Begonia callosa L. Kollmann (Begoniaceae) : a new species from the Atlantic forest in the State of Espírito Santo, Brazil

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Begonia callosa L. Kollmann (Begoniaceae), a new species from the Atlantic forest in the State of Espírito Santo, Brazil

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Abstract

KOLLMANN, L. J. C. (2007). Begonia callosa L. Kollmann (Begoniaceae), a new species from the Atlantic forest in the State of Espírito Santo, Brazil. *Candollea* 62: 141-144. In English, English and French abstracts.

Begonia callosa L. Kollmann is a new species described and illustrated. It is related to *Begonia reniformis* Dryand., from which it differs by the apical calluses on the petioles and hypopodia, the carinate stipules, and the strongly canaliculate and zigzag stems.

Key-words

BEGONIACEAE – *Begonia* – Brazil – State of Espírito Santo – Atlantic Forest

Résumé

KOLLMANN, L. J. C. (2007). Begonia callosa L. Kollmann (Begoniaceae), une nouvelle espèce de la forêt atlantique de l'Etat d'Espirito Santo, Brésil. *Candollea* 62: 141-144. En anglais, résumés anglais et français.

Begonia callosa L. Kollmann est une nouvelle espèce décrite et illustrée. Cette espèce est proche de *Begonia reniformis* Dryand., mais s'en différencie par la présence de cals à l'extrémité des pétioles et des hypopodes, ses stipules fortement carenés et des entrenoeuds caulinaires fortement caniculés et en zigzag.

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Introduction

The family *Begoniaceae* comprises two genera: *Hillebrandia* Oliver, with one species from the Hawaiian Islands, and *Begonia* L. (Clement & al., 2004), pantropical and with about 1400 species (Doorenbos & al., 1998), of which about 240 are native to Brazil (Smith & al., 1986), mostly along the Atlantic Forest (Duarte, 1961). The Atlantic Forest was recently classified as one of the 25 most important world hotspots for conservation (Simões & al., 2002; Mittermeier & al., 1999) because of the threats to its conservation, of its large biological wealth, and of its high level of endemism. In the Atlantic Forest, *Begonia* species occur in different habitats such as marshes, sunlight place and wet soil, rain and dry forest, altitude vegetation, and xerophytic vegetation (Brade, 1961).

During fieldwork in the mountainous region of central Espírito Santo State, we collected a species of Begonia that we are proposing as new and describing herein.

Result and discussion

Begonia callosa L. Kollmann, **spec. nova** (Fig. 1)

Typus: Brazil. Espírito Santo: Fundão, Goiapaba-açu, 21.X.2005, *L. Kollmann 8388 & A. P. Fontana* (holo-: MBML; iso-: RB).

Species haec B. reniformi Dryand. affinis, sed petiolis et hypopodiis apicis callosis, stipulis carinatis, caulibus angulosis et caniculatis differt.

Suffrutescent *herbs* 2-3 m tall, pilose, trichomes simple. *Stems* 1-2.2(-4.5) cm in diameter, green, brown with age, striate, lenticels present, internodes 3-10(-35) cm long. *Petioles* 13-21 cm, green, base and apex reddish, adaxial face sulcate, apically sulcate and callose, lenticels present. *Stipules* deciduous, 2-4.5 cm long, green, ovate to triangular, carinate. *Leaf* blades (20-)26-45(-55) × (14-)18-27(-42) cm, green, abaxial face reddish green, pilose, base cordate, apex acuminate; margins serrate, lightly ciliate; venation actinodromous, veins 6-7, pilose, stomates single. *Inflorescence* 26-69 cm long, with 6-9 nodes, green, dichasial, the first hypopodium sulcate with an apical callus, the others lightly sulcate, all with apical calluses, lenticels present. *Bracts* persistent, opposite, 2-10 mm long, triangular, glabrous, apex acute and apiculate. *Staminate flowers*: peduncles 5.5-6 mm long, reddish pink; tepals 4, white, the outer 0.5-1 × 0.4-0.6 cm, concave, obelliptic, margins reddish, apex rounded to obtuse, the inner 0.5-0.7 × 0.15-0.3 cm, oblong to obovate, apex acute; stamens ca. 27, yellow, rimose, obovate, filaments unequal, the connective projecting beyond the anthers. *Pistillate flowers*: pedicels 5.5-14 mm long, white; tepals 5, 0.55-1 × 0.15-0.6 cm, unequal, ovate to obovate, apex acute; styles 3, yellow, bifurcate, spirally twisted, united at base, stigma with rows of stigmatic papillae on the branches, placenta one per locule, ovules present on both surfaces. *Capsules* 0.8-1.2 × 0.4-0.5 cm, glabrous, basally dehiscent, wings 3, the larger 0.8-1.2 × 1.1-1.6 cm, the smaller two 0.8-1.3 × 1-2 mm, glabrous. *Seeds* cylindrical, oblong.

