

10. *Sigmatostalix savegrensis* Pupulin, *sp. nov.*

TYPE: COSTA RICA. San José: Pérez Zeledón. Sa vegre. Peor Es Nada. Mar gen izquierda de Quebrada Misteriosa, 09° 31' 10" N 85° 51' 30" W, 1700 m, 4 agosto 1994, G. Herrera, J. Sánchez & F. Durán 7282 (holotype, USJ). Fig. 12.

Species Sigmatostalici pictae Rchb.f. *similis*, *sepalis lateralibus usque ad medium connatis*, *lamina labelli inter a rheniformi*, *callo non cyathiformi antice in lobo hemispiraliter* *producto differt*.

Plant epiphytic, caespitose, erect, to 10 cm tall. **Roots** filiform, flexuous, glabrous, about 1 mm in diameter. **Pseudobulbs** elliptic, compressed, unifoliate at apex, surrounded at the base by 5–7 distichous, foliaceous and non-foliaceous sheaths, 2.0–2.4 cm long, ca. 1 cm wide, green flushed with purple. **Leaves** subcoriaceous, narrowly elliptic, obtuse to minutely bilobulate at apex, to 7 cm long, 1.2 cm wide, the base narrowing into a short conduplicate petiole to 0.7 cm long. **Inflorescences** 1–3, lateral, erect, slender, much longer than leaves, up to 23 cm long, the successive flowers subtended by clusters of papery bracts. **Floral bracts** lanceolate, acute, scarious, shorter than pedicel, about 3 mm long. **Ovary** slender, to 6 mm long including the pedicel. **Flowers** with sepals and petals yellow, the lip reddish brown adaxially. **Dorsal sepal** narrowly lanceolate, acute, strongly reflexed, 7 mm long, 1.7 mm wide. **Lateral sepals** connate just to the middle, elliptic-lanceolate, acute, 6 mm long, 2.2 mm wide. **Petals** narrowly lanceolate-ligulate, acute, reflexed, 7 mm long, about 1.6 mm wide. **Lip** long-unguiculate, the fleshy claw linear, with 2 channels, slightly dilated at apex into two lateral, rounded, flattened projections, 1.5 mm long, 0.7 mm wide, the lamina entire, widely rheniform, rounded to shortly emarginate, 4.5 mm long, 8 mm wide, deeply cymbiform in natural position; disc with a short, semicircular,

rounded, flattened callus. **Column** slender, terete, arcuate, dilated at apex into a porrect, triangular rostellum, ca. 6 mm long. **Anther cap** ovate, acute, 2-celled.

Habitat and Ecology : An uncommon epiphyte of lower montane wet forest, apparently restricted to the central Pacific watershed of Cordillera de Talamanca in Costa Rica, where it was so far collected only along the medium drainage of Savegre River at 1500–1700 m elevation. Flowering occurs in August and September.

Distribution: Only known from Costa Rica.

Paratypes: COSTA RICA. San José: Pérez Zeledón. Sa vegre. Peor es nada. Mar gen izquierda de Quebrada Misteriosa, 09°31'10"N 85°51'30"W, 1700 m, flor amarilla con guías café, 2 Ago. 1994, G. Herrera, G. Retana V., J. Sánchez & F. Durán 7220 (USJ, CR, INB); Savegre Arriba, márgenes del Río Sa vegre, 1300–1600 m, bosque montano bajo húmedo, junio del 2002, colectado por E. Viquez Jiménez, floreció en cultivo, 10.12.2002, R.A. Valverde A. 225 (USJ-Spirit).

Etymology: Named from the region of Río Savegre in central Pacific Costa Rica, where the species was discovered.

Among the species of the *S. picta* group in Costa Rica, *S. savegrensis* is easily recognizable for the connate lateral sepals, the widely rheniform lamina of the lip, strongly cup-shaped in natural position, and the semicircular callus at the base of the lip. Moreover, *S. savegrensis* has pure yellow sepals and petals, and the lip is almost entirely red, with the pigmentation restricted to the adaxial surface.

