

NOTES ON AMERICAN GESNERIACEAE II<sup>1)</sup>

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INTRODUCTION

Among the *Gesneriaceae* of the most recent acquisitions of the herbarium of the New York Botanical Garden which he received on loan the present author found three new species. Two of these are *Episcias* and one *Napeanthus*. Only of the latter he saw some incomplete material before.

***Episcia resioides* Leeuwenberg, sp. nov.**

**Fig. 1, p. 60**

Herba repens caulibus villosis. Folia per paria inaequalia, oblongo-lanceolata vel lanceolata apice acuta in petiolum decurrentia crenato-serrata utrinque latere villosa. Flores axillares fasciculatae pedicellis longitudine variabili villosis. Sepala aequalia oblongo-lanceolata villosa. Corolla alba infundibuliformis basi gibbosa limbo obliquo patente. Stamina filamentis basi connatis et basi corollae adnatis. Antherae orbiculares loculis parallelis discretis. Ovarium hirsutum. Stylus glaber. Disci glandula dorsalis magna. Capsula globosa bivalvis.

Type: VENEZUELA: Bolivar, Alto Río Cuyuni, La Escalera, B. Maguire, Steyermark & C. K. Maguire 53760 (NY, holotype; isotypes: U, WAG).

Terrestrial creeping herb, without stolons. Stems unbranched, about 10-30 cm long, with spreading adventitious roots, villose, about 3 mm in diam. when dry. *Leaves* of a pair unequal, the larger one 1.5-10 × as long as the other, petiole villose, 10-20 mm long; blade green, oblong-lanceolate to lanceolate, 3-4 × as long as wide, 8-17.5 × 2.5-4.5 cm, acute at the apex, decurrent into the petiole, crenate-serrate, villose on both sides, bullate or not; secondary veins 7-10 pairs; tertiary venation reticulate, especially beneath; midrib and veins prominent beneath; the smaller one similarly shaped and hairy, 13-52 mm long (or more?). *Flowers* axillary, fasciculate. Bracts small, lanceolate, about 7 mm long. Pedicels slender, villose, varying in length in a single inflorescence from 5 to 25 mm. *Sepals* green (?), leafy, free, equal, oblong-lanceolate, 5 × 1.2 mm, acute at the apex, entire, villose on both sides except for the glabrous base inside. *Corolla* white with lilac on lobes or in throat, oblique in the calyx, obliquely infundibuliform, 17 mm long, at the base 3 mm, at the throat 5 mm wide, somewhat gibbous at the base, slightly contracted above the base, gradually widened towards the throat, not ventricose, villose outside, inside pubescent in the throat; tube 8 mm long; limb oblique on the tube, spreading, about 12 mm wide, lobes subequal, entire, about 5-6 × 5 mm. Stamens

1) Continued from *Act. Bot. Neerl.* 7: 291-444. 1958 and 8: 43-53. 1959.

4, included; filaments glabrous, contorted after pollen is shed, all connate and widened at the base, inserted on the base of the corolla and ventrally adnate to it; anthers all coherent (?), free when filaments contorted, orbicular, glabrous,  $1 \times 1$  mm; cells 2, parallel, discrete, dehiscent throughout by a longitudinal split. Staminiodium 0.5 mm long, without anther. Ovary hirsute, ovoid,  $2 \times 1.4$  mm, 1-celled; style glabrous, included, white(?), 4–6 mm long; stigma mouth-shaped.

