

CERTAMEN MELASTOMATACEIS XXIV.

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TESSMANIANTHUS CALCARATUS (Gleason) Wurdack, comb. nov.
Miconia calcarata Gleason, Bull. Torrey Club 72: 474. 1945.

TESSMANIANTHUS CENEPENSIS Wurdack, sp. nov.

A congeneribus foliis anguste oblongo-ellipticis floribus minoribus differt.

Ramuli primum quadrangulati demum teretes sicut folia novella inflorescentia hypanthiaque squamis lepidotis ca. 0.05 mm latis demum caducis sparsiuscule induti. Petioli 1.5-2(-2.5) cm longi; lamina (5-)7-9 X (1.5-)2.5-3.5 cm oblongo-elliptica apice breviter gradatimque hebeti-acuminato basi acuta, firme membranacea et integra, 3-nervata (pari tenui marginali neglecto) nervis secundariis ca. 2 mm inter se distantibus nervulis subtus planis vel obscure elevatis. Panicula 3-5 cm longa submulti-flora; flores 5-meri (alabastris submaturis solum cognitum) in ramulis ultimis plerumque ternati, pedicellis ca. 1.5-2 mm longis, bracteolis valde caducis minutis. Hypanthium anguste oblongum teres, calycis lobis ovatis obtusis brevibus. Petala in alabastris extus sparse furfuracea. Stamina dimorphica glabra; antherae oblongae ad apices retusae ad basim in staminibus maioribus distincte biappendiculatae in staminibus minoribus obscure appendiculatae. Ovarium triloculare; capsula ca. 4 mm longa; semina numerosa 1.5-1.8 X 0.2 mm anguste pyramidata.

Type Collection: Rubio Kayap 337 (holotype US 2751807; isotype MO), collected in "monte al lado de Wampuhsikentsa," Río Cenepa, Depto. Amazonas, Peru, 13 Feb. 1973. "Tree 25 m tall; leaves green. Flowers white; fruit green-yellow. Local name: tsék."

The three species of Tessmanianthus all have minute caducous scales scattered on the leaves, young branchlets, and inflorescences, dimorphic stamens with emarginate-tipped anthers which are obviously biappendiculate in the large stamens and obscurely so in the small ones, and a 3-celled superior ovary; fruit and seeds are now known for all except the generotype. Gleason was certainly puzzled by the generic position of the Colombian species; it is now known also by collections from the Chocó (Quebrada Togoromá, Killip & Cuatrecasas 39136; Río Baudó near Quebrada Canaletico, elev. 8 m, Fuchs & Zanella 21762, "Tree 30 m"; Río Baudó above Quebrada Paulita, Fuchs 22054).

Tessmanianthus heterostemon has been collected in flower and young fruit recently in Depto. Amazonas, Peru (Brent Berlin 784, MO, US; "Tree 45 m"). The leaf blade length/width ratio in T. cenepensis is 2.6-3, in the other two species 1.5-2; T. heterostemon has rounded leaf blade apices, while

T. calcaratus has abruptly short-acuminate (0.5-0.8 cm) leaves. The flowers of the genotype and the Colombian species are comparable in size and the capsule in the recent Chocó collection is about 6-7 mm long. Judging from the flowers, fruit, and seeds, Markgraf's placement of the genus in the Merianieae is correct.

As earlier indicated (Phytologia 9: 415. 1964), I concur with other recent students of the melastomes in the generic synonymy of *Triolena* and *Diolena* and am now making the necessary combinations for the Ecuadorian and Peruvian species to facilitate the treatment in the Flora of Ecuador. The generic adjustment of the Colombian and Bolivian species still in *Diolena* is deferred until the species definitions are clarified. Louis Williams (Fieldiana Bot. 29: 585-586. 1963) made the selection of genus, as well as many of the necessary combinations.

TRIOLENA ALLARDII (Wurdack) Wurdack, comb. nov.

