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Two new species of the genus Cyclopogon (Orchidaceae) from South America

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RÉSUMÉ

SZLACHETKO, D. L. (1993). Deux espèces nouvelles du genre Cyclopogon (Orchidacées) d'Amérique du Sud. *Candollea* 48: 431-435. En anglais, résumés français et anglais.

Deux espèces nouvelles du genre *Cyclopogon* (Orchidacées) sont décrites. Une description détaillée ainsi que des dessins analytiques des nouveaux taxons sont fournis.

ABSTRACT

SZLACHETKO, D. L. (1993). Two new species of the genus Cyclopogon (Orchidaceae) from South America. *Candollea* 48: 431-435. In English, French and English abstracts.

Two new species of the orchid genus *Cyclopogon* are described as new. Detailed descriptions and analytical drawings of new taxa are provided.

KEY-WORDS: ORCHIDACEAE — Cyclopogon — Taxonomy — Neotropics.

The genus *Cyclopogon* was established by Presl in 1827. At that time it embraced only one species, *C. ovalifolium* Presl, distributed in such Andean countries as Colombia, Ecuador and Peru. In 1903 Small proposed a new genus *Beadlea* based on *Spiranthes storeri* Chapm. Both genera were united until 1982 (cf. SCHLECHTER, 1920; BURNS-BALOGH, 1986), when the generic revision of the subtribe *Spiranthinae* by Garay appeared. Garay made numerous new combinations transferring to *Beadlea* many species previously described either as *Cyclopogon* or *Spiranthes* L. C. Rich. As a result, according to Garay, the genus *Cyclopogon* still remains a monotypic, whereas *Beadlea* contains 54 species. *Cyclopogon* differs from *Beadlea* in having "all three sepals connate basally, forming a distinct tube-like nectary".

During the revision of the herbarium materials of, among other things, *Beadlea* and *Cyclopogon,* I found this feature not to be so distinct as Garay stated. Most of the species of *Beadlea* have an observable sepaline tube, distinctly shorter than in *Cyclopogon.* Keeping this in mind, I accept the viewpoints of SCHLECHTER (1920) and BURNS-BALOGH (1986) to include *Beadlea* in *Cyclopogon,* giving the former the subgeneric rank. The new combination is proposed as follows:

Cyclopogon Presl subgen. **Beadlea** (Small) Szlach., **stat. nov.** et **comb. nov.**
Basionym: *Beadlea* Small, Flora of SE United States, 319: 1903.

Type species: *Spiranthes storeri* Chapm.

While studying *Cyclopogon* specimens from South America two specimens were found which did not fit the diagnoses of any species described so far. I propose them here as new.

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Cyclopogon adhaesus Szlach., **spec. nov.** (Fig. 1).

Habitu *C. peruviano* (Presl) Schlecht. similis, sed forma labelli et involucri phyllis internis lateralisque ad epichilium adnatis distinguitur.

Typus: Ecuador, Prov. Bolivar-Chimborazo, Cordillera Occidental, entre Guaranda y San Juan, *Barclay & Juajibioy 8183* (holo: COL).

Roots clustered, tuberoid, fleshy. Stm about 25 cm high, 3 mm in diameter at base, 1.5 mm in diameter under inflorescence, relatively stout, below and within inflorescence glandular. Cauline bracts 7, longer than internodes, comes up to inflorescence, acute, herbaceous, thin, glabrous, Leaves 4, gathered in basal rosette, petiolate; petiole about 3 cm long, narrow, reddish; blade 4.5-5 cm long, 1-3 cm wide, lanceolate to oblong-lanceolate, acute. Inflorescence 6.5 cm long, ca. 30-flowered, dense. Flowers tiny, sessile, tubular, completely glabrous, floral bracts colourless or brown, petals white, fruits green. Floral bracts 7 mm long, lanceolate, acute, semi-transparent, delicate. Ovary 7-8 mm long, slightly twisted at base. Dorsal sepal 3.5 mm long, 1.1 mm wide, ovate-lanceolate, subacute, single-nerved, concave in lower part. Lateral sepals 3.8 mm long, 1 mm wide, lanceolate, acuminate, symmetric, single-nerved. Petals 3 mm long, 0.4 mm wide, oblanceolate-falcate, obtuse, single-nerved, glued with dorsal sepal and with the epichile tube. Lip straight, sessile, 3-nerved; hypochile 1.6 mm long, 1.3 mm wide, subquadrate, concave, slightly thickened and ciliate in posterior part, basal lip auricles small, thickened, free; isthmus 1 mm long, linear, thickened and papillate along midnerve; epichile 0.8 mm long, 1.2 mm wide when spread, more or less eliptical, obtuse, papillate, fleshy, in natural position tubular, with lateral margins being adhering to each other. Column 2 mm long, erect. Rostellum 0.6 mm long, widening towards the base; viscidium 0.15 mm long.

