

13. ***Dichaea gomez-lauritoi*** Pupulin, *sp. nov.*
TYPE: COSTA RICA. Limón: Guápiles, camino a Río Frío, bosques remanentes entres los Ríos Blanco y Corinto, 200–250 m, 8–10 April 1982, “Epífita, flores blancas”, *J. Gómez-Laurito 8174* (Holotype: CR 89411). Fig. 45.

Habitu Dichaeae graminoidi (Sw.) Lindl. *similis, sed ovario muriculato* (vs. *glabro*) *labelloque base cuneata* (vs. *bilobata*) *ecaloso*; a *Dichaeae acroblepharae* Schltr. *foliis linearis angustioribus in caulibus late dispositis, floribus perpusillis albidis distincta.*

Plant epiphytic, caespitose, to 37 cm long. *Roots* filiform, exposed at the base and along the lower, naked portion of the stem, hidden by

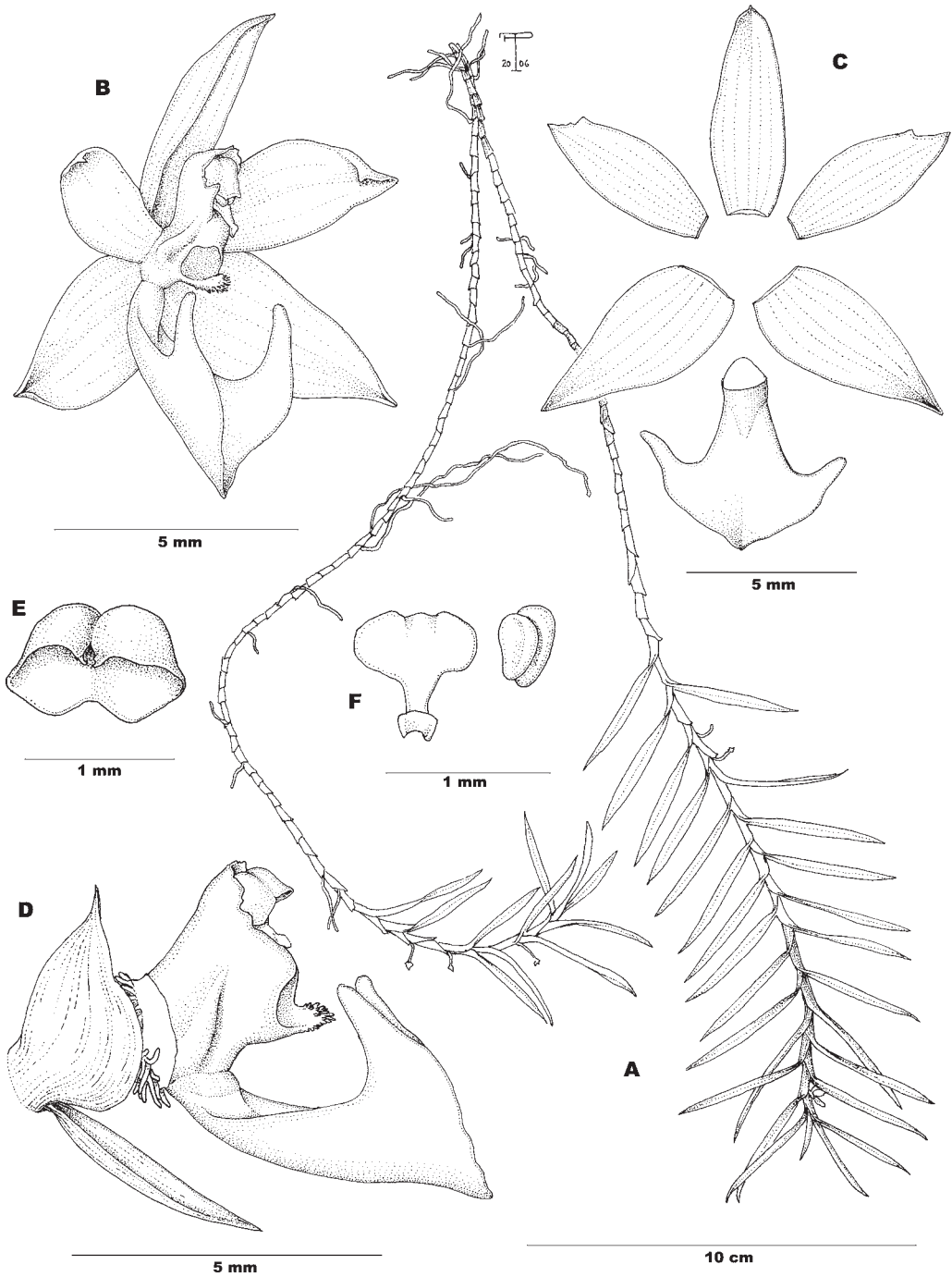


FIGURE 45. *Dichaea gómez-lauritoi* Pupulin. A, Habit; B, flower; C, dissected perianth; D, column and lip, lateral view; E, anther cap; F, stipe and pollinia. Drawn from the holotype (CR).

