

A NEW SPECIES OF *ODONTOGLOSSUM* (ORCHIDACEAE: ONCIDIINAEE) FROM ECUADOR

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ABSTRACT. A new and horticultural desirable species of *Odontoglossum* from Ecuador is described, illustrated and compared with similar species.

KEY WORDS: Ecuador, Orchidaceae, Oncidiinae, *Odontoglossum*, new species.

For many years commercial orchid business in Ecuador was limited to a few individuals' private enterprises, despite the richness of the orchid flora in the country. Not until Father Ángel Andretta, a Salesian missionary stationed in Ecuador and long time orchid enthusiast, together with the Portilla family established Ecuagenera did a more serious effort begin to create an efficient business model. The rest is history. Not only did Ecuagenera turn into a profitable commercial company, but it is also a most successful scientific contributor that has sponsored local education, conservation programs and research efforts by numerous visiting scientists and hobbyists with a passion for orchids. Untold new species have been discovered in this process and one of them is described in this paper.

Taxonomic treatment

Odontoglossum deburghraevianum Dalström & G.Merino, *sp. nov.*

TYPE: Ecuador. Azuay: Guarumales, 1700-2200 m, flowered in cultivation, Aug. 2000, *S. Dalström 2488-B* (holotype, QCNE). Fig. 1.

Odontoglossum harricano Rchb.f., et *Odontoglossum* helgae Königer similis, sed columnae tabula angulare infra stigma differt.

Plant epiphytic. *Pseudobulbs* caespitose, ovoid to pyriform, more or less compressed, becoming wrinkled with age, ancipitous, unifoliate or bifoliate,

ca 5—7 x 8—12 cm, subtended basally by 4 to 5 distichous sheaths, the uppermost foliaceous. *Leaves* conduplicate, subpetiolate, narrowly elliptic, or ovate to obovate, acute to obtuse, ca 18—40 x 3—5 cm. *Inflorescence* erect to arching, almost straight, 3 to 7 flowered, to ca 35 cm long raceme; bracts appressed, scale-like, acute 3—10 mm long. *Pedicel* with *ovary* 35—50 mm long. *Flowers* more or less stellate to slightly campanulate, with recurved apices; *dorsal sepal* whitish to pale yellowish, almost entirely covered by large irregular brown blotches and markings, ovate to broadly elliptic, obtuse and slightly apiculate, more or less undulate, 35—38 x 15—20 mm; *lateral sepals* similar in color, slightly spatulate and weakly oblique, ovate, obtuse and slightly apiculate, variably undulate, 35—42 x 14—16 mm; *petals* similar in color, often less spotted basally, ovate to broadly elliptic, acute to slightly acuminate, variably undulate and sometimes slightly oblique, 35—40 x 12—14 mm; *lip* basally pale yellow, then white, heavily marked and spotted with purple, particularly on the lower part of the lamina, rigidly adnate to the base of the column, then 90° angled downward from the column, unguiculate with erect basal, lateral, fleshy lobes, then with a broadly pandurate and undulate lamina, with lower, lateral auriculate lobes, and a broad, widely undulate, apically involute retuse to rounded, sometimes apiculate apex; callus of a fleshy, slightly pubescent distinctly and narrowly canaliculated, longitudinal structure, emerging basally and diverging apically into unequally sized irregularly denticulate, fleshy keels, sometimes