Diolena allardii Wurdack, Phytologia 9: 415. 1964.

TRIOLENA AMAZONICA (Pilger) Wurdack, comb. nov.

Diolena amazonica Pilger, Verh. Bot. Ver. Brandenburg 47: 168. 1905.

TRIOLENA CAMPPII (Wurdack) Wurdack, comb. nov.

Diolena campii Wurdack, Mem. N. Y. Bot. Gard. 16: 8. 1967.

TRIOLENA PLUVIALIS (Wurdack) Wurdack, comb. nov.

Diolena pluvialis Wurdack, Phytologia 9: 414. 1964.

TRIOLENA DRESSLERI Wurdack, sp. nov.

Ex descr. T. roseiflorae (Standl. & Steyerl.) L. Wms. affinis, foliis non acuminatis breviter 9-plinervatis supra pustulatis marginibus distincte serrulatis differt.

Suffrutex radicans ca. 11-20 cm altus; rami sicut petioli foliorum subtus venae primariae inflorescentiaque densiuscule incurvo-setosi pilis ca. 1.5-2 mm longis paulo complanatis inconspicue caduceque glanduliferis. Folia in quoque jugo paulo inaequalia (1: 1.1-1.3); petioli 1-3.5 cm longi; lamina 4-7 X 3-5 cm elliptico-ovata apice late hebeti-acuto basi paulo asymmetrica rotundata vel paullulo (usque ad 3 mm) cordata, membranacea et irregulariter hebeti-serrulata (dentibus usque ad 1 mm profundis) ciliolata, supra modice pustulato-setosa (setis terminalibus gracilibus 1-2 mm longis, bullis 0.5-1 mm altis), subtus foveolata in venis secundariis sparse strigulosa (pilis 0.1-0.3 mm longis gracillimis) et sicut venis tertiariis glandulis 0.03-0.05 mm longis sparsiuscule induta in superficie glabra, breviter (0.8-1.2 cm) (7-)9-plinervata nervis secundariis ca. 3 mm inter se distantibus nervulis subtus obscuris planis areolis ca. 0.5 mm latis. Inflorescentia florifera primum brevis demum (fructifera) ca. 5 cm longa; flores ca. 10 unilaterales, pedicellis ca. 0.5 mm longis. Hypanthium (ad torum) 2 mm longum dense setosum pilis gracilibus 1.5-2.5 mm longis inconspicue

glanduliferis; calycis tubus ca. 0.4 mm altus, lobis interioribus ca. 0.2 mm altis, dentibus exterioribus angustis setuliferis ca. 2-2.3 mm longis (seta terminali inclusa). Petala 4.9 X 2.2 mm ovato-oblonga hebeti-acuta glabra. Stamina dimorphica glabra; filamenta 1.8 vel 1.6 mm longa; antherarum thecae 1 X 0.35-0.4 X 0.25 mm oblongae poro 0.15 mm diam. ventraliter inclinatio, appendicibus ventralibus duabus, appendice dorsali hebeti descendenti. Stamina maiora: appendices ventrales 1.2 X 0.05-0.1 mm, dente dorsali 0.2 X 0.15 mm. Stamina minora: appendices ventrales 0.15 X 0.05 mm, dente dorsali 0.15 X 0.15 mm. Stigma paulo expansum 0.35 mm diam.; stylus 4 X 0.25 mm glaber; ovarium 1.5 mm altum (collo 0.4 mm alto incluso) glabrum.

Type Collection: R. L. Dressler 4725 (holotype US 2639921), collected at Guabal between continental divide and Río Calovébora northwest of Santa Fé, Prov. Veraguas, Panama, elev. 400-500 m, 7 Sep. 1974. "Leaves dark red above, purple beneath; sepals pink; petals cream."

Paratype: Maas & Dressler 1634 (U, US), from Río Segundo Brazo, Veraguas, Panama, elev. 700-750 m.

