

Acianthera cabiriae Pupulin, G. Rojas & J. D. Zúñiga, *sp. nov.* TYPE: COSTA RICA. Cartago: Turrialba, CATIE, in the Cabiria fruit trees collection, ca. 600 m, with blossoms and developing fruits at Jardín Botánico Lankester, 26 September 2006, A. Karremans 1433 (Holotype: CR). Fig. 3.

Species Aciantherae fecundae Pupulin, G. Rojas & J. D. Zúñiga *similis, atque illae floribus cleistogamis, sed statura duplo majore, foliis ellipticis, inflorescentia tribus vel plus floribus, sepalo dorsalibus elliptico, synsepalo ovato, labello ovato-sublanceolato obscure 3-lobato truncato marginibus lateralibus integris carinis diminutis, columna elliptica-subrhombica clinandrio reducto differt.*

Plant epiphytic, caespitose, small, up to 6 cm tall. *Roots* slender, flexuous, less than 1 mm in diam. *Stem* subequal to the leaf, triangular in section, grooved, dilated toward the apex, distinctly keeled abaxially, 1–3 cm long, enclosed at the base by 3–4 infundibuliform, tubular, membranaceous bracts to 12 mm long. *Leaf* elliptic, acute, minutely emarginate, provided with a small abaxial apicule, 3.0–3.5 cm long,

0.8–1.0 cm wide. *Inflorescence* a 3-(–4)-flowered, prostrate raceme borne at the base of the leaf from a membranaceous, eventually papyraceous, spathe to 3.5 mm long. *Floral bract* membranaceous, tubular-cylindric, amplexant, obtuse, to 1.8 mm long. *Pedicel* cylindric, to 1 mm long. *Ovary* subclavate, longer than the pedicel, to 2.5 mm long, 1.3 mm wide. *Flowers* always cleistogamous, yellowish green. *Dorsal sepal* elliptic, acute, minutely subrounded, 3 mm long, 1.5 mm wide, abaxially carinate. *Lateral sepals* connate into an ovate synsepal, subacute, 3 mm long, 2.3 mm wide. *Petals* lanceolate, acute, the distal margins irregularly denticulate, 1.8 mm long, 1 mm wide. *Lip* articulate with the column foot, clawed, obscurely 3-lobed, ovate-sublanceolate, 2 mm long, 1.5 mm wide, the lateral lobes rounded, erect, forming a small cuniculus, the midlobe truncate, provided with 2 low, crenulate, laminar keels. *Column* semiterete, elliptic-subrhombic, 1.7 mm long, provided with 2 linear wings, the apex rounded-erose. *Anther cap* cucullate, obovate, minutely papillose.

Etymology: named from the Cabiria fruit trees collection of CATIE at Turrialba.

Distribution: known only from Costa Rica.

Ecology: epiphytic on cultivated trees at 600 m elevation. The climate of the area is warm and very wet, and the remnant woods can be assigned to the very wet tropical, transition to wet premontane forests. Flowering occurs in September and October, corresponding to the rainy season.

Acianthera cabiriae is closely related to *A. fecunda*, and like it, has cleistogamous flowers. A fresh blossom was opened to illustrate the type, in which the pollen was already extruded from the anther and beginning to germinate into the stigmatic fluid. The new species is at least twice the size of *A. fecunda*, it has elliptic leaves (vs. narrowly ovate), and the inflorescence bears three to four flowers (vs. two). The lateral sepals are connate to the apex into an ovate synsepal (vs. broadly ovate, the apex free in *A. fecunda*), and the lip is ovate-sublanceolate and truncate (vs. hastate, acute), with low, linear, and inconspicuous adaxial keels (vs. large, flabellate). Moreover, the column of *A. cabiriae* is elliptic-subrhombic, with a reduced clinandrium, whereas in *A. fecunda* it is terete with a distinctly petaloid clinandrium.

