

STUDIES IN SOUTH AMERICAN PLANTS—V

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This is a continuation of my miscellaneous series of taxonomic studies of tropical American plants, mainly from Colombia. Members of the families Celastraceae, Connaraceae, Euphorbiaceae, Hypericaceae, Lauraceae, Malpighiaceae, Moraceae, Olacaceae and Sabiaceae are considered. The work upon which this paper is based has been sponsored by the National Science Foundation. The preceding article of this series was published in *Brittonia* 8: 195–200 (1956).

Maytenus suboppositifolia Cuatr., sp. nov.

Arbor grandis ramis terminalibus brunnescens lenticellatis glabris.

Folia simplicia rigide papyracea subopposita glaberrima. Petiolus 2–5 mm longus laevis supra sulcatus. Lamina ovata vel ovato-elliptica basi rotundata vel obtusa apice acuminata, margine integra 6–10 cm longa 3.5–6 cm lata acumine lato at 1 cm longo; supra viridis nitida costa nervis secundariis tertiisque tenuibus sed prominentibus venulis prominulis; subtus opaca costa elevata, nervis secundariis 4–5 utroque latere curvato-ascendentibus prominentibus, nervis tertiis prominulis venulis laxae reticulatis paulo prominulis.

Inflorescentiae axillares cymoso-paniculatae breves, 1–1.5 cm longae; axi brevissimo 2–3-ramoso; ramis ramulisque valde tenuibus angulatis glabris; bracteis bracteolisque ovatis acutis amplexantibus rubescentibus 1–2 mm longis. Pedicelli tenues apice dilatati circa 1 mm. longi. Calyx cupularis glaber 0.6–0.8 mm altus, 1.5 mm diamitens, 5-lobatus lobis obtusissimis circa 0.2 mm longis. Petala 5 libera elliptica apice obtusiuscula glabra, circa 1.2 mm longa 0.8 mm lata. Stamina 5 alternipetala glabra filamentis 0.3 mm longo, anthera ovato-cordata 0.2 mm. Discus crassus circa 1 mm diamitens. Ovarium cum disco immersum paulo pyramidale biloculare loculis biovulatis. Stylus crassiusculus brevis circa 0.1 mm longus.

Typus: Colombia, Valle; Cordillera Occidental, Hoya del río Digua, lado derecho, La Elsa; forest 1000–1200 m alt., large tree, 9-XI-1943, *J. Cuatrecasas* 15308. Holotypus, F; isotypus, US.

Maytenus suboppositifolia is distinguished by its almost opposite leaves, its small flowers, and the shape of the leaves.

Maytenus duqueana Cuatr., sp. nov.

Arbor circa 10 m alta ramis terminalibus griseis pruinosis glabris.

Folia simplicia alterna tenuiter coriacea glabra. Petiolus 5–7 mm longus subteres supra sulcatus. Lamina elliptico-oblonga vel lanceolato-elliptica basi obtusa vel obtuse cuneata apice paulo attenuata acuminataque, margine integra anguste revoluta, 6–11 cm longa, 2.4–4 lata; supra viridis in sicco obscure olivacea costa prominula enerva laevisque; subtus in sicco tabacina costa prominenti 7–8 nervis secundariis utroque latere fere invisibilibus vel obsolete superficie laevi.

Inflorescentiae laterales brevissimae praecipue 1–3 floribus cymose dispositis axi brevissimo crasso, bracteolis minutis 0.4–0.8 mm longis ovatis acutis. Pedicelli tenues 1–2 mm longi glabri. Calyx circa 1 mm altus cupularis glaber, 5-lobatus lobis rotundatis. Petala elliptica apice rotundata circa 1.5 mm longa 0.8 mm lata. Stamina oppositisepala filamentis glabris 0.6–0.7 mm longis. Discus planus cras-

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sus laevis 1.5 mm diamitens. Ovarium immersum biloculare loculis biovulatis. Stylus crassiusculus brevissimus, 0.2 mm longus. Fructus immaturus ellipsoideo-oblongus laevis glaber circa 16 mm longus 8–9 mm latus.

Typus: Colombia, Valle; Hoya del río Cali, El Silencio; tree 10 m; yellowish flowers; excellent wood for turnery; *J. M. Duque Jaramillo s.n.* COL-33590, holotypus.

Maytenus duqueana, considered as related to *M. myrsinoides* Riess., is very different on account of its smooth, elongate-elliptic, sublanceolate leaves with only the midrib beneath apparent; furthermore, they are brownish when dry, and the inflorescences are extremely reduced.

Connarus araucanus Cuatr., sp. nov.

Frutex circa 3 m altus ramulis griseis striolatis verrucoso-lenticellatis primum puberulis deinde glabris. Cortice foliaque secretum rubrum gerentes.

