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Novitiae florae cubensis No. 21

ALEXANDER KRINGS, FABIOLA ARECES BERAZAÍN & JULIO C. LAZCANO LARA

New and rediscovered milkweeds from Cuba: *Calotropis gigantea* and *Gonolobus stephanotrichus (Apocynaceae: Asclepiadoideae)*

Abstract

Krings, A., Areces Berazaín, F. & Lazcano Lara, J. C.: New and rediscovered milkweeds from Cuba: *Calotropis gigantea* and *Gonolobus stephanotrichus (Apocynaceae: Asclepiadoideae).* – Willdenowia 35: 315-318. – ISSN 0511-9618; © 2005 BGBM Berlin-Dahlem.
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Calotropis gigantea is reported new to Cuba and *Gonolobus stephanotrichus* is reported rediscovered after previously being known only from syntypes collected in 1860-64. Specimens are cited and keys to Cuban species of both genera are provided.

A recent expedition in search of milkweeds *(Apocynaceae: Asclepiadoideae)* for the development of a treatment of subtribe *Gonolobinae* for the Flora de la Republica de Cuba resulted in the discovery of *Calotropis gigantea* (L.) R. Br., a new record for the island, and the rediscovery of *Gonolobus stephanotrichus* Griseb.

Calotropis gigantea (Asclepiadinae)

Previously only a single species of *Calotropis* R. Br. was reported for Cuba, *C. procera* (Aiton) R. Br. (Schlechter 1899, Alain 1957, Rahman & Wilcock 1991). While *C. gigantea* apparently has a native range spanning the Indian subcontinent, southern China, SE Asia and Indonesia, it is now introduced in New Guinea and the Hawaiian islands (Rahman & Wilcock 1991). Rahman & Wilcock (1991) did not report it for the West Indies. The TROPICOS database (http://www.tropicos.org) currently lists two collections from the Caribbean region: Trinidad (*Broadway s.n.,* MO, fide annotation by W. D. Stevens 1987, specimen not seen) and Tobago (*Worthington 18023,* MO, fide annotation W. D. Stevens 2000, specimen not seen). Howard (1989) noted the presence of *C. gigantea* in cultivation in Barbados based on a report by Maycock (1830). The records from Cuba are apparently the first report of *C. gigantea* for the Greater Antilles. Based on a collection previously assigned to *C. procera, C. gigantea* appears to have been in Cuba for at least thirty years.

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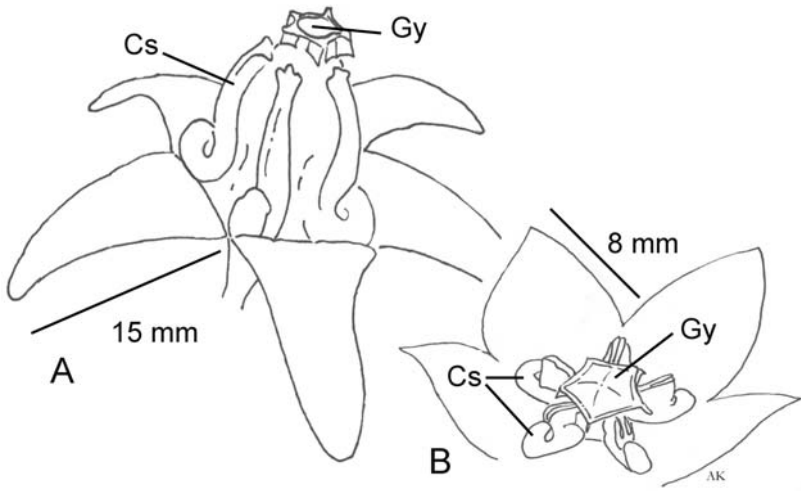


Fig. 1. Flowers of the two Cuban *Calotropis* species – A: *C. gigantea* (based on *Krings & al. s.n.,* NCSC); B: *C. procera* (based on *Krings & al. s.n.,* NCSC). – Cs = staminal corona segment (sensu Kunze 1990); Gy = gynostegial head.

Specimens seen. – CUBA: PROV. VILLA CLARA: Mun. Santa Clara, Presa Agabama, 30.3.1974, *A. Areces H.F.C. 24991* (HAJB). – PROV. SANTIAGO DE CUBA: Bayate (seco), in open pasture, 27.5.2005, *A. Krings, F. Areces & J. Lazcano s.n.* (NCSC); Mun. Mella, zona de Bayate, El Ocho, potreros en el camino a Arroyo Martín, 27.5.2005, *F. Areces, J. Lazcano & A. Krings H.F.C. 83524* (HAJB).

