Except for its shorter puberulent capsules and smaller flowers this variety bears a close resemblance to *R. tuberosa* L.

4. RUELLIA LORENTZIANA Griseb. Abh. Ges. Wiss. Goetting. **24**: 259. 1879.

Suffrutescent; stem erect, obscurely quadrangular, glandular-puberulent, the cystoliths prominent, about 0.25 mm. long; petioles 1 to 3 cm. long, glabrous or sparsely pilose, the cystoliths numerous; leaf blades ovate, up to 10 cm. long, 5.5 cm. broad, obtuse at apex, abruptly narrowed and decurrent at base, rather firm, crenulate-crisped, both surfaces glabrous or bearing a few scattered hairs about 1 mm. long, the cystoliths numerous and prominent; inflorescence a terminal interrupted narrow panicle, the branches 2 or 3-flowered; peduncles 1 to 5 cm. long, glandular-puberulent; bracts linear, 3- to 8 mm. long, glandular-puberulent, pedicels 1 to 2 mm. long, glandular-puberulent; calyx 10 to 12 mm. long, glandular-puberulent, the tube 2 mm. long, the segments linear-subulate, unequal, 0.5 mm. broad at base; flowers not seen, the corolla described as "glabra; tubo e basi angusta supra calycem curve dilatato lobis late rotundatis duplo longiori, antheris inclusis cordato-oblongis;" capsule 2 cm. long, 4 mm. broad, fusiform, abruptly narrowed and pointed at apex, narrowed at base, the solid portion about 4 mm. long, 1 mm. broad at lowest point, 2 mm. broad at beginning of cavity 12 to 16-seeded, glandular-puberulent; retinacula tridentate at apex; seed flat, ovate, subcordate at base, about 3 mm. long and 2 mm. broad, mucilaginous-pilose when moist.

TYPE LOCALITY: Tucumán, Argentina.

Specimen examined: Argentina, Formosa, *Jorgensen* 2845.

This species is closest to *R. nudiflora glabrata* but can be distinguished by its narrow panicle of crowded flowers, densely glandular stems, inflorescence, and capsules, smaller keeled calyx segments and glabrous (?) corolla.

BOTANY.—*New plants from Central America.—X.*[1]

PAUL C. STANDLEY, U. S. National Museum.

Most of the plants described below belong to the genus *Ardisia*, of the family Myrsinaceae, a group of shrubs or small trees with edible fruits and handsome, though small, flowers. The genus is abundantly represented in the mountains of Central America.

There is included also the description of a species of *Elaphrium* obtained many years ago in Nicaragua by the pioneer Central American collector, Oersted. Although somewhat out of place here, I have inserted the diagnoses of two strikingly distinct Mexican plants procured by Dr. Blas P. Reko, who has contributed to the National Herbarium material of so many rare Mexican species.

[1] Published by permission of the Acting Secretary of the Smithsonian Institution. For the last preceding paper of this series see page 309 of this volume of the THE JOURNAL.

Received October 31, 1927.

Elaphrium Oerstedii Standl., sp. nov.

Branchlets very stout, 7–8 mm. thick, densely leafy at the tips, covered below with the large scars of fallen leaves, ochraceous, densely and finely tomentose at apex but soon glabrate; leaves crowded at the tips of the branches, petiolate, the rachis and petiole together 12-15 cm. long, slender, copiously puberulent and short-pilose with fulvous hairs; internodes of the rachis 7–25 mm. long; leaflets 11-15, the terminal one sessile or petiolulate, the lateral ones sessile, oblong or lance-oblong, 4-6.5 cm. long, 1.3–2.2 cm. wide, abruptly short-acuminate, with narrow, entire, acute or obtuse tip, at base obtuse and unequal, thick, shallowly and closely crenate, densely ciliate, puberulent above along the nerves, elsewhere glabrate, beneath paler, sparsely puberulent or short-pilose along the elevated costa, elsewhere glabrous or nearly so, the lateral nerves about 15 on each side, divergent at a wide angle, slightly arcuate, distinct nearly to the margin; panicles large, many-flowered, much branched, equaling or shorter than the leaves, pedunculate, the branches stout, angulate, short-pilose and puberulent, the flowers short-pedicellate; fruit obovoid, oblique, glabrous, 1.5 cm. long and 1 cm. broad, narrowed to the obtuse base.

