

# Novae Gesneriaceae Neotropicarum XII. New species of Gesneriaceae from the Guianas

CHRISTIAN FEUILLET AND LAURENCE E. SKOG

---

Feuillet, C. & L. E. Skog. (Department of Systematic Biology-Botany, MRC-166, Smithsonian Institution, P.O. Box 37012, Washington, DC 20013-7012, U.S.A.; emails: bihorel@concentric.net; skog.larry@nmnh.si.edu). Novae Gesneriaceae Neotropicarum XII. New species of Gesneriaceae from the Guianas. *Brittonia* 54: 352–361. 2002.—Five new species of Gesneriaceae are described from the Guianas: *Nautilocalyx coccineus*, *Paradrymonia anisophylla*, and *Paradrymonia barbata* in the tribe Episcieae, from Guyana; *Napeanthus angustifolius* from French Guiana and *Napeanthus rupicola* from Guyana in the tribe Napeantheae.

**Key words:** Episcieae, French Guiana, Gesneriaceae, Guyana, Napeantheae, *Napeanthus*, *Nautilocalyx*, *Paradrymonia*.

---

In the last twenty years, there has been an intensification of botanical collecting in the Guianas and in Venezuelan Guayana in Northern South America mainly for floristic projects. Study of new collections and related materials has revealed the existence of new genera and species (Skog & Steyermark, 1991; Feuillet & Steyermark, 1999; Feuillet & Skog, 2003) from Venezuela and the Guianas. In this paper we describe four new species from Guyana and one from French Guiana, in the tribes Episcieae and Napeantheae.

## Tribe Episcieae

Species of this tribe have decussate leaves equal to strongly unequal in a pair, stomata scattered on the abaxial side of leaf blades, bracteate inflorescences, superior ovaries, a nectary usually reduced to a double connate dorsal gland (or rarely 2–5 glands), fleshy capsules or berries, and seeds with enlarged fleshy funicles.

*Nautilocalyx* Hanst. and *Paradrymonia* Hanst., related to the stoloniferous genus *Episcia* Mart., include non-stoloniferous plants that have fleshy stems, zygomorphic calyces with free lobes, and fleshy capsules. The species of *Nautilocalyx* are terrestrial herbs, sometimes growing on rotting logs,

with mostly decumbent, soft, sappy stems, and with anthers dehiscing by longitudinal slits. The genus contains about 50 species (plus several yet to be described) distributed throughout tropical America except southeastern Brazil. *Paradrymonia* species are sometimes terrestrial, but are mostly facultative low epiphytes forming loose rosettes of large leaves or climbers with long stems, and have anthers dehiscing by longitudinal slits or central pores. The genus contains about 40 species (plus several yet to be described) distributed throughout tropical America except southeastern Brazil and the Caribbean islands.

***Nautilocalyx coccineus*** Feuillet & L. E. Skog, sp. nov. (Fig. 1)

TYPE: GUYANA. Upper Potaro River region: upper slopes of Mt. Wokomung, 5°05'N, 59°50'W, 1540–1600 m, 11 Jul 1989 (fl), *B. M. Boom & G. J. Samuels 9186* (HOLOTYPE: US; ISOTYPE: NY).

Herba rupicola; caulis debilis, decumbens; folia bulbata, obovata, basi inaequalia; sepala spathulata; corolla coccinea, calcarata, tubo cylindrico, limbo obliquo; stamina basi connata, staminodium dorsale, minutum; glans dorsalis; ovarium tomentosum.

