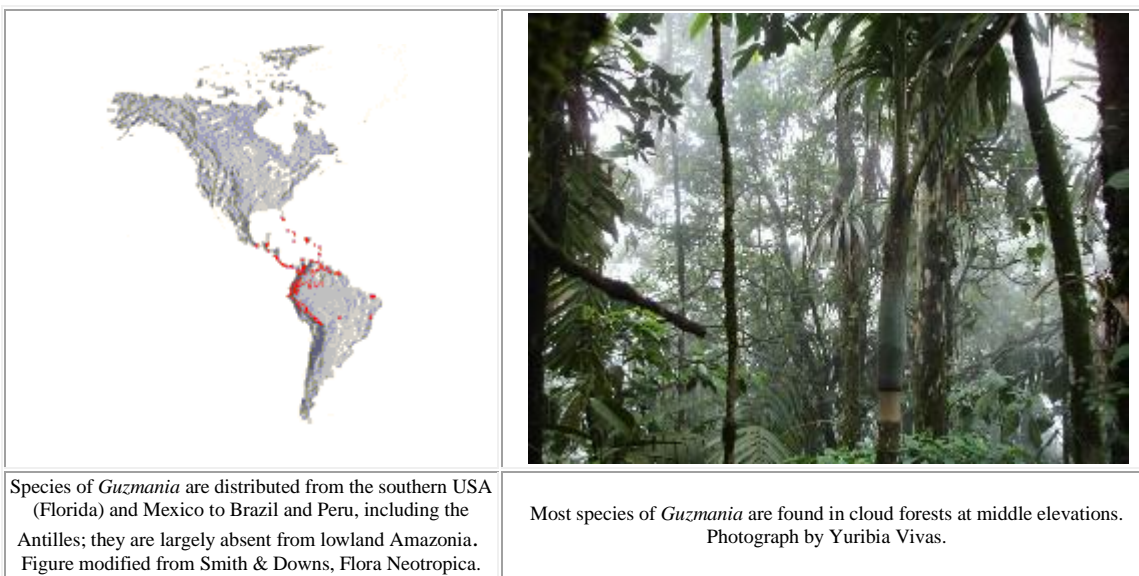


The genus *Guzmania* (Bromeliaceae) in Venezuela

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The genus *Guzmania* was described by Hipólito Ruiz and José Pavón in 1802 in the "Flora Peruviana et Chilensis." The type species is *Guzmania tricolor* Ruiz & Pav. The name honors Spanish naturalist Anastasio Guzmán, a student of South American plants and animals (Grant & Zijlstra 1998).



Guzmania is placed in the subfamily Tillandsioideae, and is distinguished from other members of the subfamily (*Vriesea*, *Tillandsia*, *Catopsis*, *Racinaea*, *Alcantarea*, *Mezobromelia*, and *Werauhia*) by having polystichously arranged flowers (that is, arranged in many planes on the inflorescence axis), white, whitish, yellow, or greenish petals that lack nectar scales, and having generally reddish brown-colored seeds. In general aspect, *Guzmania* is difficult to distinguish from *Mezobromelia* since both are polystichously flowered and may have similar color schemes, but the presence of nectar scales in *Mezobromelia* and absence in *Guzmania* separates them.

Approximately 200 species and 17 varieties of *Guzmania* are known, making it the third largest genus in the subfamily, after *Tillandsia* and *Vriesea*.

The table below is a listing of *Guzmania* in Venezuela, with synonymy, types, phenology, and distribution. Column two contains photographs of live plants and the third column, type specimens. Click on the photos for enlarged images. Photographs of live plants by Yuribia Vivas, Francisco Oliva-Esteve, Vern Sawyer. We thank the following herbaria for providing specimens for this study: F, MO, NY, SEL, US, and VEN.

Venezuela States: AM=Amazonas, AN=Anzoategui, AP=Apure, AR=Aragua, BA=Barinas, BO=Bolívar, CA=Carabobo, CO=Cojedes, DA=Delta Amacuro, DC=Distrito Capital, FA=Falcón, GU=Guárico, LA=Lara, MI=Miranda, ME=Mérida, MO=Monagas, NE=Nueva Esparta, PO=Portuguesa, SU=Sucre, TA=Táchira, TR=Trujillo, YA=Yaracauy, ZU=Zulia

Guzmania acorifolia (Griseb.) Mez, in C. DC. Monogr. Phan. 9: 945. 1896. —*Tillandsia acorifolia* Griseb., Nachr. Ges. Wiss Gött. 1864: 19. 1865. Type: A. Fendler 1772 (HT: GOET); Venezuela. Flowering: Jan, May Distribution: AR, DF, MI Altitude: 1300-1950 m.