Type in the herbarium of the Botanical Museum, Copenhagen, collected in Nicaragua by Oersted. A specimen of the same collection is in the U. S. National Herbarium.

The type is an unmounted specimen, labeled in Oersted's hand, "In Nicaragua legi. Ord." A second sheet, evidently of the same collection, has the locality written in the same hand, as "In insula Jamaica." No such plant is known from Jamaica, and it is fairly safe to assume that the plant is a Nicaraguan one.

Only a few species of *Elaphrium* are known from Central America, the genus being very poorly represented outside Mexico, except for the widely distributed *E. simaruba*. *Elaphrium Oerstedii* is clearly distinct from any of the species reported heretofore from Central America.

Ardisia Cutteri Standl., sp. nov.

A small tree, the branches stout, terete, brownish; leaves oblanceolate, about 52 cm. long and 15 cm. wide, rounded at apex, long-attenuate from near the apex nearly or quite to the base of the short broad petiole, entire, subcoriaceous, green above, glabrous, minutely punctate, beneath paler, sparsely and very minutely brown-lepidote, the costa stout and salient, the lateral nerves very numerous, slender, prominent, divergent at a wide angle, connected by the lax irregular reticulation of the ultimate nerves; inflorescence terminal, paniculate, about 17 cm. long and broad, tripinnate, the branches slender, brown-lepidote with minute appressed scales; flowers umbellate at the ends of the branches, the pedicels stout, 6–8 mm. long; sepals 5, nearly distinct, orbicular, 2 mm. long, minutely lepidote dorsally, not evidently punctate, the margins finely brown-ciliolate; fruit globose, 1 cm. in diameter, densely and coarsely punctate.

Type in the U. S. National Herbarium, no. 1,254,989, collected in wet forest near Pejivalle, Province of Cartago, Costa Rica, altitude about 900 meters, February 7, 1926, by Paul C. Standley and Juvenal Valerio (no. 47122).

This handsome plant is well marked by its remarkably large leaves and fruits, and can scarcely be confused with any other *Ardisia* reported from Central America. The species is named for Mr. Victor M. Cutter, President of the United Fruit Company, as a slight acknowledgment of his hearty co-operation in furthering botanical exploration in Costa Rica.

Ardisia minor Standl., sp. nov.

A shrub or small tree 1.5–6 m. high, the branches terete, grayish or brownish, somewhat rugose, glabrous, densely leafy, with short internodes; petioles stout, 3–7 mm. long, shallowly sulcate on the upper surface, glabrous, often marginate to the base; leaf blades narrowly elliptic to oblong-elliptic, often broadest above the middle, 2.8–6.5 cm. long, 1–2.5 cm. wide, acute or short-acuminate, often rather abruptly so, the tip obtuse or rounded, at base acute or acutely cuneate and often decurrent, entire, thin, glabrous, above green, dull, the costa slightly impressed, the lateral nerves inconspicuous, beneath paler, the costa slender, prominent, the lateral nerves very slender, prominulous, ascending at an angle of about 50 degrees, connected by the lax reticulation of the ultimate nerves; young leaves coarsely brown-punctate; inflorescence terminal, usually shorter than the leaves, small, few-flowered, bipinnate, glabrous, the rachis usually 2 cm. long or shorter, bearing usually 3 or 4 few-flowered umbels; bracts caducous; pedicels stout, 2–5 mm. long; sepals 5, nearly distinct, dextrorsely convolute, rounded-ovate to orbicular, 1.5 mm. long, obtuse to broadly rounded, glabrous, crenulate, green with scarious whitish margins, punctate with few coarse red-brown dots; fruit globose, black, 6 mm. in diameter; style slender, 2–3 mm. long; endocarp 4–4.5 mm. in diameter, finely costate.

Type in the U. S. National Herbarium, no. 1,306,429, collected in wet forest on Cerros de Zurquí, northeast of San Isidro, Province of Heredia, Costa Rica, altitude about 2,200 meters, March 3, 1926, by Paul C. Standley and Juvenal Valerio (no. 50571). Here are referred the following collections:

Costa Rica: Cerro de las Caricias, Prov. Heredia, alt. 2,000–2,400 meters, *Standley & Valerio* 52408. Yerba Buena, Prov. Heredia, alt. 2,000 m., *Standley & Valerio* 50134. Cerros de Zurquí, *Standley & Valerio* 50590, 50613. Santa María de Dota, alt. 1,500–1,800 m., *Standley* 41621; *Standley & Valerio* 43456, 43467. Quebradillas, north of El Copey, Prov. San José, alt. 1,800 m., *Standley* 43040. Laguna de la Chonta, northeast of Santa María de Dota, alt. 2,100 m., *Standley* 42306.

