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## Novae Gesneriaceae Neotropicarum II. A New Species of *Nautilocalyx* from Venezuela

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ABSTRACT. A new species of Gesneriaceae is described from Cerro de la Neblina, Venezuela:  
*Nautilocalyx pemphidius* L. Skog.

The genus *Nautilocalyx* Linden ex Hanst. includes about 50 species (Wiehler 1978) and is neotropical in distribution from Mexico to Peru, the Guianas, and Amazonian Brazil. Although new species have been published (Skog 1974; Wiehler 1978) with several still awaiting description, *Nautilocalyx* has not been revised since a study by Sprague (1912). The most closely related genus, *Episcia* Mart., can usually be distinguished by its stolons and a sympodial growth habit, but both *Episcia* and *Nautilocalyx* are in need of revision.

Recent exploration of Cerro de la Neblina in southern Venezuela has resulted in the discovery of new species of *Nautilocalyx*, one of which is described below.

***Nautilocalyx pemphidius* L. Skog, sp. nov.** (fig. 1).—TYPE: Venezuela, Terr. Fed. Amazonas, Depto. Río Negro, near Lomas de las Pinas (Pineapple Ridge), 1.5 km S of Neblina Base Camp, a saddle on upland trail, boulders and pits in forest, 0°49'N, 66°9'W, 215 m. "Growing on vertical sides of boulders along with *Selaginella*. Abundant. Flowers white." 27 Nov 1984, D. Bell 324 (holotype: VEN; isotypes: AAU, MO, US).

A *Nautilocalyice cataractarum* Wiehl. a marginibus foliorum crenato-dentatis 10-35 rotundatis 3-5 mm longis, 2-3 mm latis, pagina superiore praeter pilosos ad apices bullarum glabra; lobis calycis ligulatis vel subulatis; corollis albis differt.

Plants perennial, terrestrial, herbaceous. Stems 1-10 cm long, terete, 3-5 mm in diam.; apex hirsute-pilose, smooth below. Branches only from base of stem, few, internodes 1-10(30) cm long, 3-5 mm in diam., light green. Adventitious roots present on the stem. Leaves apically clustered, opposite or rosulate, equal or subequal in a pair, petiolate. Blade membranous

or chartaceous, narrowly elliptic, sub-falcate or oblanceolate, 5-12(19) cm long, 1-4 cm wide at widest point; apex acuminate or acute; base attenuate or cuneate; margin scalloped to crenate with 10-35 evenly rounded teeth 3-5 mm long and 2-3 mm high at more or less right angles to the midrib, green; veins pinnate, 8-10 on a side, curved along the margin, veins above immersed, glabrous, veins below emersed or prominent, pubescent with indument appressed, green; blade above dark green or reddish, dull, glabrous (except pilose at apex of bullae), blade below green to purplish between the veins, dull, glabrous except with short appressed indument along the veins. Petiole flattened above, 0.2-3 cm long, 2-3 mm in diam., light green, pilose or strigillose with appressed indument. Inflorescences axillary in upper axils, congested, few flowered, shorter than the leaves, sessile. Bracts sessile, linear, 0.5 cm long, 0.1 cm wide, 5 times as long as wide; apex and base attenuate; margin entire, green above, pubescent, green below, pubescent. Pedicels slender, ascending, terete, apex not thickened, ca. 1 mm long at anthesis, 1 mm in diam., green, pubescent or strigillose with indument appressed. Bracteoles absent. Flowers protandrous, sweet smelling, small. Floral tube turbinate, 2-3 mm long, 2-4 mm in diam., green, pubescent or strigillose with indument appressed. Calyx erect, campanulate, 0.2-0.4 cm long, 0.2-0.5 cm wide, persistent in fruit, 5-lobed; lobes connate only at base, ligulate to subulate, equal, 3-6 mm long, 0.7-2 mm wide, spreading, base broad, lobe apex obtuse to acute, margin entire, outside green and reddish towards apex, pilose, pubescent or strigillose with indument appressed, inside dark green, glabrous, veins obscure. Corolla zygomorphic, 1.5-2 cm long, ca. 5 times as long as the calyx, white; tube funnellform or salverform, erect or sub-oblique in calyx, 1.2 cm long, base slightly gib-