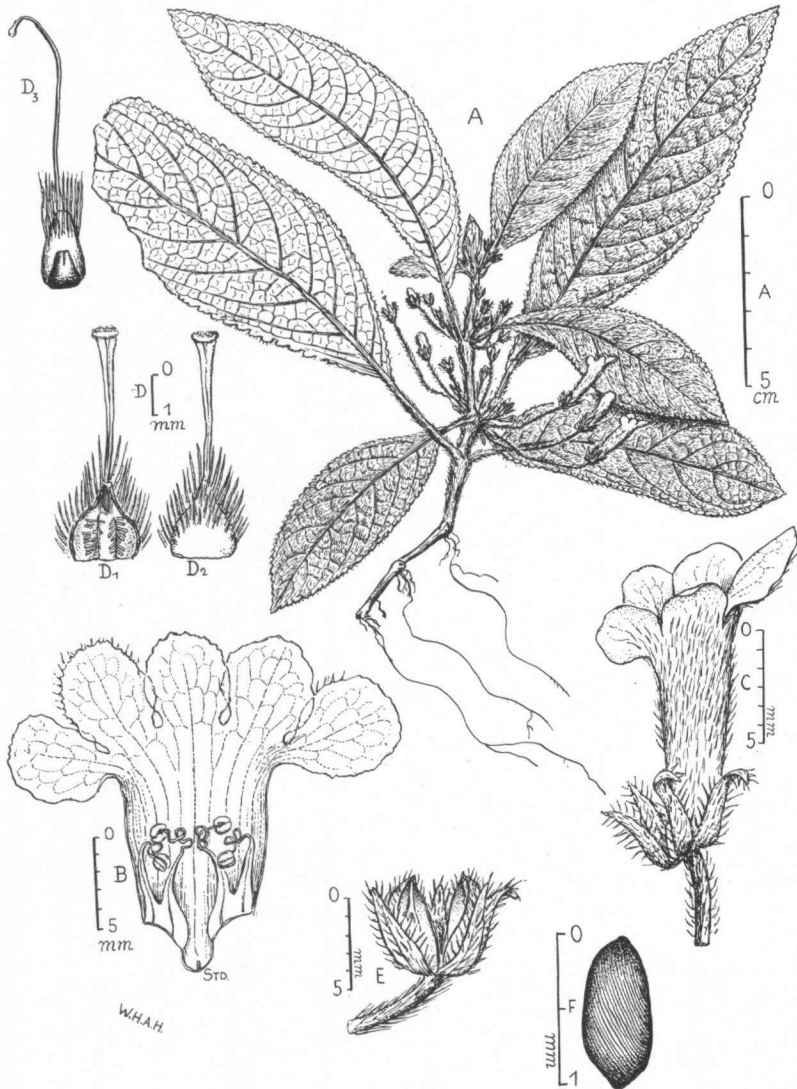


Fig. 1. *Episcia resioides*. A. habit; B. opened corolla; C. flower; D. pistil: 1. with ovary on section, 2. ventral side, 3. dorsal side; E. calyx with open capsule; F. seed. (A. Maguire a.o. 46922 and 53760; B–F. Maguire a.o. 46922).

Disk gland dorsal, entire, tongue-shaped,  $1 \times 0.6$  mm, glabrous. Placentas 2, parietal, 2-lobed, ovuliferous on the inner surface only. *Capsule* globose, 4 mm in diam., pilose outside, bivalved, glabrous inside. *Seeds* several, dark brown, shining, obliquely ellipsoid,  $0.8 \times 0.4-0.5$  mm, spirally striate, borne on white funiculi.

Distribution: Venezuela (Bolivar)

Ecology: Moist places, rain forest; alt. 700-850 m.

Paratype:

VENEZUELA: BOLIVAR: Alto Río Cuyuni, B. Maguire, Steyermark & C. K. Maguire 46922 (NY, U).

This species belongs to the section *Physodeira* (Hanst.) Leeuwenberg as it is a creeping herb without stolons. The corolla is obliquely infundibuliform, the anthers are coherent, the cells discrete and the placentas ovuliferous on the inner surface only.

Its difference with the other species of the genus can be indicated by placing it in the key on p. 315 (LEEUEWENBERG, 1958) with nr. 11:

- 11 (2nd.). Corolla about  $1-1\frac{1}{2}$   $\times$  as long as the width of the limb, 1.7-4 cm long . . . . . 12a
- 12a. Leaf blades lanceolate or nearly so, decurrent into the petiole; flowers several, fasciculate . **E. resioides**  
 Leaf blades mostly elliptic, not decurrent . . . . . 13

