

3. Inflorescence with large bracts covering the calyx; sepals often narrowed, never widened at the base 4
 Inflorescence without or with small bracts; sepals widened and subcordate at the base 7
4. Corolla about 4 times as long as the calyx, puberulous outside, about 4 cm long; sepals very small, about 1×0.3 mm, oblong-elliptic. PERU, COLOMBIA (?) . . **A. affinis** Mansf.
 Corolla 1-2 times as long as the calyx, puberulous or villose outside, 2.5-6 cm long; sepals obovate if less than 1.5 cm long 5
5. Outer bracts orbicular; sepals obovate, obtuse or rounded at the apex 6
 Outer bracts ovate or oblong-ovate; sepals oblong or oblong-ovate, acute or obtuse at the apex. BOLIVIA
 **A. doratostylus**, sp. nov.
6. Bracts and sepals puberulous; corolla villose-hirsute outside; limb small, red. PERU **A. erythroloma**, sp. nov.
 Bracts and sepals sparsely appressed-pubescent; corolla puberulous to villose outside, brown-purple- or reddish-brown-spotted in the throat or on the limb or not; limb conspicuous. COLOMBIA, southern VENEZUELA, GUIANA, northern BRAZIL. **A. coccineus** (Aubl.) Mart. ex. G. Don
7. Disk gland one, entire, 2- or 3-lobed. ECUADOR, PERU, BRAZIL
 **A. semicordatus** Poepp. et Endl.
 Disk glands three. ECUADOR
 **Crantzia pseudocordata** Cuatrec.

As the structure of the disk is the only character by which the two last-named species differ, and as their specific distinctness therefore is open to doubt, for **Crantzia pseudocordata** no new combination is proposed. Its type could not be sent on loan, and on a photograph of the latter the flowers were not visible.

Many species of this section are still undescribed.

A. doratostylus Lwbg., sp. nov.

Fig. Ad, p. 46

Misapplied name: *A. patrisii* Rusby, Mem. Torr. Bot. Cl. 6: 97. 1896, not DC. (applies to the type collection).

Planta habitu *A. coccinei*. Folia cuiusque jugi aequalia vel subaequalia petiolata laminis oblique oblongo-ellipticis. Inflorescentia axillaris racemosa bracteis magnis coloratis sepala superantibus instructa. Sepala oblonga vel oblongo-ovata.

Corolla extus flava basi calcarata limbo patente. Stamina quattuor didynama inclusa filamentis apice contortis. Antherae oblongae basi sagittatae. Ovarium superum ovoideum. Stylus inclusus crassus apice incrassatus deciduus. Stigma bilobum. Disci glandula singula dorsalis magna emarginata glabra. Placentae facie interiore solum ovuliferae. Capsula subglobosa bivalvis. Semina fusiformia.

Type: BOLIVIA: Cochabamba, Espiritu Santo, vic. of Cochabamba, Bang 1259 (W, holotype, photograph in U; isotypes: BM, F, G: 2 sheets, K, M, MO, PH, US).

