

MISCELLANEOUS NEW SPECIES IN THE GESNERIACEAE

Hans Wiehler\*

*Drymonia tolimensis* Wiehler, sp. nov.

Plate 1A

*Drymoniae lanceolatae* (Hanstein) Morton affinis, sed foliis brevioribus serrulatis, pedicellis brevioribus, et corollarum tubis puberulis, limbis erosis notabilis.

Epiphytic or terrestrial shrub; stems upright or ascending, sparsely branching, ca. 1 m tall, quadrangular, 5-8 mm in diameter, proximally green, distally tan, strigillose, the internodes 2-7 cm long; leaf pairs equal or subequal, the petiole 3-5 cm long, green, strigillose, the lamina broadly elliptic, ca. 12-17 × 6.5-9 cm, acuminate, serrulate, cuneate, dark green above, lighter green often flushed with red below, strigillose, the lateral pairs of veins 5-7. Inflorescence reduced to solitary, axillary flowers, the peduncle absent, the subtending bract lanceolate, ca. 8 × 2 mm, green, strigillose, the pedicel 0.8-1.4 cm long, green suffused with red, strigillose; calyx lobes subequal, lanceolate, ca. 2.4 × 0.6 cm, acuminate, entire, green suffused with red, strigillose; corolla oblique in the calyx, ca. 4 cm long, spurred, infundibular, white, puberulous, the lobes unequal, rounded, erose, the dorsal and lateral lobes ca. 5 × 7 mm, the ventral lobe ca. 6 × 8 mm, the tube inside glabrous; stamens 4, included, the filaments adnate to the base of the corolla tube for 2 mm, ca. 2.6 cm long, white, glabrous, the anthers coherent, oblong, sagittate, each anther 5 × 2 mm, the thecae dehiscent by basal pores; ovary superior, cone-shaped, ca. 5 mm long, maroon, strigillose, the style ca. 2.6 cm long, white, strigillose, the stigma bilobed; nectary reduced to a doubleconnate, dorsal gland, ca. 2.4 × 2 mm, maroon, glabrous. Fruit not seen.

**Type:** COLOMBIA: TOLIMA: near Mount Tolima, Rancheria de la Cueva, corolla white, Feb. 1844, *Justin Goudot 6* (HOLOTYPE: P).

**Etymology:** Named for the type locality and for the province of origin, Tolima.

**Distribution:** Known only from the type locality in the central part of Andean Colombia.

*Drymonia tolimensis* is closely related to *D. lanceolata* (Hanstein) Morton from western Panama and Costa Rica. The Colombian species differs from the Central American species by its shorter, serrulate leaves, the shorter pedicels, the puberulous corolla tube with erose (not fimbriate) lobes, and by the strigillose ovary topped by a strigillose style.

*Drymonia ulei* Wiehler, sp. nov.

Plate 1B

A congeneris corollarum tubis sursum curvatis bene distincta.

Epiphytic, perennial liana or shrub; stems ascending or clinging to the host tree, sparsely branching, 35-50 cm long or longer, ca. 6 mm in diameter, the young shoots green and hirsute-villous, older stems tan and pilose to glabrescent, the internodes 6-12 cm long; leaf pairs subequal, the petiole 0.5-1.3 cm long, green, hirsute, the lamina elliptic to lanceolate, ca. 9-12 × 4-5 cm, acuminate, serrate, cuneate or oblique, dark green and pilose above, lighter green and puberulous below but hirsute along the veins, with 7-9 pairs of

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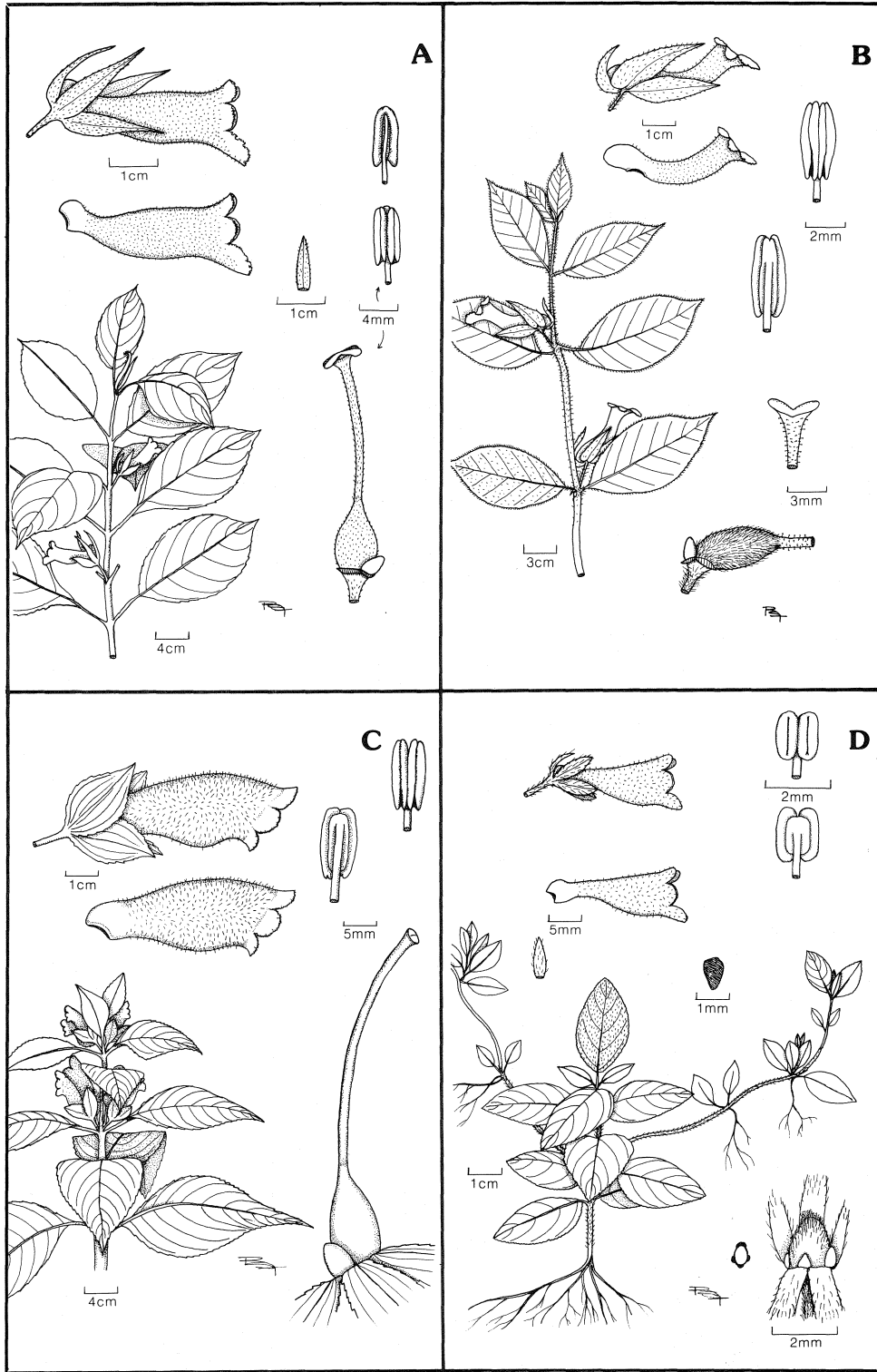


PLATE 1

secondary veins. Inflorescence reduced to solitary axillary flowers, epedunculate and ebracteate, the pedicel ca. 1.2 long, green, villous; calyx lobes subequal, lanceolate, ca.  $2.6 \times 0.9$  cm at anthesis, ca.  $3.6 \times 1.3$  cm in fruit, serrate, green, pilose; corolla extremely oblique in the calyx, with a prominent spur 8 mm long, the tube narrow, curved downwards, from spur to limb ca. 5 mm long, whitish, pilose-hirsute, the lobes unequal, the 2 dorsal and 2 lateral lobes ca.  $5 \times 5$  mm, erose, glabrous, the ventral lobe ca.  $7 \times 7$  mm, erose-fimbriate, glabrous, the tube inside glabrous, with maroon markings (*fide* Ule); stamens 4, included, the filaments ca. 2.5 cm long, adnate to the base of the corolla tube for several mm, white, glabrous, the sagittate anthers oblong,  $4 \times 2$  mm, dehiscing by a basal pore; ovary superior, cone-shaped, 7 mm long, sericeous, the style ca. 2.4 cm long, pilose, with capitate-glandular trichomes, the stigma bilobed; nectary a double-connate, dorsal gland,  $2 \times 2$  mm, glabrous. Mature fruit not seen.

