

MESOAMERICAN CELASTRACEAE -- II

Cyrus Longworth Lundell

Director, Plant Sciences Laboratory
The University of Texas at Dallas
Richardson, Texas 75083-0688

CROSSOPETALUM DENSIFLORUM Lundell, sp. nov. -- Arbor parva, 2 m. alta; ramuli 4-angulati, graciles, apice minute puberuli, glabrati; folia parva, supra minute puberula, subtus glabra, petiolata, petiolo 2.5--3.5 mm. longo, canaliculato, minute puberulo; lamina membranacea, lanceolata vel elliptica, 5--8.5 cm. longa, 2--3 cm. lata, apice subabrupte acuminata, basi acuta, subintegra; inflorescentia parva, gracilis, cymosa, 1--2 cm. longa, pedunculata, minute puberula; flores subcapitati, 4-meri; pedicelli ad 1.4 mm. longi; sepala parva, late ovato-rotundata, ca. 1 mm. lata, 0.7 mm. longa, apice rotundata, minute et dense puberula; petala 4, suberecta, glabra, obovata, ca. 2 mm. longa, basi late unguiculata, apice minute erosa, rotundata; filamenta filiformis, ca. 1 mm. longa, erecta; antherae late rotundatae, ca. 0.2 mm. longae, apice emarginatae; ovarium 2-loculare, glabrum; stigma biloba.

Mexico: Veracruz, Municipio Hidalgotitlan, 16.5 km. al O de Hermanos Cedillo, sobre terraceria a Boca del Monte, entre Poblada 1 y Rio Chachijalpa; borde de selva karstica de Terminalia, Dialium, etc., elev. 90 m., April 16, 1981, Tom Wendt, E. Lott y F. Chiang 3197 (holotype, LL), arbolito de 2 m.; flores amarillo-verde palidas, frutos verde palidos; frecuente en selva.

Referable to the complex of taxa with 4-ribbed stems, C. densiflorum is notable for its subcapitate flowers with pedicels less than 1.4 mm. long in the small densely flowered cymes. Its small thin obovate petals are broadly unguiculate, the filaments are thread-like, and the densely puberulent calyx has thin broadly ovate-rounded sepals.

CROSSOPETALUM GLABRUM Lundell, sp. nov. -- Arbor, 4--6 m. alta, omnino glabra; ramuli 4-angulati, graciles; folia coriacea, petiolata, petiolo 3--6 mm. longo, canaliculato; lamina elliptica vel lanceolata, 6--12 cm. longa, 3--5.3 cm. lata, apice subabrupte acuminata vel caudato-acuminata, basi rotundata et acutiuscula, margine minute crenulato-serrulata; inflorescentia parvissima, cymosa, axillaris, 5--10 mm. longa, pauciflora; flores 4-meri; pedicelli graciles, 2--4 mm. longi; sepala late ovato-rotundata, 1--1.4 mm. lata, apice rotundata; petala late rotundata vel ovato-rotundata, ad 2.5 mm. longa, 2 mm. lata, subintegra vel minute dentato-erosa; filamenta 0.3--0.5 mm.

longa; antherae ovatae, ca. 0.4 mm. longae, obtusae; ovarium glabrum.

Mexico: Veracruz, Municipio Hidalgotitlan, brecha Hnos. Cedillo, la escuadra, selva alta perennifolia, alt. 200 m., March 7, 1974, Mario Vazquez et al. V-117 (holotype, XAL), arbusto, 6 m., flor verde. Municipio Catemaco, 8 km. al Este de Tebanca, camino que va al Bastonal, selva alta perennifolia, March 22, 1973, Refugio Cedillo Trigos, J. Ismael Calzada 149 (paratype, XAL), arbusto, 4 m., flor verde.

In being completely glabrous, having sharply 4-angled stems, with very small mostly 3-flowered cymes aggregated in leaf axils, and in its rather large coriaceous leaves, C. glabrum is notable among the Mexican taxa. Its sepals and petals are thin and unequal in size.

CROSSOPETALUM LANCEIFOLIUM (Lundell) Lundell, comb. nov.
Rhacoma lanceifolia Lundell, Field Lab. 13: 6. 1945.