Epiphytic or terrestrial shrub, subshrub, or vine, about 2-3 m high. *Stems* sarmentose, branched or not, sometimes with spreading adventitious roots, puberulous at the apex, glabrous and shining. *Leaves*: petiole sparingly appressed-pubescent, 0.5-4 cm long; blade dark green above, beneath paler green, with purple or dark red veins (?) and often partially purple, $1\frac{3}{4}$ - $3\frac{1}{2}$ (mostly 2-3) times as long as wide, 4-21 × 2-9 cm (mostly about 8-15 × 3-6 cm), fleshy, papery or subcoriaceous when dry, acuminate at the apex, cuneate to almost decurrent at the base, entire or sometimes obscurely denticulate near the apex, sparsely appressed-pubescent to glabrous on both sides; primary veins 4-9 pairs, arcuate towards the margin. *Inflorescence* several-flowered. Peduncle very short, sparsely appressed-pubescent, 3-7 mm long. Bracts dark red or purple, leafy, veined, ovate or oblong-ovate, $1\frac{1}{2}$ -2 times as long as wide, 19-40 × 9-25 mm, acute or obtuse at the apex, rounded at the base, entire or sinuate, sparsely appressed-pubescent on both sides, the outer ones larger than the others, similarly shaped. Pedicels sparsely appressed-pubescent, 3-12 mm long. *Sepals* dark red or purple, free, veined, 2-3 × as long as wide, acute or obtuse at the apex, approximately rounded at the base, sinuate or obscurely serrulate, sparsely appressed-pubescent on both sides, four subequal, 19-29 × 7-14 mm, the fifth (dorsal) about half as long as the others or somewhat more, 13-15 × 5 mm. *Corolla* inside partially crimson in the throat and on the limb, especially dorsally, tubular, horizontal in the calyx, $1\frac{1}{2}$ -2 times as long as the calyx, 35-51 mm long, at the base 4-5 mm, at the throat 6-10 mm wide, contracted above the spur and in the throat, dorsally ventricose and there 8-11 mm wide, slightly bent upwards, puberulous outside, especially above, inside minutely puberulous near the insertion of the stamens; spur subglobose, 5-6 mm in diam.; tube 25-40 mm long; limb 8-13 mm wide; lobes subequal, rounded, obscurely crenate-serrate, 2.5-4 mm in diam. Filaments glabrous, widened at the base, all connate at the base, inserted on the base of the corolla; anthers violet on one side and white at the other (*teste* Steinbach), mostly connivent, free, 5-6 × 2 mm; cells discrete, dehiscent by a longitudinal split, which starts at the base. Staminode one, small, filiform, glabrous, inserted at the very base of the corolla, curved through the spur, 2 mm long, without anther. Ovary appressed-pubescent, 6 × 4.5 mm; style red, sparsely pubescent, 2-3 cm long. Stigma conspicuously paler than the style, yellow (?), pubescent with glandular hairs on both sides. Disk gland 1.5 mm high. Capsule yellow (*teste* Steinbach 5555), sparsely appressed-pubescent, 15-17 × 12-14 mm, with a thickened ring along the line of dehiscence, obtuse at the apex; valves coriaceous. Seeds reddish (?), shining, about 4(3-6) times as long as wide, 1-1.2 × 0.2-0.3 mm, longitudinally striate.

Ecology: In rain forests; alt. 400-1400 m.

Distribution: Bolivia.

Paratypes:

BOLIVIA: LA PAZ: Mapiro Region, San Carlos, along road to San José, Buchtien 1349 (US); Charopampa, Mapiro, Buchtien 1973 (US).

BENI: vic. of Rurrenabaque, Cardenas 1669 (K); *ibid.*, Reyes Region, Beni R., Fleischmann 270 (S).

COCHABAMBA: prov. Chapare, along road to Todos Santos, near Chimore, Eyerdam 24832 (UC, G); vic. of Espiritu Santo, vic. of Cochabamba, Buchtien 3107 (NY); R. Juntas, herb. Kuntze s.n. (US).

SANTA CRUZ: prov. Sara, Bosque del Fraile, Steinbach 7494 (BM, G, K, S, U); prov. Sara, Bosques del R. Surutu, Buena Vista, Steinbach 5555 (A, F); Plaja-Ancha, Upper R. Ichilo-Vallegrande, Cardenas 4045 (F, US).

Sine loco: Bang 2540 (NY, US).

Etymology: *δῶρον*, *δῶρατος*, lance referring to the lance-shaped style.

A. erythroloma Lwbg., sp. nov.

Fig. Ae, p. 46

Misapplied name: *A. circinatus* Poepp. et Endl., Nov. Gen. 3: 5. 1845, not Mart.; see also Hanstein, *Linnaea* 34: 365. 1865, who

cites Spruce 4608, and who had also seen the specimen of Poeppig, no. 2230.

Planta habitu *A. coccinei*. Folia cuiusque jugi subaequalia vel inaequalia petiolata laminis ellipticis vel oblongo-ellipticis. Inflorescentia axillaris racemosa bracteis magnis coloratis instructa. Sepala oblongo-obovata. Corolla flava limbo coccineo patente. Stamina quattuor didynama inclusa filamentis apice contortis. Antherae oblongae basi sagittatae. Ovarium superum ovoideum. Stylus inclusus apice incrassatus. Stigma bilobum. Disci glandula singula dorsalis magna integra glabra. Placentae facie interiore solum ovuliferae. Capsula subglobosa bivalvis. Semina fusiformia.

Type: PERU: Loreto, Balsapuerto, Klug 2965 (G, holotype, photograph in U; isotypes: BM, F, GH, K, S, US).