**Type:** COLOMBIA: AMAZONAS: Leticia (Ule's designation: Peru: Loreto: Leticia), June 1902, *Ule 6213* (HOLOTYPE: HBG).

**Etymology:** Named for its discoverer, Ernst H. G. Ule (1854-1915), a German botanist and plant collector in the neotropics. He made several trips to Brazil, lived from 1883 to 1900 in southeastern Brazil and later collected in the vast Amazon region, travelling by boat (1900-1903, 1908-1912), and in Bahia (1906). Ule made important contributions to our knowledge of plant geography and the biology of epiphytes with his discovery and description of the "Ameisengärten" (hanging ant gardens) which include several gesneriads. The majority of his plant collections are housed at Hamburg (HBG). Ule died in Berlin before the publication of his fourth volume of *Plantae Uleanae*.

**Distribution:** Known only from the type locality in Amazonian Colombia and Peru.

*Drymonia utuanensis* Wiehler, sp. nov.

Plate 1C

Species haec corollarum forma, amplitudine, et colore a congeneribus diversa.

Terrestrial, perennial, suffrutescent herb or subshrub; stems sparsely branching, erect or ascending, to 1.5 m tall (*fide* Poortmann), 0.8-1.3 cm in diameter; leaf pairs subequal, the petiole 3-5 cm long, green, sericeous, the lamina broadly lanceolate,  $15-20 \times 9-10.5$  cm, acute or acuminate, denticulate, oblique or cuneate, dark green and puberulous above, lighter green and puberulous below, but strigillose along the veins, the secondary pairs of veins 10-12. Inflorescence reduced to axillary cymes of 1-4 or more flowers, the peduncle and bracts absent, the pedicel 1.8-2.8 cm long, red, puberulous; calyx lobes unequal, broadly ovate, acuminate, serrate, scarlet-red, puberulous, the lateral and ventral lobes ca.  $3 \times 1.8$  cm, the dorsal lobe smaller, ca.  $2.5 \times 1$  cm; corolla oblique in the calyx, tubular, ca. 7 cm long, 2.5 cm in diameter, white, pilose, the limb narrow, with subequal, erose lobes ca.  $0.5 \times 1$  cm, the tube inside glabrous; stamens 4, included, the filaments ca. 4.5 cm long, white, glabrous, adnate to the base of the corolla for 4 mm, then connate into a sheath for ca. 1 cm, the anthers coherent, oblong, sagittate, each anther  $1.1 \times 0.4$  cm, the thecae dehiscing by basal pores; ovary superior, obliquely cone-shaped, ca. 1.2 cm long, white, glabrous, the style ca. 4.8 cm long, white, glabrous, the stigma club-shaped; nectary a double-connate, dorsal gland,  $5 \times 7$  mm, maroon, glabrous. Fruit not seen.

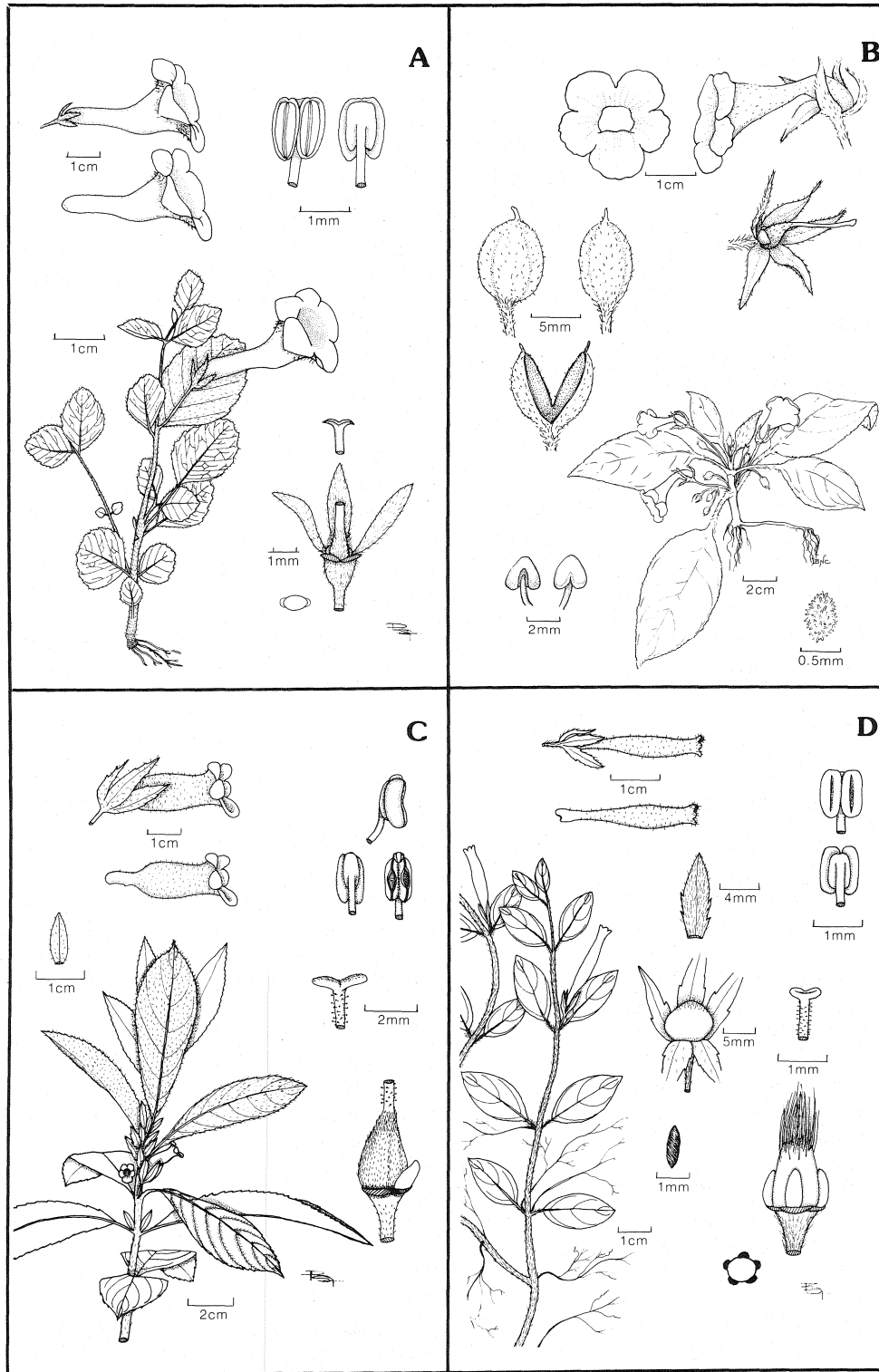


PLATE 2

**Type:** ECUADOR: LOJA: Utuana (between Cariamanga and Macará near the Peruvian border), cloud forest, 16 Feb. 1883, *Poortmann 527* (HOLOTYPE: K; ISOTYPES: P, 2 sheets).

**Etymology:** Named for the high Andean village of Utuana in southern Ecuador, near which this species was found at an altitude of ca. 2000 m.

**Distribution:** Known only from the type locality in southern Ecuador.

*Drymonia utuanensis* stands out among the other 120 species of the genus by its striking flower, an unusually large, tubular, white corolla supported by a scarlet-red calyx. The anther unit, ca. 1.1 cm long, is so far the largest encountered in *Drymonia*. This terrestrial new species may very well belong to the small subgenus *Drymoniella* Wiehler, but a definite placement can be made only after it is known whether the fruit is a fleshy display capsule or a soft berry.

The three sheets of the collection *Poortmann 527* (one at K, two at P), as cited above, need some explanation. Poortmann's field-note label, bearing his collection number 527, appears on the left-hand side of the holotype sheet at K and in the same place on one of the isotype sheets at P. The same isotype sheet at P states on the right-hand side that this is a Poortmann collection from Ecuador. The holotype at K has a printed E. F. André herbarium label on the right-hand side, blank, except for the number 527. The name *Poortmann* does not appear on the sheet at K, but the information on the field-note label on the left-hand side is identical with that on the sheet at P bearing Poortmann's name. Edouard François André's herbarium, bought by Kew in 1912, contained collections made by Poortmann. Both men were in Ecuador at about the same time. André, a bromeliad enthusiast, named, for instance, *Pitcairnea poortmannii* André for its collector, with the type cited as "*Poortmann in herb. André K-314*, holotype K."

The holotype of *Drymonia utuanensis* at K appears to be a parallel situation. The second isotype at P bears no identification at all. However, the very distinctive, unique, and identical material represented on all three sheets (one at K, two at P) make it evident that it is part of the same collection, *Poortmann 527*. Poortmann's pencil-written information on the field-note label reads as follows: "Gesneriacées. 527. Envoi croquis 26 Mars '83. Forme une sorte d'arbuste. Hauteur de 1 á 1.5, fleurs très nombreux, blanches, grandes, á calice rouge scarlate. Fruit allongé blanc. Hauteurs de Utuana. 16 Fevr. '83."

The shipment sketch (*envoi croquis*) made by Poortmann on the 26th of March 1883 has not yet been found. The present illustration is based on a few fragments found on the three sheets at K and P: a piece of stem and node, 2.5 cm long, four detached leaves, and several detached flowers and calyces.

