Brittonia, 36(3), 1984, pp. 330–332.

NEW TAXA OF MALPIGHIA (MALPIGHIACEAE) FROM MEXICO AND THE WEST INDIES

JOSÉ LUIS VIVALDI

Vivaldi, José Luis (Scientific Research Area, Department of Natural Resources, Box 5887, Puerta de Tierra, Puerto Rico 00906). New taxa of *Malpighia* (Malpighiaceae) from Mexico and the West Indies. Brittonia 36: 330–332. 1984.— **Malpighia romeroana** var. **nayaritensis** is described from Nayarit, México, and **M. albiflora** subsp. **antillana** and **M. nummulariifolia** subsp. **oblongifolia** from the West Indies.

The three taxa described in this paper emerged from the study of numerous herbarium specimens and from field work in México and the West Indies leading to a revision of the genus (Vivaldi, 1979).

Malpighia albiflora (Cuatrec.) Cuatrec. subsp. **antillana** Vivaldi, subsp. nov. (Fig. 1)

Malpighia oxycocca var. *biflora* sensu Niedenzu, De Genere Malpighia 14. 1899; Arbeiten Bot. Inst. Königl. Lyceums Hosianum Braunsberg 5: 36. 1914; in Engler, Das Pflanzenreich IV. 141: 629. 1928.

Malpighia oxycocca auct. non Griseb., Grisebach, Cat. Pl. Cubensium: 43. 1866, pro parte.

Malpighia biflora auct. non Poir., Small, N. Amer. Fl. 25: 158. 1910, pro parte; Roig & Acuña in León & Alain, Fl. Cuba 3: 18–19. 1953.

A subsp. *albiflora* ramis novellis, setis malpighiaceis rectis, rigidis, pungentibus, caducis, basi prominente longa persistente tuberculiformi praeditis strigosis, foliis (3) 4–7 (7.5) cm longis, (1.5) 2–3 (3.5) cm latis, infra setis malpighiaceis rectis, rigidis, pungentibus, tenuibus, sessilibus, (1) 1.5–2 (3) mm longis strigosis, umbellis 2-(4)-floris, stylisque 2.5–3 mm longis differt.

Shrubs 1–2 m tall or small trees up to 8 m tall. Young branches green or reddish, strigose, the bristles straight or very slightly undulate, borne on prominently raised, long, persistent, tubercle-like bases, the bristles caducous but the persistent bases giving the older branches a characteristic tuberculate appearance. Leaf blades (3) 4–7 (7.5) cm long, (1.5) 2–3 (3.5) cm wide, the lower surface strigose, very rarely almost glabrous or becoming glabrous with age, the bristles (1) 1.5–2 (3) mm long; petioles 1 (1.5) mm long, strigose. Inflorescence 2-(4)-flowered, the lateral styles 2.5–3 mm long.

TYPE: CUBA. Prov. unknown: El Retiro, 17 Sep 1860–65, *Wright 2148* (HOLOTYPE: GH; ISOTYPES: G, GOET, K, MO, P, US).

Evergreen or semievergreen seasonal forests on limestone at elevations up to 1500 m and with mean annual precipitation of 150–165 cm in Cuba and Hispaniola.

Additional specimens examined: CUBA. LA HABANA: Tapaste, La Jaula hills, woods, Oct 1923, *León 12563* (GH). LAS VILLAS: Trinidad Mts., Habanilla Falls, 1–2 Mar 1910, *Britton et al. 4878* (NY); Trinidad Mts., woods at Mina Carlota, 11 Jul 1941, *Howard 5746* (A); Pitajones, woods, 1–2 Mar 1912, *Shafer 12291* (MO). ORIENTE: Loma del Jagüey, elev. 600 m, Apr 1889, *Eggers 5150* (A, P, US); Bayate, Cayo del Rey ad Canapá in Cañón, 6 Sep 1914, *Ekman 2748* (G, NY); "Kalkhügel am Tunnel von Río Piloto, Sierra de Nipe," fide Niedenzu (1928), *Ekman 15088* (NY); "Schattige Wälder auf Kalkstein zwischen La Toronja und Guisa, Sierra Maestra," fide Niedenzu (1928), *Ekman 16098* (NY); Monte Verde, 10 Jul 1919, *Hioram & Maurel 2526* (NY); N spur of Sierra Maestra W of Río Yao, elev. 300–700 m, 24–30 Oct 1941, *Morton & Acuña 3405* (US); Baracoa to Jiquarito Mts., elev. 2300 ft, 17 Sep 1906, *Taylor 472* (NY); Sierra de Nipe, limestone massif in the foothills at the Río Guaro, about 10 km (airline) SW of Mayarí, 23 Jul 1951, *Webster 3919* (GH); prope villam Monte Verde, Jan–Jul 1859, *Wright 83* (G, G-BOIS, GH, GOET, K, MO, NY, P). PINAR DEL RÍO: wet woods at Rangel, Jan 1953, *Alain 2746* (GH, IJ); Baños de San Vicente, base of limestone cliffs,