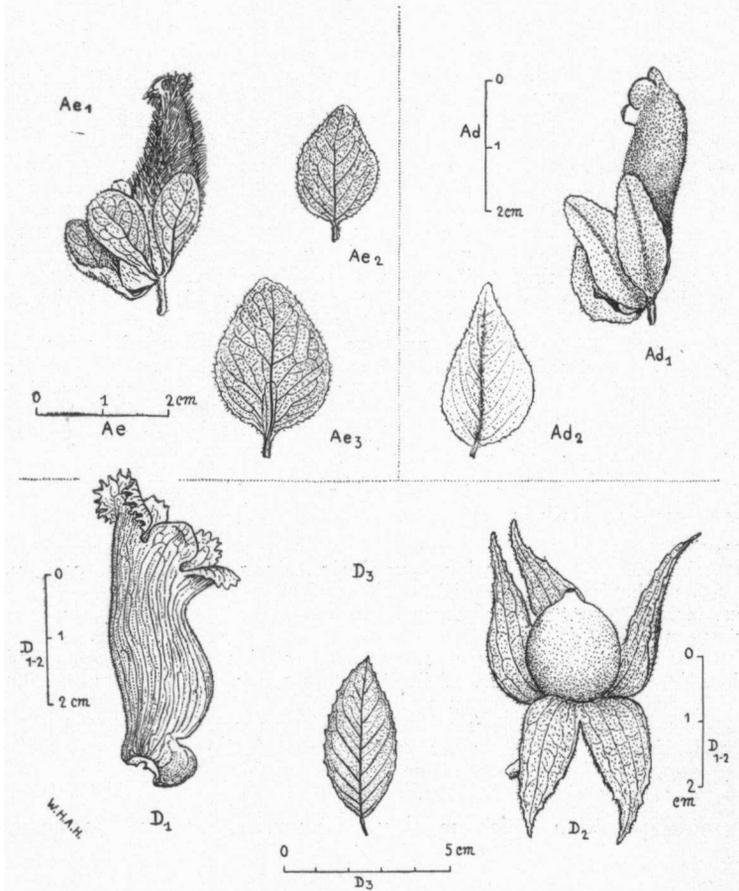


Fig. Ad. *Alloplectus doratostylus*: 1. flower (Steinbach 5555); 2. bract (Bang 2540); Fig. Ae. *A. erythroloma*: 1. flower; 2 and 3. bracts (1-3, Klug 2965); Fig. D. *Drymonia oxysepala*: 1. corolla (Klug 4281); 2. calyx with fruit (Ule 6574); 3. leaf (Klug 2965).

Terrestrial or epiphytic shrub, or vine, 0.60–1.50 m high or more (?). *Stems* sarmentose, branched or not, sometimes with spreading adventitious roots, puberulous at the apex, sparsely and often minutely pubescent and shining. *Leaves*: petiole sparsely appressed-pubescent to glabrous, 7–85 mm long; blade dark green above, beneath paler green with purple or dark red veins or entirely dark red or purple (?), 2–3 times as long as wide, variable in size, 8–30 × 3.5–13 cm, coriaceous also when dry, acuminate at the apex, rounded or cuneate to almost decurrent at the base, entire, sparsely appressed-pubescent to glabrous on both sides; primary veins 5–9 pairs, curved along the margin. *Inflorescence* several-flowered. Peduncle very short, puberulous, 3–7 mm long. Bracts dark red or purple, leafy, veined, rounded, ovate, or oblong-ovate, 1–2 × as long as wide, 20–28 × 11–26 mm, acute, obtuse, or acuminate at the apex, cuneate, rounded, or subcordate at the base, entire or obscurely serrulate, puberulous on both sides, outer ones rounded or nearly so, mostly larger than the others. Pedicels puberulous, 5–7 mm long. *Sepals* dark red or purple, free, veined, about 2 times as long as wide, 12–19 × 6–10 mm, obtuse or rounded at the apex, cuneate at the base, obscurely crenate-serrate, puberulous on both sides. *Corolla* tubular, about 2 times as long as the calyx, 25–35 mm long, at the base 3–4 mm, at the throat 4–6 mm wide, spurred at the base, contracted above the spur and in the throat, slightly ventricose in the middle and there 7–10 mm wide, slightly bent upwards, densely villose-hirsute outside, inside, especially near the insertion of the stamens, minutely puberulous with glandular hairs; spur obtuse; tube 17–25 mm long; limb small, 6–9 mm wide; lobes subequal, rounded, obscurely crenate-serrate, 3–4 mm in diam. Filaments glabrous, widened and connate at the base, inserted at the base of the corolla; anthers connivent, free, 5 × 1.5 mm; cells discrete, dehiscent by a longitudinal split which starts at the base. Staminode one, small, filiform, glabrous, inserted at the very base of the corolla, curved through the spur, 2.5 mm long, without anther. Ovary softly hirsute, 5–6 × 3.5 mm; style red, sparsely pubescent, about 2 cm long; stigma conspicuously paler than the style, yellow (?), pubescent with glandular hairs on both sides. Disk gland 1.5–2.5 mm high. Capsule sparsely pubescent, 12–15 × 11–13 mm. Seeds dark (?) brown, shining, about 3 times as long as wide, 1.2–1.5 × 0.3–0.5 mm, longitudinally or slightly obliquely striate.