Ardisia minor belongs to the subgenus *Icacorea* and is closely related to *A. compressa* H. B. K. The latter is a widely distributed and highly variable species, but all its forms have larger leaves, an ampler, more branched inflorescence, and pale sepals.

Ardisia Maxonii Standl., sp. nov.

A slender shrub or small tree 3–5 m. high, the branches stout, terete, rimose, glabrous, densely leafy, with short internodes; petioles very stout and broad, 2–4 mm. long, glabrous, often marginate to the base; leaf blades oblong-obovate, sometimes broadly so, 4–7 cm. long, 1.5–3.3 cm. wide, very obtuse or rounded at apex, broadly obtuse to acute at base, entire, glabrous, green and dull above, beneath paler, often brownish, densely and very minutely brown-punctate, the costa stout, prominent, the lateral nerves slender, prominent,

ascending, connected by the irregular lax reticulation of the ultimate nerves; inflorescence terminal, usually much exceeding the leaves, densely many-flowered, tripinnate, 8 cm. long and broad or smaller, the rachis glabrous, angulate, the flowers pale pink, chiefly subumbellate at the ends of the branches; bracts caducous; pedicels stout, 4–7 mm. long; sepals 1.5–2 mm. long, united below, suborbicular, rounded at apex, dextrorsely convolute, glabrous, entire, densely punctate with large glands; corolla 6 mm. long, the lobes oblong, obtuse, nearly distinct, symmetric, glabrous, minutely and obscurely punctate; stamens equaling the corolla, the filaments very short, the anthers oblong, 3 mm. long, deeply cordate at base, glabrous; style very slender, 3 mm. long.

Type in the U. S. National Herbarium, no. 675771, collected in forest opening between the Río Ladrillo and Los Siguas Camp, southern slope of Cerro de la Horqueta, Chiriquí, Panama, altitude 1,200 to 1,700 meters, March, 1911, by William R. Maxon (no. 5402). The following additional collections are at hand:

PANAMA: Humid forest around Los Siguas Camp, alt. 1,700 m., *Pittier* 3167. Camp Aguacatal, eastern slope of Chiriquí Volcano, alt. 2,100–2,200 m., *Pittier* 3117.

Ardisia Maxonii belongs to the subgenus *Icacorea* and is related to *A. irazuensis* Oerst., of Costa Rica. The latter has smaller flowers and pointed, often acute leaves.

Pittier has recorded the vernacular name "uvilla" for *A. Maxonii*.

Ardisia pallidiflora Standl., sp. nov.

A shrub, the branches stout, terete, ochraceous, rimose, glabrous, the internodes about 1 cm. long; petioles stout, 5–8 mm. long, deeply sulcate on the upper surface, lepidote-furfuraceous with small appressed brown scales; leaf blades narrowly obovate-elliptic, 5.5–7 cm. long, 2–3 cm. wide, abruptly acute to long-acuminate, with acute or obtuse tip, obtuse at base, entire, thick and firm, densely punctate with large glands, these most conspicuous on the young leaves, dull, the venation prominulous, beneath paler, sparsely lepidote with minute brown scales, the costa stout and prominent, the lateral nerves prominent, divaricate at a wide angle, connected by the lax reticulation of the ultimate nerves; inflorescence terminal, cymose, twice branched, lax, many-flowered, the flowers in umbels at the ends of the branches, the main rachis strongly zigzag, bearing at the base of each branch a leaflike brown-punctate petioled bract 1–1.5 cm. long; bracts at the base of the pedicel 1–2 mm. long, persistent, linear, brown-punctate; pedicels slender, 10–13 mm. long, pale, sparsely and very minutely lepidote, often strongly curved, thickened at apex; sepals 1.5 mm. long, rounded-ovate, very obtuse, glabrous, whitish, with scarious margins, bearing on the back a dense group of large brown-red glands, the margins minutely denticulate; flower buds 3.5 mm. long, acuminate; petals pale, ovate, acuminate, bearing a few large dark punctations; anthers shorter than the petals, lanceolate, 1.5 mm. long, long-acuminate.