Folia alterna trifoliolata petiolo 1.5–5 cm longo leviter striolato parce adpressequ puberulo vel glabro basi subite pulvinato-incrassato; internodio 5–15 mm longo; petioluli crassi pulvinati 2.5–3.5 mm longi glabri. Foliola chartacea flexibilia viridia punctata elliptico-oblonga basi obtusa apice attenuata acuminataque margine integerrima albo-callosa-marginata, 4–8 cm longa 1.4–2.5 cm lata terminale quam lateralia major; supra glaberrima nitida nervis reticuloque tenuibus plus minusve conspicuis costa anguste impressa, subtus glabra vel sparsis minutis pilis adpressis costa elevata, nervis secundariis 9–10 utroque latere tenuibus prominulis arcuato-anastomosatis venulis paulo conspicuis, glandulis copiosis granulato-punctatis.

Inflorescentiae paniculatae axillares et terminales ramis elongatis pseudoracemiformibus erectis vel flexuosis, breviter denseque ferrugineo-villosis. Ramusculi patuli tenues ferrugineo-tomentulosi 1–5 mm longi 1–5 flores ferentes. Pedicelli 0.5–2 mm longi. Bractee bracteolaeque ovato-lanceolatae 0.5–1 mm longae. Sepala 5 oblonga apice angustata obtusiuscula vel subacuta 3.5 mm longa 1–1.3 mm lata extus breviter villosa-tomentulosa margine scariosa. Petala 5 lutescentia crassiuscula obovato-oblonga apice subite attenuata 5.5–6 mm longa 2–2.5 mm lata glanduloso-punctata sparsissimis pilis setosis tenuissimis praedita. Stamina 10 filamentis crassiusculis complanatis glabris vel brevibus pilis papillois, inaequilongis alteris sterilibus, 3–2.5 mm longis basi in tubum coalitis. Antherae ellipsoideae glabrae dorsifixae, 0.8 mm longae. Ovarium oblongum dense tomentoso-hirsutum. Fructus ignotus.

Typus: Colombia, Arauca; Corregimiento de Cravo Norte, región de Caño Rico. "Produce zumo rojo de olor a sangre humana." Shrub about 3 m; flowers yellowish with cummin-like odor; 20-I-1955 Javier Gómez 16. Holotypus US.

Connarus araucanus belongs to the section *Neoconnarellus* Schellenberg. It can be distinguished from all other species of this section by its small, oblong, glabrous or subglabrous, thin leaflets with a prominent midrib beneath, the other veins being slightly conspicuous.

Amanoa macrocarpa Cuatr., sp. nov.

Arbor ramis terminalibus crassis subteretibus glabris, stipulis brevibus obtusis intraxillaribus haud coalitis.

Folia simplicia rigide coriacea glabra. Petiolus robustus 10–12 mm longus. Lamina elliptica vel subobovato-elliptica utrinque rotundata vel interdum obtu-

sissima apice subite breviterque acuminata vel mutica, margine integro revoluta; 6.5–14 cm longa 3–7.5 cm lata; supra in sicco pallide roseo-glaucescens costa filiformi et impressa nervis secundariis reticulaque prominulis; subtus in sicco pallide carnea costa crassa elevataque nervis secundariis patulis prominentibus vel prominulis 8–10 utroque latere ad marginem curvatis evanescenti-anastomosantibus venulis reticulo laxo paulo conspicuo vel obsoleto.

Inflorescentiae terminales panicula pauciramea brevi folia non superanti, ramis crassis robustis glabris, floribus sessilibus glomerulos formantibus. Bractea inflorescentiae late ovatae amplexicaules 3–4 mm altae. Bracteae floriferae ovatae acutissimae dorso angulato-carinatae 3–3.5 mm longae. Sepala ovato-triangularia acuta 2–2.5 mm longa. Discus in floribus masculis crassus circa 1 mm diamitens. Capsula crassissima subglobosa 3 cm diamitens in 3 valvas bifidas dehiscens. Valvae ovatae apice acutae circa 3×2 cm monospermae epicarpio crasso (3 mm crasso) granuloso, endocarpio durissimo. Columella centralis crassa triquetra glabra apice subtrialata, circa 1.7 cm longa. Semina ecarunculata laevia oblongo-ellipsoidea circa 1.8 cm longa.

Typus: Colombia, Valle; Costa del Pacífico; Bahía de Buenaventura, Quebrada de San Joaquín, 0–10 m alt. Small tree, stem 10 cm diam.; leaves coriaceous, rigid, pale green, subnitid above, pale beneath; fruits immature 3 cm diam., green, 3 seeds, 21-II-1946, *J. Cuatrecasas 19879*. Holotypus F.