Triolena roseiflora has essentially entire leaf blades which are plane, 5-plinerved, and acuminate. The leaf pustulation of T. dressleri is somewhat reminiscent of that in the Ecuadorian T. pustulata Triana, which differs in the 5(-7)-plinerved leaves, somewhat larger flowers, and well-developed central appendage in the large stamens.

MICONIA NAPOANA Wurdack, sp. nov.

M. aureae (Don) Naud. affinis, nodis linea elevata armatis foliis crassioribus supra densissime elevato-puncticulatis calycis dentibus exterioribus obscurissimis inframarginalibus stigmatate latiore differt.

Arbor 5-9 m alta; ramuli primum sulcato-quadrangulati demum teretes sicut folia inflorescentia hypanthiaque primum sparse obscureque stellulato-furfuracei mox glabrati; nodi linea crassa ca. 0.2-0.4 mm elevata inter petiolos armati. Petioli 0.5-1 cm longi; lamina 9-16 X 2.5-5.5 cm oblongo-elliptica apice gradatim per 1-1.5 cm hebeti-acuminato basi acuta, tenuiter coriacea et integra vel obscure distanterque undulata, supra densissime minutissimeque muriculato-puncticulata subtus obscure sparseque glanduloso-puncticulata, breviter (0.5-1 cm) 3-plinervata nervis secundariis principalibus ca. 3-4 mm inter se distantibus nervulis subtus planis areolis ca. 2 mm latis. Panicula 7-10 cm longa oblonga submultiflora; flores 5-meri, pedicellis plerumque 2-3 mm longis et ca. 0.5-0.8 mm infra hypanthium articulatis, bracteolis ca. 0.7 X 0.1 mm linearibus mox deciduis. Hypanthium (ad torum) 2.1-2.5 mm longum teres; calycis tubus 1.5-1.8 mm longus intus dense minutissimeque strigosus, lobis interioribus 0.3-0.5 mm altis oblati, dentibus exterioribus obscuris inframarginalibus; torus intus sparsissime minutissimeque setulosus. Petala extus ubique et intus apicem versus dense granulosa, 7-8.3 X 2.4-3 mm, oblonga vel obovato-oblonga. Stamina paulo dimorphica, filamentis 7-9 mm vel 5-6 mm longis glabris, thecis subulatis

poro 0.1-0.15 mm diam. dorsaliter inclinato. Stamina maiora: thecae 3-3.8 X 0.5-0.7 mm, connectivo ad basim incrassato ca. 0.9-1 X 0.9-1 mm glandulis 8-12 ca. 0.15 mm diam. marginato. Stamina minora: thecae 2.7-3.2 mm longae, connectivo ad basim ca. 1.2 mm lato glandulis 2-4 ca. 0.05 mm diam. marginato. Stigma capitellatum 1-1.1 mm diam.; stylus 11-11.5 X 0.5-0.7 mm glaber in ovarii collum ca. 0.5-0.6 mm immersus; ovarium 3-loculare et 1/2-2/3 inferum, cono 0.8-0.9 mm alto glabro.

Type Collection: H. Lugo 2529 (holotype US 2750328; isotype GB), collected 3-4 km south of Coca (Pto. Francisco de Orellana), Prov. Napo, Ecuador, 8 Jan. 1973. "Corolla yellow. Filaments rose-red."

Paratypes: Colombia, Putumayo: W. Schwabe 73/171 (COL, US), Río Pepino 15 km from Mocoa; J. Cuatrecasas 10837 p. p. (US), Río Putumayo near La Concepción, elev. 225 m. Ecuador, Napo: H. Lugo 2622 (GB, US), 38 km south of Coca; H. Lugo 2686 (GB, US), Armenia Vieja, Río Napo ca. 12 km southwest of Coca; H. Lugo 2778 (GB, US), Hacienda San Carlos, Río Napo 15 km below Coca.