CROSSOPETALUM LOBATUM Lundell, sp. nov. -- Arbor parva, ad 4 m. alta; ramuli minute puberuli, subteres; folia petiolata, petiolo 2--3.5 mm. longo, canaliculato, minute puberulo; lamina membranacea, utrinque reticulata, subintegra, elliptica vel oblanceolata, 6.5--9.5 cm. longa, 2.5--4 cm. lata, apice subabrupte acuminata, basi acuta; inflorescentia axillaris, cymosa, subsessilis vel pedunculata, ad 2.5 cm. longa, minute puberula; flores 4-meri; pedicelli 1.8--2.5 mm. longi; sepala suborbicularia, 0.75--1 mm. longa, apice rotundata vel subtruncata, margine minute erosa, extus minute puberula; petala basi rubra, obovata, ad 2.6 mm. longa, 2 mm. lata, apice rotundata, basi late unguiculata; filamenta ad 1.2 mm. longa; antherae parvae, late orbiculatae, ca. 0.2 mm. longae, apice emarginatae; discus lobatus; ovarium basi immersum; stylo ca. 0.4 mm. longo, apice minute bifido.

Panama: Province of Panama, forest along small streams near the headwaters of the Rio Pirati, foothills of the Serrania de Maje, tropical wet forest, 100--150 m., May 16, 1982, S. Knapp & J. Mallet 5135 (holotype, LL), treelet 3--4 m., flowers pale yellow green, centers red.

Related to the species of Mesoamerica with subterete internodes, C. lobatum is noteworthy for its essentially glabrous leaf blades which are reticulate-veined on both surfaces, small cymes subsessile or short pedunculate, thin depressed-orbicular sepals, large obovate petals up to 2.6 mm. long and reddish at base, slender erect filaments, and lobed disk for which the taxon is named.

CROSSOPETALUM MANAGUATILLO (Loes.) Lundell, *Wrightia* 3: 8. 1961. Rhacoma Managuatillo Loes., *Repert. Sp. Nov. Fedde* 8: 294. 1910.

Mexico: Michoacan, Municipio Aquila, Cerro de la Ticla, selva baja caducifolia, alt. 60 m., Aug. 27, 1979, B. Guerrero C. et al. 109 (LL, XAL), arbusto, 3 m., flor rosa.

CROSSOPETALUM MINIMIFLORUM Lundell, sp. nov. -- Arbor parva, 2--3 m. alta; ramuli subteres, graciles, minute puberuli; folia parce minute puberula, petiolata, petiolo 3--5 mm. longo, canaliculato; lamina membranacea, minute crenulato-serrulata vel subintegra, lanceolata, 3--7 cm. longa, 1--3 cm. lata, apice acuminata vel caudato-acuminata, basi acutiuscula; inflorescentia cymosa, axillaris, parva, 1--1.5 cm. longa, pedunculata, tenuis, minute puberula; pedicelli 1--1.5 mm. longi; flores 4-meri; sepala ovato-elliptica, ca. 0.8 mm. longa, minute puberula; petala suberecta vel reflexa, late obovato-elliptica, 1.2--1.4 mm. longa, glabra, apice rotundata, minute erosa; stamina suberecta; filamenta gracilis, ca. 0.6 mm. longa; antherae minutae, rotundatae, ca. 0.2 mm. longae, apice emarginatae; ovarium glabrum.

Mexico: Veracruz, Municipio Minatitlan, 13.7 km. al E de La Laguna, sobre terraceria a Expanapa, luego 7.2 km. al N sobre camino nuevo a Belisario Dominguez, selva perennifolia de Dialium, Brosimum, Bursera, etc., en area karastica muy pedregosa, elev. 130 m., April 7, 1981, Tom Wendt, A. Villalobos C. & I. Navarrete 3153 (holotype, LL), arbolito de 2.5 m., flores blancas. Municipio Minatitlan, 1 km. al NO de Pob. 12 en el camino a Uxpanapa (Pob. 12), area de selva alta perennifolia, en orilla de arroyo pedregoso seco, elev. 130 m., May 16, 1983, Wendt et al. 4088 (paratype, LL), arbusto de 2--3 m., flores color crema.

The branchlets are compressed and angled at the nodes, but the internodes are subterete, not quadrangular. Although C. densiflorum Lundell has sharply 4-angled internodes, much larger flowers, unguiculate larger petals, slender much longer filaments, it and C. minimiflorum appear to be closely related.

The flowers of C. minimiflorum are in solitary, small, open, axillary cymes, and not congested although the pedicels are only 1--1.5 mm. long. Its small petals are not unguiculate.