**Episcia kohlerioides** Leeuwenberg, sp. nov. **Fig. 2, p. 62**

Herba repens cauli radicibus fibrosis profulta tomentosa. Folia saepe longe petiolata ovata oblongo-ovata vel oblongo-elliptica apice acuminata basi saepe obliqua rotundata margine crenato-serrata. Flores axillares solitarii pedicellis gracilibus villosis. Sepala viridia basi connata subaequalia lanceolata apice acuminata basi rotundata margine serrata. Corolla rubra in calyce obliqua breviter calcarata extus dense villosa intus fauce pilosa limbo lato patente lobis subaequalibus orbicularibus integris. Stamina inclusa filamentis inter se liberis glabris prope basin corollae insertis. Antherae oblongae per paria cohaerentes glabrae oculis parallelis discretis. Ovarium hirsutum ovoideum. Stylus glaber inclusus. Disci glandula dorsalis singula magna. Placentae duae bilamellatae facie interiore solum ovuliferae. Capsula globosa. Semina numerosa fusca nitentia spiraliter striata funiculis longis albis.

Type: BRAZIL: Amapá, Rio Oiapoque, east of Cachoeira Manauá,  $2^{\circ}18'N$ ,  $52^{\circ}38'W$ , Irwin, Pires & Westra 48315 (NY, holotype; isotype: U).

Terrestrial creeping herb, about 15-30 cm high. Stems about 20-50 cm long or more, branched or not, with spreading adventitious roots, 3-4 mm in diam. when dry, ochraceous-tomentose. *Leaves* of a pair equal or unequal, if unequal the larger one up to twice as long as the other, distinctly petiolate; petiole ochraceous-tomentose, 1-4.5 cm long; blade paler beneath, ovate, oblong-ovate or oblong-

elliptic, 1.5–2.5 × as long as wide, thinly papyraceous when dry, acuminate at the apex, rounded and often unequal-sided at the base, crenate-serrate, strigillose above, villose beneath; secondary veins 6–9 pairs. *Flowers* axillary, solitary. Pedicels 1.5–4 cm long, at the base sometimes with 2 linear bracts which are about 1 cm