*Episcia andina* Wiehler, sp. nov.

Plate 1D

Differt a *E. reptanti* Martius et *E. cupreata* (Hooker) Hanstein foliis planis non bullatis, sericeis, calycum lobis sericeis, et corollarum tubis strigosis.

Terrestrial or saxicolous, stoloniferous herb; stems erect, to 4 cm tall, 3-4 mm in diameter, reddish brown, sericeous, the internodes 1-3 mm long, the axillary stolons with adventitious roots; leaf pairs equal to subequal, the petiole 0.6-1.6 cm long, green, sericeous, the lamina ovate to elliptic, ca. 3-3.3 × 1.6-2.1 cm, acute, crenate, acute at the base, plain (not bullate), green

and sericeous on both surfaces, with 4-5 pairs of lateral veins. Inflorescence reduced to axillary cymes of 1-4 flowers, the peduncle apparently absent, the prophylls and subtending bracts lanceolate-subulate, ca.  $5 \times 1.5$  mm, green sericeous, the pedicel ca. 1.5-1.7 cm long, reddish, sericeous; calyx lobes unequal, linear-lanceolate, green, sericeous, the 2 ventral and 2 lateral lobes ca.  $6 \times 1.5$  mm, the dorsal lobe ca.  $5 \times 0.8$  mm; corolla oblique in the calyx, infundibular, ca. 2.5 cm long, apparently red, the spur glabrescent, the tube and lobes externally strigose, inside glabrous, the lobes unequal, small, narrow, ca.  $2 \times 3.5$  mm, the larger ventral lobe incompletely preserved in the type specimen; stamens 4, included, the filaments adnate to the base of the corolla tube for 2 mm, ca. 2.2 cm long, white, glabrous, the anthers coherent into a rectangle, each anther ca.  $1.3 \times 1.3$  mm, the thecae dehiscing by longitudinal slits; ovary cone-shaped, ca. 2 mm long, reddish, hirsute, the style and stigma not seen; nectary consisting of a thick, double-connate, dorsal gland, ca.  $0.8 \times 1.8$  mm, maroon, glabrous, and 3 additional thin glands, triangular, flap-shaped, white or transparent, apparently non-functional. Fruit apparently a bivalved, globose capsule  $6 \times 6$  mm, pilose; seed angular, ca.  $0.8 \times 0.5$  mm, striate, brown.

**Type:** COLOMBIA: BOYACA: Alto del Viento, near Muzo (about 100 km N of Bogotá), May 1844, *Justin Goudot 3* (HOLOTYPE: P).

**Etymology:** Named for the Andean mountain range (Cordillera Oriental) in which this species was found.

**Distribution:** Known only from the type locality in the central part of Colombia.

*Episcia andina* can be distinguished from *E. reptans* Martius and *E. cupreata* (Hooker) Hanstein by its plain (not bullate) and sericeous (not hirsute) leaves, the sericeous (not hirsute) calyx lobes, and the strigose (not villous or hirsute) corolla tubes.

*Episcia prancei* Wiehler, sp. nov.

Plate 2A

*Episciae fimbriatae* Fritsch affinis, sed corollae forma coloreque, corollae tubo glabro, et lobis integeribus distincta.

Terrestrial, perennial, stoloniferous herb; stems erect, ascending, or creeping, ca. 5-7 cm tall, 3-5 mm in diameter, rose-pink, hirsute to villous, the internodes 0.4-1.2 cm long; leaf pairs equal to strongly unequal, the petiole 3-5 mm long, pink, villous, the lamina ovate to broadly ovate,  $2-3 \times 1.5-2.2$  cm, acute to obtuse, serrate, rounded to cuneate at the base, green and sericeous above, red-purple and glabrous but sericeous along the veins below, the lateral pairs of veins 4. Inflorescence reduced to solitary or paired axillary flowers, epedunculate and apparently ebracteate, the pedicel ca. 9 mm long, pink, hirsute-villous; calyx lobes subequal, lanceolate, ca.  $5-7 \times 1.5$  mm, pinkish, sericeous-villous; corolla oblique in the calyx, 3-4.5 cm long, pale purple or lavender, the tube glabrous, the limb outside pilose, the lobes subequal, ca.  $1 \times 1.4$  cm, entire, the tube inside glabrous; stamens 4, included, the filaments adnate for 2 mm to the base of the corolla tube, ca. 2.4 cm long, white, glabrous, the anthers coherent into pairs, each anther ca.  $1.2 \times 1$  mm, the thecae dehiscing by longitudinal slits; ovary 3 mm long, sericeous, the style ca. 2 cm long, white, glabrous, the stigma bilobed; nectary consisting of 1 double-connate dorsal gland and 1 ventral gland, each ca.  $2.4 \times 2$  mm, white, glabrous. Fruit not seen.

**Type:** BRAZIL: State of Maranhao: Serra Morro do Chapéu: Carolina, foot of sandstone cliffs, 29 March 1967, *Prance 4805* HOLOTYPE: NY; ISOTYPES: WAG).

**Etymology:** Named for its discoverer, Dr. Ghilleen T. Prance of the New York Botanical Garden, an avid worker in the neotropical flora.

**Distribution:** Known only from the type locality in northeastern Brazil; Carolina is about 650 km south of Belem.

The lavender-flowered *Episcia prancei* is apparently closely related to *E. fimbriata* Fritsch from Peru (Cuzco, Junin, Loreto) and Brazil (Acre, Mato Grosso). *Episcia prancei* differs from *E. fimbriata* by the shape and color of the corolla, the glabrous corolla tube, and the entire corolla lobes.

*Nautilocalyx lehmannii* Wiehler, sp. nov.

Plate 2B

Ex affinitate *N. panamensis* (Seem.) Seem. sed foliis serratis, corollis dilatatis, tubis intus glabris, et seminum testis spinulosis diversus.

Terrestrial, perennial herb; stems erect, ascending or creeping, succulent, green, pilose-villous; leaf pairs equal to subequal, the petiole 1-3 cm long, green, pilose-villous, the lamina ovate, ca. 5 × 9 cm, acuminate, serrate, obtuse, papyraceous, somewhat bullate, green, sparsely pilose above, hirsute below, the secondary pairs of veins 5-8. Inflorescences axillary cymes of 2-6 flowers, the peduncle ca. 2-8 mm long, the prophylls and subtending bracts minute or absent, subulate, ca. 1 × 3 mm, pilose-villous; calyx lobes linear-lanceolate, subequal, ca. 1.2 × 0.3 cm, green, villous outside, glabrous inside; corolla almost horizontal in the calyx, infundibular, ca. 2.5-3.8 cm long, spurred, cream-white, the tube sparsely pilose, the lobes of the limb subequal, ca. 0.8 × 1.2 cm, entire, glabrous, the tube inside glabrous; stamens 4, included, the filaments adnate for ca. 1 cm to the base of the corolla tube, totally ca. 1.8-2.8 cm long, white, glabrous, the anthers coherent into a rectangle, each anther 2 × 2 mm, the thecae confluent, dehiscing by a longitudinal slit; ovary ovoid, 3 mm long, reddish, puberulous, the style ca. 1.5-2.5 cm long, white, glabrous, the stigma stomatomorphic; nectary reduced to a double-connate, dorsal gland, 1.8 × 2.1 mm, red, glabrous. Fruit a fleshy, bivalved capsule, globose, ca. 8 × 7 mm, pilose; seeds elliptic, 0.6 mm long, reddish brown, with prominent spiny projections.

**Type:** COLOMBIA: CAUCA: "Auf dem Belalcázar bei Avirama Vieja, 1800 m" (near Páez. W of Huila), 27 Oct. 1883, *F. C. Lehmann 3261* (HOLOTYPE: BM).

**Distribution:** Known only from the type collection in the Cordillera Central in Cauca, halfway between Popayan and Huila.

The seed coat of all species of *Nautilocalyx* so far observed is smooth and striate. The development of spiny seed is a special feature in *N. lehmannii*.

*Nautilocalyx sastrei* Wiehler, sp. nov.

Plate 2C

Ex affinitate *N. hirsutus* (Sprague) Sprague et *N. hirtiflorus* (Spruce ex Hanstein) Sprague, ab utroque caulibus strigillosis, foliis strigosis, calycum lobis lanceolatis pilosis, et corollis albis distinctus.