Ecology: In rain forests, at low elevations.

Distribution: Peru.

Paratypes:

PERU: LORETO: Puerto Arturo, Lower R. Huallaga, below Yurimaguas, alt. about 135 m, Killip & Smith 27740 (US); Yurimaguas, Lower R. Huallaga, alt. about 135 m, Killip & Smith 28068 (US); *ibid.*, Ule 6278 (G, HBG, L); Maynas, near Yurimaguas, Poeppig 2230 (W).

SAN MARTÍN: near Tarapoto, Spruce 4608 (BM, BR, CGE, K, 3 sheets).

Etymology: ἐρυθρός, red; ἄλμα, limb; the corolla limb is dark red.

A. semicordatus Poepp. et Endl., Nov. Gen. 3: 5. 1845; Hanstein, Linnaea 34: 364. 1865.

Type: PERU: Loreto, Cochero, Poeppig 1038 (W, holotype, photographs in F, U, and US; isotypes: LE, W).

Homotypic synonym: *Crantzia semicordata* (Poepp. et Endl.) Fritsch in Engl. Prantl, Nat. Pflanzenf. 4 (3b): 168. 1894 ("1895"); in Engl., Bot. Jahrb. 37: 486. 1906.

Heterotypic synonym: *Alloplectus sylvarum* S. Moore, Trans. Linn. Soc. Ser. 2. 4: 411. 1895. **Type:** BRAZIL: Matto Grosso, between Santa Cruz (Barra do Bugres) and Tapirapuan, S. Moore 390 (BM).

As this species has been interpreted in different ways, a new and more detailed description seems to be desirable.

Flowers axillary, solitary or in few-flowered short-pedunculate

inflorescences without or with some sepal-like bracts which are often very small. Sepals dark red or purple, large, leafy, veined, ovate, $1\frac{1}{2}$ -2 times as long as wide, acuminate at the apex, subcordate at the base, sinuate or obscurely and remotely serrulate, sparingly appressed-pubescent on both sides, four subequal, $20-38 \times 12-24$ mm, the fifth (dorsal) one-third to two-thirds of the length of the others. Corolla (resembling that of *A. coccineus*) yellow, inside sometimes suffused with red, puberulous outside; limb spreading.

Terrestrial or epiphytic shrub, subshrub, or vine, 0.60-3 m high. *Stems* sarmentose, branched or not, sometimes with spreading adventitious roots, puberulous at the apex, practically glabrous and shining. *Leaves* of a pair unequal, petiolate, the larger one mostly 2-2½ times as long as the other; petiole sparsely appressed-pubescent to glabrous, 3-55 mm long; blade dark green above, beneath paler green with purple or dark red veins (?) or reddish, oblong-elliptic, 2-4 (mostly about 3) times as long as wide, $3-25 \times 1.5-10$ cm, papyraceous when dry, acuminate at the apex, rounded or cuneate to almost decurrent at the base, entire, sparingly strigillose to glabrous on both sides; primary veins 4-9 pairs, arcuate towards the margin. *Inflorescence*: peduncle very short or obsolete, 2-5 mm long, appressed-pubescent. Pedicels appressed-pubescent, 4-17 mm long. *Corolla* tubular, $1-1\frac{3}{4} \times$ as long as the calyx, 35-60 mm long, at the base 4-8 mm, at the throat 6-12 mm wide, spurred at the base, contracted above the spur and in the throat, ventricose in the middle and there 10-13 mm wide, inside near the insertion of the stamens and dorsally in the throat minutely pubescent; spur subglobose; tube 25-40 mm long; limb 12-24 mm wide; lobes subequal, rounded, obscurely crenate-serrate, 5-15 mm in diam. Stamens 4, didynamous, included; filaments glabrous, widened at the base, contorted at the apex, all connate at the base, inserted at the base of the corolla; anthers connivent, free, oblong, $6-7 \times 2$ mm, sagittate at the base; cells discrete, dehiscent by a longitudinal split starting at the base. *Staminode* one, very small, glabrous, 0.6 mm long, acuminate. *Ovary* appressed-pubescent (not glabrous!), ovoid, $5-6 \times 3-3.5$ mm; style red, included, thick, sparsely pubescent, thickened at the apex, deciduous; stigma conspicuously paler coloured than the style, yellow (?), bilobed, pubescent with glandular hairs on both sides. *Disk gland* one, dorsal, large, either entire, 2-, or 3-lobed, glabrous. *Placentae* ovuliferous on the inner surface only. *Capsule* yellow, white, or brown-purple (*teste* Poppig), subglobose, sparsely appressed-pubescent, $16-19 \times 13-15$ mm, bivalved, with a thickened ring along the line of dehiscence, obtuse at the apex; valves coriaceous. *Seeds* dark brown, shining, fusiform, about 4 times as long as wide, 1.2×0.3 mm, longitudinally or slightly obliquely striate.