A. macrocarpa is closely related to *A. grandiflora*, from which it differs by its more coriaceous, rigid, elliptical leaves with almost obsolete veins beneath, by its robust, thick and straight branches of the inflorescence, by the thicker mesocarp and ellipsoid (not ovoid) seeds.

***Hypericum baccharoides* Cuatr., sp. nov.**

Frutex parvus ramis ramulisque exfoliatus brunneis cicatricosis peridermatoexfoliantibus, ramusculis foliatis erectis vel suberectis foliis congestis subimbriatis patulis dense obtectis.

Folia coriacea crassiuscula opposita sessilia ovato-rotundata vel orbiculata, apice rotundata vel obtusissime angulata margine integra tantum nervo medio paulo apparenti superficie laevis sed leviter papillosula pellucide punctata 4–6 mm longa 3.5–5 mm lata.

Flores solitarii sessiles ramusculos dense foliosos terminantes. Sepala 5 crassiuscula ovata apice subacutata 5 mm longa 3.8 mm lata, laevia. Petala lutea obovato-oblonga 9 mm longa 4 mm lata limbo valde obliquo. Stamina creberrima filamentis tenuis circa 5 mm longis. Ovarium 2–5 mm longum; stylis tribus 4 mm longis.

Typus: Colombia; Magdalena: Sierra de Perijá 12 km de Manaure, 48 km de Valledupar; páramo 3000 m, shrub, 3 feet, corolla yellow, 5-II-1945, *Martin L. Grant 10842*. Holotypus, US.

Another collection: Venezuela, Zulia: Páramo de Perijá 2800–2900 m alt. 29XII-50 *Hno. Ginés 1993* (US).

Hypericum baccharoides differs from the related *H. platyphyllum* Gl. by its more rotundate, resinous, shorter, thicker leaves; they are much more crowded and spread and are only present at the end of the branchlets, leaving behind a scar when falling, whereas in *H. platyphyllum* they are very persistent along the branches. *H. baccharoides* also is a smaller shrub, and the smaller flowers have shorter petals and more numerous stamens.

***Hypericum prostratum* Cuatr., sp. nov.**

Fruticulus humilis ad 10 cm altus caule ramisque tortuosis prostratis ramulis numerosis subquadrangulis teneribus intricatis.

Folia opposita sessilia crassiuscula aciculata leviter arcuata vel recta subpatula tenuia sed rigida acutissima, anguste translucide marginata paulo incurva supra nigro-glanduloso-punctata subtus costa impressa minus manifeste punctata, 3.5–5 mm longa 0.5–0.6 mm lata internodia valde superantia.

Flores solitarii ad terminationem ramusculorum breviorum dense foliosorum sessilia vel subsessilia. Sepala 5 fere libera ovato-lanceolata subacuminata anguste scarioso-marginata 3-translucido-nervata 2.2–2.5 mm longa 1–1.2 lata. Petala lutea oblonga apice oblique rotundato-truncata circa 4 mm longa 1.2 mm lata. Stamina 7–8 filamentis basi breviter coalitis teneribus flexuosis planis circa 2.5 mm longis, antheris brevibus. Ovarium ellipsoideo-oblongum 2 mm longum 3-sulcatum. Styli 3 liberi crassiusculi 0.6 mm longi, stigmata capitata.

Typus: Cundinamarca: Páramo de Sumapaz 3800 m alt., 10-VI-1952 *M. Koie* 4621. Holotypus, US.

Another collection: Cundinamarca; Usme 3400 m alt., 22-VI-1952 *M. Koie* 5345 (US).

Hypericum prostratum differs from *H. brathys* Lam. by its weaker habit, being a prostrate, small shrub with slender intricate branches. Its smaller leaves are shorter, more slender and softer. The smaller flowers (with 4 petals and only 7–8 stamens) are always at the end of relatively long leafy branchlets, being axillary or aggregate, as is the case in *H. brathys*.

***Persea laurifolia* (Cuatr.) Cuatr., comb. nov.**

Couepia laurifolia Cuatr., Brittonia 8: 198. 1956.

Remaining fragments of stamens in some fruits not seen before make possible the identification of the previously mentioned collections as *Persea*.

***Heteropteris fulva* Cuatr., sp. nov.**

Frutex scandens ramis terminalibus rufis minute tuberculatis rugulosis adpresseque puberulis. Stipulae minutissimae ad basim petiolos coalitae vel obsoletae.

Folia opposita coriacea firma. Petiolus 4–6 mm longus ferrugineus adpresse pubescens supra sulcatus apice biglandulosus. Lamina lanceolato-elliptica basi obtuse cuneata apice acuta mucronata vel breviter acuminata margine integerrima leviter revoluta, 4.5–7.5 cm longa 2–3.5 cm lata; supra in sicco olivacea nitida glabra vel juvenilis adpresse puberula, costa notata ceteris nervis paulo conspicuis reticulo obsoleto; subtus dense adpresseque fulvo-sericea costa prominenti nervis secundariis circa 6 utroque latere leviter prominulis vel obsoletis ceteris nervulis inconspicuis, basi eglandulosa.