Terrestrial, perennial herb; stems erect or ascending, ca. 12-20 cm tall, 3-8 mm in diameter, succulent, green, sparsely strigillose, the internodes 0.5-4.2 cm long; leaf pairs of equal length, the petioles ca. 1-3 cm long, green or flushed with red, strigose, the lamina oblanceolate, 9-11 × 2.5-3 cm, acumi-

nate, serrate, decurrent, bluish green, strigose to sparsely strigose above, light green, often flushed with red, sparsely strigose below, but densely strigose along the veins, the lateral pairs of veins 8-9. Inflorescence axillary cymes of 4-8 flowers, the peduncle rudimentary, 1-2 mm long, the prophylls and subtending bracts lanceolate, ca.  $9 \times 4$  mm, subentire, sparsely pilose, the pedicels ca. 1-1.6 cm long, green, glabrescent; calyx lobes unequal, lanceolate, with 1-3 serrate teeth on each side, green, suffused with red, sparsely pilose, the 2 lateral and 2 ventral lobes ca.  $2 \times 0.6$  cm, the smaller dorsal lobe ca.  $1.4 \times 0.3$  cm; corolla oblique in the calyx, spurred, the tube ca. 4 cm long, white, pilose, the lobes of the limb unequal, rounded, subentire, the 2 dorsal and 2 lateral lobes ca.  $6 \times 5$  mm, the ventral lobe ca.  $7 \times 7$  mm, the inside of the tube with capitate-glandular trichomes; stamens 4, included, adnate to the base of the corolla tube for 2 mm, proximally connate into a sheath for 6 mm, with short capitate-glandular trichomes, the free portions of the filaments 2.5 cm long, white, glabrous, the anthers coherent into a rectangle, each anther  $1.7 \times 1$  mm, the thecae dehiscing by large, central pores; ovary cone-shaped, ca. 3 mm long, strigillose, the style ca. 3 cm long, white, pilose, with capitate-glandular trichomes; nectary reduced to a double-connate, dorsal gland,  $1.5 \times 1.5$  mm, white, glabrous. Fruit not seen.

**Type:** COLOMBIA: AMAZONAS: Río Igara-Paraná (a tributary of Río Putomayo,  $2^\circ$  S,  $72^\circ$  W), 17 km downstream from La Chorrera, terrestrial, flowers white, 6 June 1974, C. Sastre 3190 (HOLOTYPE: P).

**Etymology:** Named for the botanist Claude Sastre of the Museum National d'Histoire Naturelle in Paris (P), a student of the Ochnaceae and of the flora of South America.

**Additional material examined:** COLOMBIA: AMAZONAS: Río Igara-Paraná: La Chorrera, remnant of primary forest (?), terrestrial, bracts reddish, corolla white, 13 Nov. 1973, C. Sastre 2191 (P); same area, behind the village, near a small creek, 4 Oct. 1973, C. Sastre 2370 (p); Río Cahuinari, a tributary of Río Caqueta, foot-path to La Chorrera, km 40 (P).

**Distribution:** This species is so far known only by Sastre's collections from a region between the Ríos Caquetá and Putomayo, along the longitude of  $72^\circ$  West.

*Nautilocalyx sastrei* is related to *N. hirsutus* (Sprague) Sprague from Amazonian Peru and *N. hirtiflorus* (Spruce ex Hanstein) Sprague from the area of Manaus in Amazonian Brazil. The new species differs from the other two by its strigillose stems, strigose leaves, long-lanceolate, sparsely pilose calyx lobes, and by the white corolla.

*Pentadenia antiocana* Wiehler, sp. nov.

Plate 2D

*Pentadeniae colombiae* Wiehler similis, sed foliis ellipticis, calycum lobis sine dentibus subulatis, corollarum tubis sine trichomatibus glanduliferis, et corollarum limbis marroninis.

Epiphytic, perennial herb and liana; stems climbing, ascending, pendent, or scandent, ca. 1 m long or longer, 2-5 mm in diameter, tan, sericeous-hirsute, distally glabrescent, the internodes 2-5 cm long, with adventitious roots; leaf pairs equal to subequal, the petiole 3-6 mm long, green, sericeous, the lamina elliptic, ca.  $2.5-3.1 \times 1.3-1.5$  cm, acute, entire, cuneate, green and strigose on both surfaces, with 3 pairs of secondary veins. Inflorescence reduced to solitary, axillary flowers, epedunculate and ebracteate, the pedicel ca. 6 mm



long, green, sericeous; calyx lobes subequal, lanceolate, ca.  $8 \times 2.5$  mm, acute, proximally with 2-3 teeth on each side, distally entire, green, sericeous; corolla seemingly erect in the calyx, with a short spur, tubular, ca. 3.3 cm long, the spur cream-white, the tube brick-red, sparsely pilose, the narrow limb maroon, bordered with chartreuse-green, each lobe ca.  $2 \times 3$  mm, the tube inside glabrous; stamens 4, included, the filaments ca. 3 cm long, white, glabrous, adnate to the base of the corolla tube for 2 mm, the anthers coherent into a square, each anther  $1 \times 1$  mm, the thecae dehiscing by longitudinal slits; ovary cone-shaped, ca. 2 mm long, green, sericeous, the style ca. 3 cm long, white, proximally glabrous, distally with short, capitate-glandular trichomes, the stigma bilobed; nectary consisting of 5 separate, elongate glands surrounding the ovary, each gland ca.  $1 \times 0.3$  mm, white, glabrous. Fruit a globose berry, ca.  $6 \times 8$  mm, white, pilose; seeds fusiform,  $1.3 \times 0.3$  mm, striate, brown.

**Type:** COLOMBIA: ANTIOQUIA: locality unknown, *William Jewise* (?) s.n., n.d. (HOLOTYPE: K).

**Etymology:** Named for the province of Antioquia in northwestern Colombia.

**Additional material examined:** COLOMBIA: ANTIOQUIA: San Julian, 1900 m altitude, 1851-1857, *J. J. Triana 2477* (P).

**Distribution:** The only known locality of this species is in central Antioquia in Colombia.

*Pentadenia antiocana* is closely related to *P. colombiana* Wiehler from the coastal region near Buenaventura, Colombia. The new species differs from the latter by its elliptic leaves, by the calyx lobes without subulate teeth, by the absence of glandular trichomes on the outside of the corolla tube, and by the maroon limb of the corolla.

*Trichantha angustifolia* Wiehler, sp. nov.

Plate 3A

Ex affinitate *T. brenneri* Wiehler et *T. tenensis* Wiehler, ab utroque habitu erecto et foliis angustis distinguenda.

Epiphytic, perennial herb; stems erect or ascending, branching, to ca. 60 cm long, stout, ca. 1 cm in diameter, green, the older parts tan, hispid-hirsute, the trichomes on the young stems prominently red-purple, the internodes 2-4 cm long; leaf pairs somewhat unequal, the petiole ca. 1-1.5 cm long, green, hirsute, the lamina narrowly lanceolate,  $15-18 \times 4$  cm, long-acuminate, serrate, oblique, leathery, coppery bluish green above, shiny, maroon-purple or green flushed with purple below, both surfaces hirsute, with red-purple trichomes, the secondary pairs of veins 8-10. Inflorescence axillary, epedunculate cymes of 2-6 nodding flowers, the prophylls and bracts all lanceolate, ca.  $2 \times 0.3$  cm, light green, with long, red-purple trichomes, the pedicels ca. 5 cm long, maroon, hirsute, with red-purple trichomes; calyx lobes equal, narrowly lanceolate, ca.  $3 \times 0.3$  cm, with 2-3 teeth on each side, green suffused with maroon, long-hirsute, the prominent trichomes red-purple; corolla nearly horizontal in the calyx, abruptly bent upwards above the spur, the sigmoid tube slightly inflated, ca. 5.5 cm long, lemon yellow with dark maroon stripes, pilose, the limb oblique,  $2.5 \times 2$  cm in diam., the lobes subequal, with the 2 dorsal ones partially connate, all lobes dark maroon, each with a central yellow stripe, the sinuses of the lobes yellow, with prominent yellow appendages, to 5 mm long, pilose, the tube dorsally inside with capitate-glandular trichomes; stamens 4, exerted, the filaments adnate for 2 mm to