Ecology: Erect, creeping, climbing, or scrambling over shrubs, in rain forests; alt. 100-1540 m.

Distribution: Ecuador, Peru, and the adjacent part of Brazil.

ECUADOR: prov. Napo-Pastaza, Canton Napo, Zatzayacu, Mexia 7065 (UC, US); Gualaquiza, Pearce 238 (K).

PERU: LORETO: Gamitana Cocha, R. Mazán, Schunke 202 (F, GH, NY, UC); Iquitos, Ll. Williams 8194 (US); Mishuyacu, near Iquitos, Klug 120 (US); San Antonio, on R. Itaya, Killip & Smith 29491 (US); between Yurimaguas and Balsapuerto, Killip & Smith 28086 (US), 28138 (US); Santa Rosa, lower R. Huallaga, below Yurimaguas, Killip & Smith 28770 (US), 28808 (US), basin of R. Ucayali, Tessmann 3197 (G); Pucallpa, R. Neshuiya, Sandeman 3470 (K); *ibid.*, Velarde Nuñez 2467 (US), 2487 (US); Boqueron Padre Abad, Woytkowski 34361 (G, MO); Cochero, near Pampayaco, Poeppig 1038 (W, holotype, photographs in F, U. and US; isotypes: LE, W); R. Pangoa, Matthews 1207 (K).

SAN MARTÍN: Zepelacio, near Moyobamba, Klug 3558 (G, US); east of Tingo María, Allard 20413 (US).

HUÁNUCO: Ganso Azul, R. Pachitea, Sandeman 3410 (K); vic. of Tingo María, Naranjillo, Ferreyra 2204 (US); Isla Tingo María, Ferreyra 1930 (US); Cerro Azul, km 176 Huánuco to Pucallpa, Seibert 2263 (US); distr. Churubamba,

Hacienda Mercedes, prov. Huánuco, Mexia 8182 (UC, F, GH), 8222 (UC, BM, F, MO, U, US).

JUNÍN: Pichis Trail, San Nicolas, Killip & Smith 25985 (US), 26007 (US); Cahuapanas, on R. Pichis, Killip & Smith 26728 (US); Puerto Yessup, Killip & Smith 26257 (US); Puerto Bermudez, Killip & Smith 26422 (US).

MADRE DE DIOS: R. Acre, Seringal Auristella, Ule 9773 (G, K, L), Dept.?: Casapi (?), Matthews 1999 (K); St. Gavan (?), Lechler 2471 (K).

Sine loco: Dombey s.n. (P, U); Ruiz & Pavon 18/51 ("*Besleria calydermos*") (MA).

BRAZIL: AMAZONAS: near mouth of R. Embira, trib. of R. Tarauca, Krukoff 5893 (G).

ACRE: Juruá-Mirim, R. Juruá, Ule 5694 (G, HBG, K, L).

MATTO GROSSO: between Santa Cruz (Barra do Bugres) and Tapirapuan, S. Moore 390 (BM, type of *A. sylvarum*).

CHILE: sine loco, herb. Richard s.n. (P) (very doubtfully from that country).

Besleria

B. delphinioides (Seem.) Lwbg., comb. nov.

Basionym: *Drymonia delphinioides* Seem., Voy H. M. S. Herald 186. 1854.

Type: COLOMBIA: Chocó, Cabo Corrientes, Seemann 1054 (K, holotype).

This species belongs to *Besleria*, section *Neobesleria*, subsection *Herbaceae*, and is very closely related to *B. subcoriacea* Morton (Contrib. U.S. Nat. Herb. 29: 28. 1944). It is placed in *Besleria* by virtue of its anthers, which are reniform and all four coherent. It is perhaps not specifically different from *B. subcoriacea*, from which it differs only by the obtuse instead of rounded apex of the sepals and by the longer pedicel. In all other characters it agrees with MORTON'S description. It was collected not so far from the type locality of *B. subcoriacea*. The latter is Bahia Solano, which lies about 180 miles north of Cabo Corrientes.