Miconia aurea has branchlet nodes with only an obscure fine line, generally longer petioles, thinner leaf blades with scattered (ca. 0.1-0.2 mm apart) plane inclusions above, apiculate calyx lobes equaled by the external teeth, hypanthium deep red-brown when dry (rather than tan), stigma ca. 0.5 mm diam., and ovary only 1/3 inferior. Miconia japurensis Cogn. has leaves like those of M. aurea but barely blunt-acuminate, much smaller flowers (petals ca. 3-3.3 mm long), sparsely glandular-puberulous filaments, and unexpanded stigma; this species certainly needs comparison with M. hondurensis Donn. Smith and M. juruensis Pilger.

MICONIA RUSSEA Wurdack, sp. nov.

M. porphyrotrichae (Markgraf) Wurdack affinis, indumento stellato minus evoluto, ramorum inflorescentiarumque pilis laevibus brevioribus, foliorum supra pilis brevioribus, calycis dentibus exterioribus non eminentibus, petalis rubris, antheris minoribus, stylo sparse glanduloso-puberulo differt.

Ramuli primum sulcato-quadrangulati mox teretes sicut petioli foliorum subtus venae primariae et secundariae inflorescentia hypanthiaque modice vel sparse pilis stellulatis ca. 0.1 mm diam. et sparsiuscule pilis laevibus glanduliferis plerumque 0.3-0.5 mm longis induti. Petioli (1.5-)-2-5 cm longi; lamina (5-)-6-10 X (2.5-)-3.5-6 cm ovata apice longiuscule gradatimque acuminato basi 0.3-0.8 cm cordata, firme membranacea et distincte serrulata (dentibus ad 1.5 mm profundis), supra paulo rugosa et sparse glanduloso-puberula (pilis ca. 0.3 mm longis et 1/1-2 mm quadr.), subtus in venulis sparse stellulato-puberula et glanduloso-setulosa in superficie glabra, (5-)-7-nervata nervis secundariis ca. 3 mm inter se distantibus nervulis subtus obscure elevatis laxe reticulatis (areolis ca. 1.5-2 mm latis). Panicula 5-9 cm longa pauciflora ramis primariis oppositis; flores 5-meri secundi ca. 3-5 in quoque ramo, pedicellis 1.7-2.5 mm longis,

bracteolis ca. 0.7 X 0.1 mm persistentibus. Hypanthium 2.5-3 mm longum; calycis tubus 0.3 mm longus, lobis interioribus 0.7 mm longis suborbicularibus ciliolatis, dentibus exterioribus infra-marginalibus glanduloso-setulosis; torus intus sicut ovarii apex sparse glandulosus (0.1 mm). Petala 3.9-4 X 2.1-2.7 mm obovato-oblonga marginibus apicem versus minute papillois. Stamina glabra in dimensionibus paulo dimorphica; filamenta 2.2-2.3 mm longa; antherarum thecae 1.1-1.2 vel 1 X 0.4-0.5 X 0.6-0.7 mm oblongae apice retuso poro 0.15-0.2 mm diam., connectivo 0.2-0.4 mm prolongato filamentum insertione ca. 0.1 mm supra basim. Stigma paulo expansum 0.5-0.7 mm diam.; stylus 4.8-5.3 X 0.3-0.5 mm sparse glanduloso-puberulus; ovarium 5-loculare et 0.8-0.9 inferum, collo ca. 0.2 mm alto lobulato.

Type Collection: G. Harling & L. Andersson 12723 (holotype GB; isotype US), collected in "mountain rain forest" near Km 16-18 of Limón-Gualaceo road, Prov. Morona-Santiago, Ecuador, elev. 1900-2000 m, 22 Mar. 1974. "Shrub ca. 1.5 m. Corolla pink."

Paratype (near-topotypical): Harling & Andersson 12812 (GB, US), from Km. 20-30, elev. 2000-2300 m, 25 Mar. 1974. "Shrub 3/4 m. Corolla pink. Ripening fruits red."