Guzmania altsonii L.B. Sm., Contr. Gray Herb. 89: 7. 1930. TYPE: *Altson 551* (T: K); Guyana. Synonym: *Guzmania pleiosticha auct., pro parte non (Griseb.) Mez: sensu L.B.Sm. in Lasser, Fl. Venez. 12(1): 253. 1971; L.B. Sm., Fl Neotrop. Monogr. 14. 1317.1977.* Flowering: Jan, Nov Distribution: AM, AR, BO Altitude: 470-1980 m.



Guzmania brasiliensis Ule, Verh. Bot. Vereins Prov. Brandenburg 48: 147. 1907. TYPE: *Ule 5427* (HT: B [F photo]); Brasil. Flowering: Jan, Mar, May, Oct Distribution: AM Altitude: 80-1000 m.



Guzmania confinis L.B. Sm., Fieldiana, Bot. 28(1): 143. 1951. TYPE: *J.A. Steyermark 57380* (HT: F); Venezuela. Fruiting: Mar, May, Jul, Nov Distribution: TA, TR, ZU Altitude: 2150-3475 m.



Guzmania coriostachya (Griseb.) Mez, in C. DC. Monogr. Phan. 9: 914. 1896. —*Caraguata coriostachya Griseb.*, Nachr. Ges. Wiss. Gött. 1864: 21. 1865. TYPE: *A. Fendler 2167* (HT: GOET [US photo]); Venezuela. Flowering: Jan, Mar, Apr, May Distribution: AN, AR, BO, FA, MI, MO, SU, TA, YA, ZU Altitude: 100-2650 m.



Guzmania cylindrica L.B. Sm., Phytologia 5: 282. 1955. TYPE: *Romero Castaneda 4465* (HT: COL [US photo]); Colombia. Flowering: Feb, Mar, Apr, May, Sep, Dec Distribution: AR, FA, LA, YA Altitude: 900-1700 m.



Guzmania hedychioides L.B. Sm., Bull. Bromeliad Soc. 5: 69. 1955. TYPE: *M.B. Foster & H. Teuscher 2740* (HT: US); Venezuela. **Endemic** Flowering: Oct Distribution: AR Altitude: 1700 m.



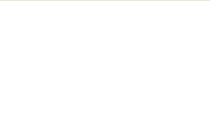
Guzmania lingulata (L.) Mez, in C. DC. Monogr. phan. 9: 899. 1896. — *Tillandsia lingulata* L., Sp. pl. 1: 286. 1753. TYPE: *Sloan s.n.* (HT: BM); Jamaica. **Synonym:** *Caraguata lingulata (L.) Lindl., Bot. Reg. 13: 1827.* Flowering: Jan, Mar, Apr, May, Jun, Jul, Aug, Oct, Nov Distribution: AM, AP, AR, BA, BO, CA, DA, DC, FA, LA, MI, MO, NE, PO, SU, TA, YA, ZU Altitude: 20-1500 m.



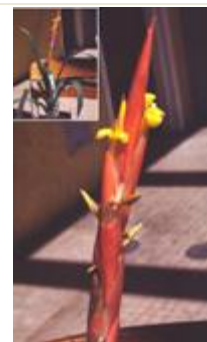
Guzmania lychnis, Phytologia 4: 363. 1953. TYPE: *Foster 2045* (HT: GH; IT: COL); Colombia. Flowering: Mar, May, Jul, Sep Distribution: TA, TR Altitude: 1600-2950 m.



Guzmania melinonis Regel, Gartenflora 34: 116. 1885. — "*Guzmania melinoki*" a typographical error according to Mez in C. DC., Monogr. Phan. 9: 908. 1896. TYPE: *Linden in Petrograd Hortus s.n.* (HT: LE); French Guiana. Flowering: Apr Distribution: AM Altitude: 795-1000 m.



Guzmania membranacea L.B. Sm. & Steyermark, Acta Bot. Venez. 2(5--8): 380. 1968. TYPE: *J.A. Steyermark 95022* (HT: VEN; IT: US photo); Venezuela. **Endemic** Flowering: Feb, Mar Distribution: SU Altitude: 850-1273 m.



Guzmania mitis L.B. Sm., Contr. Gray Herb. 98: 31. 1932. TYPE: *Killip & Smith 20195* (HT: GH; IT: US, NY); Colombia. Flowering: Jan, May, Jun, Jul, Dic Distribution: FA, LA ME, PO, TA, TR Altitude: 650-3000 m.