Columnnea

C. dimidiata (Benth.) Lwbg., comb. nov.

Basionym: *Alloplectus* (?) *dimidiatus* Benth., Pl. Hartweg. 235. 1846.

Type: COLOMBIA: Cauca, Cordillera Occidental, vic. of Popayán, Hartweg 1266 (K, holotype, isotypes: CGE, 2 sheets, G. K, photographs of CGE sheets in U and WAG).

This species belongs to *Columnnea* section *Collandra*, and is related to *C. guianensis*. It is placed there because of the following characters: Leaves of a pair strongly unequal, the larger one 4–6 times as long as the other, lanceolate, deep green above, red or partially red beneath, the smaller one stipulelike, ovate-lanceolate. Flowers axillary. Bracts large, leafy, acuminate. Corolla nearly cylindric, 4–5 cm long, contracted at the throat; tube red; limb yellow, erect; lobes small, subequal, rounded.

Additional specimens examined:

COLOMBIA: CALDAS: R. San Rafael, below Cerro Tatamá, Pennell 10411 (PH).

TOLIMA: Quindío, Dawe 799 (K), *ibid.* (?), Dawe 825 (K); *ibid.*, Novilleros, André 2354 (K); Ibaque, Goudot 5 (P).

VALLE DEL CAUCA: Palmira, Cord. Centr., Killip 6152 (GH); San Antonio, Cord. Occ., Dryander 2299 (BM); La Cumbre, Cord. Occ., Killip 5589 (PH); *ibid.*, Pennell 5155 (GH, K, PH).
CAUCA: near Cali, Lehmann 5850 (K), Sept. 1895 (K).

C. lanata (Seem.) Lwbg., comb. nov.

Basionym: *Alloplectus lanatus* Seem., Voy. H. M. S. Herald 186. 1854.
Type: COLOMBIA: Chocó, Cabo Corrientes, Seemann 1056 (K, holotype, photographs: U, WAG; isotypes: BM, GH, GOET).

This species too belongs to *Columnea*, section *Collandra*, and is allied to *C. guianensis* by the following characters: Leaves of a pair strongly unequal, the larger one about 12–15 times as long as the other, oblique, lanceolate, green above, with a red area beneath, the smaller one stipule-like, ovate-lanceolate. Flowers axillary. Bracts large, leafy, obtuse. Corolla cylindric, contracted in the throat, lanate-tomentose outside; limb erect; lobes small, subequal.

Drymonia

D. latisepala (Rusby) Lwbg., comb. nov.

Basionym: *Columnea latisepala* Rusby, Mem. Torr. Bot. Cl. 4: 239. 1895.

Type: BOLIVIA: Songo, Bang 869 (NY, holotype, not seen; isotypes: F, W!).

This species is related to *D. calcarata* Mart., the type species of the genus. It belongs to the section *Drymonia* and has its place there by virtue of the following characters: Sepals broadly ovate, large, hirsute on both sides. Corolla amply tubular, horizontal in the calyx, about 1.5 × as long as the calyx, hirsute outside; limb large, spreading; lobes rounded, the ventral one larger than the others, erose-fimbriate, the others serrate. Anthers oblong, sagittate at the base, similar to those of *D. calcarata*.

By the shape of the corolla lobes it resembles *D. serrulata*, from which it differs strikingly by its indumentum.

D. oxysepala Lwbg., sp. nov.

Fig. D, p. 46

Planta terrestris vel epiphytica repens vel scandens. Folia petiolata laminis oblongo-ellipticis. Flores axillares. Sepala foliacea oblongo-ovata vel ovato-lanceolata apice longe acuminata basi rotundata. Corolla ample tubularis basi calcarata fauce non contracta extus puberula limbo patente. Stamina quattuor didynama inclusa filamentis glabris contortis basi omnibus inter se connatis et basi corollae insertis. Antherae conniventes liberae oblongae basi sagittatae. Ovarium superum. Stylus inclusus crassus brevis. Disci glandula dorsalis singula magna glabra integra. Placentae duae bilamellatae facie interiore solum ovuliferae. Capsula subglobosa bivalvis. Semina ellipsoidea.

Type: PERU: San Martín, Juan Jui, Alto R. Huallaga, Klug 4281 (U, holotype, isotypes: A, UC).