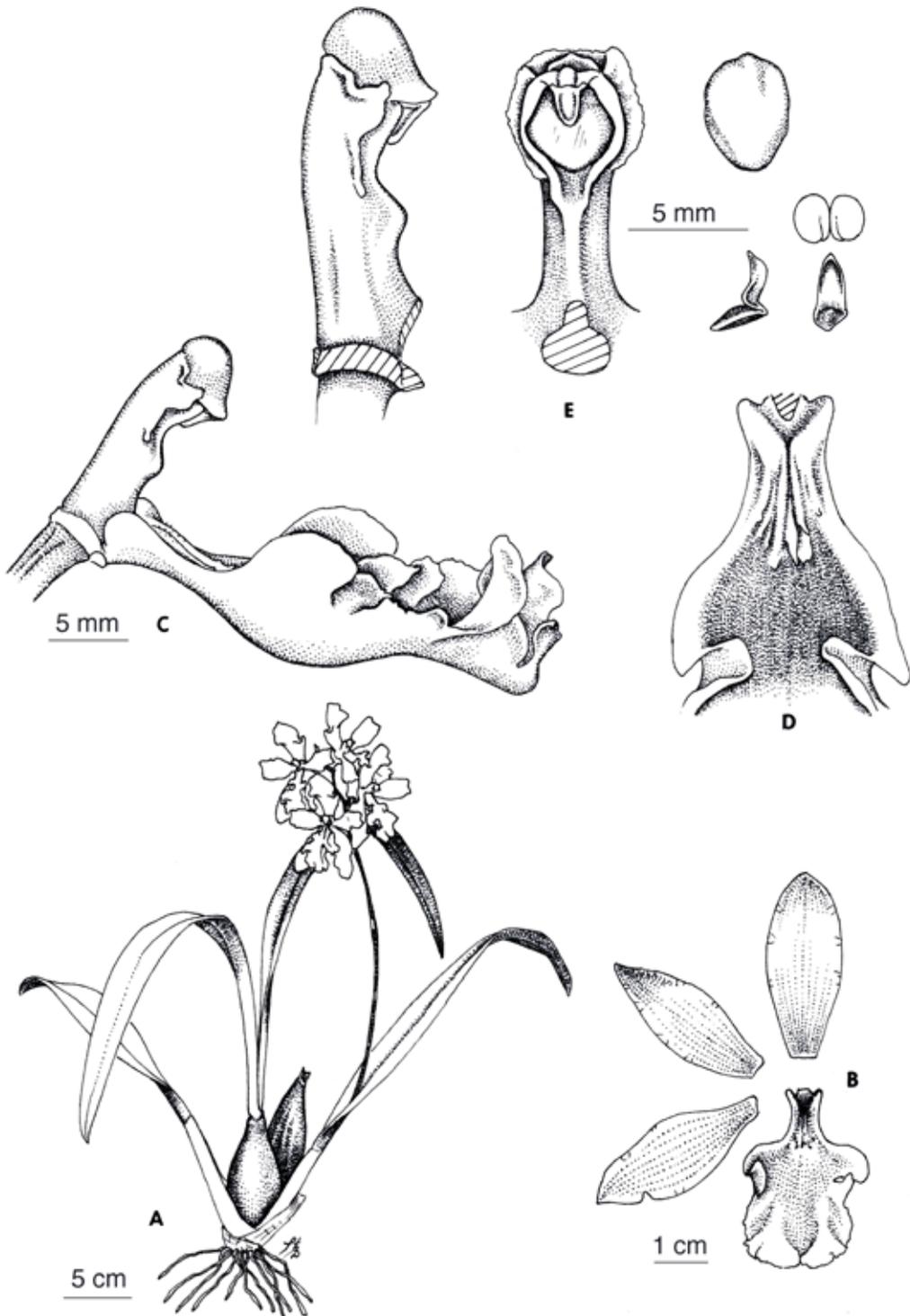


FIGURE 1. *Odontoglossum deburghraevianum*. A: plant habit. B: dissected flower. C: column and lip, lateral view. D: base of lip, dorsal view. E: column, lateral and ventral view, anther cap and pollinaria.