Inflorescentiae cymoso-paniculatae in ramulis subterminalibus magnam paniculam thyrsoidem foliosam terminalem formantibus; foliis sursum magnitudine gradatim decrescentibus quam singulis paniculis brevioribus; axi ramisque minute tuberculatis dense fulvo-sericei; bracteis inferioribus ovatis petiolatis 3–4 mm longis, superioribus anguste linearibus circa 1 mm longis. Flores circa 9 mm diamitentes, 5–9 pseudoracemosi vel cymoso-corymbosi in ramulis teneribus dispositi. Pedunculi tenues flexuosi fulvo-sericei 2–3 mm longi infra medium bi-bracteolati bracteolis ovatis 0.5–0.8 mm longi apice cum pedicello articulati. Pedicelli 1–2 mm longi leviter crassiusculi fulvo-sericei. Sepala erecta ovato-

oblonga obtusa circa 2 mm longa extus dense fulvo-sericea. Glandulae calycinis 8, ellipsoideis 1.3 mm longis. Petala lutea glabra, lamina obovato-oblonga 3–3.5 mm longa 1.5–2 mm lata margine leviter erosa revoluta, ungue 1–1.5 mm longo. Stamina paulo inaequalia filamentis glabris complanatis basi coalitis 2–2.5 mm longis; antheris ellipsoideis 7–10 mm longis glabris connectivo crasso subrotundato. Styli crassi erecti glabri 1.8 mm longi apice spathulato-truncati angulo interno gynoxyfero protruso externo recto vel paulo acutiusculo. Ovarium dense fulvo-tomentosum.

TYPUS: Perú, Madre de Dios, Maldonado; vine, flowers yellow, VI-1945 *Richard Evans Schultes 6226* (Holotypus, US).

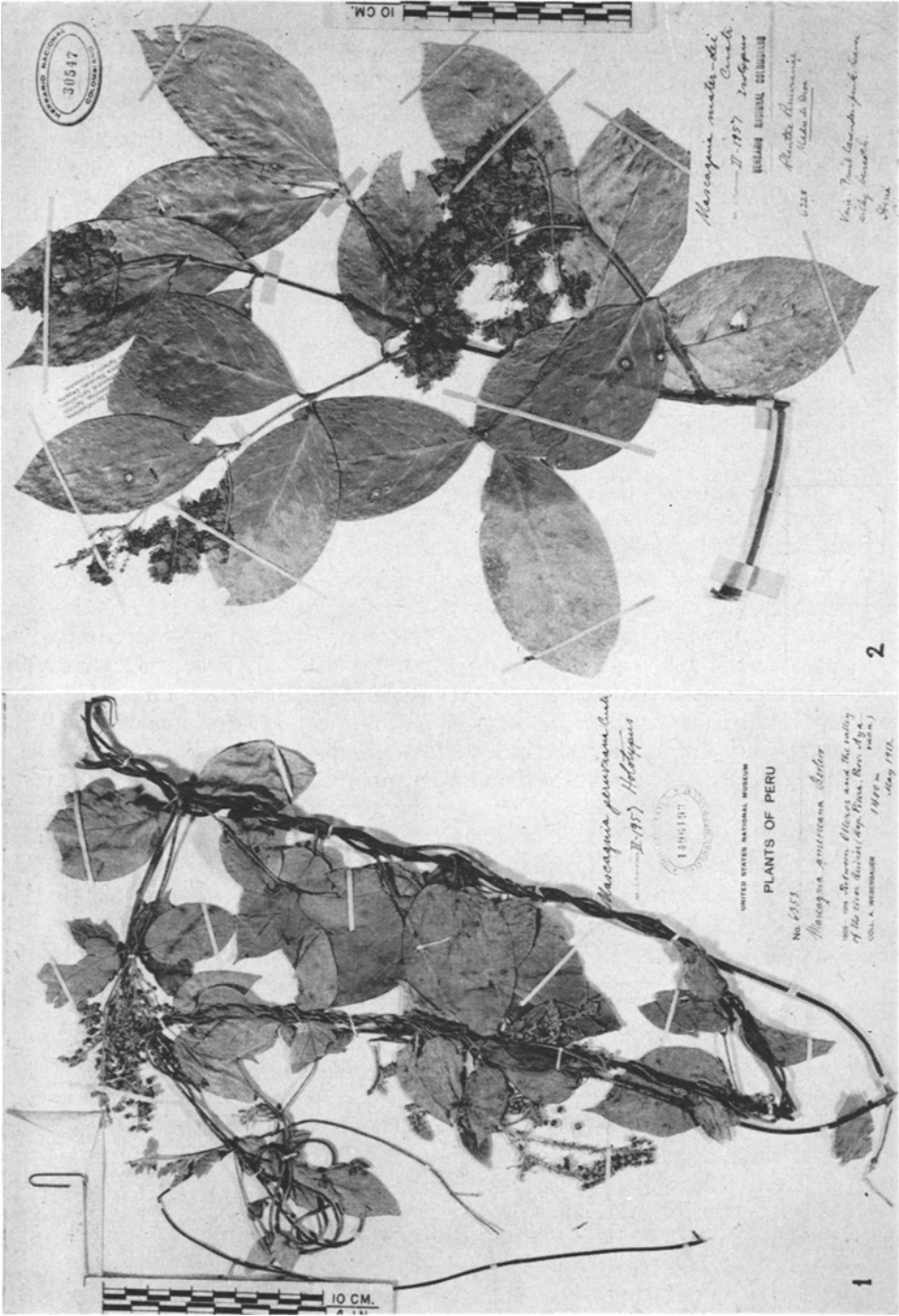
Heteropterys fulva is characterized by its large, thyrsoid terminal inflorescences, its small flowers, and the brownish, sericeous indumentum which covers bracts, peduncles, sepals, and leaves beneath. The shape and rather small size of the leaves are also characteristic. These features distinguish the species from the other members of the section *Macroprosopis* subsection *Stenophyllarion* Ndz., to which it belongs.

