
Two New Subspecies of *Hibiscus trilobus* (Malvaceae) from Central and South America

Orland J. Blanchard, Jr.

Department of Biology, Long Island University, C. W. Post Campus, Brookville,
New York 11548, U.S.A.

Paul A. Fryxell

Plant Resources Center, Section of Integrative Biology, School of Biology, University of
Texas, Austin, Texas 78712, U.S.A.

ABSTRACT. *Hibiscus trilobus* subsp. *hirsutus* from Belize and Guatemala is described as new, based on differences in pubescence, leaf form, and phytogeography. The new combination *H. trilobus* subsp. *ingratus* is also made, based on *H. ingratus* Miquel. A key is provided to distinguish the three recognized subspecies.

In preparing a treatment of the Malvaceae for *Flora Mesoamericana*, the second author became aware that one taxon that pertains to the area, herein treated as a subspecies of *Hibiscus trilobus* Aublet, did not as yet have a name. Although the plant was recognized as distinct by Blanchard (1976), who treated *H. trilobus* as comprising three subspecies from Surinam, the Caribbean (Jamaica, Hispaniola, and Puerto Rico), and Central America (Belize and Guatemala), the names for these subspecies have not previously been effectively published. The present paper intends to rectify that omission and make the names available.

Hibiscus trilobus* subsp. *hirsutus O. J. Blanchard & Fryxell, subsp. nov. TYPE: Guatemala. Petén: La Libertad and vicinity, 10 May 1935, M. Aguilar 486 (holotype, NY; isotypes, F, F photo 56202, LL). Figure 1.

Ab *Hibisco trilobo* subsp. *trilobo* et subsp. *ingrato* foliis minus profunde 3–5(raro 7)-lobis, indumento pilorum erectorum tenuium simplicium 2–4 mm longorum distinguendus, pubescentia densissima hirsuta petiolis pedicellis bracteis involucrelibus et calyci dimidio inferiore.

Shrubs or subshrubs 2 to 5 m tall, the stems with stout, often bulbous-based prickles, simple hairs 3 to 4 mm long, and also longitudinal lines of smaller, denser hairs. Leaves cordate, crenate-serrate, up to 14 cm long, 15 to 17 cm wide, broadly and shallowly 3- to 5-angled or -lobulate (rarely 7-lobulate), acuminate, sparsely hirsute above and beneath with

simple hairs 1 to 3 mm long, these denser on principal veins; petioles 5 to 12 cm long, hirsute, with occasional prickles, and with the adaxial side densely puberulent; stipules subulate, 4 to 5 mm long, hirsute. Peduncles solitary in the leaf axils, shorter than to longer than subtending petiole, lacking prickles, densely hirsute, these patent hairs 3 to 4 mm long; involucellar bracts ca. 14, 14 to 16 mm long in flower, to 25 mm long in fruit, linear, hirsute; calyx 2 cm long in flower to 5 cm long in fruit, \pm cylindric, prominently 20-ribbed, accrescent (inflated) in fruit, densely hirsute (hairs 2 to 4 mm long and spreading), the shallow lobes acuminate; petals 5 to 11 cm long, pink (yellowish in sicco) with darker base; staminal column ca. half length of petals, the anthers purplish; styles 5, essentially glabrous, with capitate stigmas. Capsules 2 to 3.5 cm long, enclosed in persistent calyx, hispid, these hairs 4 mm long; seeds 3.5 to 4 mm, short-pubescent, the hairs rusty-red.

Two of the collections cited for *Hibiscus trilobus* subsp. *hirsutus* (Aguilar 486 and Proctor 30054) were originally distributed as *Hibiscus diversifolius* Jacquin, so additional duplicates of these collections might be found in other herbaria filed under the latter name.

The distribution of the three subspecies, as indicated in the following key, is mapped by Blanchard (1976: 280, fig. 10), and a photograph of the holotype of *H. trilobus* subsp. *hirsutus* is reproduced (Blanchard, 1976: 346, fig. 43).

Paratypes. BELIZE. Toledo, s.l., 25 Jan. 1929, Stevenson 88 (F); Cayo, Chiquibul Forest Reserve, vicinity of Caracol Ruins, in ruined Mayan reservoir, 1500 to 1700 ft., 24 Apr. 1969, Proctor 30054 (IJ, LL, MO). GUATEMALA. Petén: San Antonio, 13 km camino Libertad, Flores, 14 Feb. 1970, Tún Ortiz 713 (MICH, US).