Key to the species of *Calotropis* in Cuba

1. Corolla lobes 10-15 mm long; staminal corona segments (see Fig. 1A) 5-12.3 mm long, shorter than the gynostegial head . . . . . *Calotropis gigantea*
– Corolla lobes 6-8 mm long; staminal corona segments (see Fig. 1B) to 4 mm long, equalling to taller than the gynostegial head . . . . . *Calotropis procera*

Gonolobus stephanotrichus (Gonolobinae)

Gonolobus stephanotrichus is known only from Puerto Rico, Hispaniola and Cuba (Schlechter 1899, Urban 1910, Alain 1957, Adams 1972 (not on Jamaica), Howard 1989 (not on the Lesser Antilles), Alain 1994, 1995, Acevedo-Rodríguez 2003, 2005). However, although numerous collections exist from the former islands, *G. stephanotrichus* was known in Cuba only from the syntypes taken by Charles Wright between 1860 and 1864 (*Wright 2969,* BREM!, G!, GH!, GOET!, HAC!, K!, MO, NY!, P!, UC!, US!). However, during a June 2005 ascent of Pico Joaquin in Parque Nacional Turquino (Prov. Santiago de Cuba, Sierra Maestra), the species was found growing along the ridge line at about 1000-1300 m. At least fifty vines were counted within 3 km of the Campamento Joaquin at the base of Pico Joaquin. Most vines were sterile, but some were starting to bear flower buds and a few bore immature flowers sufficiently developed to allow positive determination of the species.

Specimens seen. – CUBA: PROV. SANTIAGO DE CUBA: Sierra Maestra, Parque Nacional Turquino, within 3 km of Campamento Joaquin on trail from the Alto de Naranjo, 3.6.2005, *A. Krings, F. Areces & J. Lazcano s.n.* (HAJB, NCSC); Sierra Maestra, Parque Nacional Turquino, 2-3 km downhill from Campamento Joaquin in direction of the Alto de Naranjo, 2.6.2005, *A. Krings, F. Areces & J. Lazcano s.n.* (NCSC).

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Provisional key to the species of *Gonolobus* in Cuba

1. Leaves linear-lanceolate, 0.5-0.7 cm wide . . . . . *Gonolobus grisebachianus*
– Leaves ovate to elliptic, ≥ 2 cm wide 2
2. Corolla lobes suborbicular . . . . . *Gonolobus bakeri*
– Corolla lobes linear-lanceolate . . . . . *Gonolobus stephanotrichus*

It is important to note that *Gonolobus grisebachianus* Schltr. (holotype: *Wright s.n.*) and *G. bakeri* Schltr. (holotype: *Baker 7286*) are apparently only known from their type collections, which have not been located despite query of nearly one hundred institutions known to house West Indian collections. At least the type material of the latter name may have been destroyed in WW II. Thus, the two species are included here provisionally and based solely on their protologues and past treatments. Despite the recent combination *Matelea grisebachiana* (Schltr.) Alain, *G. grisebachianus* should clearly be assigned to *Gonolobus* based on the description provided by Schlechter (1899) and following Woodson's (1941) circumscription of *Gonolobus* Michx. to include only species with laminar dorsal anther appendages. Although Grisebach (1866) did not mention laminar dorsal anther appendages in his protologue of *G. tigrinus* var. *angustifolia* Griseb. (the synonym replaced by *G. grisebachianus*), Schlechter (1899) clearly noted the presence of well-developed anther appendages in his description: "Diese Art ist trotz ihrer habituellen Ähnlichkeit mit *G. tigrinus* Griseb. von diesem vollständig verschieden. Die Blätter sind schmaler, die Blüten größer, die äußere Corona ganz verschieden und die Schuppen der inneren Corona viel deutlicher vom Antherenrücken abgehoben, außerdem, von oben gesehen, in der Mitte nicht ausgerandet, sondern eher verdickt." The position of *G. bakeri* appears more uncertain. Schlechter does not describe dorsal anther appendages in the protologue. Combined with his note that the species is "mit *G. variifolius* Schltr. [now *Matelea variifolia* (Schltr.) Woodson] am nächsten verwandt", there is reason to believe that *G. bakeri* may better belong in *Matelea*. *M. variifolia* clearly lacks laminar dorsal anther appendages and also exhibits suborbicular corolla lobes. It is known only from Puerto Rico (Schlechter 1899, Acevedo-Rodríguez 2003, 2005). As the single specimen representing *G. bakeri* was cultivated in Cuba, it may be that the species is merely a pubescent form of *M. variifolia*.

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