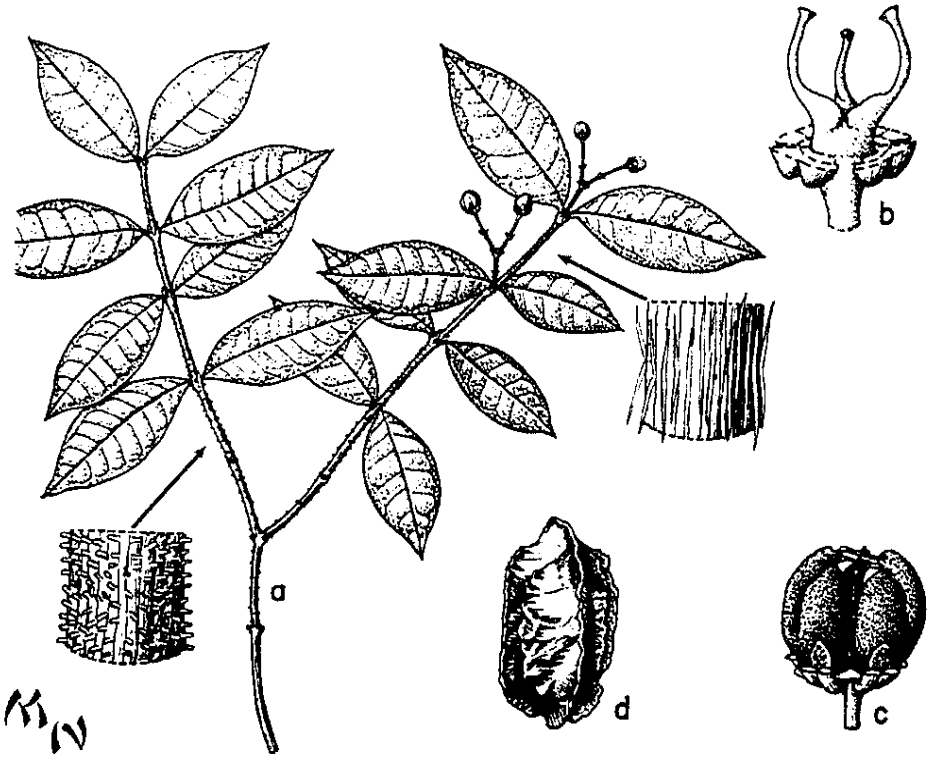

FIG. 1. *Malpighia albiflora* subsp. *antillana*. A. Habit, ×⅜, inserts (×15) show the small bristles on the young branches and their persistent, tubercle-like bases. B. Gynoecium, ×2.4. C. Mature fruit showing three developed and separate carpels, ×1. D. Pyrene, ×2.

12–16 Sep 1910, *Britton et al. 7405* (NY, US); Rangel, Aug 1926, *León 12736* (NY); Sierra de San Francisco, base of Sierra, W of Sumidero, 30 Aug 1912, *Shafer 13866* (NY). DOMINICAN REPUBLIC. BARAHONA: mountains near Paradís, elev. 800 m, Oct 1910, *Fuertes 339* (A, G). SANTO DOMINGO. La Cumbre, arroyo de los Guanitos, in forest, elev. ca 240 m, 11 Feb 1929, *Ekman H.11431* (IJ). CULTIVATED: ex Hort. Madrid (P-JU).

Malpighia albiflora can be readily distinguished from all other species in the genus by its semi-apocarpous condition. The carpels at anthesis are united only to the middle. In fruit two carpels are usually aborted so that only one develops, giving the fruit a characteristic appearance not found in other species of the genus.

On the basis of leaf size, vestiture, number of flowers per inflorescence, and geographic distribution two subspecies are recognized. Subspecies *albiflora* is very similar to *M. glabra* L. in its vegetative characters, so that in the sterile condition the two are often confused. It has been confused also, when sterile, with *M. romeroana* Cuatrec. However, *M. romeroana* can be distinguished by the adjacent stipules fused together.

