

Maxillaria sotoana Carnevali & Gómez-Juárez, sp. nov. (Fig. 4)

TYPE: MEXICO. Chiapas: Municipio Las Margaritas, ca. Nuevo Momón, 25.8 km E of Las Margaritas, along rd. to Cruz del Rosario, 16°21'N, 91°44'W, ca. 1500–1600 m, collected 9 Aug 1992, flowering at Ciudad de México on 5 Nov 1997, *Soto Arenas, Solano & Izquierdo 7201* (HOLOTYPE: AMO, ISOTYPES: AMES, CICY).

Species haec *M. moralesii* et *M. acutifolia* affinis sed pseudobulbis ovoideis proportione brevioribus et crassioribus, floribus majoribus purpureo suffusis, sepalis petalisque latioribus, late obtusis, lobulo centrali labelli oblongo-subquadrato recedit.

Epiphytic herbs, caespitose or short-creep-

ing, 15–20 cm tall. *Rhizome* abbreviated, clothed by scarious sheaths; *pseudobulbs* 1-leaved apically, 25–40 mm long, 15–20 mm wide and 10–18 mm thick when turgid, subspheroid or ovoid, tetragonal in cross section, clustered, partially clothed by 2 sheaths which are 20–35 mm long and bladeless. *Leaves* 10–18 cm × 26–33 mm, elliptic, acute, basally attenuated into a 5–12 mm long, conduplicate pseudopetiole, blade abaxially with a strongly keeled midnerve, particularly so toward the pseudopetiole. *Inflorescences* emerging from the base of, and shorter than, the pseudobulbs or from the rhizome, more commonly originating from the second-newest pseudobulb, 1-flowered, nodding, *peduncle* 22–26 mm long, slightly compressed laterally, clothed by 2 sheaths, the uppermost 12–18 mm long, apex oblique to the peduncle. *Floral* bract 11–12 × 6–7 mm, tubular, elliptic and acute when forcefully spread. *Flowers* with dull ochre sepals, petals and ventral face of column green-yellowish; lip dull yellow with red-magenta spots, callus dull cream-yellow with an orange, thin margin. *Sepals* 5-nerved, with 3 thick nerves and 2 faint ones and a few reticulate cross-veins between major longitudinal veins; *dorsal sepal* 14–16 × 6.5–8 mm, elliptic, broadly obtuse or rounded, apically mucronulate; strongly hooded over column and lip; *lateral sepals* 13–15 × 6.5–7 mm, ovate-elliptic, broadly obtuse, apiculate, patent or slightly convex; *petals* 13.5–14 × 6.0–6.2 mm, elliptic-oblong, apex broadly obtuse, apiculate, subparallel to column in natural position. *Lip* 11–12 mm long, reaching 12.5 mm when spread, 8–8.5 mm wide across the forcefully expanded apices of the lateral lobes; *mid-lobe* 6 mm long, rectangular, shallowly emarginate at apex where it is 4 mm wide; *lateral lobes* 2 mm long, 1.8 mm wide at base, triangular ovate, acute, erect-uncinate in natural position, emerging from the lower 1/3 of the blade of the lip; *disk* bearing an oblong mid-longitudinal farinose callus which thickens about the point of insertion of the lateral lobes, 1 mm wide at base, 1.2 mm at widest point, tapering toward apex in the second 1/3 of the blade. *Column* 7.5–8.5 mm long, 3.2 mm tall near apex, 3.5 mm wide on ventral face, hemi-