Paratypi. – **Brazil. Espirito Santo:** Fundão municipality, Alto Piaba, 27.VII.1988, *W. Boone 1219 & al.* (MBML, RB); Goiapaba-açu, 18.III.2005, *L. Kollmann 7470 & al.* (MBML); Santa Teresa municipality, Valsugana Velha, 24.V.2000, *L. Kollmann 2959 & al.* (MBML); Rio Saltinho, 7.VI.2001, *L. Kollmann 3852 & al.* (MBML); 21.X.2005, *L. Kollmann 8373 & al.* (MBML); Valsugana Velha, Estação Biológica de Santa Lúcia, 19.VI.2001, *L. Kollmann 4095 & al.* (MBML); 11.IX.2005, *L. Kollmann 8430 & al.* (MBML); Nova Lombardia, Reserva Biológica Augusto Ruschi, 16.X.2001, *L. Kollmann 4871 & al.* (MBML); Santa Leopoldina municipality, Suíça, 29.I.2006, *A. P. Fontana 1933 & A. M. Assis* (MBML); Atílio Vivácqua municipality, Moitão, 27.IV.2007, *L. Kollmann & al. 9763* (MBML).

Etymology. – The epithet refers to the apical calluses of petioles and hypopodia.

Begonia callosa grows in sunlight in the leaf litter and humus of rocky openings of the Atlantic Forest, at 200 to 800 m. It is also found growing in low canopy forests from open environments on sandy soil.

Begonia callosa resembles *B. reniformis* Dryand., another Brazilian species of sect. *Pritzelia* (Klotzsch) A. DC., due to its lobate leaves, inflorescences, flowers and fruits. Nevertheless, it can be distinguished from *B. reniformis* by the presence of a callus at the apex of the petioles and hypopodia, petioles adaxially sulcate, the strongly carinate stipules and the strongly canaliculate and zigzag stems.

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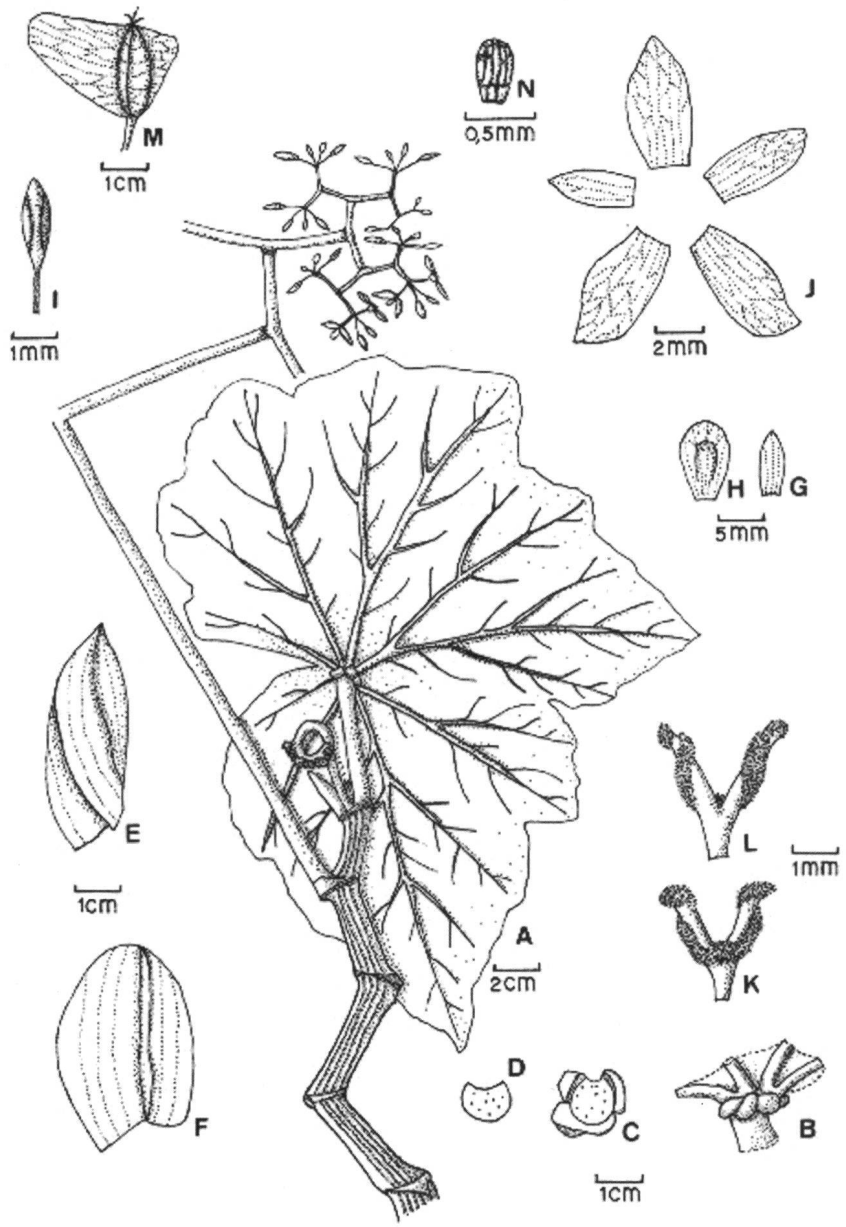

Fig. 1. – *Begonia callosa* L. Kollmann. **A.** Habit; **B.** Petiole callus apice; **C.** Cross section of peciole callus; **D.** Cross section of petiole base; **E.** Stipule, lateral view; **F.** Stipule, abaxial face extended; **G.** Petal male flower; **H.** Sepal male flower; **I.** Stamen; **J.** Tepal femal flower; **K.** Stigma, adaxial face; **L.** Stigma, abaxial face; **M.** Fruit; **N.** Seed.

[Drawn by the author]