Saxicolous herb. Stems 5–10 cm long,

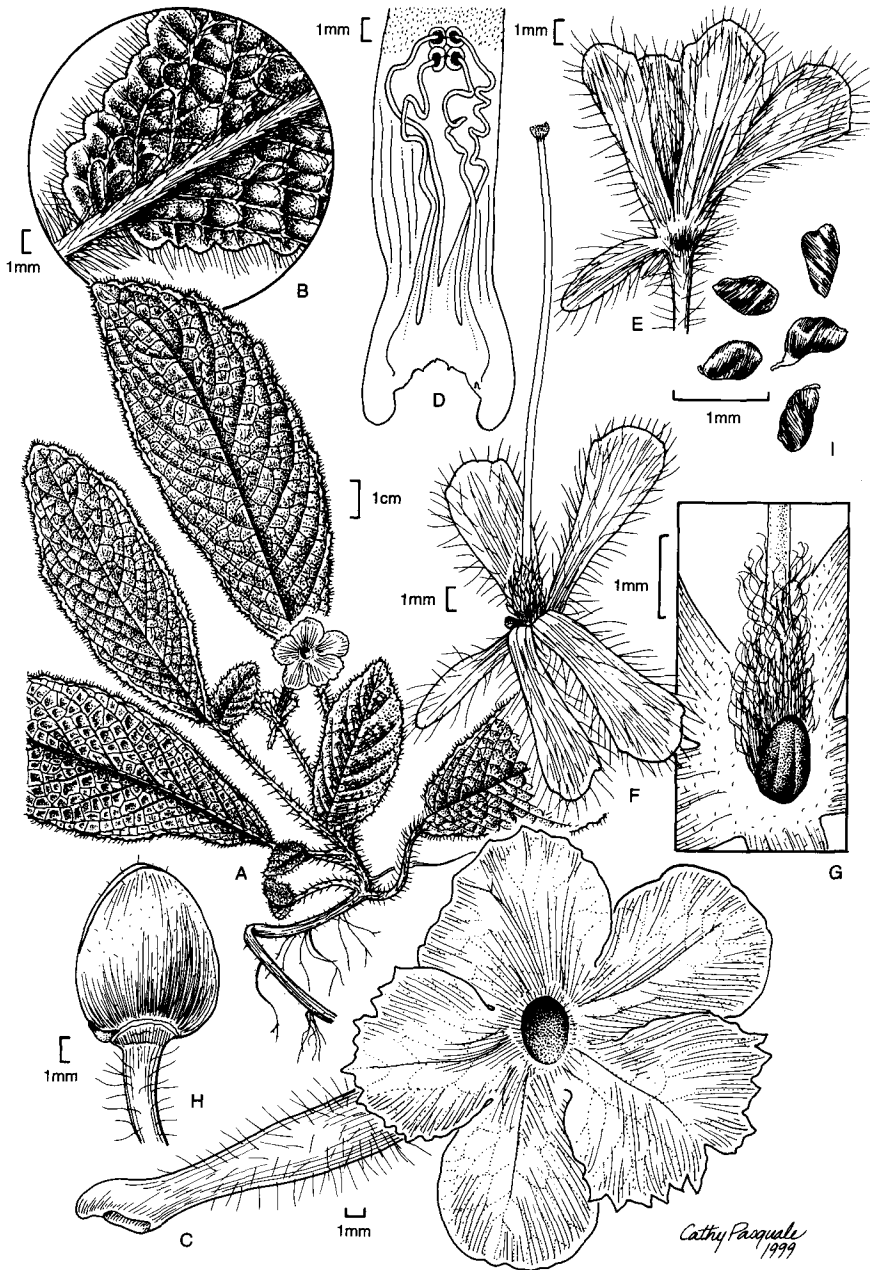


FIG. 1. *Nautilocalyx coccineus*. A. Whole plant. B. Detail of the base of the leaf blade (abaxial view). C. Corolla. D. Corolla opened to show the androecium. E. Calyx. F. Nectary gland and gynoecium in the calyx. G. Detail of the nectarial gland and the ovary. H. Capsule (calyx removed). I. Seeds. (A, E–F from Pipoly *et al.* 11085, US; B, H–I from Tillett *et al.* 44947, US; C–D, G from Boom & Samuels 9186, US.)

decumbent, sappy, terete, hirsute, rooting and branching at nodes. *Leaves* opposite, unequal in a pair, the larger blade 1.5–5 times (or more) larger than the smaller one,

obovate, 6–15 × 3–6 cm; apex round to obtuse, blunt; base asymmetrically acute to rounded; margin crenate to widely serrate; surface bullate; adaxial side hirsute-floc-

cose, with hairs in groups of 3–7 on the bullae, each hair borne on an individual peak or 2–3 on lobed ridges on a bulla, medium green with silvery white to yellowish green area around the midrib; abaxial side hirsute on the veins, with narrow invaginations that correspond to the peaks and ridges of the other side; petiole 1.5–10 cm long, hirsute; smaller leaf blade elliptic to obovate, 1–7 × 0.7–4 cm, the petiole 0.7–3 cm long. *Inflorescences* axillary, cymose, 2–8-flowered, short-pedunculate and bracteate, or flowers solitary; peduncles 0.2–0.5 cm long, hirsute; bracts obovate, up to 1 × 0.3 cm; pedicels hirsute, 1–3.5 cm long. *Calyx* lobes free to base, green, hirsute; dorsal lobe spreading, linear to oblanceolate, 5–6 × 1.5 mm, entire; apex narrow-rounded; base narrow; other lobes erect, spatulate, 10 × 3–4 mm, with 2 glandular teeth distally, the apex truncate to wide-rounded between teeth, the base narrow. *Corolla* strongly oblique in calyx, red, 3–4 cm long; tube straight, narrow-cylindric, 1.7–3 cm long, long-hirsute outside, short strigose inside, with glabrous short-conical (2 × 1.5 mm) spur at base, 2 mm wide at base, 1.5 mm wide above base, slightly and gradually inflating to 2–3 mm wide throat; limb oblique, 2–2.5 cm wide; lobes suborbicular, 5–7 × 5–9 mm, the lateral lobes entire, the dorsal lobes serrate, the ventral lobe serrate and emarginate; stamens included, inserted near corolla base, connate at base; filaments glabrous, contorted after pollen is shed; anthers coherent in a tetrad, orbicular; dorsal staminode minute, less than 0.2 mm, glabrous; nectary reduced to a dorsal gland, entire, less than 1 mm long, rounded at apex, glabrous; ovary small, conical, oblique in the calyx, 1.5–2 × 0.8–1 mm, with ascending, long and wavy pubescence; style glabrous, 18–20 mm long; stigma slightly bilobed, papillose. *Capsule* globose (probably somewhat laterally flattened), 6 × 5 mm, with scattered hairs; seeds brown, diagonally striate, ellipsoid, 0.6–0.8 × 0.3–0.4 mm.

*Nautilocalyx coccineus* has striking flowers, and collection labels give unusually good, although slightly different, color descriptions: “corolla reddish-orange on lobes; tube reddish-purple, streaked longi-

tudinally with white” (*Boom & Samuels 9186*); “corolla limb scarlet, midrib and lines to sinuses darker; throat and tube more blued” (*Tillett et al. 44947*); “calyx green, corolla fire-engine red” (*Pipoly et al. 11085*).

*Distribution and ecology*.—*Nautilocalyx coccineus* has been collected in the Upper Potaro and Cuyuni-Mazaruni Regions of Guyana between 700 and 1600 m on Mts. Ayanganna and Wokomung where it was growing on rocks in moist forests. Flowering in March, June, and July; fruiting in July.

*Etymology*.—The specific epithet *coccineus*, Latin for scarlet, refers to the red corolla.