Notes: Cyclopogon adhaesus was collected on very dry hills and rocks, almost vertical, road cuts, alt. between 3000 m and 3160 m. It is an autogamous species, all flowers set fruits, although pollinaria remain in the clinandrium beds.

It appears to be related to *Cyclopogon peruvianus* (Presl) Schlecht., from which it differs first of all in petals adhering to the epichile, in having smaller, glabrous flowers, single-nerved sepals, shape of dorsal sepal and lip, especially tubular epichile.

Cyclopogon proboscideus Szlach., **spec. nov.** (Fig. 2).

Species haec habitu *C. elato* (Sw.) Schlecht. propinqua, sed labellis et rostellis longis angustique versus apicem arcuatis differt.

Typus: Brazil, Prov. Rio de Janeiro, *Saint-Hilaire 248* (holo: P).

Roots unknown. Stem 29-37 cm high, 2.5-3 mm in diameter at base, 1 mm in diameter below inflorescence, erect, delicate, in upper part glandular. Cauline bracts 5-6, more or less as long as the internodes, acute, herbaceous with hyaline margins, glabrous or sparsely glandular on margins. Leaves basal, petiolate; petiole up to 5 cm long, narrow; blade 8.5-10 cm long, 2-3 cm wide, lanceolate to oblong-lanceolate, acute. Inflorescence 8-9 cm long, 15-25-flowered, relatively lax to dense, subsecund. Flowers rather small, tubular, subsessile, densely glandular; perianth parts and apex of the column arcuate bent upward. Floral bract 10 mm long, broad lanceolate, acute, thin. Pedicel 0.5 mm long, twisted; ovary 5-6 mm long, twisted in the basal part. Dorsal sepal 5.5 mm long, 1.5 mm wide, broad lanceolate, acute, concave near the middle, 3-nerved. Lateral sepals 8 mm long, 1.5 mm wide, linear in anterior half, falcate in posterior, subobtuse, 2-nerved. Petals 5 mm long, 0.8 mm wide, slightly falcate-spathulate, obtuse, single-nerved. Lip subsessile; hypochile 4.2 mm long, 3.2 mm wide, widely auriculated and concave at base, more or less subquadrate above, basal lip lobules ornamented by long and narrow fleshy projections bent towards the midnerve of lip, hypochile fleshy and ciliate in upper half; isthmus 2 mm long, linear, thickened and ciliate along