Type in the U. S. National Herbarium, no. 677649, collected in humid forest between Alto de las Palmas and top of Cerro de la Horqueta, Chiriquí, Panama, altitude 2,100 to 2,265 meters, March 18, 1911, by H. Pittier (no. 3255).

A member of the subgenus *Icacorea*, but easily recognized among the Central American species of that group by the pale cymiform inflorescence, the persistent bracts, and the long curved pedicels.

Ardisia tilaranensis Standl., sp. nov.

A slender shrub 1.5–3 m. high, the branchlets terete, when young densely furfuraceous with coarse brown appressed scales; leaves mostly sessile or nearly so, rarely on petioles 8 mm. long, the blades narrowly oblanceolate-oblong, 11–18.5 cm. long, 3–5 cm. wide, acuminate or long-acuminate, narrowed to the base, this auriculate and often clasping, the auricles short and rounded; blades thin, sinuate-crenate, the upper surface green, dull, glabrous, beneath paler, rather densely lepidote with small, brown, closely appressed scales and conspicuously black-punctate, the costa slender, prominent, the lateral nerves very slender, numerous, divaricate at nearly a right angle, connected by the laxly reticulate ultimate nerves; inflorescence shorter than the leaves, twice pinnate, consisting of a few few-flowered umbels, the branches very slender, sparsely brown-lepidote, the panicle bearing at the bases of the primary branches 1 or 2 large green leaflike bracts, these 12–18 mm. long, ovate or lanceolate, sessile and clasping; pedicels about 5 mm. long; sepals 5, nearly distinct, broadly ovate or rounded-ovate, acute or obtuse, 1 mm. long, denticulate, glabrous, bearing numerous coarse blackish punctations; fruit globose, 6-7 mm. in diameter, purple-black, densely and coarsely black-punctate with elevated glands.

Type in the U. S. National Herbarium, no. 1,254,496, collected in moist forest at Quebrada Serena, southeast of Tilarán, Guanacaste, Costa Rica, altitude about 700 meters, January 27, 1926, by Paul C. Standley and Juvenal Valerio (no. 46169). The following collections from Guanacaste represent the same species:

Costa Rica: Los Ayotes, alt. 700 m., *Standley & Valerio* 45422. El Silencio, alt. 750 m., *Standley & Valerio* 44729, 44763.

None of the specimens are in good condition, but they are uniform, and show clearly that the plant is distinct from all other Central American species of *Ardisia*. It is perhaps related to the Costa Rican *A. auriculata* Donn. Smith, of which I have seen no material, but that is a glabrous plant with entire leaves 40 cm. long.

Ardisia Nevermannii Standl., sp. nov.

A slender shrub 1.5–2.5 m. high, the branches terete, densely leafy at the tips, very densely hirsute with long stiff spreading ferruginous hairs; leaves sessile or nearly so, the petioles less than 5 mm. long; leaf blades oblanceolate or oblanceolate-oblong, 16–29 cm. long, 5–8 cm. wide, acuminate, long-attenuate to the base, there narrowly obtuse and subauriculate, entire, thin, deep green above and hirsute, much paler beneath, densely ferruginous-hirsute, conspicuously black-punctate; inflorescence terminal, pendent, the peduncle slender, 8-11 cm. long, densely hirsute, the panicle lax, open, many-flowered, tripinnate, the primary branches long, slender, and curved, the flowers in umbels at the end of the branches, the panicles about 10 cm. long and broad; bracts persistent, those along the straight percurrent main rachis oblong or lanceolate, leaflike, 1-1.5 cm. long; pedicels 5-8 mm. long, slender, hirsute; sepals 5, broadly ovate or oval, 1.5 mm. long sparsely hispidulous near the

base, coarsely black-punctate, the margins pale and scarious, glandular-ciliolate; petals 4 mm. long, coherent at base, elliptic-ovate, acutish, glabrous, purple or purple-pink, densely and coarsely dark-punctate; stamens slightly shorter than the petals, the anthers lance-oblong, 2.5 mm. long, much exceeding the filaments; fruit globose, black, 7–8 mm. in diameter, the endocarp finely costate.