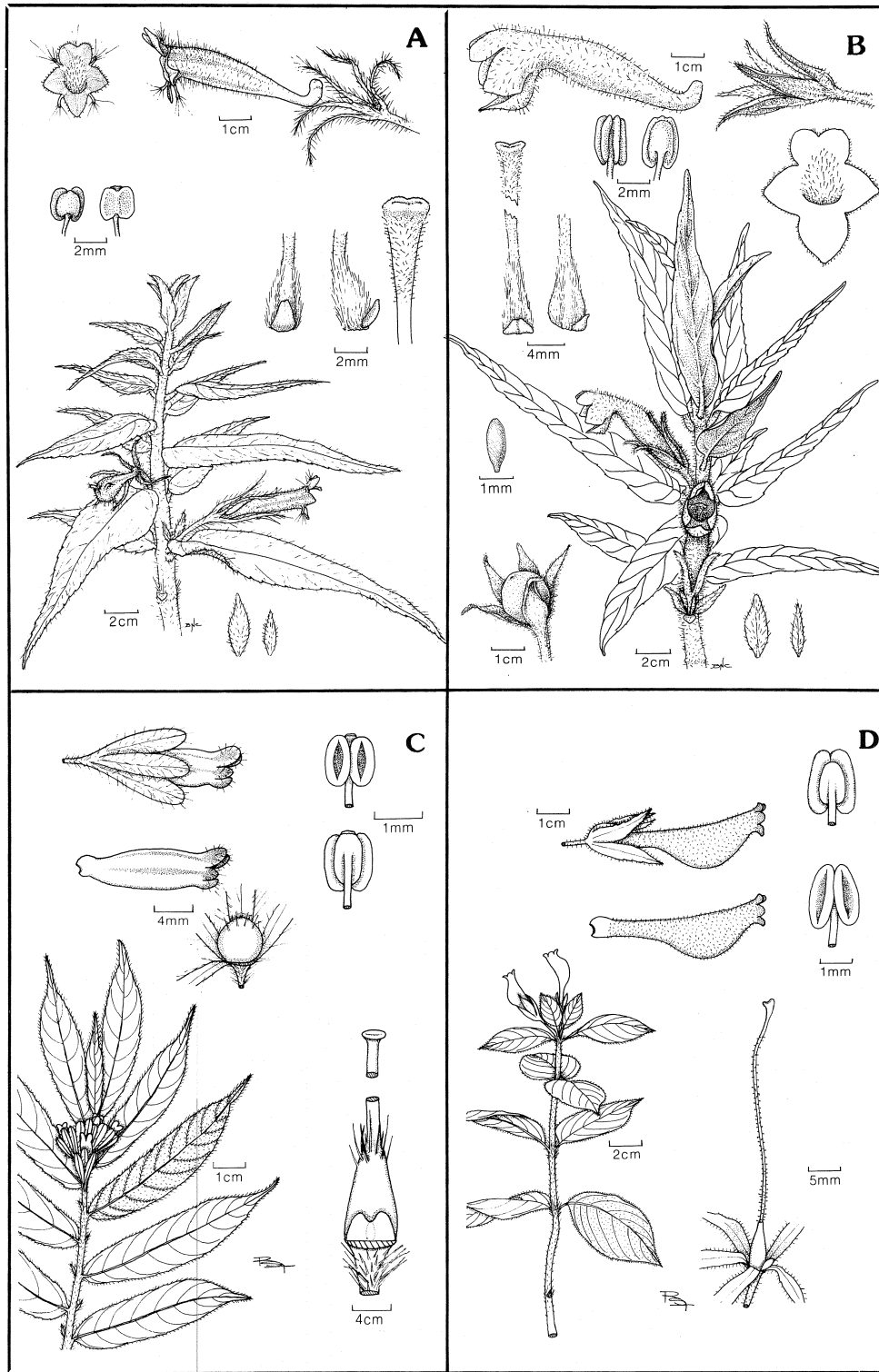


PLATE 3

the base of the corolla tube, ca. 4.2 cm long, yellow, proximally puberulous, distally glabrous, the anthers coherent into a rectangle, each anther  $2 \times 2$  mm, the thecae dehiscing by longitudinal slits; ovary ovoid, 4.5 mm long, white, sericeous, the style ca. 4.5 cm long, white, glabrescent below, puberulous above the midpoint, distally with capitate-glandular hairs, the stigma stomatomorphic; nectary reduced to a double-connate, dorsal gland,  $2 \times 2$  mm, white, glabrous. Fruit not seen.

**Type:** ECUADOR: PASTAZA: vicinity of Puyo, plant cultivated in the garden of Hotel Turingia in Puyo, said to have been collected nearby as an epiphyte in the rain forest, live cutting obtained from Joe Brenner, 1 May 1979, *Wiehler & Masterson 79201*; type prepared from live plant in cult., SEL greenhouse acc. no. W-2816, 10 Nov. 1980, *Wiehler 80202* (HOLOTYPE: SEL; ISOTYPES: to be distributed).

**Etymology:** From the Latin *angustus*, narrow, and *folium*, leaf, in reference to the shape of the leaves.

**Habitat:** Epiphyte of the tropical rain forest.

**Distribution:** Known only from the type locality.

*Trichantha angustifolia* belongs to the species complex of *T. purpureovittata* Wiehler (from Peru), *T. brenneri* Wiehler and *T. tenensis* Wiehler (both from eastern Ecuador) and *T. illepida* (H. E. Moore) Morton (from Panama). All five species have lemon-yellow corollas striped with maroon and, at the limb, odd appendages whose function remains unknown. The upright stems and the long and narrow leaves distinguish *T. angustifolia* from its relatives.

***Trichantha dodsonii* Wiehler, sp. nov.**

Plate 3B

Species habitu cum *T. angustifolia* Wiehler optime congruens, sed corollae forma clavata exappendiculata et corollae colore rubra vivida differt.

Epiphytic, perennial herb; stems erect or ascending, rarely branching, to ca. 50 cm long, stout, ca. 1.5 cm in diameter, green, the older parts tan, hispid-hirsute, the trichomes near the apex red, the internodes 1-2 cm long; leaf pairs unequal, the petiole ca. 1 cm long, light green, hirsute, the lamina of the larger leaf of a pair narrowly lanceolate,  $14-18 \times 3.5-4.2$  cm, long-acuminate, undulate, irregularly crenate, oblique, leathery, above coppery blue-green, shiny, puberulous, below greyish purple, puberulous, the midvein light green, hirsute, the secondary pairs of veins 8-11. Inflorescence axillary, epedunculate cymes of 2-4 erect flowers, the prophylls and subtending bracts epetiolate, lanceolate,  $1-2 \times 0.5-0.8$  cm, similar to the leaves, the pedicels ca. 1 cm long, maroon, hirsute; calyx lobes subequal, narrowly lanceolate, ca.  $3 \times 0.7$  cm, entire, recurved, reddish near the base, green and spotted with red above, sericeous; corolla nearly erect in the calyx, spurred, ca. 7 cm long, bright orange-red, pilose, the tube inflated, constricted below the lobes, then abruptly widened, the limb  $4.5 \times 3.5$  cm, the lobes unequal, the tube outside and dorsally inside with long, capitate-glandular hairs; stamens 4, exserted, the filaments adnate for 1 mm to the base of the corolla tube, ca. 5.5 cm long, yellow, proximally puberulous, distally glabrous, the anthers coherent into a rectangle, each anther  $2.5 \times 2$  mm, the thecae dehiscing by longitudinal slits; ovary ovoid, 4 mm long, pink, sericeous, the style ca. 5 mm long, maroon, puberulous, but distally white and pilose, with some capi-

tate-glandular hairs, the stigma stomatomorphic; nectary reduced to a double-connate, dorsal gland,  $2 \times 2$  mm, white, glabrous. Fruit not seen.

**Type:** *ECUADOR*: MORONA-SANTIAGO: N of Gualaquiza, hill near Río Calagras,  $78^{\circ} 30' W$ ,  $3^{\circ} 20' S$ , ca. 1600 m alt., 19 Sept. 1980, C. H. Dodson, C. & J. Luer, P. & H. Morgan, J. Kuhn & A. Perry 10564 (live plant and 1 pickled flower, SEL); type prepared from live plant in cult., SEL greenhouse acc. no. W-2983, 10 Nov. 1980, Wiehler 80201 (HOLOTYPE: SEL; ISOTYPES: to be distributed).

**Etymology:** Named for its discoverer, Dr. C. H. Dodson.

**Distribution:** Known only from the type locality.

*Trichantha dodsonii* does not appear to have close relatives. It is easily distinguished from its congeners by its oddly shaped, large, red corolla. The habit of the plant is, however, similar to that of *T. angustifolia* (also from eastern Ecuador, near Puyo) which belongs to the species complex of *T. purpleovittata*, *T. brenneri*, *T. tenensis*, and *T. illepidata*, all characterized by yellow corollas striped with maroon and prominent appendages at the limb.

***Trichantha gracilis* Wiehler, sp. nov.**

Plate 3C

Ex affinitate *T. parviflorae* (Morton) Wiehler et specierum affinium caulibus gracilibus, foliis elongatis angustatis, et corollis glabratis distinguenda.