Among the *Nautilocalyx* species with red corollas, *N. coccineus* appears closest to *N. maguirei* L. E. Skog & Steyer. from Venezuela (Bolívar, Cerro Guaiquinima) from which it differs as follows: stem pubescence long-hirsute (vs. sericeous or shortly pubescent); leaves often unequal in a pair (vs. equal); smaller leaf blades 6–15 × 3–6 cm (vs. 13–26 × 5–10.5 cm); bracts much larger; calyx lobes spatulate (vs. narrowly lanceolate); corolla tube narrower, having limb with 3 lobes serrate and ventral lobe emarginate (vs. entire to undulate); and ovary pubescence ascending, long, and wavy (vs. short-sericeous).

Additional specimens examined: GUYANA. Cuyuni-Mazaruni Region: Mt. Ayanganna, 800 m, 30 Jul 1960 (fl, fr), *Tillett, Tillett & Boyan 44947* (NY, US); headwaters of W branch of Kangu Riv., ca. 4 km NW of E peak of Mt. Ayanganna, 5°25'N, 60°00'W, 700 m, 6 Mar 1987 (fl), *Pipoly, Gharbarran & Samuels 11085* (BRG, US); Mt. Ayanganna, E face, 1580 m, 59°97'W, 5°38'N, 21 Jun 2001 (fl), *H. D. Clarke 9444* (US).

***Paradrymonia anisophylla* Feuillet & L.  
E. Skog, sp. nov. (Fig. 2A–D)**

TYPE: GUYANA. Cuyuni-Mazaruni Region, Partang Riv., top of Merume Mtn., 1140 m, 1 Jul 1960 (fl), *S. S. Tillett, C. L. Tillett & R. Boyan 43948* (HOLOTYPE: US; ISOTYPE: NY).

Suffrutex epiphyticus; caulis dependens, hirsuta; folia paris opposita, inaequalia, unum foliaceum, subtus rubellum, alterum squamiforme; calyx rubellus; corolla

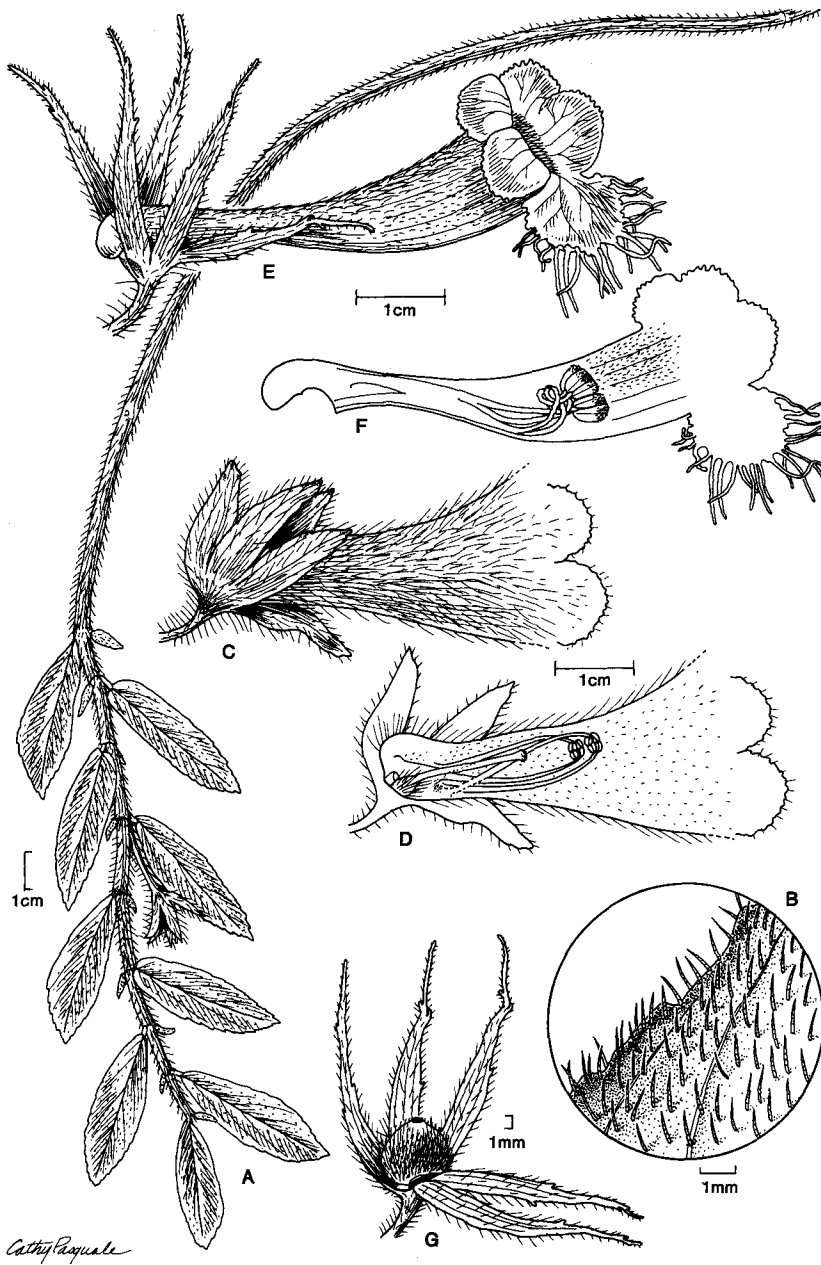


FIG. 2. A–D. *Paradrymonia anisophylla*. A. Stem. B. Detail of leaf indumentum. C. Flower (the limb was not attached to the corolla tube; ventral lobe not seen). D. Androecium and gynoecium. (From Tillett *et al.* 43948, US.) E–G. *Paradrymonia ciliosa*. E. Flower. F. Androecium. G. Fruit in the calyx. (E–F from Grenand & Prévost 2003, CAY; G from Granville 962, CAY.)

eburnea, calcarata, fauce flava, lobis repandis; stamina basi connata; antherae poris centralibus dehiscentes.