Mascagnia mater-dei Cuatr., sp. nov. Figure 2.

Frutex scandens ramis volubilis terminalibus teretibus adpresse pubescenti-sericeis. Stipulae minutae basi petioli coalitae.

Folia subcoriacea flexibilia opposita. Petiolus 6–8 mm longus robustus dense adpresse sericeus supra sulcatus parte media duobus glandulis parvis munitus basi stipulis minutis vel obsoletis adnatis. Lamina obovato-lanceolata vel obovato-elliptica acuminataque vel obovata apiceque rotundata basi obtuse cuneata interdum subrotundata, margine integra leviter incrassata saepe sparsis vel sparsissimis glandulis subcylindricis praedita, 6–15 cm longa 3–9 cm lata; supra viridis glabra vel juvenilis praecipue supra costam pilosa, costa tenui impressa nervis secundariis filiformibus venulis tenuibus prominulis reticulatis; subtus pallide ochracea dense adpresseque pubescenti-sericea, costa elevata nervis secundariis 6–8 utroque latere prominentibus subpatulis marginem versus curvatis tenuioribus evenescentibus nervulis minoribus paucis prominuli-conspicuis ceteris obsoletis, basi eglandulosa.

Inflorescentiae terminales thyrsiodeae basi foliosae folia excedentes vel breviores 8–16 cm longae. Flores circa 7 mm diamitentes 6–10 in ramulis pseudoracemosi instructi. Axis rami ramulique paniculae dense adpresseque pubescentes ochraceo-cinerei, basi pari foliis sursum bracteis ellipticis et linearibus decrescentibus 1.5–0.3 cm longis. Bractee fertiles ovato-lanceolatae 1–1.4 mm longae extus pubescentes. Pedunculi brevissimi 0–0.5 mm longi apice 2 bracteolis oblongis extus pubescentibus 0.6–1 mm longis. Pedicelli teneri flexuosi rubescentes albo-sericeo-puberuli. Sepala crassiuscula ovata subacuta circa 1.6 mm longa 1 mm lata extus pubescenti sericea. Glandulae calycinis 8 ellipsoideis circa 1 mm longae. Petala lutea glabra lamina elliptico-oblonga (subobovata) margine integra 2.5–2.8 mm longa 1.5 mm lato, ungue circa 1 mm longo. Stamina subaequalia filamentis basi ampliatis coalitis glabris circa 1 mm longis, antheris ellipticis 0.5–0.6 mm longis connectivo granulato. Styli crassiusculi erecti glabri 1 mm longi apice truncato leviter dilatato et compresso angulo dorsali obtuso vel recto. Ovarium dense sericeo-villosum. Samarae alis lateralibus membranaceis late flavellatis margine superiori leviter vel profunde irregulariterque dentatis parce setosis 10 mm longis 10–18 mm latis, ala dorsali cristiformi acute denticu-



lata 3–4 mm alta nucula ovoidea puberula 3.5 mm longa areola ventrali sub-orbiculari 1 mm diamitenti.

Typus: Perú, Madre de Dios, Iberia; vine, fruit lavender-pink, leaves silky beneath, VI-1945, *Richard Evans Schultes* 6228. Holotypus US; isotypus, COL. Same locality; vine, flowers yellow, June 1945, *Richard Evans Schultes* 6229 (paratypus, US).