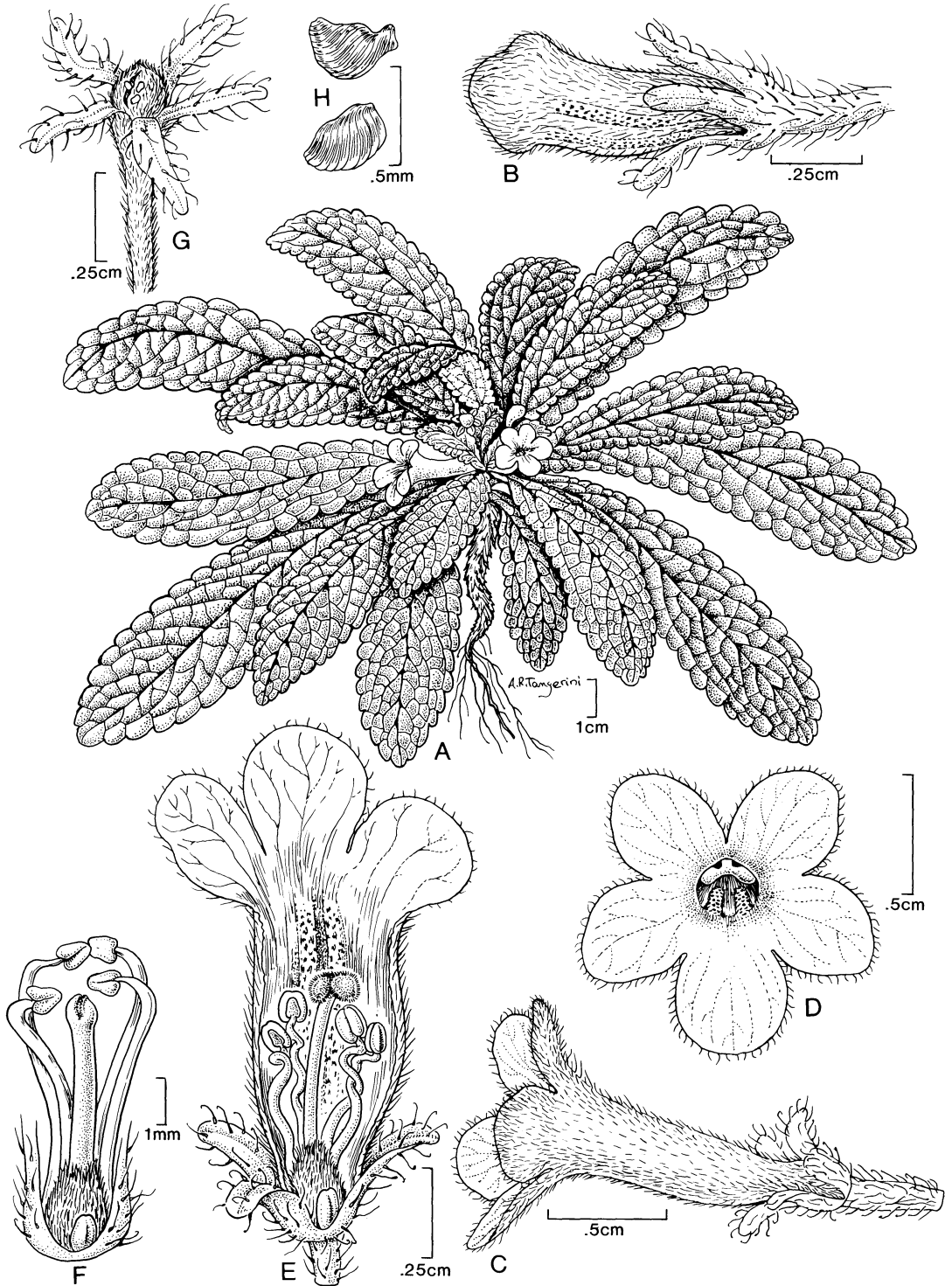


FIG. 1. *Nautilocalyx pemphidius*. A. Habit. B. Flower bud. C. Open flower. D. Corolla face. E. Flower in longitudinal section. F. Stamens, pistil, and nectary. G. Fruit. H. Seeds. (Drawn from Bell 324, US, and live cultivated material grown from Bell 324, S.I. 85-001.)

