

Maxillaria cacaoensis J.T. Atwood, sp. nov.

FIGURE 1.

TYPE: COSTA RICA. Prov. Guanacaste: Cantón of Liberia, Cordillera de Guanacaste, Cerro Cacao, Estación Cacao, 1,100 m, 10 Feb 1995, A. Mora 60 (Holotype: INB; Isotype: SEL).

Planta a *Maxillariae mombachoensis* J.T. Atwood similis sed foliis brevioribus crassioribusque et ovario brevior differt.

Plant caespitose, apparently densely so, to about 10 cm tall; roots to ca. 2 mm in diameter. Pseudobulbs coarsely rugose in dried specimens, semiorbicular, compressed, $2\text{--}3.5 \times 2.5$ cm, subtended by sheaths that are apparently bladeless; apex 1-foliate. Leaves coriaceous, strongly keeled beneath especially apically; blades $6\text{--}9 \times 2\text{--}3$ cm in the type, obtuse. Inflorescences short; scapes ca. 3 cm concealed by inflated bracts; ovary about 1.5 cm long, concealed by the subtending floral bract. Flowers campanulate to somewhat spreading, yellowish orange with white at the base of the sepals and petals; lip reddish. Sepals ovate-lanceolate, 3.5×1.5 cm, acute. Petals elliptic-oblancheolate, acute, 2.8×1 cm. Lip hinged to the column foot, sharply 3-lobate at about $\frac{2}{5}$ from the base; lateral lobes rounded in front, somewhat clasping the column; midlobe fleshy, ovate, recurved to somewhat reflexed, ca. 1.8×1.4 cm in natural position, bluntly acute to obtuse; calli 2, of 2 keels at the base and a central ligulate callus rounded in front ending just below the base of the midlobe. Column stout, nearly straight, ca. 1.4 cm long including anther; foot 5–6 mm long; anther ca. 4 mm.

ETYMOLOGY: named for the type locality, Cerro Cacao.

Maxillaria cacaoensis is known only by the type collection from a cloud forest in Northern Costa Rica at 1,100 m elev. It is most similar to Nicaraguan *M. mombachoensis* in flower color and in the large floral bracts, but has a much

shorter ovary and noticeably shorter and thicker leaves. There may be yet another taxon on one of the islands in Lake Nicaragua with smaller flowers. Apparently isolation on these mountaintops enables the separate populations to develop identifiably different morphological characteristics. Pollinators in this group are unknown, but the large, inflated floral bracts and fleshy orange to yellow flowers suggests pollination by hummingbirds. The collection date of the type indicates at least a January and February flowering season.

Maxillaria cacaoensis is a member of the difficult *M. cucullata* Lindl. complex represented in Costa Rica by four species and in Panama by two. The following key should distinguish them in this area.

1. Ovary trigonous, e.g., triangular in cross section; flowers greenish stained with maroon
..... *M. cf. obscura* Lind. and Rchb.f.
1. Ovary not trigonous, not triangular in cross section, flowers not colored as above 2
2. Flowers orange or green, peppered with maroon; lip usually dark maroon
..... *M. puncto-striata* Rchb.f.
2. Flowers not peppered with maroon, lip never dark maroon 3
3. Sepals and petals cream white, lip not red; scapes longer than 7 cm.
... *M. cedralensis* J.T. Atwood and D.E. Mora
3. Sepals and petals yellow to orange, white at the base, lip red; scapes less than 5 cm . . .
..... *M. cacaoensis* J.T. Atwood

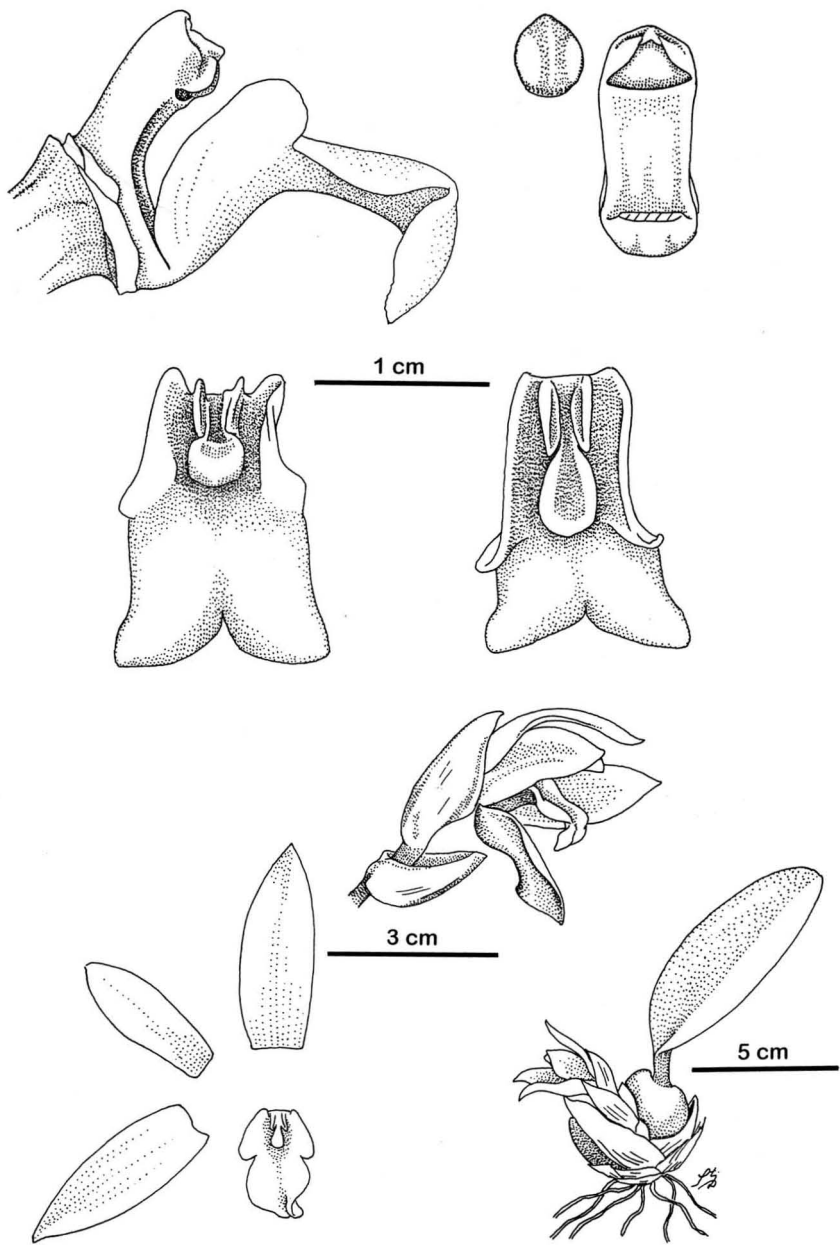


FIGURE 1. *Maxillaria cacaoensis* J.T. Atwood. Drawn by S. Dalström based on *Mora* 60 (SEL).