Extending the Range

A new Dracula from Costa Rica

Text and Illustrations by Franco Pupulin

BOTANICAL EXPLORATION IN tropical countries has significantly increased in recent decades, together with local people's interest in the natural resources of their countries. Costa Rica is perhaps one of the best examples of how cooperation between trained scientists, from both the local institutions and abroad, and orchid aficionados able to recognize novelties, can improve our knowledge about the orchid flora of a tropical country rich in floristic treasures.

In 1993, when Robert L. Dressler, PhD, published his extensive guide to the orchid flora of Costa Rica and Panama, accounting for about 1,200 species in Costa Rica, more than 160 new orchid species were described from the country (Grayum et al., 2000), and many others are now to be published (Pupulin, in press; Dressler, pers. comm.). Of course, most of the new findings are in genera of minor horticultural importance, and they usually escaped attention due to their diminutive size or the lack of interest by local growers in their modest flowers.

This article deals with an exception to this rule — a showy member of *Dracula*, a genus widely cultivated and appreciated in Costa Rica for the strange beauty of its flowers. It also deals with an exception to the rule that the most interesting botanical discoveries should be found in remote and less-explored areas. Due to its proximity to the capital of the country, and to the ancient town of Cartago in central Costa Rica, the Parque Nacional Tapantí is one of the preserves with the highest rate of visitors in the whole Costa Rican national system of protected areas. It is not too far from the Jardín Botánico Lankester of the Universidad de Costa Rica. It is visited at regular intervals by the students in courses on orchidology offered by this center as a part of the training on orchid ecology and taxonomy.

I have guided many of the student groups along the well-known paths that extend into the wet forests of *Tapantí* (the name of the locality is from an indigenous word meaning "the river falling from the sky"), where we are able to recognize most of the orchid species, even when they are not in flower. Along one of the best-known paths of the park — *Sendero Oropendula* — during the final field trip of the last orchid course, in a shaded spot, I saw a flower I immediately recognized to be a new record for the orchid flora of Costa Rica. As the day was my birthday, I chose to see it as a personal gift from Costa Rican wildlife. Comparison with the other members of *Dracula* in Costa Rica and with the rich literature on the genus revealed it was a still undescribed taxon. Therefore, I propose it as a species new to science:

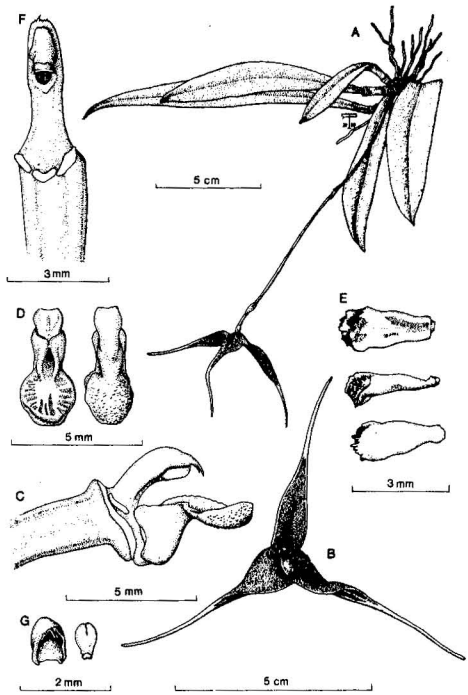
Dracula inexperata Pupulin, *sp. nov.*

Species *Draculae platycrateri* (Rchb.f.) Luer similis, ovario laevi, sepalis triangularibus interne papilloso-pubescentibus, labello subpandurato non lamellato concavo recedit.

Plant epiphytic, caespitose, suberect, to about 15 cm tall. **Roots** coarse, glabrous. **Ramicauls** short, stout, 1.1–1.3 cm long, enclosed by two to three tubular, somewhat loose sheaths. **Leaves** elliptical, thinly coriaceous, carinate, acute, lightly acuminate, to 13.5 cm long x 2.2 cm wide,

decurring toward the base into an indistinct, conduplicate petiole about 1.5 cm long. **Inflorescence** a pendent, successively flowered raceme up to 14 cm long, produced from the base of the ramicaul; peduncle terete, to 13 cm long, with two to three distant, tubular bracts; floral bract ovate, cucullate, acute, 7 mm long; pedicel terete, 15 mm long. **Ovary** articulate with the pedicel, subclavate, smooth, round in cross-section, 5.5 mm long. **Flowers** large, spreading, flat, the sepals white tinged with yellow toward the base, densely spotted and blotched with purple red, the caudate apices bright yellow; the petals white marked with purple-brown; the lip solid magenta; the column yellow. **Sepals** subsimilar, triangular-oblong, dorsally carinate, the inner surface densely covered with minute papillae, the margins sparsely ciliate, 51 mm long, 8–10 mm wide, connate at the base for about 5 mm to form a short, open cup, the acute apices contracted into slender tails 23–28 mm long, the lateral sepals twisted toward the end of the lamina. **Petals** cartilaginous, oblong, 2.8 mm long, 1.3 mm wide, rounded, bivalvate at apex, papillose between the laminae, the inner lamina with papillose apical margin. **Lip** articulate with the base of the column foot, subpandurate-spathulate, 4.5 mm long, 2.1 mm wide, the epichyle ovate to orbicular, the concave apex rounded to subtruncate, irregularly serrulate, with three central raised veins and multiple, irregular, less raised veins radiating toward the margins, obscurely verrucose externally; the hypochyle subquadrate-oblong, 1.5 mm long, 1.2 mm wide, with erect, obtuse margins, provided with two fleshy keels decurring toward the epichyle, cleft centrally, concave at the base. **Column** elongate, semiterete, irregularly dentate, 3.5 mm long, with a stout foot about 3 mm long. **Anther cap** cucullate, ovate one-celled. **Pollinia** two, linear-oblong, partially fused, on very short, pulverulent caudicles.