Mascagnia mater-dei, a well defined species, belongs to the section *Pleuropterys* Ndzu. It is distinguished by its flexible, subobovate-elliptic leaves which are sericeous beneath, by its small, almost actinomorphic flowers arranged in large, terminal panicles, by its short floral peduncles longer at fructification, and by the shape of the fruits. The membranaceous, firm wings of the samaras have more or less deeply dentate margins and a papilionate arrangement.

***Mascagnia peruviana* Cuatr., sp. nov. Figure 1.**

Frutex scandens ramis terminalibus sarmentosis tenuibus valde volubilis pubescentibus. Stipulae geminatae interpetiolares triangulari-subulatae circa 1 mm longae.

Folia chartaceo-membranacea opposita. Petiolus 1–14 mm longus flexuosus patulo-pubescent apice biglandulosus. Lamina ovata basi rotundata vel subcordata apice attenuata acuteque acuminata margine integra leviter revoluta, 4–8 cm longa 2–5 cm lata, pallide ochraceoviridis; supra glabra nervis principalibus tenuissimis ceteris obsoletis; subtus dense molliterque pubescens, pilis longis tenuibus supra basim furcatis patulis, costa prominenti nervis secundariis circa 5 utroque latere ascendentibus curvatis ad marginem tenuioribus anastomosantibus nervulis tertiis transversis parvis ceteris obsoletis, basi interdum glandulosa.

Inflorescentiae thyrsoidae terminales basi foliosae ad 10 cm longae, floribus circa 1 cm diam. usque ad 35 in ramulis elongatis pseudoracemose dispositis; axi ramulisque dense cinereo- vel ochraceo-tomentosis; bracteis inferioribus ovatis pubescentibus 2–3 mm longis, ceteris subulatis circa 1.5 mm longis. Pedunculi 1–2 mm longi pubescentes persistentes rigidi apice bibracteolati, bracteolis 0.5–1 mm longis subulatis. Pedicelli tenues 2–6 mm longi pubescentes. Sepala ovata obtusa extus pubescentia circa 1.8 mm longa. Glandulae calycis 8 ellipsoideae 1.5–1.8 mm longae. Petala lutea glabra lamina subrotundata vel late elliptica basi subcordata margine minute erosa 3.5–4 mm longa 3–4 mm lata, ungue crasso 1–1.5 mm longo. Stamina alternatim aequilonga filamentis glabris tenuibus 2–2.5 mm longis, antheris ellipticis glabris 0.8–1 mm longis. Styli paulo curvati crassiusculi glabri circa 2 mm longi apice leviter incrassati angulo interno protruso dorsali sterile obtuso. Ovarium dense tomentosum dorso alis lateralibus incipientibus minutissimis jam conspicuis.

Typus: Peru, Piura, prov. Ayavaca; entre Olleros y el valle del Río Quirós, 1400 m alt., V-1912, *A. Weberbauer* 6353. Holotypus US.

This species has been considered by Niedenzu as *M. americana* Bertero, a species known from Colombia and Venezuela (Ndzu. *Malpighiaceae* 99. 1928). *M. peruviana* is different by its fine, long, slender, flexuose, patulous, and whitish hairs which form a soft pubescence on the under side of the leaves and a cinereous or pale tomentum on the inflorescences. However, *M. americana* has reddish

and stronger hairs on the branchlets and petioles and also on the midrib beneath; this indumentum is subappressed and light on peduncles and pedicels. Furthermore, in the Colombian plants the inflorescences are corymbose and spread, whereas they are racemose, elongate, ascendent in the Peruvian plants.

***Pterandra evansii* Cuatr., sp. nov.**

Frutex ramis terminalibus annotinis griseis glabris hornotinis ochraceo-sericeis. Stipulae in unam intraxillarem crassam villosam ovatam apice plerumque bidentatam conerescentes.

Folia opposita ad terminationem ramuseulorum comosa in specimine valde juvenilia, petiolo 5–10 mm longo dense ochraceo-villoso, lamina sublanceolata basi cuneata apice acuminata margine integra 6–8 cm longa 1.5–2.2 cm lata, utrinque primum dense adpressequ ochraceo-villosa deinde pilis dilutantibus, costa supra notata subtus eminenti villosaque nervis secundariis parallelis ascendentibus 9–10 utroque latere supra leviter subtus bene prominulis, venulis obsoletis.