bous, 2 mm wide, tube slightly constricted above the gibbosity, middle not ventricose or slightly ventricose, 2.5–3 mm wide, throat not ventricose or constricted, 2–4 mm wide, mouth not oblique but vertically compressed slightly, outside white with 2 mm long trichomes, pilose, inside white, glabrous, spotted and grooved on upper side; limb spreading, bilabiate, 10 mm wide, 5-lobed, each orbicular or sub-ovate, equal, imbricate, 3–4 mm long and wide, not spreading, apex rounded, margin entire, outside white, pilose, inside white, glabrous, veins not prominent. Stamens 4, included, didynamous; filaments curved at anthesis, not membranous or thickened, 5–6 mm long, adnate to corolla base for ca. 1 mm, bases connate for ca. 1 mm, white, glabrous; anthers sub-sagittate, ca. 1 mm long and wide, white, glabrous, sub-divergent at base, coherent in 2 pairs by their apices, becoming free and separate at anthesis, dehiscing by longitudinal slits. Staminodes absent. Disc of a single dorsal gland, 0.5–1 mm high, fleshy, white, glabrous, entire. Ovary superior, ovoid, 1 mm long and wide, apex conic, white, pilose. Style straight, included, slender, ca. 5 mm long, as long as the stamens, white, glabrous, stigma bilobed, white. Fruit a globose dry capsule, 3 mm long and wide, two-valved, purple to red, pilose, nitid; seeds oblong, 0.5 mm long, diagonally striate.

*Nautilocalyx pemphidius* may be related to the nearby *N. cataractarum* Wiehler (1975), but that species has leaf margins with 35–45 minute crenulate-serrulate obliquely antrorse teeth 1–3 mm long and 0.5–1.5 mm wide, the upper leaf surface is densely pubescent, the calyx lobes are lanceolate or oblong-lanceolate, and the corolla is deep rose-pink.

*Additional specimens examined.* VENEZUELA. **Terr. Fed. Amazonas:** Depto. Río Negro, Neblina expedition base camp, E of camp along "Bongo Trail," along S bank of Río Mawarinuma, 0°50'N, 66°10'W, 140 m, growing on shaded moss-covered rocks and logs in lowland white sand rainforest, 25 Nov 1984, *Anderson* 13332 (US), 16 Feb 1985, *Boom & Weitzman* 5870 (US), 27 Nov 1984, *Croat* 59376 (MO, US), 4–5 Jul 1984, *Davidse & Miller* 26962 (US), 9 Feb 1984, *Funk & Liesner*

6126 (US), 11 Apr 1984, *Gentry & Stein* 46524 (VEN), 28 Nov 1984, *Kral* 71861 (US), 5 Feb 1984, *Liesner* 15650 (US), 15675 (US), 25–26 Nov 1984, *Liesner* 17303 (US), 200–300 m, 20 Apr 1984, *Thomas* 3166 (US), 11 Apr 1984, *Thomas & Plowman* 3024 (US); between Neblina Base Camp and the mouth of Canyon Grande at Puerto Chimo along the Río Mawarinuma, 0°50'N, 66°06'–66°10'W, 130–200 m, 6–7 Jul 1984, *Davidse & Miller* 27079 (US); Río Mawarinuma, vicinity of "Puerto Chimo," 0°50'N, 66°05'W, 190 m, 24 Apr 1984, *Gentry & Stein* 46915 (US); foothills of S slope of N arm of Cerro de la Neblina above Puerto Chimo Camp on Río Mawarinuma, 0°50'N, 66°07'W, 150–500 m, 14 Feb 1984, *Liesner* 15940 (US); 3–6 km NE of Cerro de la Neblina Base Camp on Río Mawarinuma, 0°51'N, 66°10'W, 150–220 m, 2 Mar 1984, *Liesner* 16362 (US); Camp V, valley N base of Pico Cardona, 0°49'N, 66°0'W, 1250 m, 21–24 Mar 1984, *Liesner & Stannard* 16917 (US).

The distribution of *Nautilocalyx pemphidius* seems to be quite limited to the Cerro de la Neblina region of southern Venezuela. The habitat where it is found is wet forest near streams, and plants are often found growing on rocks.

The species name comes from the Greek *pemphix* meaning bubble, and refers to the leaf surface bullae that resemble bubbles.

This new species is being grown in cultivation at the Smithsonian Institution botany greenhouses (S.I. Acc. No. 85-001) from the type collection made by Deborah Bell in 1984.

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