TYPE: COSTA RICA. Cartago: Orosi, Parque Nacional Tapantí, sendero Oropendula, along the Río Grande de Orosi, 1,160 m, epiphytic on branchlet in shade, 19 Nov. 2000, *F. Pupulin, R. Chacón and Curso de Orquideología 2584* (holotype: USJ!).



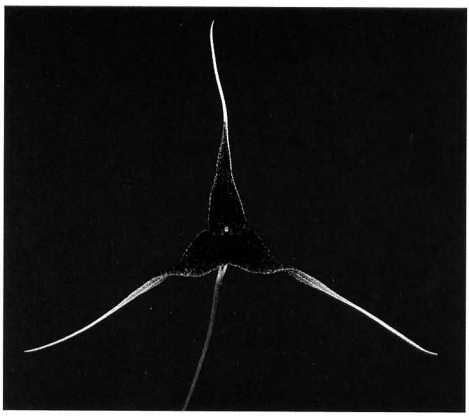
Above *Dracula inexperata* Pupulin. A. Habit. B. Flower. C. Column and lip, lateral view. D. Lip: adaxial and abaxial view. E. Petal (from the top): adaxial, lateral and abaxial view. F. Column, abaxial view. G. Anther cap and pollinarium. Illustration voucher: *F. Pupulin 2584*. Drawn from the holotype.

ETYMOLOGY: From the Latin *inexperatus,* "unexpected," in reference to the unexpected finding of this showy species along one of the most visited paths of Parque Nacional Tapantí, a protected area intensely explored by many botanists and students over the years.

DISTRIBUTION: Costa Rica, known only from the type locality.

ECOLOGY: Epiphytic on branchlets in

Above ***Dracula inexperata*** **grows as an epiphyte on branchlets covered with mosses. Left For its small lip,** ***D. inexperata*** **must be assigned to the Series** ***Grandiflorae-Parvilabiatae*** **of** ***Dracula*****, a group of species eminently South American in distribution. Opposite The flowers of** ***D. inexperata*** **are among the showiest of the Costa Rica Pleurothallidinae. The inner surface of the sepals is covered with fine purple papillae, giving the flower its characteristic color.**



dense shade in disturbed primary vegetation, the species is known only from the lower montane wet forest of the Caribbean watershed of Cordillera de Talamanca at 3,600 to 3,940 feet (1,100 to 1,200 m) elevation.

DISCUSSION: *Dracula inexperata* pertains to the Series *Grandiflorae-Parvilabiatae* Luer (Subgenus *Dracula,* Section *Dracula,* Subsection *Dracula*), a group characterized by large-flowered species with small lips and a smooth or verrucose ovary (Luer, 1993). The group is eminently South American, with two main centers of distribution in the Cauca department in Colombian Andes and in Ecuador (Prov. of Carchí), and extends southward to southern Ecuador. Although *D. platycrater* (Rchb.f.) Luer has been recorded from such low altitudes as 4,920 feet (1,500 m), the group shows its highest diversity at altitudes of 6,560 to 8,200 feet (2,000 to 2,500 m; Luer, 1993). *Dracula inexperata* is the first species of the group to be found in Central America, although other species of the genus (i.e., *Dracula vespertilio* [Rchb.f.] Luer) are known to have continuous distribution from Nicaragua to Ecuador. From its only close relative, *D. platycrater, D. inexperata* can be easily recognized by the integument of the sepals, which, in the latter species, are covered by dense, minute to coarse papillae. Moreover, *D. inexperata* has a smooth ovary (vs. subverrucose), triangular vs. oblong sepals, and the scallose lip is concave toward the apex vs. the convex epichyle provided with a verrucose callus of *D. platycrater.*

Dracula inexperata is so far known from a single locality and one specimen. A preliminary survey of other branches of the same tree where the plant was collected and of other trees in the area failed to reveal more plants of the new *Dracula,* which should be considered a rare species in the field. Part of the type specimen is now in cultivation at Jardín Botánico Lankester, where it will be reproduced from seed for public distribution. □

Acknowledgments

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