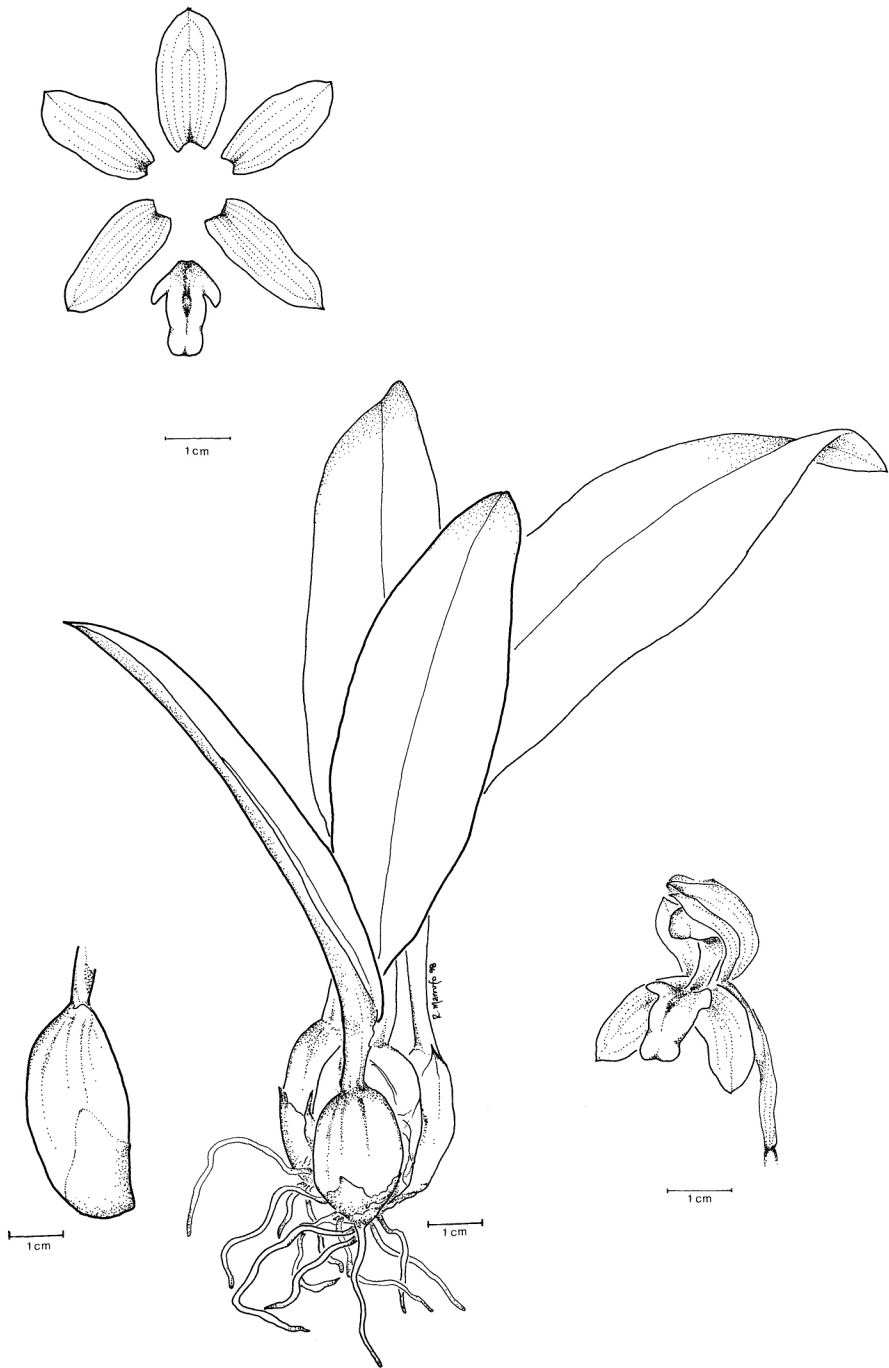


FIG. 4. *Maxillaria sotoana* (based on Soto *et al.* 7201, AMO, CICY, AMES). Illustration by Rossana Marrufo.

terete, shallowly concave on ventral face, slightly arcuate; *column foot* 2.5–3 mm long. *Anther* 2.1–2.3 mm thick and long, surface smooth; *pollinarium* typical of the *Maxillaria rufescens* complex.

Additional specimens studied: MEXICO. **Chiapas:** Lake Tziscaco, E of Comitán, 1950 m, 16°06'N, 91°35'W, 24 Apr 1936, *Nagel 5499* (MO); 1 km N of Tziscaco, along the way to Bonampak, 1300 m, 8 Jul 1985, *Soto Arenas, Maldonado & Bernal 1299* (AMO).

This species and *Maxillaria hedwigiae* have the largest flowers in the complex in Central America, but the latter has differently shaped perianth segments. *Maxillaria sotoana* grows at higher elevations (1300–1950 m) than any other member of the group in the geographical area treated here. It is apparently endemic to the Depresión Central of Chiapas in southeastern Mexico but should range into Guatemala. The broad, oblongoid sepals and petals are distinctive.

The name honors Miguel Angel Soto Arenas, a Mexican orchidologist who collected the type material and who has made a substantial contribution to our knowledge of the Mexican orchid flora.

fruits. In most specimens seen, even in fully opened flowers, the column is apically swollen, probably a result of fertilization. The lip displays a conspicuous transverse barring in the apical lobe. Since this taxon is specifically different from either true *Maxillaria rufescens* or *M. acutifolia*, we here raise it to the rank of species.