Type in the U. S. National Herbarium, no. 1,305,625, collected in wet forest at Finca Montecristo, on the Río Reventazón below El Cairo, Province of Limón, Costa Rica, altitude 25 meters, February 18, 1926, by Paul C. Standley and Juvenal Valerio (no. 48603). The following collections from the same vicinity represent this species:

COSTA RICA: Finca Montecristo, *Standley & Valerio* 48484. Hamburg Finca, *Standley & Valerio* 48824, 48774, 48754.

Ardisia Nevermannii is a very distinct species, not obviously related to any other known from Central America. The hirsute pubescence alone is sufficient to distinguish it. The species is named for Mr. Ferdinand Nevermann, a keen student of Costa Rican Coleoptera, at whose home I was so fortunate as to be a guest while collecting about El Cairo.

Ardisia furfuracea Standl., sp. nov.

A small tree, the branches terete, very stout, very densely and coarsely furfuraceous with loose, dark brown scales, the internodes short; petioles very stout and broad, 1-2 cm. long but marginate nearly or quite to the base, deeply sulcate on the upper surface; leaf blades oblong or narrowly oblong, 17-27 cm. long, 4-7.5 cm. wide, acute at base and apex, entire, thick, green and glabrous above or sparsely lepidote along the shallowly sulcate costa, beneath brown, very densely lepidote-furfuraceous with coarse loose brown scales, rough to the touch, the costa salient, very thick and stout, the lateral nerves very slender, prominulous, numerous, ascending at a wide angle; inflorescence terminal, paniculate, pyramidal, about 20 cm. long and broad, tripinnate, the branches very stout, densely brown-furfuraceous; bracts caducous; flowers sessile on the branches or in dense few-flowered sessile clusters, the pedicels, if any, 2-2.5 mm. thick and 1-1.5 mm. long; flower buds acute, about 4 mm. long; sepals dextrorsely convolute, orbicular, 2 mm. long, glabrous, densely and coarsely punctate, the margin minutely denticulate; petals coalescent at base, ovate-oval, narrowed to the obtuse apex, glabrous, coarsely dark-punctate; anthers oblong-ovate, 1.8 mm. long, glabrous, cordate at base, the filaments nearly equaling the anthers, the stamens slightly shorter than the petals.

Type in the U. S. National Herbarium, no. 1,306,786, collected in wet forest on Cerro de las Lajas, north of San Isidro, Province of Heredia, Costa Rica, altitude 2,300 meters, March 7, 1926, by Paul C. Standley and Juvenal Valerio (no. 51556).

Ardisia furfuracea evidently is related to *A. palmana* Donn. Smith, of the same region. The latter has a much more open inflorescence and lacks the coarse furfuraceous covering which is so conspicuous in the species here described.

The flowers of *A. furfuracea* are white with pinkish dots.

Parathesis aeruginosa Standl., sp. nov.

Branches stout, terete, the internodes 1-1.5 cm. long, densely stellate-tomentose with red-brown, rather coarse, sessile hairs; petioles stout, 3-9 mm. long, densely stellate-tomentose; leaf blades elliptic-oblong, broadest at or slightly above the middle, 12-16 cm. long, 4-5 cm. wide, abruptly short-acuminate, cuneately narrowed to the acute base, decurrent upon the petiole, obscurely undulate-crenate, membranaceous, deep green above, sparsely stellate-pubescent along the costa, elsewhere glabrous, beneath densely stellate-hispidulous with red-brown hairs, the costa prominent, the lateral nerves numerous, slender, divergent at a wide angle, subarcuate, irregularly and laxly anastomosing near the margin; inflorescence terminal, paniculate, pyramidal, about 13 cm. long and broad, tripinnate, lax, many-flowered, the branches densely ferruginous-tomentose with sessile stellate hairs, the bracts linear, 2–3 mm. long; pedicels 2–4 mm. long; buds 3.5 mm. long; sepals nearly distinct, linear-triangular, 1.5 mm. long, stellate-hirtellous, acute; petals linear-oblong, 2.5 mm. long, minutely stellate-tomentose on both surfaces; stamens shorter than the petals, exserted in anthesis, the filaments very short, the anthers linear, 1.7 mm. long, with a black dorsal line; ovary conic, glabrous, the style filiform, 2.5 mm. long, glabrous.