the leaf sheaths on upper stem, 0.3–0.5 mm in diam. *Stems* slightly compressed to subcylindric, pendent, 33–37 cm long, 0.13–0.18 cm wide across conduplicate sheaths. *Leaves* articulate with the sheaths, widely spaced along stem, subspreading, membranaceous, green, 32–40 × 2.5–3.0 mm, narrowly linear-elliptic, acute, the apical margins microciliate; sheaths clasping, conduplicate-ancipitous, slightly dilated toward the apex, 11–13 × 4.0–4.8 mm, distinctly flushed with pale purple-brown in dried material. *Inflorescence* solitary, 1-flowered, emerging below foliage, subpatent, 11–13 mm long, provided with a basal, lanceolate, clasping, membranaceous bract, 4.5 × 1.0 mm. *Floral bract* double, the outer bract widely triangular-ovate, cuspidate, 4.0 × 2.5 mm, the inner bract linear-lanceolate, acute, 4 mm long. *Pedicellate ovary* cylindrical-subclavate, 1.2 mm long, apically muricate. *Flower* spreading, white; no fragrance recorded. *Dorsal sepal* erect, concave, elliptic, obtuse, minutely apiculate, 5.5 × 2.1 mm. *Lateral sepals* obliquely ovate-elliptic, concave, subacuminate, 6.0 × 2.7 mm. *Petals* narrowly elliptic, acute, the superior margin provided with a short tooth toward the apex, 5 × 2 mm. *Lip* 3-lobed, anchoriform, with a short and stout claw ca. 0.5 mm long decurrent on the lamina, entire lip 4.5 × 6.0 mm when spread, the hypochile obtuse, 2 mm long, 3 mm wide apically, the epichile widely triangular, obtuse, 3.8 × 2.5 mm, the lateral lobes triangular-ligulate, rounded, retrorse, 2.0 × 0.5 mm. *Column* suberect, 2.4 mm long, provided along the basal margins with subcarinate, thickened-linear, glabrous wings; the clinandrium shortly cucullate, irregularly erose; the stigma ovate, apically emarginate; ligule short-triangular, thickened toward the papillose-hirsute apex, 0.8 × 0.5 mm. *Anther cap* subrhynchiform, emarginate, 2-celled. *Pollinia* 4 in two pairs of different size, on a obpyriform-spatulate, truncate stipe; viscidium elliptic. *Fruit* not seen.

Distribution: known only from Costa Rica.

Eponymy: named in honor of Jorge Gómez-Laurito, outstanding Professor of Botany at the University of Costa Rica and internationally renowned botanist, who discovered the species.

Ecology: an apparently rare plant, *D. gomez-lauritoi* was collected only once in the warm, extremely wet forest of the Caribbean plains lying at the base of the steep Central Volcanic

range. At the type locality, at an elevation of about 200 m, the climate is constantly rainy, and no definite dry season exists. From the same area, enclosed between the Blanco and Corinto rivers, *D. acrolephara*, *D. fragrantissima* ssp. *eburnea*, *D. panamensis*, *D. sara-piquinsis*, and *D. tuerckheimii* have also been recorded. Flowering occurs at least in April.

The features of the plant and the flower have no close affinities with any of the known *Dichaea* species. The vegetative habit is almost indistinguishable from that of *D. graminoides*, a species originally described from Jamaica (Swartz s.n., *Rchb. Orch.* 25413!, W, the type) and recorded from Mexico, Guatemala, Belize, El Salvador, Honduras, Nicaragua, Panama, the West Indies, and northern South America (Soto Arenas, 2002), but so far never found in Costa Rica. The only specimen from Costa Rica annotated as *D. graminoides* is Gómez-Laurito 8174 at CR, and its narrow, linear-elliptic leaves, well spaced along the stems, and the leaf sheaths somewhat tinged with pale brown, are in fact very similar to those of *D. graminoides*. The floral features, however, prevent such a determination. The ovary of *D. gomez-lauritoi* is muricate (vs. glabrous in *D. graminoides*), and the lip is sagittate from a cuneate base (vs. panduriform, bilobed at the base), without the central linear, tabular callus characteristic of *D. graminoides*. Florally, *D. gomez-lauritoi* is closely related to *D. acrolephara*, from which is distinct by the plant habit, the much smaller flower (tepals <6 mm, vs. >7 mm) concolorous white (vs. boldly blotched with purple), and the distinctly thickened area at the base of the hypochile. When the type specimen of *D. gomez-lauritoi* was collected in 1982, the San José–Limón Highway was not yet under construction, and major habitat transformations may perhaps explain the difficulty in finding other plants in the same area, even with the help of the original collector.