

Encyclia ossenbachiana Pupulin, sp. nov. TYPE: Costa Rica—Cartago: Tierra Blanca, Río Reventado, along the river edge, at ca. 1900 m. A plant collected by Rafael A. González Rodríguez, July 2001, flowered in cultivation at Jardín Botánico Lankester, Dulce Nombre de Cartago, 8 July 2003, *D. Bogarín 357* (holotype, USJ!). FIGURE 1.

Ab *Encycliae mooreanae* (Rolfe) Schltr. sepalis petalisque viridibus immaculatis, labelli lobulis lateralibus oblongo-linearibus multo angustioribus, lobulo intermedio transverse late elliptico vel orbicularis apici subcuadrato vel subretuso-truncato, callo in disco ornato duabus carinis rotundatis retrorsis postice elevatis apicibus junctis cuniculum angustum formantibus distincta; a *Encycliae ceratistidi* (Lindl.) Schltr. inflorescentiae ovarioque dense corrige ovarioque dense, floribus multo minoribus, sepalis tepalisque valde reflexis, labelli lobulis lateralibus angustioribus apicibus adaxialibus maculae purpureae notatis, lobulo intermedio maculae purpureae magnae notato, columnae exalatae differt.

Plant epiphytic, caespitose, with a very short rhizome, to 70 cm tall. **Roots** white, produced from the base of the pseudobulb and the rhizome, 0.9–1.1 mm in diam. **Pseudobulbs** ovoid to subpyriform, subtended by scarious bracts shredded with age, 3.5–5.5 × 2.3–3.0 cm, 2- (rarely 3-) foliate at apex. **Leaves** ligulate-oblong, acute, the apex somewhat irregularly bilobed, coriaceous, curving with age, 24–55 × 1.9–2.3 cm. **Inflorescence** terminal, arching, stout, warty, a panicle raceme to 150 cm long; peduncle terete, to 45 cm long, covered by 6–8 scarious, tightly sheathing bracts 8–11 mm long; lateral branches perpendicular to the main rachis, densely warty, 7–14 cm long, 2–11 flowered. **Floral bracts** triangular-ovate, acute, scarious, 3 × 2.5–3.0 mm. **Ovary** pedicellate, terete, warty, arching, to 1.5 cm long including the pedicel. **Flowers** resupinate, spreading-reflexed, scented, the sepals and petals pale apple green, the sepals dorsally blotched with brown at the apex, the lip white, blotched purple on the center of midlobe, the lateral lobes abaxially provided with a large brown blotch and a purple blotch at the center of the adaxial apex; the callus white; the column pale green at the base, white at apex, with a bright yellow anther. **Sepals** subsimilar, oblanceolate-oblong, acute, reflexed, dorsally carinate and provided with a prominent, apical callus, slightly conduplicate toward the apex. **Dorsal sepal** 10 × 3 mm. **Lateral sepals** slightly oblique, 10–11 × 3.5–4.0 mm. **Petals** spatulate to unguiculate, obtuse, minutely apiculate, reflexed, 9 × 3.0–3.5 mm. **Lip** basally adnate to the column for 2 mm, deeply 3-lobed, 10 × 8 mm across the lateral lobes; lateral lobes linear-oblong, rounded, slightly wider toward the apex, erect and flanking the column in natural position, the apices neatly reflexed, 5 × 2 mm; isth-

mus ca. 1 mm long, subquadrate, minutely papillose on the lateral margins; midlobe suborbicular, retuse, 6 × 7 mm, provided at the base with an ovate-elliptic, laminar, flat callus, decurrent in front into a low keel running toward the lip apex, on which is a second callus composed by 2 retrorse rounded keels, highest in the rear portion, joining at the base to form a narrow cuniculus. **Column** straight, subclavate, semiterete, truncate, 7 mm long. **Anther** cap widely ovate, cucullate, 4-celled. **Pollinia** 4 in 2 pairs, obovate, strongly flattened, on narrowly linear, basally bifid caudicles.

PARATYPE: Costa Rica—Alajuela: Alfaro Ruiz, Palmira, Zona Protectora El Chayote, along the continental divide, 2100 m, 8 March 2001, flowered in cultivation at Jardín Botánico Lankester, University of Costa Rica, 2 June 2004, *F. Pupulin & G. Barboza 5237* (Jardín Bot. Lankester, Spirit!).

EPONYMY: Named in honor of Carlos Ossenbach Sauter, founder of the Charles H. Lankester Foundation and research associate of Jardín Botánico Lankester, University of Costa Rica, in recognition of his contributions to the development of Costa Rican orchidology.

DISTRIBUTION: Only known from Costa Rica.

ECOLOGY: Epiphytic in submontane rain forests along the crests of the Central Volcanic range in Costa Rica, at 1900–2100 m. Flowering occurs at least in June and July.

In flower size, *Encyclia ossenbachiana* approaches *E. mooreana* (Rolfe) Schltr., described in 1891 from a specimen without locality data, to which it also resembles in the purple blotches at the apex of the reflexed lateral lobes of the lip and on the blade of the midlobe. The lateral lobes, however, are linear-oblong in *E. ossenbachiana*, whereas they are notably narrowed at the base and widely expanded at apex in *E. mooreana*, and the midlobe is subquadrate-truncate in *E. ossenbachiana* vs. rounded in *E. mooreana*. The two species also differ in the color of sepals and petals, which are completely green in *E. ossenbachiana* and flecked with purple in *E. mooreana*, as well as in the shape of the callus. On the top of the laminar callus that is typical of many *Encyclia* species, *E. ossenbachiana* presents two retrorse, rounded keels that join at the base to form a narrow cuniculus.

The shape of the lateral lobes of the lip has been widely used to separate species groups in Central American *Encyclia*, and it is a useful character to distinguish *E. mooreana* from the closely related *E. ceratistes* (Lindl.) Schltr. (Ames et al. 1936; Williams 1946, 1951; Hamer

1974; Mora-Retana & Atwood 1992; Dressler 1993, 2003, 2004). The latter species was originally described from a plant collected by Hartweg in the “Spanish Main,” or northern South America (Lindley 1844), and its distribution ranges from Mexico to Colombia and Venezuela. The oblong-ligulate lateral lobes of the lip of *E. ossenbachiana* are comparatively narrower and marked with a round purple blotch at apex, but they agree in shape to those of *E. ceratistes*. Nonetheless, the two species differ in many aspects. The inflorescence and the ovary of *E. ossenbachiana* are densely verruculose (vs. slightly warty to glabrous in *E. ceratistes*), the perianth segments are smaller in *E. ossenbachiana* (10–11 vs. 13–16 mm long), and the sepals and petals are strongly reflexed in *E. ossenbachiana* (spreading in *E. ceratistes*). In the original protologue, Lindley (1844) stated that the column of *Epidendrum ceratistes* is “bicornuta” (or provided with two horn-like arms), whereas in Costa Rican populations the column only presents two very reduced teeth; however, the column of *E. ossenbachiana* is not winged at all. A photograph of the flowers of *E. ossenbachiana* was published by Pupulin (2005: 261) without determination.