Epiphytic, perennial, suffrutescent herb; stems ascending or climbing, creeping on, or clinging to host tree by adventitious roots, sparsely branching, ca. 15-20 cm long, 1-3 mm in diameter, reddish brown, hirsute, the internodes 0.5-1.2 cm long; leaf pairs extremely unequal, the petiole 1-3 mm long, green, hirsute, the lamina of the larger leaf of a pair oblanceolate to elliptic, ca.  $6.5-7 \times 1.5-2$  cm, acuminate, serrulate, ciliate, oblique, green and pilose on both sides, hirsute along the abaxial veins, with 6-8 pairs of secondary veins, the lamina of the smaller leaf minute and stipule-like, lanceolate, ca.  $0.5 \times 0.1$  cm. Inflorescence reduced to cymes of 1-4 flowers in the axils of the larger leaf of a pair, epedunculate, ebracteate, the pedicel 7-10 mm long, reddish, hirsute; calyx lobes subequal, oblanceolate, ca.  $7 \times 3$  mm, entire, yellow-green with a strong red flush, pilose; corolla almost erect in the calyx, tubular, 1.7 cm long, orange-yellow with red stripes, sparsely pilose distally, glabrous within, the lobes unequal, the 2 dorsal lobes enlarged, ca.  $5 \times 3$  mm, the other 3 lobes ca.  $2.5 \times 2$  mm, all lobes entire, with centric dark purple blotches, externally pilose, the face of the limb glabrous; stamens 4, included, the filaments ca. 1.4 cm long, adnate to the base of the corolla for 1 mm, connate into a sheath for 3 mm, white, sparsely pilose, the anthers coherent into a square, each anther  $1 \times 1$  mm, the thecae dehiscing by longitudinal slits; ovary cone-shaped, 2.5 mm long, sparsely pilose distally, the style ca. 1.3 cm long, white, glabrous, the stigma stomatomorphic; nectary a double-connate, bilobed, dorsal gland, marked with purple and yellow, glabrous. Fruit a globose berry, ca.  $5 \times 5$  mm, white, apically pilose; seeds oblong,  $1 \times 0.3$  mm, brown, striate.

**Type:** *COLOMBIA*: ANTIOQUIA: Medellin, Nov. 1882, R. B. White, s.n., (HOLOTYPE: K).

**Etymology:** From the Latin *gracilis* = thin, slender, in reference to the slender stems of this species.

**Additional material examined:** *COLOMBIA*: presumably from the area:

Jan. 1872 R. B., White s.n. (K). Both collections of White are on the same herbarium sheet.

*Trichantha gracilis* appears to be related to the *T. parviflora* alliance which includes *T. parviflora* (Morton) Wiehler, *T. pulchra* Wiehler, *T. lehmannii* (Mansf.) Wiehler, *T. dissimilis* (Morton) Wiehler, *T. calotricha* (Donn.-Smith) Wiehler, *T. herthae* (Mansf.) Wiehler, and some undescribed species. *Trichantha gracilis* differs from all of these by its petite habit, slender stems, long and narrow leaves, glabrescent corolla tube, and the absence of callous tissue on the lobes of the corolla.

*Trichantha poortmannii* Wiehler, sp. nov.

Plate 3D

A *T. oblongifolia* (Rusby) Wiehler foliis brevioribus ovatis, pedicellis brevissimis, calycum lobis longioribus lanceolatis, et corollis forma coloreque dignoscenda.

Epiphytic, perennial, suffrutescent herb; stems erect or ascending, sparsely branching, ca. 15-20 cm long or longer, 4-6 mm in diameter, reddish brown, hirsute-villous near the apex, pilose to glabrescent below, the internodes 0.5-4.2 cm long; leaf pairs unequal, the petiole ca. 1.4-2.1 cm long, green with a reddish flush, hirsute, the lamina of the larger leaf of a pair ovate to obovate, ca. 5.5-6.5 × 3-4 cm, acuminate, serrate, rounded at the base, green and hirsute above, paler green and pilose below, with 5-7 pairs of secondary veins, the lamina of the smaller leaf of a pair ca. 3.5-4.5 × 2.5-3 cm. Inflorescence reduced to axillary cymes of 1-4 flowers, epedunculate, ebracteate, the pedicel 1-2.4 cm long, reddish, hirsute-pilose; calyx lobes subequal, lanceolate, ca. 1.5-2.3 cm long, 4 mm wide, acuminate, serrate, the tips flushed with red, hirsute-pilose; corolla oblique in the calyx, tubular, ventrally inflated, ca. 5-5.9 cm long, rose-pink, pilose, the throat constricted, the lobes subequal, small, narrow, ca. 2.5 × 2.5 mm, pale green, externally pilose, inside glabrous, the tube inside with short capitate-glandular trichomes; stamens 4, included, the filaments ca. 4 cm long, adnate to the base of the corolla tube for 1 cm, connate into a sheath for 0.5 cm, proximally 1.5 mm wide, distally 0.7 mm wide, white, sparsely pilose, the anthers coherent into a square, each anther 1.7 × 1.7 mm, the thecae dehiscing by longitudinal slits; ovary cone-shaped, ca. 8 mm long, maroon, glabrous, the style ca. 4.2 cm long, white, with short capitate-glandular trichomes, the stigma stomatomorphic; nectary reduced to a double-connate, dorsal gland, maroon, glabrous. Fruit not seen.

Type: ECUADOR: LOJA: Cordillera de Zamora: near Loja, 27 Dec. 1881, Poortmann 265 (HOLOTYPE: P; ISOTYPE: P).

Etymology: Named in honor of the collector, H. Poortmann, who found a number of unusual new gesneriads in southern Ecuador.

Distribution: Known only from the type locality in southern Ecuador.

*Trichantha poortmannii* belongs to the species complex which includes *T. oblongifolia* (Rusby) Wiehler from Bolivia. Poortmann's species differs from Rusby's by much shorter leaves and pedicels (the latter 7-10 cm in *T. oblongifolia*), the longer and wider calyx lobes, and the shape and color of the corolla (red-purple in *T. oblongifolia*).

*Paliavana lasiantha* Wiehler, sp. nov.

## Plate 4

A speciebus aliis generis indumento prominenti denso, et a *P. racemosa* (Vell.) Fritsch corollis multo majoribus facile distinguitur.

Perennial, terrestrial subshrub with ascending and erect shoots, freely branching, to 2 m tall, the internodes 1-5 cm long, 2-4 cm in diameter, the young shoots green, puberulous to wooly, the mature branches tan to brown, glabrescent; leaves opposite or ternate, equal, the petiole 3-7 mm long, light green, puberulous to tomentose, the lamina ovate to elliptic, 4-6 × 3-4 cm, acute, crenate-serrate, ciliate, decurrent, dark green and sericeous above, lighter green and hirsute (in type; other collections lanate) below, the lateral pairs of veins 5-8. Inflorescences reduced to axillary cymes of 1-4 flowers, epedunculate, ebracteate, the pedicels to 1.2 cm long, light green, sericeous; calyx turbinate, green, sericeous (in type coll.) to wooly, the calyx lobes broadly triangular and entire (or irregularly pointed in type coll.), ca. 6 × 6 mm, green or maroon, sericeous; corolla somewhat oblique in the calyx, vaguely spurred, 5-5.5 cm long, light yellow-green, densely sericeous (in type coll.) to wooly, the lobes of the limb equal, ca. 6 × 10 mm, rounded, entire, reflexed, inside cream-white with a green tinge, dotted with maroon, glabrous, the tube within colored as the lobes, and furnished with capitate-glandular trichomes; stamens 4, included, the filaments ca. 4-5 cm long, cream-white, glabrous, the anthers coherent into a rectangle, 1.2 × 0.7 cm, each anther 6 × 3.5 mm, the thecae dehiscing by longitudinal slits; ovary cone-shaped, 9 mm long, light green, sericeous, the style ca. 4.5 cm long, light green, sericeous, distally with capitate-glandular hairs, stigma stomatomorphic, cream-white; nectary consisting of 5 separate glands, equal, 2 × 1.2 mm, lemon yellow, glabrous. Fruit a bivalved, dry capsule, pointed, 1.5 cm long, densely sericeous; seeds fusiform, 1.2 × 0.3 mm, striate, brown.

TYPE: BRAZIL: MINAS GERAIS: outside Diamantina, collected by *Robert Wilson W65 No. 13* in 1965, cultivated at Cornell University (BH), SEL, and GES, greenhouse acc. No. G-997, 30 July 1983, *Wiehler 8303* (Holotype: GES; Isotypes: HB, K, NY, R, RB, SEL, US).