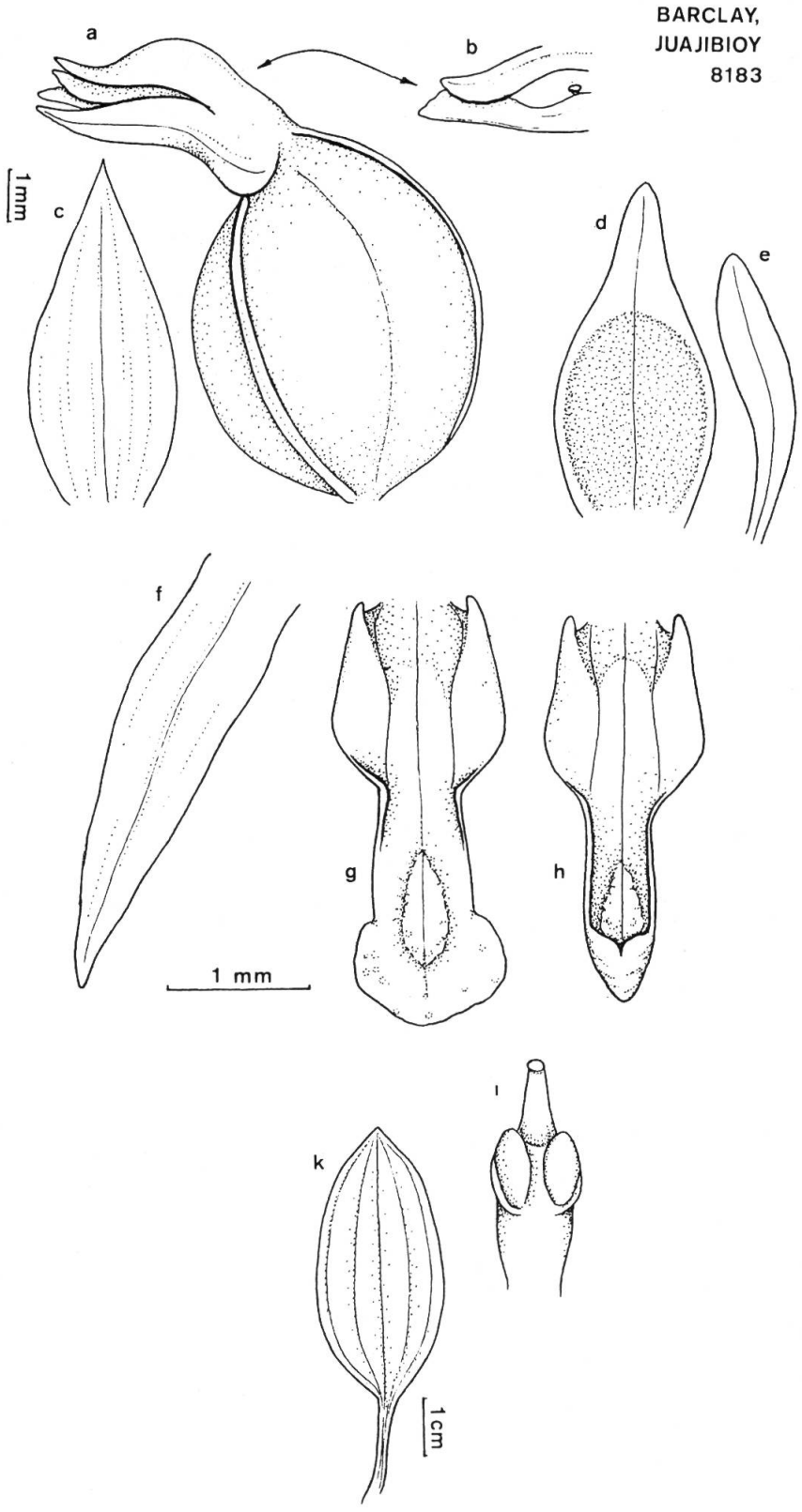

Fig. 1. — *Cyclopogon adhaesus* Szlach., *Barclay & Juajibioy 8183* from Ecuador (holotype).
a, flower; **b,** petals agglutinate to the top of lip; **c,** bract; **d,** dorsal sepal; **e,** petal; **f,** lateral sepal; **g,** lip, spraed; **h,** lip in natural position; **i,** column, bottom view, with pollen mass on the stigma; **k,** leaf.