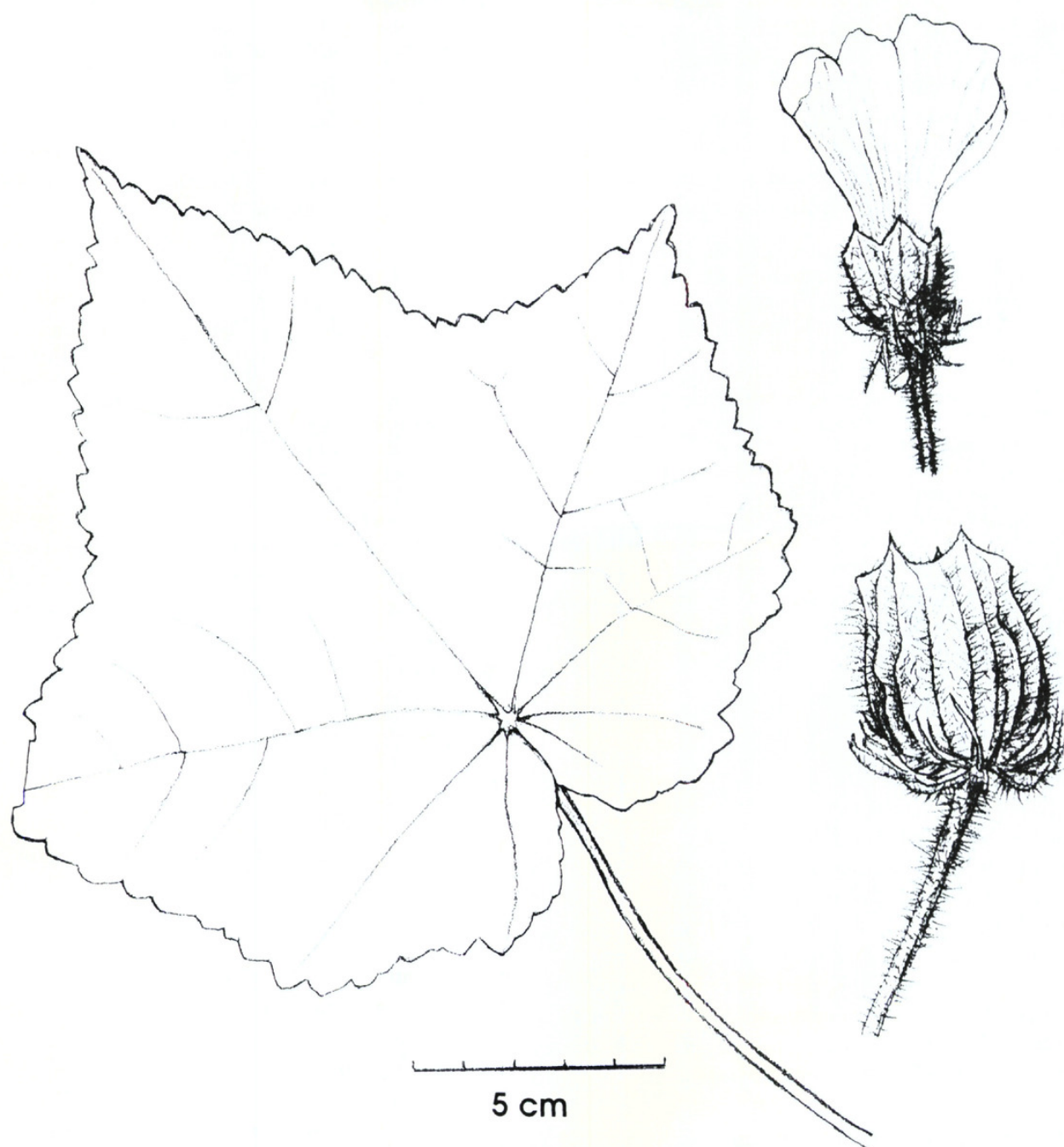


Figure 1. *Hibiscus trilobus* subsp. *hirsutus* O. J. Blanchard & Fryxell. Left: maximally developed leaf (pubescence omitted); right: calyx at anthesis (above) and in fruit (below), showing the nature of the pubescence and the degree of accrescence. [Drawings based on Aguilar 486 (LL) and Proctor 30054 (LL). Drawn by P. A. Fryxell.]