Miconia porphyrotricha has much denser stellulate hairs on the branchlets and inflorescences, mostly eglandular smooth hairs, leaf blades above fine-strigose with hairs 1-2 mm long, projecting (0.1-0.3 mm) external calyx teeth, white petals, anther thecae 1.5-1.9 mm long, and a glabrous style. In pubescence, M. benthamiana Triana is perhaps closer, but has (7-)8-merous pleiostemonous flowers with larger petals and stamens. Miconia nigripes Cogn. & Gleason ex Gleason, originally placed in Sect. Amblyarrhena, belongs in this species-group, the flowers being second on the ultimate inflorescence branchlets; it differs from M. russea in the much longer smooth hairs on the branchlets and leaves beneath, leaves with obtuse apices, and projecting external calyx teeth.

MICONIA IDIOGENA Wurdack, sp. nov.

Sect. Octomeris (?). In staminum forma et numero M. benthamianae Triana et M. santaremense Wurdack affinis, ramorum foliorumque pilis omnibus stellatis non glandulosis differt.

Ramuli primum rotundato-quadrangulati demum teretes sicut petioli folia subtus inflorescentia hypanthiaque pilis stellatis vel pinoideo-stellatis tenuibus ca. 0.3-0.4 mm diam. omnino tecti. Petioli (2.5-)3.5-5 cm longi; lamina 11-17 X 4.5-8 cm oblongo-elliptica apice gradatim breviterque hebeti-acuminato basi obtusa, subcoriacea et distincte distanterque denticulata (dentibus 3-5 mm inter se distantibus et ca. 1 mm profundis), supra primum stellato-puberula mox glabrata et nitidula, 5-nervata vel breviter (usque ad 0.5 cm) pseudoplinervata nervulis subtus planis laxe (1-2 mm) reticulatis ob pilos occultis. Panicula 9-12 cm longa submultiflora ramis primariis oppositis; flores 7(-8)-meri polyandri, pedicellis 2-3 mm longis

crassis, bracteolis mox deciduis non visis. Hypanthium (ad torum) 5 mm longum teres; calycis tubus 0.5 mm longus, lobis interioribus ca. 2 mm longis oblongis, dentibus exterioribus crassis ca. 0.1-0.4 mm eminentibus; torus sicut hypanthium intus modice glandulosus. Petala 4.4-4.6 X 3.8-4.3 mm obovata vel orbiculari-obovata modice granulosa extus secus costam plus-minusve stellato-puberula. Stamina 24(-26) in dimensionibus paulo variabilia; filamenta 4-4.4 mm longa modice glanduloso-puberula; antherarum thecae 1.7-2.2 X 0.5 X 0.7 mm oblongae, poro 0.3-0.4 mm diam. ventraliter inclinato, connectivo ca. 0.2-0.3 mm bilobulato-prolongato. Stigma expansum 1.5 mm diam.; stylus 9.5 X 0.7-0.9 mm densiuscule glanduloso-puberulus; ovarium 6(-7)-loculare omnino inferum apicè densiuscule glanduloso-puberulo.

Type Collection: G. Harling & L. Andersson 12403 (holotype GB; isotype US), collected in "upper mountain scrub" along road between Tulcán and Maldonado, Prov. Carchi, Ecuador, elev. 2900-3100 m, 2 March 1974. "Shrub ca. 2 m. Corolla white."

Both suggested (and very distant) relatives have predominantly fine smooth (more-or-less gland-tipped) vegetative pubescence, shorter calyx lobes, glabrous stamens, and a glabrous (or nearly so) style. Certainly there seems to be even less intimate affinities with the pleiostemonous species of Sect. Miconia (Phytologia 23: 488. 1972; M. cutucuensis Wurdack; species 153-155 and 228 of Cogniaux' Monograph) or Sect. Amblyarrhena (M. adrieni Macbride). I have not as yet studied material of M. leandroides Cogn. & Gleason ex Gleason, placed in Sect. Cremanium, but some of the described features are perhaps suggestive of M. idigena; however, the smaller 3-nerved leaf blades, relatively narrower petals, longer sepals, larger anthers, and 3-celled ovary seem to be ample distinctions.