Malpighia romeroana Cuatrec. var. **nayaritensis** Vivaldi, var. nov.

A var. *romeroana* calyce 10-glanduloso, staminibus duobus petalis postico-lateralibus oppositis quam ceteris manifeste longioribus, curvatis, stylisque 4–4.5 mm longis differt.

Erect shrubs 1–2 (5) m tall, rarely a climbing shrub. Calyx 10-glandular, the

stamens opposite the postico-lateral petals somewhat curved at anthesis, obviously longer than the rest, the lateral styles 4–4.5 mm long and slender.

TYPE: MEXICO. NAYARIT: vicinity of Chacala, ca 5 mi W of Las Varas, palm forest (*Orbignya* sp.) on low rocky hills near the ocean, elev. 25–50 m, 14 Sep 1960, *McVaugh 19020* (HOLOTYPE: US).

Occurs in coastal forests of Nayarit, México.

Additional specimens examined: MEXICO. NAYARIT: vicinity of San Blás, 3 Oct 1925, *Ferris 5369* (A, US).

Malpighia romeroana is easily distinguished from other species of the genus by its inflorescence, a long-peduncled, (4) 10–30 (50)-flowered, lax raceme (1) 2.5–6 cm long, and by its dark red or black, strigillose, connate stipules 2–3 (4) mm long.

On the basis of floral and geographical discontinuities two varieties are recognized: var. *romeroana* with styles 2–2.5 mm long, found east of the states of Tabasco and Chiapas in México, south to Cartagena in Colombia; and var. *nayaritensis* with styles 4–4.5 mm long, found only in the state of Nayarit.

Malpighia nummulariifolia Niedenzu subsp. **oblongifolia** Vivaldi, subsp. nov.

A subsp. *nummulariifolia* foliis oblongis vel lineari-oblongis, (4) 7–25 (50) mm longis, setis marginum 2.5–4 mm longis, setarum ramis inter se aequalibus liberisque, et inflorescentia dense strigillosa differt.

Erect shrubs up to 1 m tall. Leaf blades (4) 7–25 (50) mm long, (3) 4–8 (11) mm wide, oblong to linear-oblong, the margin undulate or flat, crenate, crenulate, or rarely entire, armed with bristles 2.5–4 mm long, usually T-shaped, both arms about equal in length and free. Inflorescence 1–1.5 cm long, about as long as the leaves or shorter, 2-flowered, densely strigillose, the peduncle 0–3 mm long, the lower part of the pedicel 3–4 mm long, the upper part 7–11 mm long.

TYPE: CUBA. ORIENTE: vicinity of El Morro, Santiago Bay, coastal thickets, 10–11 Mar 1912, *Britton & Cowell 12531* (HOLOTYPE: NY).

Dry coastal thickets at elevations probably below 100 m and with mean annual precipitation of 110–140 cm on the south coast of Oriente Province, Cuba, from the eastern foothills of Sierra Maestra to Baracoa. Collected in flower in March and August.

Additional specimens examined: CUBA. ORIENTE: Guantánamo, prope viam ferream ad Novaliches versus, 23 Sep 1914, *Ekman 2852* (NY); Loma del Gato y alrededores, grupo del Cobre de la Sierra Maestra, 11 Jul–14 Aug 1921, *León et al. 10270* (NY); manigua costera, cercanias del Morro de Santiago de Cuba, 24 Aug 1952, *López-Figueiras 625* (US); El Morro de Santiago de Cuba, 14 Mar 1954, *López-Figueiras 1148* (US); vicinity of Baracoa, 1–7 Feb 1902, *Pollard et al. 194* (US). LOCALITY UNKNOWN: *Ekman 7785* (NY), *15543* (NY); 11 Dec 1925, *Gill s.n.* (NY); 1856–7, *Wright 98* (GH).

Acknowledgments

I gratefully acknowledge the assistance provided by the directors and staff of numerous herbaria and botanical gardens who loaned specimens or placed them at my disposal during visits to their institutions. Financial support for field work in México was provided by the L. H. Bailey Hortorium and the Latin American Studies Program of Cornell University. Dr. William J. Dress helped write the Latin descriptions and Miss Mitsu Nakayama made the illustration of *Malpighia albiflora* subsp. *antillana*.

Literature Cited

Niedenzu, F. 1928. Malpighiaceae. *In*: A. Engler, Das Pflanzenreich IV. 141 (hefte 91, 93, 94).

Vivaldi, J. L. 1979. The systematics of *Malpighia* L. (Malpighiaceae). Ph.D. thesis, Cornell University, Ithaca, NY.