Additional material examined: BRAZIL: MINAS GERAIS: without locality, 1816-1821, *Saint Hilaire 814* (P, 5 sheets); without loc., 1840 *P. Claussen s.n.* (K); environs de Ouro Preto, 1883-84, *Glaziou 15166* (K); Serra de Ouro Preto, in Sandsteinschluchten, March 1892, *Ule 3880* (HBG); Sao Joaõ del Ray, Serra de S. José, 7 April 1921, *Bertha Lutz 57* (GZU); Rio Matta, arbusto, 2 m, fl. verdeadas con mac. purpúreas, June 1934, *Brade 13626* (B); Cerra do Cipó, km 134, 15 April 1935, *Brade 14451* (B); Serra da Mutucú, Municipio of Nova Lima, Campo, flowers greenish, shrub, 2 m, Feb. 1945, *L. O. Williams 5422, 5437, 5443* (GH); Serra do Curral, Municipio of Nova Lima, alt. 1300 m, shrub, 1 m, Campo, 30 March 1945, *L. O. Williams et al. 6387* GH, US), *6355* (GH); vicinity of Lagôa Seca, 20 km S of Belo Horizonte, shrub, 1 m, fls. white, Feb. 1945, *L. O. Williams 5507* (GH, US); Municipio Jabotica Tubas, Serra do Cipó, 6 km N of Palacio, alt. 1200 m, 29 April 1952, *L. B. Smith 6857* (US); Serra do Espinhaço, 13 km E of Diamantina, *W. R. Anderson et al. 35097* (NY); same area, *H. S. Irwin et al. 27531* (NY); Gouveia, erecta, 1 m, flor verde con salpicos vinosos, 18 Feb. 1973, *G. Hatschbach & Z. Ahumada 31720* (WAG); GOIAS: Serra da Piedade, in saxosis montis, *Warming s.n.* n.d. (BM); without locality in Brazil, *Sellow, s.n.* n.d. (CGE, K- 2 sheets); *Schüick s.n.*, n.d. (W). WAG has other collections from both Minas Gerais and Paraná (Curitiba).

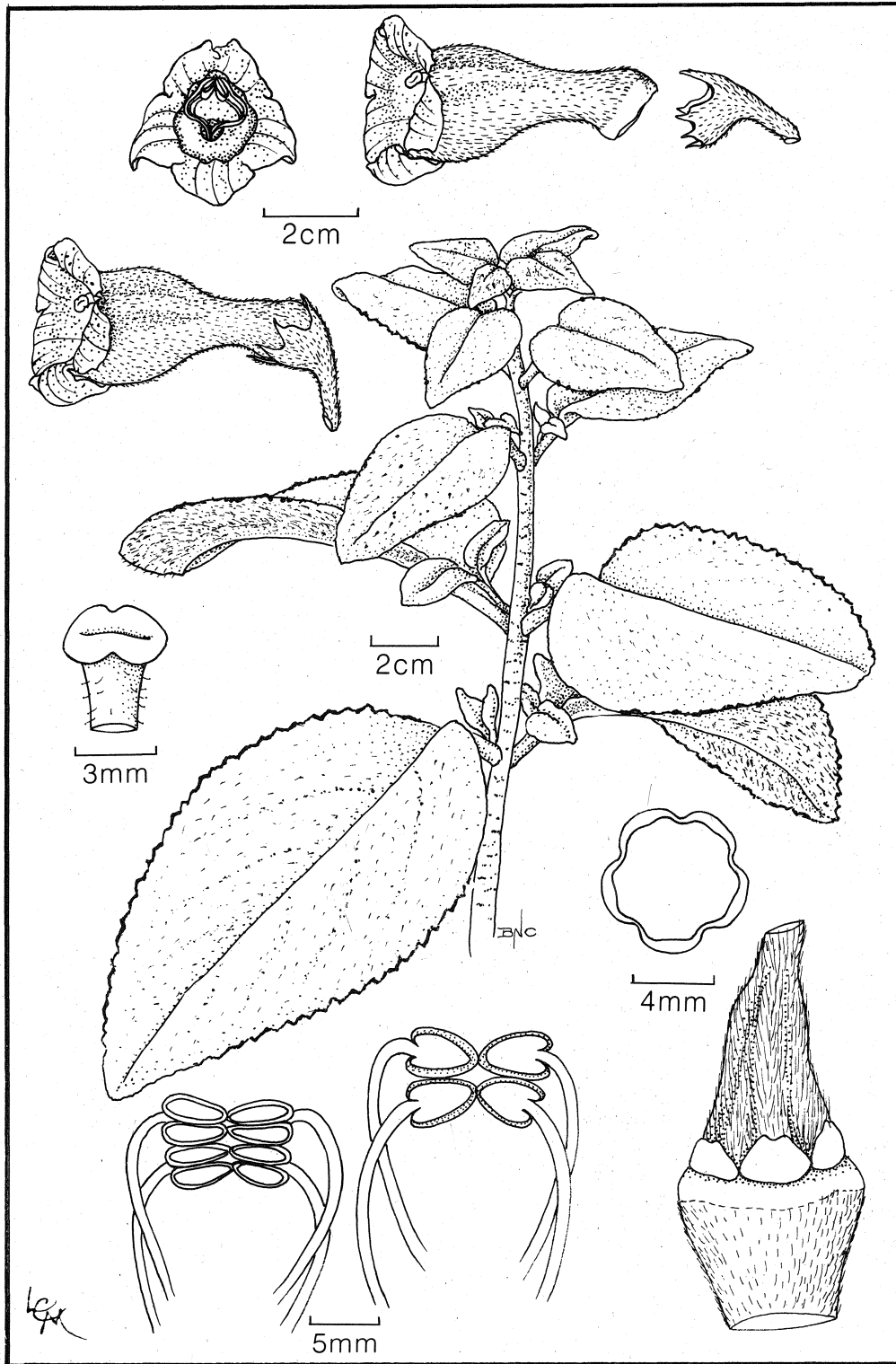


PLATE 4

DISTRIBUTION: BRAZIL: coastal Paraná. Sao Paulo (?), Rio de Janeiro, Minas Gerais, Goias.

*Paliavana lasiantha* (from the Greek *lasi-*, hairy, wooly, and *anthos*, flower) was collected in southeastern Brazil in the early 1800's but has been a victim of the confusion surrounding the type species of the genus, native to the same general area, and fitting into the same bat-flower syndrome (green corollas with purple specks), now known as *P. racemosa* (Vell.) Fritsch. The oldest name of this species, *Gesneria prasinata* Ker-Gawler, is based on conflicting elements (including material of *P. lasiantha*), resulting in the proposal to declare the combination of *P. prasinata* (Ker-Gawler) Benth. a *nomen confusum* (see Wiehler, *Selbyana* 6: 174-177, 1983). European herbaria contain many collections of *P. lasiantha* labeled as *P. prasinata*. Benth. (in Benth. and Hooker, *Genera plantarum* 2: 1003, 1876) probably had the species now named *P. lasiantha* in mind when he discussed the two species then known in the genus and labeled one of them *P. sericiflora* (*nomen nudum*). The authorities cited with Benth.'s epithet are intimately linked to the confusion surrounding the name of *P. prasinata*.

*Paliavana lasiantha* differs from *P. racemosa* in the following characters: 1) stems, leaves, calyx, and corolla usually with a dense, wooly indumentum; 2) ridge on stem between petiole bases absent (a unique character in *P. racemosa*); 3) corolla 5-5.5 cm long (versus 3-3.5 cm).

Hybrids between *P. lasiantha* and *P. racemosa* (greenhouse acct. no. G-995) were established by the author at the University of Miami in 1973, with the new species as the pollen parent. The F<sub>1</sub> generation, still in cultivation, shows the typical hybrid vigor by growing taller and faster than either parent. Most characters are intermediate, even the size of the flowers. The hybrid pollen stainability is 84%. (For comparison, the only other hybrid within the genus, between *P. racemosa*, G-995, and *P. tenuiflora* Mansf., G-996, produced by the author at Cornell University in 1969, shows a hybrid pollen stainability of 95-100% ).

***Paradrymonia lacera* Wiehler, sp. nov.**

Plate 5A

Inter species generis foliorum laminis longis, angustis, laceris bene distinctis.

Epiphytic and terrestrial, perennial herb with a loose, rosulate habit; stems branching near the base, erect or ascending, to 20 cm tall (in cultivation), up to 6 mm in diameter, green, puberulous, the internodes 1-6 cm long; leaf pairs strongly unequal to subequal, the petioles 0.5-1.0 cm long, green, puberulous, the lamina lanceolate, 10-25 × 2-3.5 cm, acute, lacerate, decurrent, dark green above, lighter green below, puberulous, the lateral pairs of veins 15-22. Inflorescences axillary cymes of 4-8 flowers, the peduncle 3-6 mm long, pale green, puberulous, the prophylls and subtending bracts subulate, 3-9 mm long, pale green, the pedicels 0.5-1.8 cm long, pale green, sparsely sericeous; calyx lobes subequal, subulate-lanceolate, ca. 1 × 0.2 cm, acuminate, obscurely serrate, proximally pale green, distally darker green, sparsely sericeous; corolla oblique in the calyx, spurred, ca. 3.5 cm long, white, sericeous, the lobes subequal, ca. 6 × 6 mm, entire, the greenish throat and the tube of the corolla inside covered with capitate-glandular trichomes, longitudinal grooves absent; stamens 4, included, the filaments adnate for 2 mm to the base of the corolla tube, ca. 3 cm long, white, proximally the capitate-glandular trichomes, the anthers coherent into a rectangle, each an-



ther  $1.3 \times 1$  mm, with prominent connective tissue, the thecae dehiscing by longitudinal slits; ovary 2.5 mm long, white, sericeous, the style ca. 3 cm long, white, glandular-pilose, the stigma stomatomorphic; nectary reduced to a prominent double-connate dorsal gland,  $2 \times 1.4$  mm, white, glabrous. Fruit not seen (even in cultivation).