The fruits are ellipsoid, about 1.5 cm. long when ripe, red [Wendt et al. 2763 (LL), 4239 (LL)].

MAYTENUS STAMINOSA Lundell, sp. nov. -- Arbor parva, 6--7 m. alta, omnino glabra; ramuli apice 4-angulati; folia alterna, petiolata, petiolo 4--5 mm. longo, canaliculato; lamina subcoriacea, integra, glabra, elliptica, 5--9.3 cm. longa, 2.5--3.8 cm. lata, apice subabrupte late acuminata, obtusiuscula, basi acutiuscula; flores 5-meri, fasciculati, pedicellis 3--4 mm. longis; calyx quinquifidus, lobis late ovatis, ca. 0.5 mm. longis; stamina 5; filamenta tenuis, erecta, ca. 1.4 mm. longa; antherae late ovatae, 0.5 mm. longae; petala ovato-elliptica, ca. 2.2 mm. longa, late obtusa, minute erosa; discus crassus,

ca. 2.3 mm. diam.; ovarium in discum subimmersum, biloculare, loculis biovulatis; fructus ca. 1.2 cm. longus, anguste obovoideus.

Mexico: Tabasco, Municipio Nacajuca, a 6 km. carretera a Tecoluta, selva mediana subcaducifolia, alt. 26 m., Oct. 9, 1978, J. I. Calzada 4964 (holotype, XAL), arbol, 6--7 m. high, flor verde, fruto anaranjado.

Related to M. Purpusii Lundell of Veracruz, M. staminosa has 4-angled branchlets, larger flowers, slender filaments about 1.4 mm. long, and longer pedicels fasciculate in the leaf axils. The filaments of M. Purpusii are less than 0.5 mm. long, and the larger leaves mostly lanceolate.

MAYTENUS STIPITATA Lundell, sp. nov. -- Arbor, 8 m. alta, glabra; folia pallida, glabra, petiolata, petiolo crasso, 3--4 mm. longo, canaliculato; lamina coriacea, crenulata, lanceolata vel oblanceolata, 7--9 cm. longa, 2--4 cm. lata, apice obtusa, basi obtusa et acutiuscula; pedicelli fructiferi axillares, crassiusculi, ca. 5 mm. longi; capsula obovoidea, ca. 1.4 cm. longa, stipitata.

Mexico: Chiapas, Municipio Ocozocuatla, Canyon of Rio de la Venta at Cascada El Aguacero, tropical deciduous forest on steep limestone slopes, elev. 2500 ft., March 27, 1983, David Neill 5572 (holotype, LL), tree, 8 m. tall, immature fruits green.

The rigidly coriaceous pallid leaves broadly obtuse at apex and the stipitate capsules appear to set this taxon apart from the species of Maytenus in Mesoamerica. The only other species with stipitate fruits is M. guatemalensis Lundell, a shrub of Guatemala and Belize with sharply quadrangular branchlets. The branchlets in M. stipitata are terete.

QUETZALIA PAUCIFLORA Lundell, sp. nov. -- Arbor parva, 7 m. alta, omnino glabra; ramuli angulati; folia petiolata, petiolo 4--7 mm. longo, canaliculato; lamina chartacea, anguste elliptica vel lanceolata, 4--7 cm. longa, 1.4--3 cm. lata, apice et basi acuta, margine integra; inflorescentia axillaris, ca. 8 mm. longa, cymosa, triflora; sepala late rotundata; capsula subsessilis, ca. 1.3 cm. longa.

Mexico: Veracruz, Municipio Yecuatla, Congregacion la Paz, de Enriquez, carretera Naolinco, alt. 1500 m., J. I. Calzada 5432 (holotype, LL), arbol, 7 m.

The solitary, small, axillary, 3-flowered cymes are unique in the genus. Only flower buds and immature capsules are available.



Lundell, Cyrus Longworth. 1984. "MESOAMERICAN CELASTRACEAE 2."
Phytologia 56, 137–140.

View This Item Online: <https://www.biodiversitylibrary.org/item/47412>

Permalink: <https://www.biodiversitylibrary.org/partpdf/176230>

Holding Institution

New York Botanical Garden, LuEsther T. Mertz Library

Sponsored by

The LuEsther T Mertz Library, the New York Botanical Garden

Copyright & Reuse

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

Rights Holder: Phytologia

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>.