

*Lepanthes johnsonii* subsp. *costaricensis*  
Pupulin, *subsp. nov.* TYPE: COSTA RICA.  
Cartago: Orosi, road to the Parque Nacional  
Tapantí, about 1 km before the entrance of the  
Park, 1160 m, epiphytic on a short tree along  
the roadside, 6 February 2000, *F. Pupulin 1979*  
(Holotype: USJ!). Fig. 3.

*A forma typica sepalis lateralibus multo  
majoribus non caudatis differt.*

Plant epiphytic, very small, cespitose, erect  
to pendent, to 2.5 cm tall. Roots thick,  
glabrous, 1.5–1.8 mm diam. Ramicauls slender,  
0.6–1.2 cm long, enclosed by 2–3 glabrous,  
brown sheaths. Leaf thinly coriaceous, elliptic,  
obtuse, minutely tridenticulate at apex, 7–8 mm  
long, 4 mm wide, cuneate at the base into a  
petiole about 1 mm long. Inflorescence 1–2 per  
growth, produced singly behind the leaf at any  
new growth season, a loose, distichous, succes-  
sively few-flowered (to 11 flowers) raceme to  
32 mm long; filiform peduncle to 15 mm long,  
covered at the base by a tubular sheath; rachis  
fractiflex. Floral bracts widely ovate, 0.8 mm  
long, 0.7 mm wide, glabrous; pedicel 1.8 mm  
long; ovary 1 mm long. Flowers large for the  
genus, with purple-brown sepals, petals red-  
purple, the lateral lobes of the lip red-purple  
with yellow apex, and red-purple column.  
Dorsal sepal very broadly triangular-ovate,  
contracted at apex into an acuminate tail 4 mm  
long, 8.5 mm long including the tail, 5.5 mm  
wide, 3-veined, connate to the lateral sepals for  
2.5 mm. Lateral sepals connate for three quar-  
ters of their length into a broadly ovate, bifid  
lamina with acute apices, 11 mm long, 8.5 mm  
wide, connate to the dorsal sepal for 2.5 mm.  
Petals transversely bilobed, 0.8 mm long, 1.9  
mm wide, the upper lobes obliquely triangular,  
0.6 mm long, 1.2 mm wide, the lower lobes  
smaller, hemi-circular, 2.7 mm long, 0.2 mm