Epiphytic *subshrub*. Stems 30 cm long or more, sappy, becoming sarmentose, hanging obliquely, terete, hirsute, branched at

base, with some long adventitious roots at nodes (*Boom & Samuels 8990*). Leaves strongly unequal in a pair, appearing alternate by reduction of one leaf per pair, the larger leaves short-petiolate; blade charta-

ceous, elliptic to oblanceolate, 3.5–8 × 0.8–2 cm; apex blunt or acute to acuminate; base cuneate to rounded, usually asymmetric; margin serrate to dentate; adaxial side strigose; abaxial side reddish, villous; petiole 2–7 mm long, hirsute; smaller leaves stipule-like, mostly linear or narrowly elliptic, 2–12 mm including a short petiole, occasionally up to ½ the size of the other leaf and then with full-size petiole and suborbicular blade. *Inflorescences* axillary, with flowers solitary in larger leaf axils; pedicels hirsute, 1.7–2 cm long. *Calyx* reddish, the lobes free; 4 lobes erect, lanceolate, 12–18 × 3–5 mm, entire to obscurely 3–5-toothed, acute to acuminate, narrower at base, hirsute inside and outside; dorsal lobe spreading, 10–15 × 2–3 mm. *Corolla* oblique, cream colored, yellow in throat; tube short-cylindric, slightly widening from base to throat, ca. 2 cm long, outside hirsute, inside minutely verrucose at throat, spurred at base; spur shorter than wide, the ventral lobe not seen, the other lobes rounded, 3 × 4–5 mm, repand at margin; stamens included (?), inserted near base of corolla; filaments connate at base, glabrous; anthers orbicular, each dehiscent by a distal pore (or from a weak area?); staminode not seen; nectary reduced to a dorsal gland, ca. 1.5 mm long, tongue-shaped, curved around back of base of ovary, entire, glabrous; ovary ovoid, 2.5 × 1.5 mm, densely covered with long ascending hairs; style 10–12 mm long, drying flat, glabrous; stigma slightly capitate. *Capsule* (immature) globose, 5–6 mm diam.; seeds not seen.

*Distribution and ecology.*—*Paradrymonia anisophylla* is known from a few localities in Guyana, Mt. Wokomung, Merume Mountain, and around Mt. Ayanganna between 700 and 1200 m, where it grows as an epiphyte in trees in wet forest on plateaus or mountain tops. Flowering observed in June and July; fruiting observed in June.

*Etymology.*—The specific epithet, *anisophylla*, is Greek referring to the leaves of a pair markedly unequal in size or shape.

In *Paradrymonia* in general, *P. anisophylla* appears most similar to *P. camposityla* (Leeuwenb.) Wiehler, from Surinam and French Guiana, and *P. barbata* sp. nov. (see below), from Guyana. They form a

small group of climbing, sarmentose species with small leaves. Among the Guianan species of *Paradrymonia*, *P. anisophylla* is easily distinguished by a combination of the following characters: plants epiphytic with stems trailing and hanging obliquely, producing adventitious roots at nodes; leaves of a pair strongly unequal; petioles less than 2 cm long; bases of leaf blades cuneate to rounded, asymmetric; and styles glabrous.

In the Guianas, another species, *Paradrymonia ciliosa* (Mart.) Wiehler (Fig. 2E–G), also has leaves of a pair very unequal. This new species can be easily distinguished from *P. ciliosa* by the following characters: leaf blades 3.5–8 × 0.8–2 cm (vs. 17–40 × 4.5–11 cm); leaf bases cuneate to rounded, usually asymmetric (vs. long-decurrent); corolla tube about 2 cm long (vs. 3–4 cm); and corolla lateral and dorsal lobe margins repand (vs. fimbriate).

Additional specimens examined: GUYANA. Potaro-Siparuni Region: Mt. Wokomung, 5°05'N, 59°50'W, 1070–1160 m, 30 Jun 1989 (fr), *Boom & Samuels 8990* (NY); Mt. Ayanganna, E face, 712 m, 59°92'W, 5°33'N, 4 Jun 2001 (fl), *H. D. Clarke 8950* (US); 810 m, 59°93'W, 5°33'N, 9 Jun 2001 (fl), *H. D. Clarke 9006* (US); 1120 m, 59°96'W, 5°37'N, 16 Jun 2001 (fl, fr), *H. D. Clarke 9202* (US); 1120 m, 59°96'W, 5°39'N, 28 Jun 2001 (fl), *H. D. Clarke 9618* (US); 1120 m, 59°96'W, 5°37'N, 28 Jun 2001 (fl), *H. D. Clarke 9619* (US).

***Paradrymonia barbata* Feuillet & L. E. Skog, sp. nov. (Fig. 3)**

TYPE: GUYANA. Cuyuni-Mazaruni Region: permanent miner's campsite near Eping Riv., E of several diamond pits, 6°00'N, 60°10'W, 122 m, 2 Feb 1991 (fl), *T. McDowell & A. Stobey 3810* (HOLOTYPE: BRG; ISOTYPES: K, US).

Herba hirsuta, radicebus adventivis scandens; caulis radicans ad interque nodos; corolla candida, calcarata, tubo breviter cylindraceo, lobo ventrali longifimbriato, fimbriis gracilibus, flexuosis; glans dorsalis, bilobata; stamina basi connata, antheris longitirsus dehiscentibus, staminodium filiforme.