MICONIA VALERIANA (Standl.) Wurdack, comb. nov.

Ossaea valeriana Standl., Field Mus. Publ. Bot. 18: 836. 1938.

Clidemia trichopoda Gleason, Brittonia 3: 133. 1939.

Miconia trichopoda (Gleason) Wurdack, Phytologia 26: 4. 1973.

Standley's earlier name in Ossaea was overlooked by both Gleason and me, no internal floral details having been indicated in the original description. Brenes 4525 (F, NY) has been compared with the other collections of this species.

MICONIA IMITANS Wurdack, sp. nov.

M. scutatae Gleason affinis, ramulis non scutatis, petiolis longioribus, floribus minoribus, ovarii apice non appendiculato differt.

Ramuli primum hebeti-quadrangulati demum teretes paulo nodosi sicut inflorescentia praecipue ad nodos pinoideofurfuracei mox glabrati. Petioli (2-)2.5-3 cm longi; lamina 12-16 X 5.5-8.5 cm elliptica apice hebeti-acuto vel paulo hebeti-acuminato basi late acuta vel obtusa, tenuiter coriacea et

minute distanterque calloso-denticulata, supra glabra, subtus in venis primariis sparse caduceque furfuracea in superficie sparse glanduloso-puncticulata, 3-nervata (pari tenui inframarginali neglecto) nervis secundariis 4-5 mm inter se distantibus venulis subtus planis obscurissimis laxe reticulatis. Panicula 15-17 X 9-10 cm multiflora ramis primariis oppositis; flores 5-meri, pedicellis 0.3-1 mm longis paulo infra hypanthium articulatis, bracteolis 1-2.5 X 0.3-0.6 mm mox deciduis. Hypanthium (ad torum) 2 mm longum extus modice granulosum et teres intus alis 10 ca. 0.1 mm altis obsitum; calycis tubus 0.2 mm altus, lobis interioribus 0.5 X 0.5 mm oblongis rotundatis, dentibus exterioribus crassis inframarginalibus. Petala 1-1.2 X 1-1.2 mm obovato-suborbicularia minutissime granulosa. Stamina essentialiter isomorphica glabra; filamenta 1.3-1.5 mm longa; antherarum thecae 1.1-1.2 X 0.5 X 0.5-0.6 mm oblongae poro 0.1-0.15 mm lato ventraliter inclinato, connectivo non vel paulo (0.1 mm) prolongato dorsaliter obscure (0.05 mm) dentato. Stigma expansum 0.5-0.6 mm diam.; stylus glaber 3.7 X 0.25-0.35 mm in ovarii apicem ca. 0.3 mm immersus; ovarium 3-loculare et 1/2 inferum glabrum.

Type Collection: H. Lugo 2421 (holotype GB303165; isotype US), collected at Colonia Jativa ca. 10 km north of Mera, Prov. Pastaza, Ecuador, 17 June 1972. "Tree 5-6 m. Corolla white."

Miconia scutata has prominent ridges at the petiole bases, petioles only 0.5-1(-1.5) cm long, leaf bases narrowly acute, petals 1.8-2 mm long, and ovary apex with several gland-tipped teeth 0.2-0.4 mm long; in leaf venation and margins, anthers, and internally ridged hypanthia, the two species are alike. A recent collection of M. scutata (H. Lugo 430, Colonia 24 de Mayo, Pastaza) agrees in all respects with the Tungurahua type. The general aspect of M. imitans is very like that of M. resima Naud. (with more obvious leaf venules beneath, petals twice as large, and broadly 4-pored anthers), M. towarensis Cogn., and M. cremophylla Naud. (both with larger petals and 2-pored anthers). Perhaps the small anther pores of M. scutata and M. imitans, indicating technical placement in Sect. Amblyarrhena, will eventually prove of less sectional import than other resemblances to the three above-mentioned species of Sect. Cremanium.