Herb, or vine, 0.30 m high or more (?). *Stems* sarmentose, branched or not, with spreading adventitious roots, puberulous and shining, glabrescent. *Leaves* of a pair equal or subequal; petiole puberulous, 2–10 mm long; blade dark green above, paler beneath, 1.5–3 (mostly 2–2.5) × as long as wide, 18–85 × 8–46 mm (mostly about 30–60 × 15–30 mm), papyraceous when dry, acute or acuminate at the apex, cuneate or rounded at the base, serrulate, puberulous on both sides; primary veins 4–7 pairs, arcuate towards the margin. *Flowers* solitary or 2–3 together. Peduncle obsolete or very short, often with some small bracts. Bracts linear, about 10 times as long as wide, 6–9 × 0.5–1 mm, long-acuminate, entire, puberulous on both sides. Pedicels puberulous, 6 mm long. *Sepals* brownish-green (teste Woytkowski 35223), connate at the base up to one-half of their length, 3–5 times as long as wide, 25–33 × 5–11 mm, remotely serrate, puberulous on both sides; four erect, oblique; the fifth (dorsal) curved around the spur. *Corolla* white outside, inside dark red- or purple-spotted in the throat and yellow downwards, fleshy, horizontal in the calyx, about 1.5–2 times as long as the calyx, 40–58 mm long, at the base 7–10 mm, at the throat 15–22 mm wide, contracted above the spur, dorsally ventricose and there 15–17 mm wide, inside partially pubescent with glandular hairs; tube 26–37 mm long; spur subglobose, 7–8 mm in diam.; limb slightly bilabiate; lobes unequal; the ventral one larger than the others, broadly rounded, about 1.5 × as wide as long, 7–11 × 11–16 mm; the four others equal, nearly rounded, 5 × 7 mm; the two lateral ones subentire or serrulate, and the two dorsal ones serrate. Filaments widened at the base. Anthers 6 × 2 mm; cells dehiscent by a longitudinal split starting at the base. Staminode none. Ovary appressed-pubescent, ovoid or subglobose, 6 × 4–5 mm; style puberulous; stigma bilobed (?). Capsule puberulous, 15–16 × 12–13 mm, with a thickened ring along the line of dehiscence, obtuse at the apex; valves thick, coriaceous. Seeds (immature?), medium brown, shining, about 3 times as long as wide, 0.8 × 0.25–0.3 mm, longitudinally or obliquely striate.

Description of fruit and seeds based on Ule 6574.

Ecology: In rain forests; alt. about 250–900 m.

PERU: SAN MARTÍN: prov. San Martín, near Tarapoto, Spruce 4240 (BR, K: 2 sheets, W); *ibid.*, 4 miles east of Tarapoto, Woytkowski 35223 (UC, F); Juan Jui, Alto R. Huallaga, Klug 4281 (U, holotype, isotypes: A, UC).

LORETO: Boquerón Padre Abad, Woytkowski 34373 (UC, F); San Antonio de Compasso, Ule 6574 (HBG).

Episcia

E. ciliosa (Mart.) Hanst., Leeuwenberg, Acta Bot. Neerl. 7: 401. 1958.

Description of mature fruits (not previously available):

Capsule globose, bivalved, 4 mm in diam. Seeds dark brown, shining, ellipsoid, about 4 times as long as wide, 0.8–1 × 0.2–0.25 mm, longitudinally striate, obtuse at the apex, mucronate at the base, with long white diaphanous funiculi and with a small arillus (Maguire & Fanshawe 32368 (US)).

E. porphyrotricha Lwbg., Acta Bot. Neerl. 7: 311, 411. 1958.

This species has been based on two specimens from the mountains of British Guiana. The leaves of these specimens were not bullate, otherwise they could not have been pasted entirely to the sheets. Now it is also known from three localities in the Venezuelan part

of the Guayana Highlands. The following characters taken from these specimens may serve to complete the description:

Leaves of a pair subequal, usually with shorter petioles than those of the type specimen, most of them crowded at the apex of the stem; petiole 5–40 (mostly about 10–20) mm long; blade above sometimes with a pale green area along the midrib (*teste* Steyermark & Wurdack 105), sometimes bullate. Pedicels up to 35 mm long. Corolla vermilion, crimson, or scarlet, trumpet-shaped or infundibuliform, 35–54 mm long, at the throat up to 9 mm wide, scarcely or not contracted in the throat; tube 28–42 mm long. Capsule globose, 6–9 mm in diam. Seeds dark brown, shining, ellipsoid, about $1\frac{1}{2}$ –2 × as long as wide, 0.5–0.8 × 0.3–0.4 mm, obliquely striate, with long white diaphanous funiculi and with a small arillus.