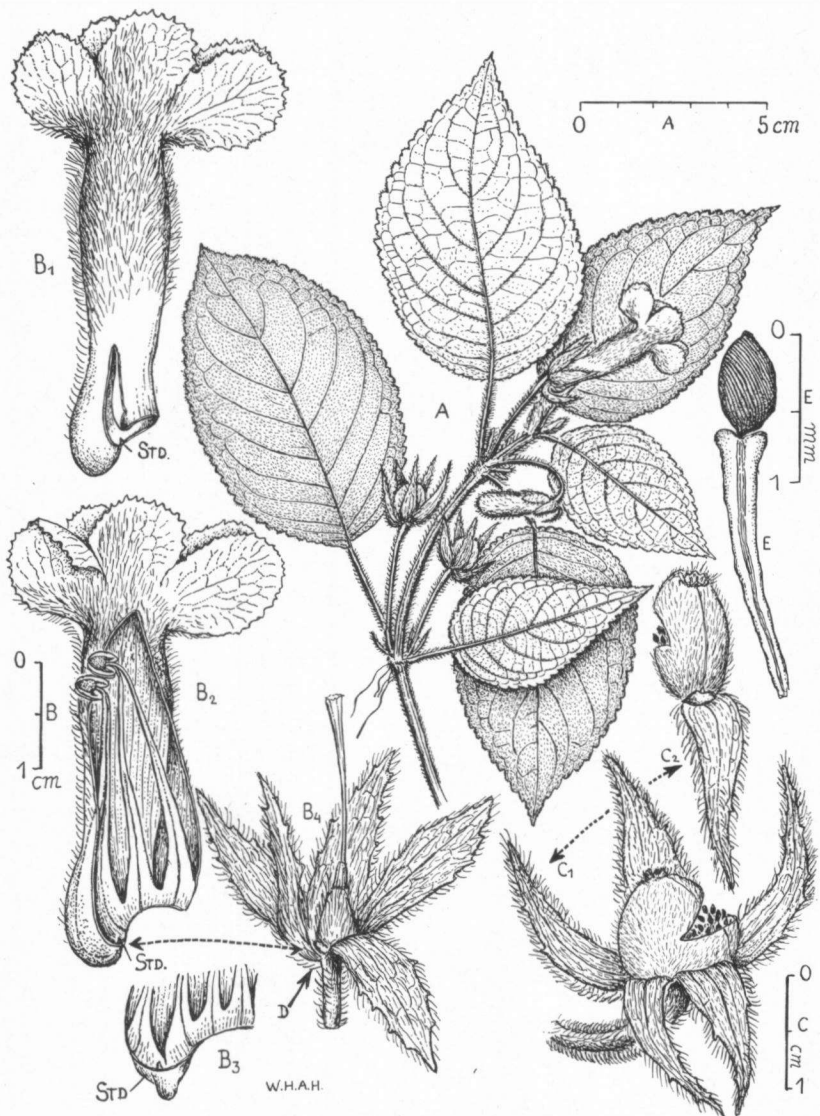


Fig. 2. *Episcia kohlerioides*. A. habit; B<sub>1</sub>. corolla; B<sub>2</sub>. opened corolla; B<sub>3</sub>. base of the latter with staminodium; B<sub>4</sub>. calyx with pistil; C<sub>1</sub>. fruit with calyx laterally; C<sub>2</sub>. capsule with dorsal sepal and disk gland; D. disk gland; E. seed with funiculus. (A. Egler a.o. 46400 and Irwin a.o. 48315; B. Egler a.o. 46400; C. and E. Irwin a.o. 48315).

long and villose. *Sepals* green, with pinkish pubescence when fruiting, leafy, connate at the base, subequal, lanceolate, acuminate at the apex, rounded at the base, serrate, villose outside, pubescent inside except for the villose apex, 4 subequal, 3-4.5 × as long as wide, 10-22 × 3-5 mm, the fifth (dorsal) somewhat smaller and narrower, curved around the spur. *Corolla* bright red, oblique in the calyx, about 2-2.5 × as long as the calyx, 27-32 mm long, shortly spurred at the base, densely villose outside, inside pilose in the throat; tube 22-25 mm long, at the base 5 mm, at the throat 5-9 mm wide, slightly contracted above the base and in the throat; limb spreading, 15-20 mm wide; lobes subequal, nearly orbicular, rounded, entire or obscurely toothed, 6-10 mm in diam. Stamens included; filaments glabrous, not contorted, free from each other, inserted at about 2 mm from the base of the corolla tube; anthers coherent in pairs, oblong, 2 × 1.5 - 3 × 2 mm, glabrous, cells 2, parallel, discrete, dehiscent throughout by a longitudinal split. *Staminodium* very small, about 0.5 mm long, without anther. *Ovary* hirsute, ovoid, 4 × 3 - 5 × 4 mm; *style* glabrous, included, 8-17 mm long; *stigma* saucer-shaped. *Disk gland* dorsal, large, triangular-ovate, retuse, glabrous. *Placentas* 2, bilobed, ovuliferous on the inner surface only. *Capsule* globose, 10 mm in diam., pilose, irregularly dehiscent (by pressing in the herbarium?). *Seeds* dark brown, shining, obliquely ellipsoid, 0.6-0.7 × 0.3-0.4 mm, spirally striate, glabrous, borne on long white funiculi, acute at both sides.

**Distribution:** Brazil (Amapá).

**Ecology:** On moist places in rain forests.

**Paratypes:**

BRAZIL: AMAPÁ: Rio Oiapoque, immediately north of Cachoeira Tres Saltos, 2°12' N, 52°53' W, Irwin, Pires & Westra 48174 (NY); Rio Jari, Cachoeiras das Guaribas, 0°24' N, 53°7' W, Egler & Irwin 46400 (NY, WAG).

This species can be placed in the section *Skiophila* (Hanst.) Benth. et J. D. Hook. on the following grounds: habit, leaf shape, lanceolate acuminate sepals, type of coherence of anthers, and placentation.