Epiphytic *herbaceous* climber. *Stems* 20 cm or more long, sappy, becoming sarmentose, radican or pendent, terete, hirsute, branched, with spreading adventitious roots produced along a single line at and between nodes on the side of the stem facing the

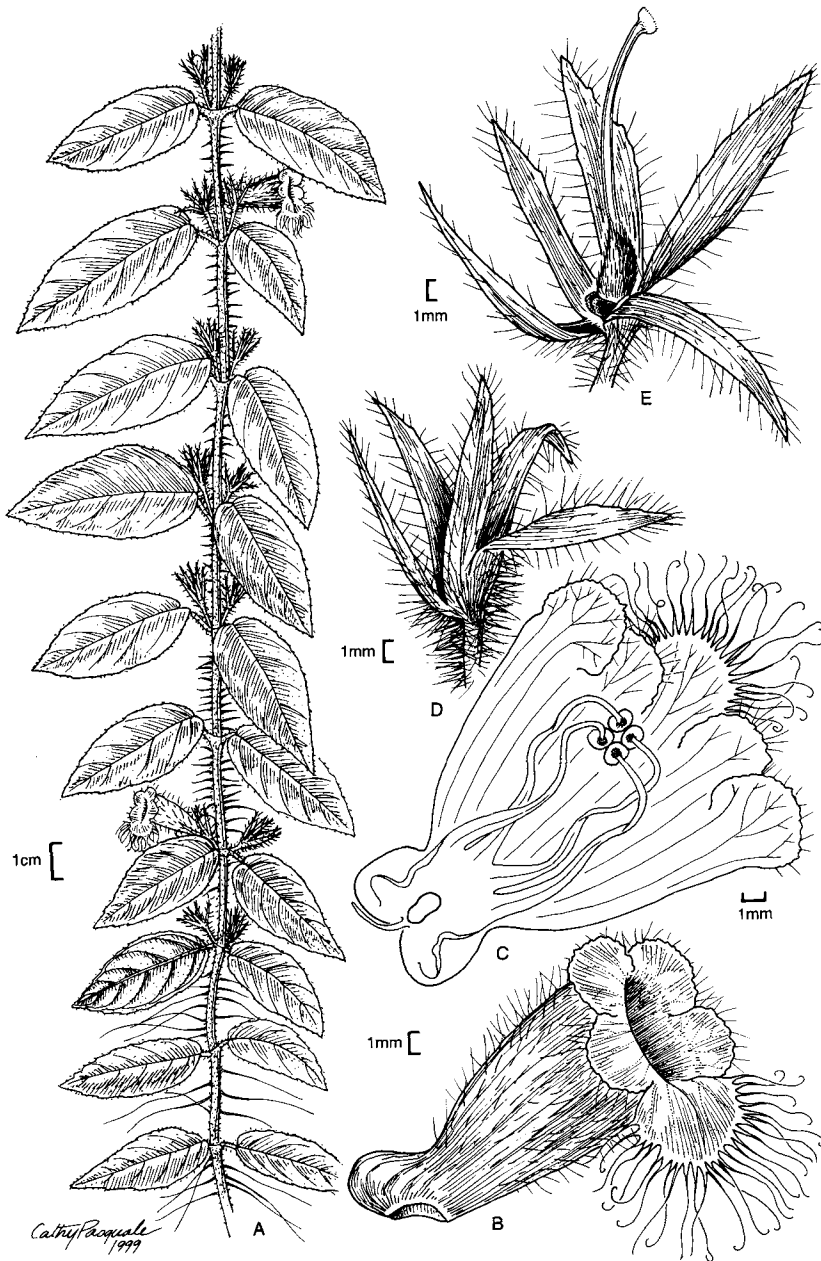


FIG. 3. *Paradyrmonia barbata*. A. Stem showing the climbing habit with adventitious roots. B. Corolla. C. Corolla opened dorsally showing stamens and staminode. D. Calyx. E. Nectary gland and gynoecium. (From McDowell & Stobey 3810, US.)

substrate. *Leaves* opposite, short-petiolate, equal in a pair; blade succulent, drying chartaceous, lanceolate to rarely oblanceolate, usually one side broader than the other with the midrib straight to slightly curved,

4–5 × 2–2.5 cm, the apex acute, the base rounded to slightly cordate, the margin crenate and ciliate, the adaxial side appressed-pubescent to glabrescent with a few short rigid hairs mostly on the impressed veins,

the abaxial side appressed-pubescent on the impressed veins, glabrous between the veins; petiole 0.5–1 cm long, hirsute. *Inflorescence* axillary, 1–4-flowered; peduncles lacking or short, 0.1–0.2 cm long; bracts when present linear,  $4 \times 0.1$  mm, hirsute, entire, rounded at apex; pedicels 0.5–1 cm long, hirsute; calyx lobes free, erect, subequal, narrow-lanceolate,  $7\text{--}10 \times 1\text{--}2$  mm, with 1–4 obscure teeth, with acute apex, hirsute outside, strigose inside, the dorsal lobe slightly curved around corolla spur. *Corolla* oblique, cream colored; tube short, slightly infundibuliform, 10–13 mm long, with rounded (ca.  $2 \times 2$  mm) spur at base, 3 mm wide above base, 5–6 mm wide at throat, hirsute outside (especially above middle), glabrous inside; limb zygomorphic, spreading; lobes rounded, glabrous; lateral lobes  $2 \times 1.5$  mm; dorsal lobes  $2 \times 3$  mm; ventral lobe  $4 \times 4$  mm, long-fimbriate, the fimbriae narrow-triangular at base, then filiform, flexuous, 3–7 mm long; stamens slightly exerted, inserted near corolla base; filaments glabrous, 4 connate at base; anthers coherent (?) in tetrads, orbicular, dehiscing by longitudinal slits; staminode filiform, 3 mm long, without anther; nectary glabrous, reduced to a bilobed dorsal gland, ca.  $1 \times 1$  mm; ovary ellipsoid,  $3 \times 2.5$  mm, densely covered with long ascending hairs; style 7–9 mm long, glabrous; stigma capitate. *Fruits* and seeds not seen.