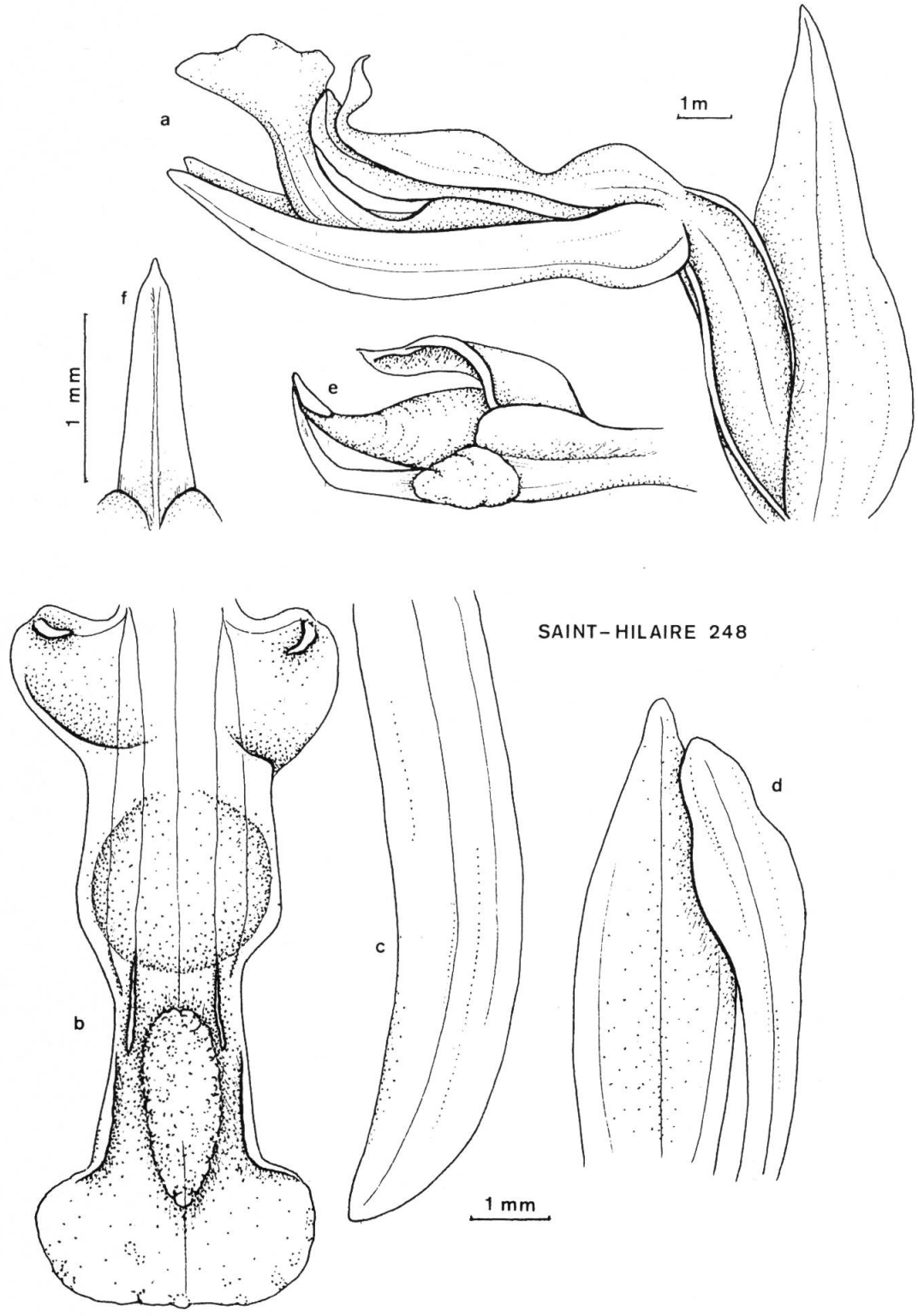

Fig. 2. — *Cyclopogon proboscideus* Szlach., *Saint-Hilaire 248* from Brazil (holotype).
a, flower with bract; **b,** lip, spraed; **c,** lateral sepal; **d,** dorsal sepal and petal; **e,** colum, side view; **f,** rostellum remnant, bottom view.

midnerve and on margins; epichile 1.8 mm long, 3.2 mm wide, elliptical, obtuse, papillate, fleshy. Column 4 mm long, erect. Anther 2.2 mm long. Rostellum 1.8 mm long, narrow, bent upwards, rostellum remnant acute. Pollinarium 2.5 mm long, with the apical part bent upward.

Note: Cyclopogon proboscideus Szlach. is related to *C. elatus* (Sw.) Schlecht., but is easy to distinguish by the position and shape of lateral sepals, lip and rostellum with pollinaria.

During the course of revision of the genera *Beadlea* and *Cyclopogon* the following new combinations should be validated:

Cyclopogon bidentatus (Barb. Rodr.) Szlach., **comb. nov.** et **stat. nov.**
Basionym: *Cyclopogon alpestris* Barb. Rodr. var. *bidentatus* Barb. Rodr., Gen. Sp. Orch. Nov. 2: 283 (1881).

Cyclopogon glabrescens (Hashimoto) Szlach., **comb. nov.**
Basionym: *Spiranthes glabrescens* Hashimoto, Journ. Jap. Bot. 46: 175 (1971).

Cyclopogon hennisiana (Sandt.) Szlach., **comb. nov.**
Basionym: *Stenorrhynchus hennisianus* Sandt, Fedde Rep. Sp. Nov. Reg. Veg. 24: 248 (1928).

Cyclopogon prasophylloides (Garay) Szlach., **comb. nov.**
Basionym: *Beadlea prasophylloides* Garay, Bot. Mus. Leafl. Harv. Univ. 28(4): 301 (1982).

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