MICONIA CORDIFOLIA Wurdack, sp. nov.

M. pichinchensi Benth. affinis, foliis maioribus supra densiuscule setulosis floribus maioribus differt.

Ramuli primum rotundato-quadrangulati demum teretes sicut petioli foliorum venae primariae subtus inflorescentiae pilis pinoideis 0.1(-0.3) mm longis densiuscule furfuraceae. Petioli 4-8 cm longi apicem versus adaxialiter pilis barbellatis 0.4-0.7 mm longis sparsiuscule induti; lamina (9-)11-16 X (6-)8-12 cm ovata apice gradatim hebeti-acuminato basi 0.7-1.8 cm cordata, membranacea et irregulariter crenulato-serrulata (dentibus ca. 0.5 mm profundis), supra densiuscule appresso-setulosa pilis laevibus 0.3-0.5(-1) mm longis, subtus in venis primariis

secundariisque sparse setosa pilis gracilibus laevibus 0.5-1.5(-2.5) mm longis in venis secundariis venulisque sparse stellulato-puberula in superficie glabra, 7(-9)-nervata nervis secundariis ca. 5 mm inter se distantibus nervulis subtus planis obscuris areolis ca. 0.2-0.3 mm latis. Panicula 11-14 X 8-10 cm submultiflora, ramis primariis oppositis sicut hypanthiis sparse vel sparsissime pilis laevibus glanduliferis 0.6-1 mm longis obsitis; flores 5-meri, pedicellis ca. 1 mm longis et ca. 0.2-0.4 mm infra hypanthium articulatis, bracteolis ca. 1 mm longis subulato-setosis subpersistentibus. Hypanthium (ad torum) 3.5-4 mm longum extus praecipue basim versus modice stellulato-puberulum; calycis tubus 0.7-1 mm longus, lobis interioribus 0.4-0.6 mm longis oblatis, dentibus exterioribus crassiusculis 0.1-0.4 mm eminentibus; torus intus glaber. Petala 3.5-4 X 3-4 mm obovata minutissime granulosa. Stamina isomorphica; filamenta 2.7-3 mm longa sicut stylus sparse glanduloso-puberula (0.1 mm); antherarum thecae 2.2-2.6 X 0.7-0.9 X 0.7 mm oblongae poro 0.1-0.15 mm diam. dorsaliter inclinato, connectivo ad basim ventraliter 0.2-0.3 mm alto bilobulato. Stigma expansum 0.8-0.9 mm diam.; stylus 7.5 X 0.4-0.6 mm in ovarii cono 0.5-0.9 mm immersus; ovarium 5-loculare et 1/2-2/3 inferum apice conico 0.9-1.3 mm alto glabro.

Type Collection: L. Uribe Uribe 3873 (holotype US 2370322; isotype COL), collected between Laguna de San Rafael and Santa Leticia, Puracé, Depto. Cauca, Colombia, elev. 2800-3000 m, 8 Sep. 1961. "Arbusto de 2 metros de altura muy ramoso. Ramos de la inflorescencia rosadas. Flor con pétalos blancos y anteras amarillas."

Paratype: J. Cuatrecasas 23463 (US), from "Cordillera Central, vertiente oriental, región de Moscopán, hoya del río San José, Aguabonita," Cauca, elev. 2280 m, 30 Jan. 1947. "Frutex 1 m. Hoja verde rugosa, plusminusve clara envés. Cáliz y pedunculos rosados. Pétalos blancos. Estambres amarillo claros."