*Distribution and ecology.*—*Paradrymonia barbata* is known only from the Cuyuni-Mazaruni region of Guyana, in lowland forest, at low elevation, near diamond pits. It is climbing, radicans on tree bark, and said to be epiphytic on small trees. Flowering observed in February.

*Etymology.*—The specific epithet, *barbata*, is Latin for bearded, referring to the fimbriate ventral corolla lobe.

In *Paradrymonia*, *P. barbata* appears most similar to *P. campostyla* (Leeuwenb.) Wiehler, from Surinam and French Guiana, and *P. anisophylla* (described above) from Guyana. Among the Guianan species, *P. barbata* is easily distinguished by a combination of the following characters: plant epiphytic with trailing and pendent stems, that are, as in *P. maculata* (Hook. f.) Wiehler and *Hedera helix* L. (Araliaceae), climb-

ing by roots produced along a unilateral line, at and between nodes (Fig. 3A); leaves of a pair equal; petioles less than 2 cm long; bases of leaf blades rounded to slightly cordate, symmetric; and styles glabrous.

### Tribe Napeantheae

This tribe has only one genus according to the latest interpretation by Burt & Wiehler (1995). Species of *Napeanthus* Gardn. have decussate leaves in loose rosettes, stomata grouped into islands on the abaxial side of leaf blades, bracteate inflorescences, superior ovaries, lack of nectaries, dry capsules, and seeds without enlarged funicles. The genus contains 19 species distributed throughout continental tropical America and in Trinidad, but is not yet known in Venezuelan Guayana.

#### *Napeanthus angustifolius* Feuillet & L. E. Skog, sp. nov. (Fig. 4F–G)

TYPE: FRENCH GUIANA. Mts. de l'Observatoire, sommet Est, à 2 km de Ouanary environ, 130 m, 6 Apr 1984 (fr), *J. J. de Granville 6718* (HOLOTYPE: US; ISOTYPE: CAY).

Herba decumbens, in scopulo verticali crescens; folia pendencia, 4–12 plo longiora quam latiora, subsessilia, margine ciliata, in dimidio distali serrata; inflorescentia pendens; bracteae et bracteolae minutae; corolla candida; stamina 4, staminodium parvum, anthera sterili.

*Herbs* saxicolous, decumbent. *Stems* 5–25 cm long, semiwoody, pendent, terete, unbranched, light brown, glabrous or with a few scattered long hairs, the young parts usually hidden by the persistent bases of fallen leaves, anchored to vertical cliffs by a few strong adventitious roots. *Leaves* opposite, crowded in a rosette at stem apex, variable in size following a gradient from longer pendent to shorter erect laminae, subsessile, very brittle when fresh (*Granville 6718*); blade thin, linear to narrow-ob-lanceolate,  $4\text{--}25 \times 0.5\text{--}2.5$  cm; margin ciliate, serrate to obscurely serrate in distal half, with tips of teeth hardened (glandular?); apex acute to acuminate; base linear, densely cobwebby at the very base; adaxial side green, with sparse long hairs; abaxial