Type in the U. S. National Herbarium, no. 861823, collected in forests of Tremedal, near San Ramón, Costa Rica, altitude 1,300 to 1,400 meters, April 14, 1913, by A. Tonduz (no. 17659).

Obviously related to the Guatemala *P. sessilifolia* Donn. Smith, which has similar pubescence but chiefly of stipitate, not sessile, hairs.

Maba nicaraguensis Standl., sp. nov.

Branchlets slender, subterete, ochraceous, densely furnished with pale, slightly elevated lenticels, the young branchlets densely fulvous-puberulent and short-pilose with spreading or ascending hairs; petioles stout, 4–6 mm. long, densely short-pilose; leaf blades chiefly obovate-oblong or oblanceolate-oblong, 3.5–7 cm. long, 1–2.5 cm. wide, obtuse to rounded at apex, gradually narrowed to the acute to obtuse (rarely rounded) base, thick, deep green above, densely pilose, at least when young, with short slender spreading hairs, beneath scarcely paler, densely velutinous-pilose with short, stiff, grayish, mostly straight but partly curved hairs, the costa stout, prominent, the lateral nerves about 5 on each side, strongly ascending, obscurely anastomosing near the margin; pistillate flowers axillary, solitary, the stout pedicels 1–4 mm. long; calyx densely fulvous-tomentose on both surfaces, 3 to 5-lobate, 8–10 mm. long, the tube campanulate, the lobes broadly ovate, obtuse, thick, much longer than the tube, their margins slightly recurved; pistillate corolla urceolate, the tube 8 mm. long, 5 mm. broad, glabrous near the base, above (like the lobes) densely sericeous, the 4 lobes ovate, obtuse, 3 mm. long, erect, their margins incurved, the corolla glabrous within; ovary densely short-pilose, the style stout, 2.5 mm. long, sericeous.

Type in the U. S. National Herbarium, no. 1,266,111, collected near Managua, Nicaragua, April 16, 1926, by Diocleciano Chaves (no. 206).

Only one other species of *Maba* is known from Central America, *M. Veraecrucis* Standl., which has been collected in Salvador. It differs from *M. nicaraguensis* in having glabrate, usually acute or acuminate leaves.

In the Nicaraguan tree the calyx seems to be as often 4 or 5-parted as 3-

parted. In the genus *Maba* the calyx is supposed to be 3-parted; in *Diospyros* 4 or 5-parted. It is evident that in this case, at least, this difference does not hold, and it is therefore doubtful whether *Maba* can be maintained as a distinct genus.

Diospyros Rekoi Standl., sp. nov.

Branchlets terete, blackish brown or dark reddish brown, bearing numerous small, pale, slightly elevated lenticels, the youngest branchlets very densely tomentose with short spreading fulvescent hairs, usually also pilose with a few longer hairs, the internodes short, subterete or compressed; petioles stout, 8–11 mm. long, densely tomentose; leaf blades variable, oval to oval-ovate, 10.5–15.5 cm. long, 6.5–7.8 cm. wide, broadly rounded to acute at apex, at base rounded to abruptly short-cuneate, thin, densely velutinous-hirtellous on the upper surface, beneath very densely pilose-tomentose with ochraceous, slender, stiff but more or less entangled hairs, the costa and lateral nerves prominent beneath, the costa stout, the lateral nerves about 9 on each side, ascending, irregular; pistillate flowers (staminate flowers not seen) axillary, the inflorescences sometimes 2-flowered, but the pedicels usually solitary, stout, straight or curved, densely tomentose, 8–18 mm. long; calyx green, densely tomentose on both surfaces, 5-lobate nearly to the base, in anthesis 1.5–2 cm. long, somewhat accrescent in age, the lobes somewhat unequal, oblong-ovate to lance-oblong, 7–8 mm. wide, acute, abruptly short-acuminate, or narrowed to an obtuse apex; ovary ovoid-globose, 7 mm. broad, densely pilose with short spreading hairs, the pubescence long-persistent; corolla globose-urceolate, glabrous within, densely tomentose outside, the tube 11 mm. broad at base, 6–7 mm. long, constricted above, the 5 lobes spreading, broadly ovate, obtuse, 4 mm. long; fruit depressed-globose, 4.5 mm. broad, glabrate.