VENEZUELA: BOLÍVAR: Chimantá Massif, vic. of Techiné-Merú, along R. Aparurén, alt. 470 m, Steyermark 76045 (US); *ibid.*, along R. Tirica, alt. 470 m, Steyermark & Wurdack 105 (US), 106 (US).

Episcia dariensis (Seem.) Lwbg., comb. nov.

Basionym: *Alloplectus dariensis* Seem., Voy. H. M. S. Herald 187. 1854; Hanstein, *Linnaea* 34: 424. 1865; Leeuwenberg, *Acta Bot. Neerl.* 7: 312. 1958.

Type: COLOMBIA: Chocó, Cabo Corrientes, Seemann 1058 (K, holotype, photographs in U and US; isotype: BM).

As mentioned in my previous paper, this species, like the two following ones, belongs to the section *Paradrymonia* of *Episcia*. The grounds for their transference are:

Stems very short, with spreading adventitious roots. Leaves apparently spreading (those of a pair strongly unequal and the smaller one soon deciduous (?) as in most species of this section); petiole about 4–11 cm long; blade lanceolate, about 3–5 times as long as the petiole, $4\frac{1}{2}$ –7 × as long as wide, 19–32 × 3–6 cm, acuminate at the apex, long-decurrent into the petiole, practically glabrous. Sepals dark red or purple, linear, fimbriate, about 2 cm long, glabrous or nearly so. Corolla yellow, infundibuliform, about 3–4.5 cm long, spurred at the base, sparsely and minutely pubescent outside; lobes entire or subentire (?). Anthers glabrous, coherent in pairs; cells parallel, discrete, dehiscent throughout by a longitudinal split.

Besides the type collection only known from the following localities:

COLOMBIA: CHOCÓ: La Concepción, 15 km east of Quibdó, alt. about 75 m, Archer 1968 (US).

E. conferta (Morton) Lwbg., comb. nov.

Basionym: *Centrosolenia conferta* Morton, Journ. Wash. Acad. Sci. 35: 126. 1945.

Type: COLOMBIA: Antioquia, north of Dabeiba, along road 7 to

Turbo, alt. 300–350 m, Metcalf & Cuatrecasas 30200 (UC, holotype, photographs in U and US; isotype: US).

Only known from the type collection.

E. decurrens (Morton) Lwbg., comb. nov.

Basionym: *Centrosolenia decurrens* Morton, Field Mus. Publ. Bot. 18: 1158. 1938.

Type: COSTA RICA: Finca Montecristo, on the R. Reventazón below Cairo, prov. Limón, Standley & Valerio 48589 (US, holotype, photograph in U).

Leaves sparsely hirsute to glabrous above, hirsute beneath, especially along the midrib and veins, the younger ones entirely red-tomentose-hirsute. Capsule globose, 5–6 mm in diam., red-hirsutulous, bivalved. Seeds dark brown, shining, ellipsoid, about 4 times as long as wide, 1–1.2 × 0.25–0.3 mm, longitudinally striate with long brownish(?) funiculi and with a small arillus.

Ecology: on trees in rain forests; alt. 0–500 m.

A collection from Panama is now available:

PANAMA: vic. of Chiriquí Lagoon, prov. Bocas del Toro, von Wedel 2279 (US).

E. lineata (Morton) Lwbg., comb. nov.

Basionym: *Centrosolenia lineata* Morton, Ann. Mo. Bot. Gard. 29: 41. 1942.

Type: PANAMA: north of El Valle de Anton, Trail to la Mesa, alt. about 1000 m, Allen 2717 (US, holotype, photograph in U; isotype: MO).

The specimens enumerated below may belong to this species, but they differ from the type specimen by the following characters:

Sepals pilose instead of sparsely strigillose. Corolla purple-spotted on the limb (*teste* A. Smith) or pink-spotted (*teste* Brenes 4076) or with pink (*teste* Brenes 4412) instead of reddish-brown stripes.

COSTA RICA: San Ramón, Brenes 3687 (F), 3949 (F), 4039 (F), 4076 (F), 4412 (F), 6117 (F); Quebrada Azul, San Carlos, prov. Alajuela, Brenes 23055 (NY); La Peña de Zarcero, Canton Aljaro Ruiz, prov. Alajuela, A. Smith H 1064 (F, US), H 1066 (F, US), NY 1066 (F, NY); San Luis de Zarcero, Canton Aljaro Ruiz, prov. Alajuela, A. Smith NY 1309 (F, NY); Quebrada Serena, southeast of Tilarán, prov. Guanacaste, Standley & Valerio 46284 (US, p.p.).