TYPE: *ECUADOR*: COTOPAXI: 3 km E of El Palmar, on road from Quevedo to Latacunga, alt. 800 m, epiphyte in deep shade, 5 April 1980, *Dodson & Gentry 10194* (Holotype: SEL). Clonotypes cultivated at SEL and GES under accession number W-2950, to be distributed.

Distribution: Known only from type locality.

*Paradrymonia lacera* (from the Latin *lacerus*, lacerated) is unique in the genus because of its long and narrow, deeply incised lamina of the leaf.

*Codonanthe elegans* Wiehler, sp. nov.

Plate 5B

*Codonanthe luteolae* Wiehler affinis, praecipue differt foliorum laminis rubro-nervatis, foliorum laminis abaxillaribus sine nectariis, corolla latiore, curvata abrupte, nectario ovarii luteo, et capsula fructus marronia.

Perennial, epiphytic herb with ascending, climbing, or pendent branches, to 1 m long or longer, freely branching, rooting at the nodes, with the internodes 1-3 cm long, ca. 3 mm in diameter, green, the older parts tan, puberulous; leaf pairs equal, the petioles 3-7 mm long, green, glabrous, the lamina ovate,  $3.5-6.0 \times 2.0-3.5$  cm, obscurely serrate but appearing entire, with a minute, red extrafloral nectary at the apex of each tooth, the base rounded, succulent, green, puberulous, the veins on the upper surface outlined in red, extrafloral nectaries on the lower surface absent, the lateral pairs of veins 3-5. Inflorescences reduced to axillary cymes of 1-4 flowers, the peduncle absent, the prophylls and subtending bracts subulate, ca. 5 mm long, green, the pedicels ca. 3 mm long, green, glabrous; calyx lobes subequal, linear-lanceolate, ca.  $1.2-1.5 \times 0.2$  cm, green, glabrous, the dorsal lobe somewhat smaller and narrower, the sinuses of the lobes without extrafloral nectaries; corolla oblique in the calyx, spurred, ca. 4.3 cm long, puberulous but appearing glabrous, the tube outside cream-white, the limb white, the spur pale yellow, the lobes subequal, ca.  $7 \times 7$  mm, the margins subentire to erose, the tube inside yellow, ventrally with a longitudinal groove near the base dotted with red, the dorsal side covered with trichomes; stamens 4, included, the filaments adnate for 3 mm to the base of the corolla tube, ca. 2.5 cm long, cream-white, pilose, the anthers coherent in pairs, white,  $2 \times 2$  mm, the thecae dehiscing by longitudinal slits dorsiventrally compressed; ovary cone-shaped, 5 mm long, yellow-green, puberulous, the style ca. 2.5 cm long, white, pilose, the stigma stomatomorphic; nectary reduced to a double-connate, dorsal gland,  $2 \times 1.6$  mm, honey-yellow, glabrous. Fruit a pointed, fleshy, bivalved capsule, 1.9-2.2 cm long, maroon purple, sericeous; seeds fusiform, striate, brown,  $2 \times 1$  mm.

TYPE: *BELIZE*: Abraham Camp, between San José and Edwards Central; epiphyte; collected by Fred Boutin (*No. 5173*) around 1975, cultivated at SEL and GES, greenhouse acc. No. W-2588, 29 July 1983, *Wiehler 8301* (Holotype: GES; Isotypes: B, GH, K, MO, NY, SEL, US, W).

*Codonanthe elegans* is, like so many other gesneriads, known only from one collection in Belize in Central America. Two other species of *Codonanthe*



have been reported from the same area: *C. crassifolia* (Focke) Morton and *C. uleana* Fritsch. *Codonanthe elegans*, named for its elegant habit, leaf, and corolla, is most closely allied to *C. luteola* Wiehler, now known from several cloud forests in central Panama. Both species, together with *C. caribaea* Urban, *C. chiricana* Wiehler, and *C. macradenia* Donnell-Smith, are in the new subgenus *Codonanthella* Wiehler (see *Selbyana* 6: 191, 1983).

The new species, already in limited cultivation, differs from *C. luteola* in the following characters: 1) veins of the young leaves outlined in red; 2) extrafloral nectaries absent on the abaxial leaf lamina; 3) corolla wider, more abruptly curved downward, with a less prominent spur (see corolla of *C. luteola* in Plate 5B); 4) nectary plain yellow (white with maroon spots in *C. luteola*); 5) capsule maroon-purple (yellow in *C. luteola*).

***Codonanthopsis peruviana* Wiehler, sp. nov.**

**Plate 5C**

Species haec a *Codonanthopsis dissimulata* (H. E. Moore) Wiehler differt caulibus glabris vel glabrescentibus, foliis latioribus, supra glabris, calicibus ovariisque puberulis, et corollis sine punctatione rubra.

Perennial, epiphytic climber with ascending, clinging, or pendent branches, to 1.5 m long or longer, sparsely branching, rooting at nodes and internodes, the latter 2-5 cm long, ca. 5 mm in diameter, the young shoots green and glabrescent, the older parts dark brown and glabrous; leaf pairs equal in young plants, but in mature plants leaf pairs extremely unequal or leaves appearing alternate, the petioles 3-5 mm long, green, glabrescent, the lamina of the smaller leaf stipulelike to ovate, the larger blade elliptic to obliquely elliptic, 11-18 × 4-6.5 cm, acuminate, subentire, obliquely cordate, dark green and glabrous above, lighter green and glabrescent below, the lateral pairs of veins 5-7. Extrafloral nectaries small, mammilate, on stems near the petioles (red-colored), along leaf margins (red), and adjacent to the mid-vein of the abaxial leaf lamina (colorless). Inflorescences reduced to axillary cymes of 1-2 flowers developing in succession, the peduncle absent, the prophylls and subtending bracts subulate, ca. 5 × 1 mm, the pedicels ca. 3-5 mm long, green, puberulous; calyx lobes unequal, the 2 lateral and 2 ventral lobes lanceolate, ca. 1.4 × 0.4 cm, the dorsal lobe ca. 6 × 2 mm, all yellow-green, puberulous on both sides, the margins entire, ciliate; corolla oblique in the calyx, spurred, ca. 2.8-3.1 cm long, cream-white, glabrous from spur to mid-section, the distal part sparsely pilose, the lobes of the limb subequal, ca. 7 × 7 mm, white, erose, the tube inside with a yellow nectar-guide around the throat with capitate-glandular trichomes; stamens 4, included, the filaments ca. 2.2 cm long, white, glabrous, the anther coherent into a square, white, each anther ca. 1.9 × 1.9 mm, the connective small, the thecae dehiscent by longitudinal slits; ovary cone-shaped, ca. 4 mm long, yellow, puberulous, the style ca. 1.8 cm long, white, glabrous, the stigma stomatomorphic; nectary reduced to a double-connate, dorsal gland, 2 × 1.8 mm, yellow, glabrous. Fruit a bivalved, fleshy, laterally compressed capsule, ca. 1.7 cm long, yellow, puberulous, the inside of the carpel walls likewise yellow, the cone-shaped dome of placentae, funiculi, eleiosomes, and seeds colored white, purple, and yellow; seeds fusiform, 2.2 × 0.8 mm, striate, yellow, the funicle with the eleiosome ca. 3 mm long, ending in a clear-celled sheath surrounding the seed, each display capsule containing 50-80 seeds.

Type: PERU: HUANUCO: Panguana, collected by *R. E. Dressler s.n.* in 1976 as a live cutting, cultivated at SEL and GES, greenhouse acc. No. W-2235,

29 July 1983, Wiehler 8302 (Holotype: GES; Isotypes: GH, K, MO, NY, SEL, US, W).

*Codonanthopsis peruviana* is closely related to *C. dissimulata* (H. E. Moore) Wiehler, also from Peru (Iquitos) and the Amazon basin. The new species differs from the latter in the following characters: 1) stems glabrous to glabrescent (versus stems pilose); 2) leaves about twice as large, glabrous above, without ciliate margins (versus leaves pilose); extrafloral nectaries on the abaxial leaf lamina only near midvein (versus irregularly scattered); 4) calyx puberulous (versus pilose); 5) corolla tube wider, inside plain yellow (versus tube with a wine-red dotted nectar-guide); and 6) ovary puberulous (versus pilose).

While *C. dissimulata* produced cleistogamous flowers in the temperate climate of Cornell University, Ithaca, New York, and was as such described and illustrated in *Baileya* 19(1): 25-27 (Fig. 7), 1973, in Florida the same clonotype material has consistently produced fully developed flowers. Plate 5D compares the attributes of *C. dissimulata* (Greenhouse acc. No. G-926) with those of *C. peruviana* (Plate 5C).