Miconia pichinchensis has petioles only 0.3-1 cm long, leaf blades 4-8 X 2-4 cm and sparsely to very sparsely strigulose above, and petals only 2.8-3 X 2.5-2.7 mm. Other apparent relatives include M. haematostemon Naud. (petioles only 0.5-1 cm long and blades above glabrate, hypanthia setulose, stigma punctiform), M. neurotricha Cogn. (leaves acute at base and glabrous above, hypanthium glabrous, stigma not expanded), as well as perhaps M. atropilis Gleason (leaves plinerved, glabrous above, without a cordate base; hypanthium glabrous) and M. crinita Naud. (long cauline and petiole setae, strongly bullate-pustulate upper leaf surfaces, smaller flowers). The general vegetative aspect of M. cordifolia is like that of M. psychrophylla Naud. and M. acalephoides Naud.; however, those species, along with M. caesia Gleason and M. reticulata Triana, differ in such fundamentals as the inflorescence pattern (4 primary branches per node) and 3-celled ovaries, as well as smaller flowers. The paratype of M. cordifolia shows less development of gland-tipped inflorescence and hypanthial hairs and slightly smaller flowers than the

holotype.

MICONIA CRINITA Naud. subsp. AUSTRALIS Wurdack, subsp. nov.

A subsp. crinita foliorum subtus venis venulisque stellulato-puberulis pilis sessilibus differt.

Type Collection: E. Asplund 16703 (holotype US 2441347), collected below San Juan towards Chiriboga, Prov. Pichincha, Ecuador, elev. ca. 2650 m, 1 July 1955. "Weak shrub with long hanging or subsucculent branches; calyx and corolla white; anthers yellow."

Paratypes (all Ecuador): Camp E-1715, from Quito-Sto. Domingo de los Colorados road, Prov. Pichincha, elev. 2600-2900 m; Harling, Storm, & Ström 9006, from between Quevedo and Latacunga above Pilalo, Prov. Cotopaxi, elev. 2800 m; Holm-Nielson & Jeppesen 1259 (AAR), from near Pilalo, Prov. Cotopaxi, alt. 2400 m.

In the typical subspecies, known only from Tolima, Colombia, the veins and veinlets on the leaves beneath are moderately setulose with hairs having a stalk 0.3-0.6 mm long and a frayed-stellulate apex (as well as inconspicuously stellulate-puberulous). Examination of the type collections of M. crinita (holotype P) and M. cardiophylla Cogn. (isotype NY) shows no differences between the taxa. From the phytogeography and label notes reported by Markgraf (Bibl. Bot. 116: 118. 1937), the Diels collection (destroyed) from Pichincha identified as M. hirta Cogn. certainly really represented M. crinita subsp. australis; the Bolivian species differs from M. crinita in the shallowly and distantly setulose-pustulate upper leaf surfaces, the leaves beneath setose on the secondary and tertiary veins as well as the primaries, the very sparsely puberulous hypanthia, glandular-setose external calyx teeth, glabrous petals (as well as filaments, style, and ovary apex), and non-expanded stigma.

MICONIA JAHNII Pittier, Journ. Wash. Acad. Sci. 14: 450. 1924.

Miconia cuneifolia Gleason, Bull. Torrey Club 52: 451. 1925.

The species has 5(-6)-merous flowers and is closely related to M. orcheotoma Naud., differing in the more obviously quadrate branchlets, lower leaf surfaces with more persistent indument and with tertiary veins elevated-reticulate, smaller hypanthia (1.2-1.6[-2] mm long, rather than 2.6-2.7 mm) and narrower (usually 0.8-1.2 mm rather than 2-2.3) entire-margined (rather than fringed-lacerate) petals. As now understood, M. jahnii ranges from Venezuela (Mérida, Táchira) and Colombia (Boyaca, Uribe 3527 and 5936; Huila, Rusby & Pennell 831; Cauca-Huila, Cleef 5001; Cauca, Cuatrecasas 18834) to Ecuador (Azua, Camp E-4391). The Ecuadorian material had earlier been referred to M. orcheotoma (Mem. N. Y. Bot. Gard. 16: 26. 1967).