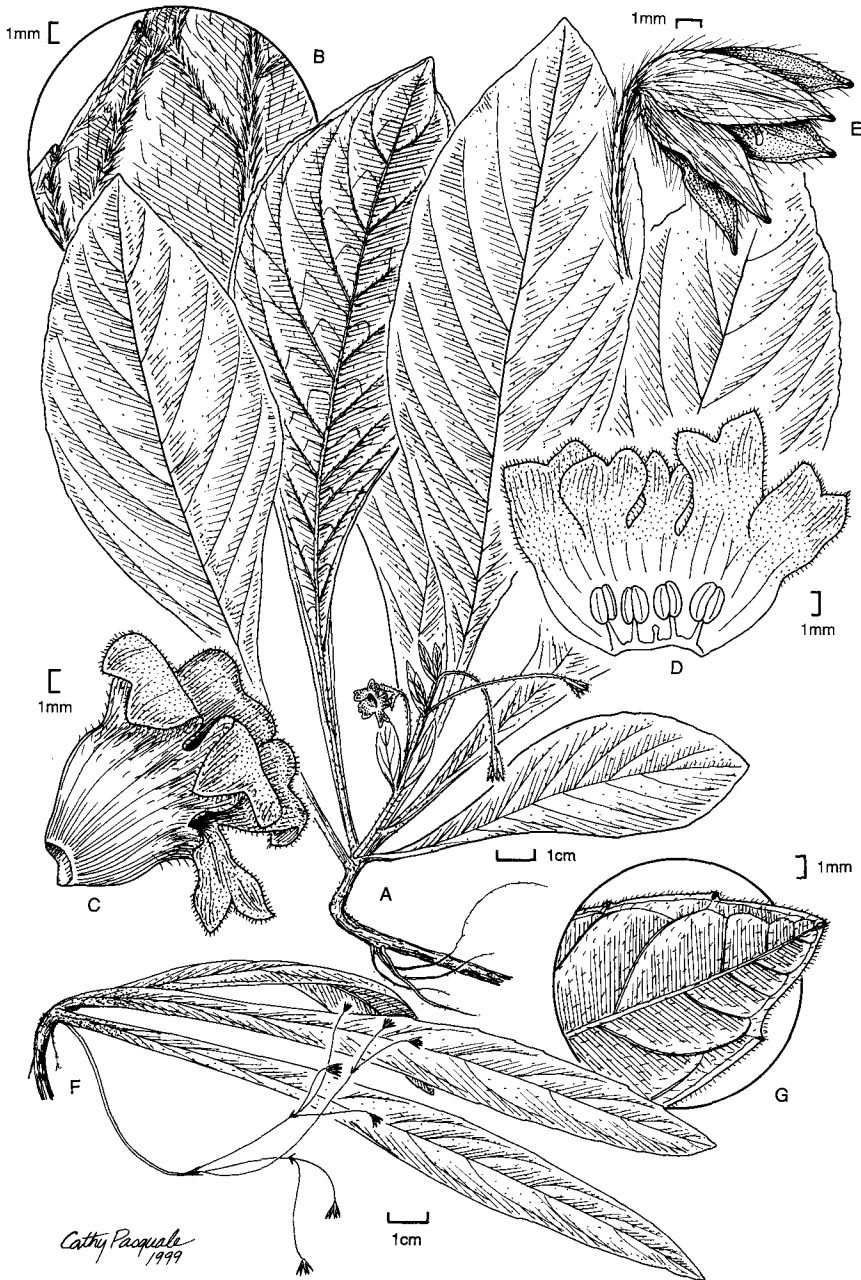


FIG. 4. A–E. *Napeanthus rupicola*. A. Whole plant. B. Detail of leaf margin and indumentum. C. Corolla. D. Corolla opened to show the androecium. E. Calyx. (From Hahn et al. 4326, US.) F–G. *Napeanthus angustifolius*. F. Whole plant. G. Detail of leaf margin and indumentum. (From herb. Maire s.n., P.)

side pale green or purplish, with sparse short hairs mostly appressed; petiole very short or lacking. *Inflorescences* more or less perpendicular to rosette at their bases, then curving upward, pedunculate, cymose, 2–

many-flowered; peduncles slender, 5–15 cm long, with scattered long hairs to glabrescent; bracts linear,  $4 \times 0.2$  mm, with long dense hairs to glabrescent on same plant; secondary rachis 4–6 cm long, with scat-



tered hairs to glabrescent; bracteoles similar to bracts, but about half the size; pedicels 1–3 cm, glabrescent. *Calyx* actinomorphic; lobes free nearly to base, lanceolate, 5–6 × 1 mm, entire, the apices acute, the tips hardened (glandular?), with short hairs present outside, glabrous inside, with a midrib and a network of veinules. *Corolla* erect, presumably white; tube 4–5 mm long; lobes wide-lanceolate; margin entire; apex round (possibly slightly emarginate); stamens 4, attached to base of corolla; filaments short and stout, 0.5 mm long, glabrous; anthers sagittate, 0.6 × 0.5 mm; staminode small, with sterile anther (L. C. Richard, 1781–1785, *in sched.*); nectary lacking; ovary globose, 2 × 1.2 mm, glabrous; style 3–3.5 mm long, glabrous; stigma navicular, barely swollen if at all. *Capsule* pale brown, ovoid, apiculate, with persistent style, 2 × 1.2 mm, glabrous, dehiscent loculicidally and septicidally into 4 valves, leaving the 2 placentae at the ends of a horseshoe-shaped structure; seeds ellipsoid, 0.3–0.4 × 0.1–0.2 mm, dark brown.

*Distribution and ecology.*—*Napeanthus angustifolius* has been collected in French Guiana on cliffs or on sides or roofs of cave entrances of the coastal table-mountains between the Mahury and Oyapock rivers. It is the third species known from French Guiana, along with *N. jelskii* Fritsch and *N. macrostoma* Leeuwenb. Flowering observed in February, fruiting in April.

*Etymology.*—The specific epithet, *angustifolius*, is Latin referring to the narrow leaves.

In *Napeanthus* the corollas are loosely attached and are usually shed when the plant is handled or dried. Leeuwenberg (1958) noted that some specimens from French Guiana did not belong to *N. jelskii*, but that the material known then (included here) was not sufficient for a description. *Napeanthus angustifolius* flowers resemble those of *N. jelskii*. Differences between the two species are presented in the key below.

Additional specimens examined: FRENCH GUIANA, collector unknown s.n. (P); herb. Maire s.n. (P); 6 Sep 1850, Poiteau s.n. (K, P, U); "Cayenne" (for French Guiana), collector unknown s.n. (G, U); Rochers des premières chambres, Cavernes du Ouanary, 1900 (fl), Geay 936 (P); "territoire Le Pérou," Feb (fl),

L. C. Richard s.n. (P); Piste de Kaw, 1 km après le pont sur le Mahury, 4°45'N, 52°19'W, 21 Nov 1994, Billiet & Jadin 6378 (BR, K, MO).

***Napeanthus rupicola*** Feuillet & L. E. Skog, sp. nov. (Fig. 4A–E)

TYPE: GUYANA. Potaro-Siparuni Region: upper slopes of Mt. Wokomung, 5°05'N, 59°50'W, 1530 m, 13 Jul 1989 (fl, fr), B. M. Boom & G. J. Samuels 9202 (HOLOTYPE: US; ISOTYPE: NY).

Herba decumbens; folia ad apicem caulis rosulata, decurrentia, margine obscure serrata; inflorescentia erecta; bractae foliaceae; sepala apice glandulosa; corolla candida, campanulata, ecalcarata, lobis emarginatis; stamina 4, brevia, staminodium parvum.