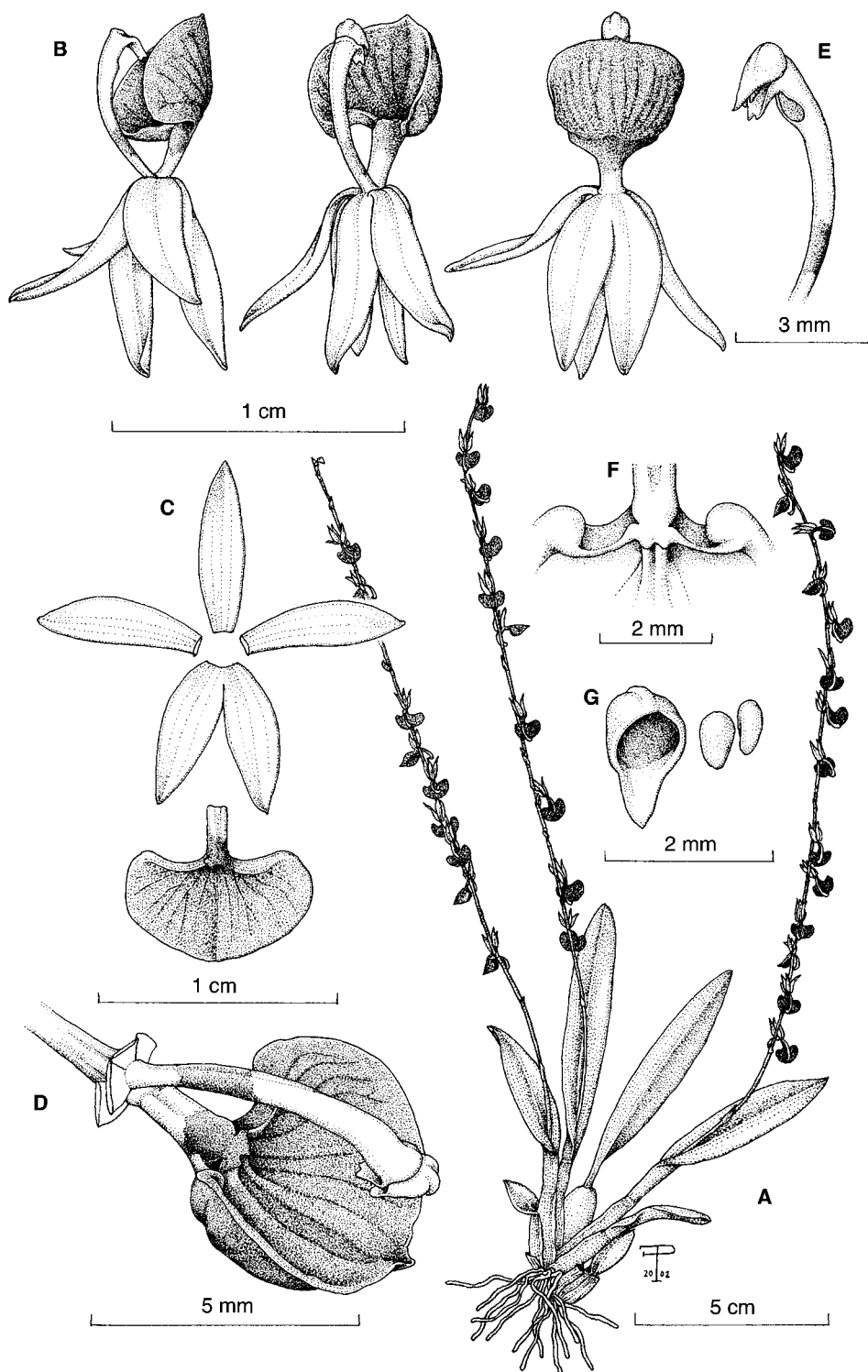


FIGURE 12. *Sigmatostalix savegreensis* Pupulin. A. Habit. B. Flower, three views. C. Dissected perianth. D. Column and lip, three-quarters view. E. Column, three-quarters view. F. Callus. G. Anther cap and pollinia. Based on A, C: *Herrera et al.* 7282 (USJ); B, D–F: *Valverde A.* 225 (USJ-Spirit). Drawn from the holotype and a paratype.