Guzmania monostachia (L.) Rusby ex Mez, in C. DC., Monogr. phan. 9: 905. 1896. —*Renealmia monostachia* L., Sp. pl. 1: 287. 1753. TYPE: *Plumier s.n.* (HT: P); West Indies. Flowering: Feb, Mar, Apr, May, Jul, Sep, Oct, Nov, Dec Distribution: AM, AR, CA, DA, DC, FA, LA, ME, MI, MO, NE, PO, SU, TA, YA, ZU Altitude: 40-1870 m.



Guzmania mucronata (Griseb.) Mez, in C. DC. Monogr. Phan. 9: 912. 1896. —*Tillandsia mucronata* Griseb., Nachr. Ges. Wiss. Gött. 1864(1): 20. 1865. TYPE: *A. Flender 2159* (HT: GOET [US photo]; IT: K); Venezuela. Flowering: Jul, Sep, Oct Distribution: AR, CA, DC, FA, LA, MI, YA Altitude: 400-1950 m.



Guzmania mosaica (Linden & André) Mez, in C. DC. Monogr. Phan. 9: 898. 1896. —*Tillandsia mosaica* Linden & André, Ill. Hort. 20: 171. 1873. TYPE: *Wallis in Linden Hortus s.n.* (No preservado? [Smith, 1977]); Colombia. Flowering: Mar Distribution: ZU Altitude: 100-350 m.



Guzmania nubicola L.B. Sm., Mem. New York Bot. Gard. 9: 316. 1957. TYPE: *B. Maguire, J.J. Wurdack & G.S. Bunting 36852* (HT: US; IT: NY, VEN); Venezuela. Flowering: Dec Distribution: AM Altitude: 140-2100 m.



Guzmania nubigena L.B. Sm., Phytologia 4: 355. 1953. TYPE: *M.B. Foster 2739* (HT: US; IT: VEN); Venezuela. Flowering: Jan, Mar, Apr, Sep, Oct Distribution: AR, DC, YA Altitude: 400-1800 m.



Guzmania patula Mez & Wercklé, Repert. Spec. Nov. Regni Veg. 14: 255. 1916. TYPE: *Wercklé s.n.* (HT: B; HT photo: B; IT: US); Costa Rica. Flowering: Feb, Mar, May, Jun, Jul, Aug, Dec Distribution: AM, AR, BO, CA, LA, TA, YA, ZU Altitude: 250-1760 m.

Note: *Guzmania patula*, as currently recognized in Venezuela, may consist of two separate taxa.



Guzmania pennellii L.B. Sm., Contr. Gray Herb. 98: 30. 1932. — *Thecophyllum pennellii* (L.B. Sm) Mez, Pflanzenr. IV. 32: 422. 1935. TYPE: *Pennell 4344* (HT: NY); Colombia. Flowering: Jan, Mar Distribution: TA Altitude: 2300-2700 m.



Guzmania retusa L.B. Sm., Fieldiana, Bot. 28(1): 143. 1951. TYPE: *J. Steyermark 60677* (HT: F); Venezuela. Flowering: Nov Distribution: BO Altitude: 1000-1220 m.



Guzmania roezlii (E. Morren) Mez, in C. DC. Monogr. phan. 9: 948. 1896. — *Schlumbergeria roezlii* E. Morren, Belgique Hort. 28: 311. 1878. TYPE: *Roezl in Morren Hortus s.n.* (CT: LG; GH photo); Peru. Synonym: *Tillandsia rigidula* Baker, Journ. Bot. London 26: 44. 1888. Fruiting: Jul, Nov, dec Distribution: AM, BO, DA Altitude: 65-1300 m.



Guzmania sanguinea (André) André ex

Mez, in C. DC. Monogr. Phan. 9: 901. 1896. —*Tillandsia sanguinea* (André) André ex Mez, DC., Mon. Phan. 9: 901.

1986. TYPE: *André 3369* (HT: K [K photo]);

Colombia. Synonym: *Caraguata sanguinea* André, *Rev. Hort.* 55: 468. 1883. *Guzmania crateriflora* Mez & Werckle ex Mez, *Bull. Herb. Boiss. II.* 9: 110. 1905. Flowering: Aug Distribution: DC, MI Altitude: 1000 m.



Guzmania sphaeroidea (André) André ex

Mez, in C. DC. Monogr. phan. 9: 942. 1896. —*Caraguata sphaeroidea* André, Énum. Bromél. 6. 13 Dec. 1888; *Rev. Hort.*

60: 566. 16 Dec. 1888. TYPE: *André 2685* (HT: K);

Colombia. Synonym: *Guzmania geniculata* L.B. Sm., *J. Wash. Acad. Sci.* 42:282. *Guzmania venamensis* L.B.Sm., *Phytologia* 21: 88.