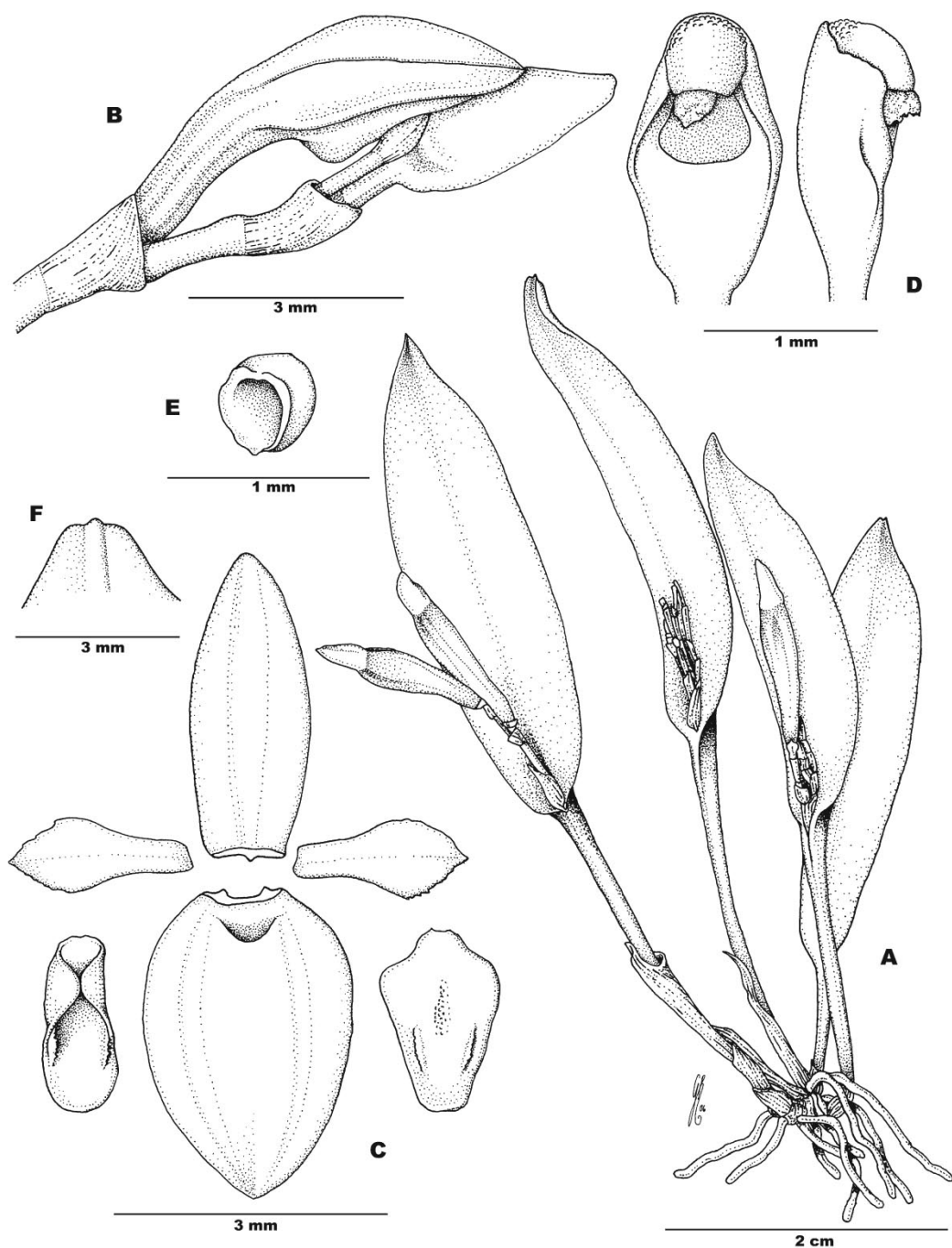


FIGURE 3. *Acianthera cabiriae* Pupulin, G. Rojas & J. D. Zúñiga. **A**, habit; **B**, apex of the inflorescence and buds; **C**, dissected perianth; **D**, column, ventral and lateral views; **E**, anther cap; **F**, apex of leaf, abaxial view. Drawn by G. Rojas from the holotype.