Saxicolous herbs. Stems 10–30 cm long, semiwoody, terete, decumbent, strigose, unbranched, with a few long adventitious roots. Leaves opposite, crowded at apex of stem; blade subsessile, thin, oblanceolate, 7–15 × 3–6 cm; apex acute to obtuse; base long-decurrent; margin obscurely serrate; adaxial side green, with appressed soft hairs, much denser and matted at vein branching; abaxial side paler, with shorter and denser pubescence than seen adaxially; petiole very short or lacking. Inflorescences erect, pedunculate, cymose, few- to many-flowered; peduncles 1.5–4 cm long, erect, densely hirsute to glabrescent; bracts foliaceous, 10–30 × 5–10 mm; pedicels 2–5 cm long, hirsute to glabrous. *Calyx* actinomorphic; lobes free nearly to base, lanceolate, 7–10 × 2–4 mm, the margin entire, the apex tip hardened (glandular?), hirsute outside, glabrescent inside. *Corolla* erect, white; tube campanulate, 5–6 mm long, slightly contracted at throat, with minute pubescence; lobes subequal, oblique and recurved near middle, the ventral lobe spreading, obovate, 3–4 × 3 mm, minutely ciliate, emarginate; stamens 4, included, inserted at base of corolla, free; filaments 1.5 mm long, glabrous; anthers ovate, 1.5–1.7 × 1.2 mm; staminode 0.5–0.8 mm long, without anther; nectary lacking; ovary globose, 4–5 mm long, glabrous; style 2–3 mm long, glabrous; stigma slightly capitate. *Capsules* ovoid, apiculate, 5–6 × 4 mm, glabrous, the style persistent; seeds elliptic, 0.3–0.4 × 0.1–0.2 mm, brown.

*Distribution and ecology.*—*Napeanthus rupicola* has been collected at 1100–1600 m in the Potaro-Siparuni and Cuyuni-Mazaruni Regions of Guyana. The plants were growing in a moist habitat, on rocks in montane or cloud forests. Flowering and fruiting in April, July, and November.

*Etymology.*—The specific epithet, *rupicola*, is Latin for living on rocks.

Previously, only *Napeanthus subacaulis* (Griseb.) Benth. & Hook. f. ex Kuntze was known to occur between Emma Keten ridge, 56°15'W in Surinam, and the Federal

District, 66°55'W in Venezuela. This western Venezuelan species is present in Trinidad and Tobago. *Napeanthus rupicola* resembles *N. subacaulis* from Trinidad and Tobago from which it differs as detailed in the key (below).

Additional specimens examined: GUYANA. Potaro-Siparuni Region: Mt. Kopinang, 4°58'N, 59°53'W, 1500–1600 m, 7 Apr 1988 (fl, fr), *Hahn, Judziewicz & Gopaul 4326* (BRG, US); Cuyuni-Mazaruni Region: Pakaraima Mtn., slopes on NW side of Mt. Ayanganana, 5°24'N, 59°57'W, 1100 m, 7 Nov 1992 (fl, fr), *Henkel & Hoffman 169* (BRG, US).

### Key to the *Napeanthus* species from the Guianas and Trinidad

1. Calyx lobes oblong or lanceolate, 4.5–10 × 1.5–4 mm. Corolla lobes clearly emarginate at apex.
  2. Sepals 4 × as long as wide. Surinam, French Guiana ..... *N. macrostoma*
  2. Sepals 2–3 × as long as wide.
    3. Leaves on adaxial side with appressed soft hairs, much denser and matted at vein branching. Bracts 10–30 × 5–10 mm. Calyx lobes free. Corollas white; lobes minutely ciliate. Central western Guyana at 1100–1600 m ..... *N. rupicola*
    3. Leaves on adaxial side sparsely strigillose to glabrous. Bracts 3–10 × 0.5–3 mm. Sepals connate at base. Corollas lavender; lobes glabrous. Trinidad, Tobago at 300–700 m. .... *N. subacaulis*
1. Calyx lobes lanceolate, 3–6 × 1 mm (to 6 × 2 mm in fruit). Corolla lobes rounded or slightly emarginate at apex. French Guiana at 50–500 m.
  4. Leaves linear to narrow-oblongate, the longer in a rosette 15–25 cm long; apex acute to acuminate; abaxially pale green or purplish. Peduncles 5–15 cm long. Sepals free nearly to base. Capsules 4-valved ..... *N. angustifolius*
  4. Leaves oblong-spathulate, the longer in a rosette 8–14 cm long, the apex obtuse or rounded, abaxially pale green. Peduncles 2.5–6 cm long. Sepals connate to 1/3 of their length. Capsules 2-valved. .... *N. jelskii*

### Acknowledgments

We thank the curators of the herbaria, BR, CAY, K, G, MO, NY, P, and U for lending the material in their care. We are grateful to Cathy Pasquale-Johnson for the fine artwork and to the Walcott Fund for Botanical Illustration. We want to thank Drs. A. Chautems, A. J. M. Leeuwenberg, J. F. Smith, and an anonymous reviewer for helpful suggestions. This paper is published as Studies on the Flora of the Guianas No. 97. This is No. 59 in the Smithsonian's Biological Diversity of the Guianas Program publication series.

### Literature Cited

- Burt, B. L. & H. Wiehler.** 1995. Classification of the family Gesneriaceae. *Gesneriana* 1: 1–4.
- Feuille, C. & L. E. Skog.** 2003. Novae Gesneriaceae Neotropicarum XI. New genera and species from the Guianas. *Brittonia* 54: 344–351.
- & **J. A. Steyermark.** 1999. Gesneriaceae. In: J. A. Steyermark, P. E. Berry, K. Yatskievych & B. K. Holst, editors. *Flora of the Venezuelan Guayana*. Vol. 5: 542–573.
- Leeuwenberg, A. J. M.** 1958. The Gesneriaceae of Guiana. *Acta Bot. Neerl.* 7: 291–444.
- Skog, L. E. & J. A. Steyermark.** 1991. Novae Gesneriaceae Neotropicarum III. New species from Venezuela. *Novon* 1: 211–222.