Flores circa 10 mm diamitentes fasciculos axillares foliorum superiorum formantes. Bracteolae lanceolatae extus villosae circa 2 mm longae. Pedicelli sessiles graciles sericeo-pubescentes plus minusve flexuosi 10–15 mm longi. Calyx 10-glandulosus sepalis oblongis acutis vel subacutis vel obtusis extus sericeis intus glabris, revolutis, glandulis rotundatis 0.8–1.3 mm diam. Petala obovata lamina 3.5–4.5 mm longa 2.5–3 mm lata, apice rotundata basi in unguem sine sensu angustata margine leviter crispulo-crenulata, supra glabra dorso sericea, ungue circa 1 mm longo. Filamenta staminorum basi ampliata breviter coalita villosaque. Antherae ovatae circa 1 mm longae glabrae loculis margine exteriori anguste alato-appendiculatis alulis crassiusculis papillosis connectivo crassiusculo apice breviter capitato-appendiculato. Ovarium sericeo-lanuginosum trisulcatum triloculare triovulatum apice excavatum fundo stylis 3 subulatis sparsissime setulosis nascentibus.

Typus: Brasil, Amazonas; Río Marmellos (headwaters), August 1948, *Richard Evans Schultes & Francisco López 10332*. Holotypus, US.

P. evansii is closely related to *P. arborea* Ducke of the Manaos region (Río Turuma) from which it differs by the more slender and lanceolate leaves, the rather acute or subacute sepals, the rather more pubescent thinner and longer petals, the smaller glands, and the longer and slenderer pedicels.

Key to the species of *Pterandra*

1. Petals pink. Leaves elliptic or elliptic-oblong, coriaceous, gray, wooly-pubescent, with midrib and nerves prominent beneath. Calyx lanate with 10 or fewer glands or eglandular. Pedicels 10–15 mm long, flexuose, white-lanate. Stipules united to the apex. Brazil (Minas Geraes, S. Paulo, Goyaz, Amazonas). 1. *P. pyroidea* Juss.
1. Petals pale yellow or white. Indument appressed or subappressed; hairs on the leaves sparse. Calycinal glands 10.
 2. Stipules oblong-lanceolate, united only at the base. Leaves subcoriaceous; oblanceolate, attenuate at both ends, cuspidate at the apex. Petals white. Pedicels long, flexuose, 1.8–2.5 cm long. Colombia (Gorgona Island). 2. *P. ultramontana* Riley ex Cuatr.
 2. Stipules united up to or below the apex.
 3. Leaves rigid-coriaceous, elliptic or elliptic-oblong, obtusely cuneate at the base, obtuse or occasionally acute at the apex. Pedicels thick, usually erect. Petals pale yellow. Venezuela (cerro Sipapo). 3. *P. flavescens* Maguire.

3. Leaves chartaceous.

4. Leaves ovate or obovate, obtusely cuneate at the base, obtuse or subacute at the apex. Pedicels rather thick. Limb of the petals white, thick, elliptic, about 3 mm long, with a subentire margin. Brazil (Amazonas). 4. *P. arborea* Ducke.

4. Leaves sub lanceolate. Pedicels very slender, capillary. Limb of the petals membranaceous, obovate, 3.5–4 mm long, with a dentate margin. Brazil (Rio Mar-mellos).

5. *P. evansii* Cuatr.

Cecropia catarinensis Cuatr., sp. nov.

Arbor circa 4 m alta ramis terminalibus nodosis internodiis 15–18 mm longis (in specimine) asperis, pilis rigidis hamatis dense tectis.

Folia subcoriacea peltata. Lamina palmata in 9 lobis usque prope basim fissa; lobo maximo ab insertione petioli usque ad apicem 17–22 cm longo et 8.5–10.5 cm lato, minimo 10–12 cm longo et 4.5–6 cm lato, parte centrali integra 3–2 cm radii; lobis obovato-oblongis apice subrotundatis ad basim paulo contractis et plicatis margine in majoribus saepe prope basim 1-lobatis (aspectu lyrato) lobis secundariis late oblongis obtusissimis ad 2 cm longis; supra viridis leviter asperula pilis rigidis acutis basi tuberculatis sparsis et minute tuberculato-granulosa nervis principalibus conspicuis reticulo paulo visibili; subtus alba dense lanuginoso-arachnoidea costis elevatis arachnoideis et basim versus plus minusve villosis, nervis secundariis ascendentibus prominentibus etiam indutis 10–15 mm inter se distantibus, nervis tertiis parallelis prominulis reticulo velato. Petiolus 28–34 cm longus striatus parce tenuiterque arachnoideus et basim plus minusve puberulus; pulvinulo badio hirsuto-velutino. Stipula oblonga acuta extus sparse puberula et albo-arachnoidea, intus glabra vel marginem versus puberula; circa 11 cm longa.