Type in the U. S. National Herbarium, no. 1,269,427, collected at Achotla, Guerrero, Mexico, altitude 700 meters, May, 1926, by Blas P. Reko (no. 4895). Called "zapote negro."

This is one of the most clearly distinct of all the Mexican species of *Diospyros*. In the writer's key to the Mexican species[2] it runs at once to *D. texana*, a tree with small leaves and fruit, to which it is not closely related. The dense pubescence of the leaves is the most conspicuous character of the plant.

Loeselia grandiflora Standl., sp. nov.

Plants perhaps suffrutescent, probably 60 cm. tall, much branched, the branches slender, stiff, the older ones with pale brown, exfoliating bark, the younger branches sparsely arachnoid-villous, at least about the nodes, the internodes mostly 3–5 cm. long; leaves all opposite, sessile, lance-oblong to oblong-ovate, broadest at base, 3–4.8 cm. long, 1–2 cm. wide, long-attenuate to the narrow subulate-tipped apex, shallowly cordate and clasping at base, stiff, pale green, finely serrate with close spinulose-tipped teeth, minutely glandular-puberulent on both surfaces, the venation prominent and coarsely reticulate; flowers forming a large open much-branched panicle, the pedicels mostly 3–12 mm. long, sometimes longer, sparsely tomentulose and glandular-puberulent; bracts of the branchlets subulate, entire, appressed, those (2–6) at the base of the flower linear-lanceolate, 10–12 mm. long, dark purplish,

[2] Contr. U. S. Nat. Herb. **23**: 1126. 1924.

glabrous, ciliate-serrulate, closely appressed to the calyx; calyx 6 mm. long, greenish, hyaline, glabrous, lobed nearly to the base, the lobes lanceolate, acute, entire; corolla tube very slender, 1 cm. long, finely villous outside, the lobes (including the claw) about 1.5 cm. long, glabrous or nearly so, linear-oblanceolate, cream-colored when dry, 2–3 mm. wide, glabrous or nearly so, obtuse at apex and entire or nearly so, the claws, very long and slender, purplish; filaments long-exserted, glabrous.

Type in the U. S. National Herbarium, no. 1,269,768, collected at Achotla, Guerrero, Mexico, altitude 700 meters, January, 1927, by Blas P. Reko (no. 5100). No. 5057, from the same locality, is conspecific.

It is a surprise to come upon a new Mexican plant so strongly marked as this one. It is true that collectors are still finding in Mexico numerous undescribed species of plants quite as distinct as any ever published, but the present plant is, after *Loeselia mexicana*, the most clearly differentiated species of its genus. In other species of *Loeselia* the leaves are all or chiefly alternate, while in *L. grandiflora* they are uniformly opposite. The large flowers, which must make the plant a rather handsome one, also are distinctive, and the form of the inflorescence is not matched in any other species. *L. grandiflora* belongs to the section *Euloeselia* Peter.

SCIENTIFIC NOTES AND NEWS

Paul C. Standley, of the National Museum, sailed from New York November 26, to spend the winter in botanical field work in Honduras. This Republic is almost wholly unknown botanically, and its exploration is expected to yield rich results. The work is being undertaken in cooperation with the Arnold Arboretum and the United Fruit Company.

Professor A S. Hitchcock gave an address before the Botanical Society of Pennsylvania at Philadelphia, November 19, on *The morphology and classification of the grass family.*

The Petrologists' Club met at the Geophysical Laboratory on November 15. Dr. G. P. Merrill of the National Museum discussed *The petrology of meteorites.*

The meeting of the Pick and Hammer Club at the Geological Survey on November 19 was devoted to an informal discussion of the *Application of geophysical methods to geological problems.* N. H. Heck, of the Coast and Geodetic Survey, reported on the action of the International Geodetic and Geophysical Union in appointing a committee on this subject, and spoke of the Coast Survey's own work. W. J. Rooney described the cooperative study of electrical methods under way by the Department of Terrestrial Magnetism (Carnegie Institution) and the Michigan School of Mines. A. C. Spencer reported on President Mason's New York address on the electrical methods. F. L. Hess spoke on the work of the U. S. Bureau of Mines and the Colorado School of Mines. There was discussion by F.E. Wright, O. H. Gish, L. B. Tuckerman, P. R. Heyl, and others.