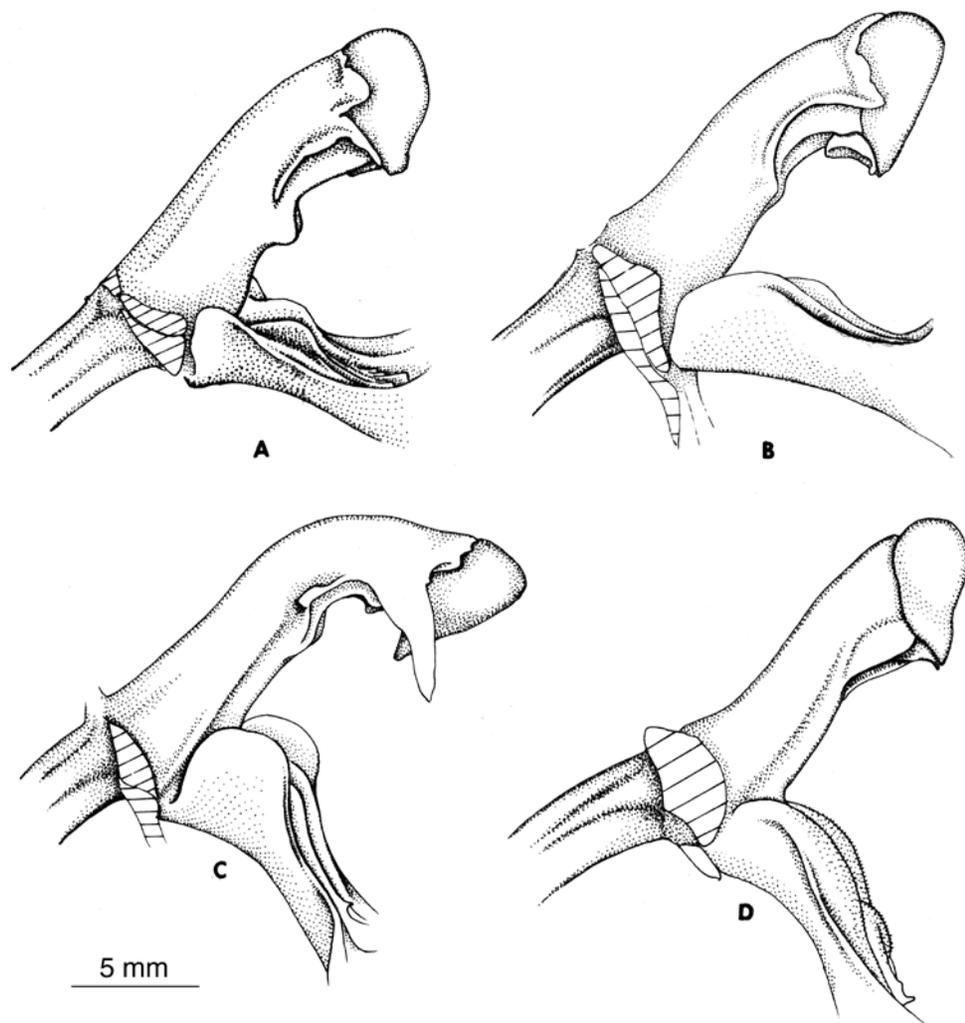


FIGURE 2. Column and base of lip, lateral views, A — *Odontoglossum deburghraevae*. B — *O. harryanum*. C — *O. wyattianum*. D — *O. helgae*.

with additional, variably sized denticles, extending to ca $\frac{1}{4}$ -th of the length of the lip; *column* erect and apically slightly curved towards the lip, basally terete, with a ventral, longitudinal fleshy ridge, diverging into a broader, canaliculated tabula infrastigmatica, and with variable, serrate lateral wings and apical hood, ca 13 mm long; *anther cap* more or less globular with a slight dorsal knob or ridge; *pollinarium* of two globose to pyriform, cleft pollinia on an oblong triangular ca 2.5 mm long stipe, on an elliptic, pulvinate viscidium.

Odontoglossum deburghraevae differs from the rather similar *Odontoglossum harryanum*

Rchb.f. (Fig. 2B) by the smaller flower with a more open appearance, and the narrower base of the lip, in addition to the distinct ventral angles on the column of the former. The flower of *Odontoglossum wyattianum* A.G. Wilson (Fig. 2C) differs in having a column that is distinctly curved towards the lip and with well-developed, broadly falcate apical wings. The flower of *Odontoglossum helgae* Königer (Fig. 2D) has a more erect and terete column without any ventral angles. The flowers of the much smaller *Odontoglossum velleum* Rchb.f., are altogether different with a short and straight column that is parallel with the base of the lip.

The first examined evidences of *Odontoglossum deburghgraeveanum* are two color slides in the collections of the former Orchid Identification Center at the Marie Selby Botanical Gardens, Sarasota, Florida, labeled “*Odm. wyattianum?*”. One slide is from the Lee Kuhn collection and is probably from a plant that flowered at J & L Orchids in Connecticut at some time, but the second slide is of unknown origin (possibly from Gilberto Escobar’s extensive slide collection) and was processed in August 1973. Father Andreetta has since collected some additional plants of this species apparently near the little town of Guarumales, Ecuador, in 1992. In August of 2000, plants of this species were in bloom at Ecuagenera’s nursery in Gualaceo, where they were offered for sale, marketed as *Odm. helgae* Königer, but a comparison with the type of that species and with most recently discovered additional plant material in northern Peru, reveal that they represent separate taxa due to distinct morphological differences.

Odontoglossum deburghgraeveanum has apparently been collected on few occasions in an area where the closely related *Odm. harrayanum* and *Odm. velleum* Rchb.f., also occur sympatrically and the possibility of *Odm. deburghgraeveanum* being a natural hybrid between the other two has been considered. Although similar in coloration, the morphological differences between the three species suggest that a hybrid origin is not likely. The column structure and the base of the lip in particular are quite defined and consistently different for the three species. *Odontoglossum deburghgraeveanum* is rather variable in coloration, as most species in the genus, which is a factor that often deceives collectors and scientists alike to believe they see different species (or natural hybrids), and presumably also deceives pollinators as well to see different types of flowers where some awards eventually can be obtained. This topic has been discussed in a separate article (Dalström, 2003).

ETYMOLOGY: Named in honor of Guido Deburghgraeve MD., of Liedekerke, Belgium, a passionate grower of *Odontoglossum* and plants of related genera, who has contributed substantially to the knowledge and understanding of how to view and classify these very complex and troublesome orchids.

ADDITIONAL SPECIMENS SEEN: Aug. 1973, color transparency (SEL); Azuay: Guarumales 1700–2000 m, 1992, *A. Andreetta s.n.* (fide G. Merino, voucher not preserved); flowered in cultivation at Ecuagenera, Aug. 2000, *S. Dalström 2488-A* (SEL).

DISTRIBUTION: *Odontoglossum deburghgraeveanum* is currently reported from one locality in east-central Ecuador. It is likely to be found elsewhere, however, because many species of *Odontoglossum* occur in very “spotty” populations, often over a very large area and are considered rare until another population suddenly is discovered quite some distance away. To make matters worse, sometimes plants are purchased from private collectors where the original locality may be lost or falsified.

IN MEMORIAM: The authors are deeply saddened by the abrupt and premature death of one of Mexico’s finest orchid scientists. Miguel Ángel Soto Arenas will be long remembered for his substantial scientific contributions even among those of us who never had the pleasure of knowing him in person.

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