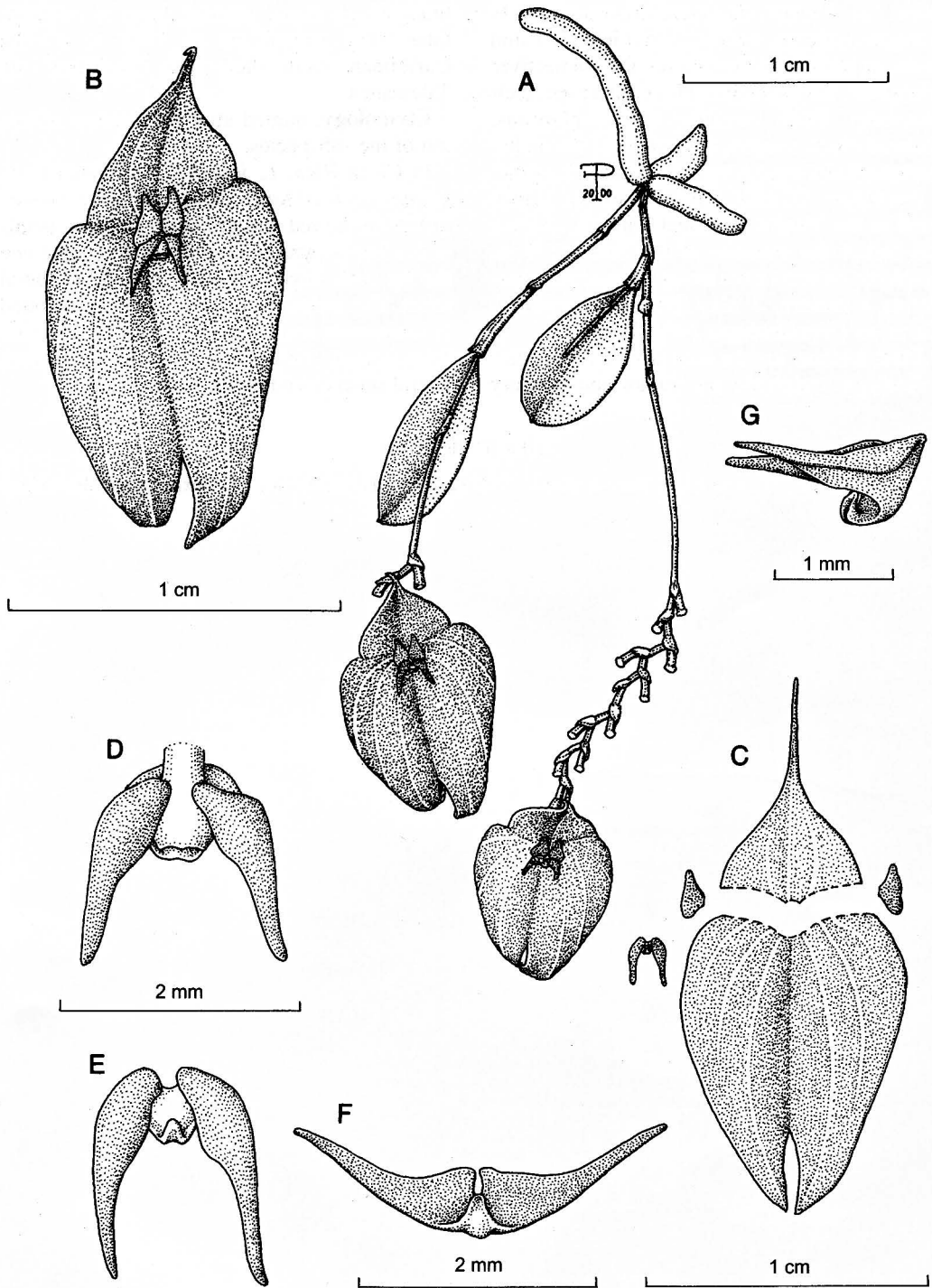


FIGURE 3. *Lepanthes johnsonii* subsp. *costaricensis* Pupulin. A, habit; B, flower; C, dissected perianth; D, column and lip (adaxial view); E, lip in natural position (adaxial view); F, lip flattened (adaxial view); G, lip (lateral view). Illustration voucher: *F. Pupulin* 1979 (USJ). Drawn from the holotype.

wide. Lip 3-lobed, the lateral blades narrowly triangular-falcate, acute, 1.6 mm long, 0.7 mm wide, appressed to the column, the connectives triangular, the appendix oblong, incurved, cleft abaxially from revolute sides, glabrous. Column short, winged, 0.8 mm long, the anther subapical, the stigma ventral. Pollinia 2, ovoid.

**Paratype:** COSTA RICA. Cartago: Orosi, road to the Parque Nacional Tapantí, about 1 km before the entrance of the Park, 1170 m, epiphytic on short trees along the roadside, bordering a pasture, 7 May 2000, *F. Pupulin & Curso de Orquideología 2409* (USJ!).

**Distribution:** known only from Costa Rica.

**Ecology:** epiphytic on trunks and primary

branches of short, exposed trees in submontane, very wet forest at 1200 m on the Caribbean watershed of Cordillera de Talamanca.

**Etymology:** named after the country of origin of the subspecies.

In Costa Rica, *L. johnsonii* is related to *L. guanacastensis* Ames & C. Schweinf., which differs in the red and green flowers, the petals with a fleshy pyramidal callus in the center, and the lip with large, obliquely triangular lateral lobes. The typical form of the species, as found in Guatemala and Mexico (Salazar Chavez and Soto-Arenas, 1996), has shorter and narrower lateral sepals terminating in short tails.

#### LITERATURE CITED

- SALAZAR CHÁVEZ, G., AND M. A. SOTO-ARENAS. 1996. El género *Lepanthes* Sw. en México. *Orquídea* (Méx.) 14: 1–231.