Hibiscus trilobus* subsp. *ingratus (Miquel) O. J. Blanchard & Fryxell, stat. et comb. nov. Basionym: *Hibiscus ingratus* Miquel, Linnaea 19: 143. 1847. TYPE: Surinam ("prope Paramaribo juxta rivulum"), Focke s.n. (lectotype, here designated, K).

The three taxa treated in the key (below) are geographically disjunct and morphologically distinct, but they are sufficiently similar that they are best grouped as subspecies of a single species. As precedent, Kearney (1955, 1957) included material

from the "West Indies, Guiana" in *Hibiscus trilobus*, evidently in reference to what is here treated as subspecies *trilobus* and subspecies *ingratus*, respectively. However, Kearney (1957) also distinguished *H. ingratus* from *H. trilobus* and cited the former as from "Guiana and perhaps in Brazil," leaving the matter in some confusion. Blanchard (1988) published *Hibiscus* sect. *Striati* O. J. Blanchard to include this species and *H. striatus*. Each of these two species comprises three subspecies. Specimens may be reliably keyed to *H. trilobus* us-

ing the key in Kearney (1955) and to the subspecies of *H. trilobus* using the following key, which is slightly modified from Blanchard (1976: 199 in unpublished dissertation). Blanchard distinguished the three subspecies of *H. trilobus* on characters of pubescence, leaf shape, and size and number of involucellar bracts, as is indicated below.

- 1a. Pubescence on the calyx, pedicel, and young stem spreading-hirsute, the hairs 2 to 4 mm long; leaves 3 to 5 (to rarely 7)-angulate or -lobulate; Guatemala and Belize *H. trilobus* subsp. *hirsutus*
- 1b. Pubescence on the calyx appressed to erect but never hirsute, the hairs of the young stem and pedicel short; leaves 3- to 5-lobed, the lobes acute to acuminate.
 - 2a. Involucellar bracts 12 to 16 in number, 14 to 17(rarely 18) mm long in flower; leaves 3- or 5-lobed; Jamaica, Hispaniola, Puerto Rico *H. trilobus* subsp. *trilobus*
 - 2b. Involucellar bracts 8 to 11(rarely 12) in

number, 18 to 30 mm long in flower; leaves mostly 3-lobed; Surinam
. *H. trilobus* subsp. *ingratus*

Acknowledgments. The curators of the herbaria cited (F, IJ, LL, MICH, MO, NY, US) are thanked for lending specimens in their care or for facilitating visits to their herbaria.

Literature Cited

Blanchard, O. J., Jr. 1976. A Revision of Species Segregated from *Hibiscus* sect. *Trionum* (Medicus) De Candolle sensu lato (Malvaceae). Unpublished Ph.D. Dissertation, Cornell University, Ithaca, New York. (Available from University Microfilms, 77-5723.)
———. 1988. New sections in *Hibiscus*. Appendix 2, pp. 470–471 in: P. A. Fryxell, *Malvaceae of Mexico*. Syst. Bot. Monogr. 25: 1–522.
Kearney, T. H. 1955. A tentative key to the North American species of *Hibiscus*. Leaflet W. Bot. 7: 274–284.
———. 1957. A tentative key to the South American species of *Hibiscus* L. Leaflet W. Bot. 8: 161–168.



Blanchard, Orland J. and Fryxell, Paul A. 2000. "Two new subspecies of *Hibiscus trilobus* (Malvaceae) from Central and South America." *Novon a journal of botanical nomenclature from the Missouri Botanical Garden* 10, 190–192.

View This Item Online: <https://www.biodiversitylibrary.org/item/14670>

Permalink: <https://www.biodiversitylibrary.org/partpdf/38219>

Holding Institution

Missouri Botanical Garden, Peter H. Raven Library

Sponsored by

Missouri Botanical Garden

Copyright & Reuse

Copyright Status: In copyright. Digitized with the permission of the rights holder.

License: <http://creativecommons.org/licenses/by-nc-sa/3.0/>

Rights: <https://biodiversitylibrary.org/permissions>

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.