1971. Flowering: Jan, Feb, Apr, Aug, Dec Distribution: AM, BO Altitude: 900-2400 m.



Guzmania squarrosa (Mez & Sodiro) L.B.

Sm. & Pittendr., *J. Wash. Acad. Sci.* 43: 403. 1954 [as "1953"]. —*Thecophyllum squarrosus* Mez & Sodiro, *Bull. Herb.*

Boissier, sér. 2, 4: 877. 1904. TYPE: *Sodiro 47* (HT: B);

Ecuador. Synonym: *Guzmania cryptantha* L.B.

Sm., *Caldasia* [1(5)]:6. 1942 Flowering: Mar, Apr, May, Jun, Jul, Oct Distribution: AM, AR, BO, DC, LA, ME, PO, TA, TR, ZU Altitude: 600-3100 m.



Guzmania steyermarkii L.B. Sm., *Phytologia* 7:

419. 1961. TYPE: *J.A. Steyermark & S. Nilsson*

71 (HT: US; IT: VEN); Venezuela. Synonym: *Guzmania plumieri* auct. non (Griseb.) Mez: sensu L.B. Sm. in *Lasser, Fl. Venez.*

12(1): 246. 1971. Distribution: BO Altitude: 950-1400 m.



Guzmania terrestris L.B. Sm. & Steyerm.,

Ann. Missouri Bot. Gard. 73: 715. 1986. TYPE: *Steyerm.*

129596 (HT: US; IT: VEN, NY, MO); Venezuela. Flowering:

Feb, Oct Distribution: AM Altitude: 1500-2800 m.



Guzmania ventricosa (Griseb.) Mez, in C. DC. Monogr. Phan. 9: 929. 1896. — *Tillandsia ventricosa* Griseb., Nachr. Ges. Wiss. Gött. 1864(1): 19. 1865. TYPE: *A. Fendler 1517* (HT: GOET; IT: GH, K); Venezuela. Flowering: Jan, Feb, Oct, Dec Distribution: AR, DC, MI, TR Altitude: 200-2640 m.



Guzmania virescens (Hook.) Mez, in C. DC. Monogr. Phan. 9: 943. 1896. — *Puya virescens* Hook., Bot. Mag. 83: t. 4991. 1857 TYPE: *Kew Hortus s.n.* (Probablemente no existe HT [Smith, 1977]); Venezuela. Synonym: *Caraguata beleana* André, Rev. Hort. 63: 114. 1891. *Guzmania beleana* André ex Mez in DC. Mon. Phan. 9: 944. 1896. Flowering: Jan Distribution: AR Altitude: 1250-1600 m.



References

- Grant, J. and Zijlstra. 1998. An annotated catalogue of the generic names of the Bromeliaceae. Selbyana 19(1): 91-121. Gouda, E. 1987. Bromeliaceae, subfamily Tillandsioideae. In A.R.A. Gorts-van Rijn, ed. Flora the Guianas. Ser. A(3). Fam 189: 1-112.
- Holst, B. 1994. Checklist of Venezuelan Bromeliaceae with notes on species distribution by state and levels of endemism. Selbyana 15(1): 132-149.
- Holst, B. 1997. Bromeliaceae. En: J. Steyermark & P. Berry eds. Flora of the Venezuelan Guayana. Vol. 3 (Araliaceae-Cactaceae). Missouri Bot. Gard. U.S.A.
- Luther, H. 2004. An alphabetical list of bromeliads binomials. Marie Selby Botanical Gardens. Bromeliad Society International.
- Ruiz, H. and J. Pavón. 1802. Flora Peruviana et Chilensis 3: 37-38. Extended Micro-Edition from International Documentation Centre AB Hagelby House, Tuma, Sweden.
- Smith, L. 1968. Bromeliaceae. En : A.A. Pulle & J. Laujouw eds. Flora de Suriname. Vol. 2 Part 2. E.J. Brill, Leiden. Netherlands.
- Smith, L. 1998. Bromeliaceae. En: K. Kubitzki ed. The families and genera of vascular plants. IV. Monocotyledons. Alismatanae and Commelinanae. Germany. Smith, L. and R. Downs.
1977. Tillandsioideae (Bromeliaceae). Fl. Neotrop. Monogr. 14(2): 661-1492. Uteley, J.F. 1994. Bromeliaceae. En: G. Davidse, M. Sousa y A.O. Chater col. Eds. Flora mesoamericana. Alismataceae a Cyperaceae. Vol. 6. Universidad Autónoma de México. México D.F.