It can be distinguished from the other species of the genus by placing it in the key on p. 315 with nrs 7 and 9:

- |     |   |    |
|-----|---|----|
| 7.  | Plant hirsute or tomentose; leaf blades usually bullate . . . . .   | 8  |
|     | Plant glabrous, pubescent, strigillose, or pilose; leaf blades not bullate . . . . .  | 17 |
| 8.  | Corolla red . . . . .   | 9  |
|     | Corolla white and/or mauve . . . . .  | 11 |
| 9.  | Leaf blades acuminate at the apex; plants creeping or ascending, without stolons . . . . .                                  | 9a |
|     | Leaf blades obtuse, rounded, or occasionally acuminate at the apex; plants stoloniferous . . . . .                          | 10 |
| 9a. | Leaf blades glabrous above and bullate; sepals glabrous or outside pilose; corolla pilose outside <b>E. urticifolia</b>     |    |
|     | Leaf blades strigillose above and not bullate; sepals villose; corolla densely villose outside . . . <b>E. kohlerioides</b> |    |

*Episcia resioides* has some resemblance with *Resia nimbicola* H. E. Moore by its leaves and corolla. *E. kohlerioides* resembles *Kohleria hirsuta* (H.B.K.) Regel and *K. mollis* (H.B.K.) Hanst. in habit.

The specimens cited on p. 404 (LEEUWENBERG, Act. Bot. Neerl. 7; 1958) with *E. cupreata* (W. J. Hook.) Hanst. var. *cupreata* might belong to an undescribed species as they differ from the others in the following characters: Not stoloniferous, leaf blades acuminate. As the first is vegetative and the second bears only one flower more material is required for evidence.

**Napeanthus macrostoma** Leeuwenberg, sp. nov.

*N.* sp. nr. 6a, Leeuwenberg, Act. Bot. Neerl. 7: 343, 348, 421 (Nr. 2). 1958.

Herba terrestris cauli brevi non ramosa apice foliis aggregatis oblongo-spathulatis sessilibus. Inflorescentia foliis multo brevior subumbellata. Sepala lanceolata basi connata acuta integra. Corolla alba campanulata lobis quinque apice emarginatis. Stamina quattuor aequalia filamentis glabris basi corollae insertis. Staminodium minimum. Ovarium ovoideum glabrum. Semina reticulato-striata.

Type: BRAZIL: Amapá, Rio Jari, Cachoeiras das Guaribas, 0°24' N, 53°7' W, Egler & Irwin 46401 (NY, holotype; isotypes: U, WAG).

Herb, 10–25 cm high. *Leaves* sessile, oblong-spathulate, 3–4 × as long as wide, 11–17 × 3.2–5.6 cm, papyraceous when dry, obtuse or rounded at the apex, gradually narrowed towards the base, sinuate or shallowly crenate-serrate, sericeous when unfolding, with thin cobweb-like hairs above when young, soon glabrous above, puberulous with thin appressed hairs on the midrib and veins and with many large stomata-groups beneath; secondary veins 7–9 pairs. *Inflorescence* subumbellate, much shorter than the leaves, 4–6 cm long, several-flowered. Peduncle and pedicels with spreading thin hairs. *Calyx* green; sepals connate for about one-quarter of their length, lanceolate, in flower 8 × 2 mm, with thin hairs outside, glabrous inside. *Corolla* white, slightly longer than the calyx, campanulate, 10 mm long; lobes about as long as the tube, 3 mm wide, ovate-rectangular, emarginate at the apex, minutely ciliate at the margin, inside very minutely pubescent. *Stamens* 4, equal; filaments 1.7 mm long; anthers glabrous, ovate, 1 × 0.8 mm; cells hardly divergent at the base, discrete, dehiscent throughout. *Staminodium* very small, 0.5 mm long, with a very small sterile anther, 0.2 × 0.1 mm. *Pistil* glabrous; ovary ovoid, 1.5 × 1 mm; style 3 mm long, erect; stigma obscurely saucer-shaped. *Capsule* bivalved. *Seeds* reticulate-striate, not spinose.

Distribution: Suriname, French Guiana, Brazil (Amapá).

Ecology: On creek banks in rain forests.

Paratypes:

SURINAME: Emmaketen, Stahel 183 (U, US); Nassau Mts., Lanjouw & Lindeman 2630 (K, NY, U, US).

FRENCH GUIANA: Leprieur, anno 1840 (P), s.n. (G); L. C. Richard s.n. (P); herb. expos. col. s.n. (P).

This species is related to *N. primulifolius* by the shape of its leaves, but differs mainly from it by the characters used for the key on p. 343 (LEEUWENBERG, 1958) nr. 8. Furthermore it shows resemblance with

*N. subacaulis*, by its equal stamens. From the latter it differs mainly by the characters mentioned in the same key under nr. 6.

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