Inflorescentiae masculae axillares geminatae; pedunculi graciles sed rigidi complanati 5–7 cm longi, 3 × 2 mm crassi valde hispidulo-hirsuti. Spatha ovato-oblonga apice attenuata breviter apiculata, 6–6.5 cm longa submembranacea, sparse villosa et albido-arachnoidea, intus glabra. Amenta mascula sessilia praecipue 8, interdum bifida, 3.5–5.5 cm longa, 4–5 mm crassa, receptaculo minute hispido, perigonio oblongo laevi sparsissimis pilis arachnoideis munito.

Typus: Brasil, Santa Catarina: Laguna in restinga; hospedeiro de formigas; folhas brancas por baixo; col. 22-XII-1951 *Reitz & Klein* 177. Holotypus US.

C. catarinensis is closely related to *C. lyratiloba* Miq. (species described from sterile material) on account of its lobulated leaf-segments. Comparing the plants from Santa Catarina with a fragment of the type of *C. lyratiloba* (in F), they prove to be different in their less marked lobulation and in lacking the hispid indument of the nerves characteristic in Miquel's species.

Heisteria cyanocarpa P. et E. subsp. **occidentalis** Cuatr., subsp. nov.

Folia coriacea elliptica utrinque paulo attenuata apice plus minusve apiculata nitida subtus nervis principalibus rubris.

Typus: Colombia, Valle; Río Yurumanguí, Peña de Candelario, between Veneral and San Antonio, 20–30 m alt.; tree with pendulous branches; calyx red; 9-II-1944, *J. Cuatrecasas* 16126. Holotypus F.

Dulacia adhaerens (Spruce) Ktze. var. **stenopoda** Cuatr., var. nov.

Folia subtus tantum puberula. Rhachides inflorescentiae tenues leviter flexuosi ad 15 mm longi 8–10 cicatricibus floralibus, patenti-pubescentibus pilis brevibus patulis praecipue hamatis tecti. Calyx conicus hamato-pubescentis. Petala

alba puberula pilis patulis hamatis, circa 5.5 mm longa. Stylus 4 mm longus. Pedicelli tenues patenti-pubescentes 1.5–2 mm longi.

Typus: Colombia, Vaupés; Río Guayabero, forests and borders, 240 m alt.; small tree with white flowers, 8-XI-1939, *Cuatrecasas 7505*. Holotypus US.

This variety differs from the specific type in the scarcity of hairs on the leaves beneath, which are not soft to the touch. Furthermore, they have an indument of spreading, usually hamate hairs on the branchlets, calyx and petals; the inflorescence has a slender, elongate rhachis with up to 10 flowers (not at the same time).

***Meliosma littlei* Cuatr., sp. nov.**

Arbor circa 22 m alta ramulis ultimis puberulis deinde glabratiss.

Folia simplicia alterna chartacea. Petiolus 3–4 cm longus glaber basi incrassatus. Lamina late obovato-lanceolata apice subito angustata acuminataque basi cuneata sine sensu attenuata margine integra, 13–30 cm longa 4–8 cm lata; supra glabra nitidula costa nervis secundariis paulo notatis reticulo venulorum minuto prominuleque, superficie minutissime impresso-alveolata; subtus pilis minutis crassiusculis sparsis vel glabra costa crassa eminenti striata nervis secundariis circa 10 utroque latere prominentibus curvato-ascendentibus ad marginem decurrenti-anastomosantibus, nervis tertiis tenuioribus bene prominulis laxum reticulum instructis venulis minute conspicueque reticulatis.

Inflorescentiae statu fructifero paniculatae 18–25 cm longae ramulis angulatis pilis crassiusculis copiosis vel glabratiss. Pedunculi fructiferi circa 5 mm longi robusti glabri. Drupa in sicco pyriformi-globosa obtuse carinato-nervata asymmetrica circa 18 mm longa 16–17 mm lata exocarpio carnosulo in sicco coriaceo fragili 1.5–2 mm crasso. Endocarpium lignosum durum ellipsoideo-brachycephalicum nervo dorsale obtuse prominenti superficie sublaevi minute scabridula basi brevissime attenuatum, 1 mm crassum, 14 mm longum, 12 mm latum.

Typus. ECUADOR: prov. El Oro, in mountains near Hacienda El Ingenio, 15 km south of Piedras, alt. 2666–3333 ft in virgin, wet forest; tree 66 ft D.B.H. 8 in, at edge of clearing; bark dark brown, smoothish, lichen patches, slightly rough because of lenticels. Fruits globose 2 cm black at maturity, 20-VI-1943, *Elbert L. Little 6652*. Holotypus, US.

Meliosma littlei is the first citation of this genus in Ecuador and is closely related to *M. panamensis* St. and *M. tonduzii*. The Ecuadorian plant has larger and more rigid leaves than the Panamanian, but the most significant character is that the fruits of *M. panamensis* and *tonduzii* are more pyriform, rounded at the top, tapering to an elongate base, and with a nervose-corrugate surface.