

NEW *MAXILLARIA* FROM PANAMA

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ABSTRACT. In preparation of the treatment of *Maxillaria* for Flora Mesoamericana, two new species, here named *Maxillaria fragrans* and *Maxillaria longicolumna*, have become apparent. *Maxillaria fragrans* is closely related to *M. allenii* L.O. Williams but has a lip with enlarged lateral lobes. *Maxillaria longicolumna* is closely related to *M. bracteata* (Schltr.) Ames & Correll and *M. gomeziana* J.T. Atwood but has an elongate column.

Key words: *Maxillaria*, Mesoamerica, Orchidaceae

There seem to be no end to novelties within Central American *Maxillaria*. Both species detailed below have been known under other closely related species but differ significantly in the characters noted.

Maxillaria fragrans J.T. Atwood, sp. nov.
TYPE: PANAMA. Prov. Panama: Cerro Jefe, cloud forest dominated by *Clusia* spp. and *Colpothrinax cookii*, premontane rain forest along trail on ridge running NE from summit, ca. 1000 m elev., 18 Dec. 1974, *Mori and Kallunki 3770* (Holotype: SEL; Isotypes: MO, WIS).

FIGURE 1.

Species a *Maxillariae allenii* L.O. Williams similis, sed plantis minoribus et labelo distincte trilobato distinguitur.

Epiphyte, forming canes more than 40 cm tall, the adult canes apparently monopodial and lacking pseudobulbs (juveniles unknown); stems much branched, 4–12 mm in diameter, erect to decumbent; roots to ca. 1 mm in diameter. **Leaves** distichous, forming a smooth sheath around the stem; blade duplicate, coriaceous, elliptic-oblong, keeled beneath, apex emarginate, 2.5–12 cm × 6–15 mm. **Inflorescences** several per leaf axil, each scape 2–3 cm, slender, with about 3 acute bracts; ovary with pedicel ca. 5 mm subtended by an ovate membranaceous bract ca. 9–11 mm long; flowers fragrant, campanulate, cream to pale yellow, white or greenish, the lip often marked with red; sepals linear to lanceolate, 10–14 × 2.5–3.5 mm, acute; petals somewhat falcate, oblanceolate, with 3 nerves, 9–13 × 2–3.5 mm, acute; lip hinged to the column foot, straight, strongly and more or less equally 3-lobate on the upper 1/3, 6–7 × ca. 4.5–6 mm when spread; lateral lobes rounded, turned upward and somewhat embracing the column, midlobe thickened apically, obtuse to rounded, somewhat retuse; callus on the lower

third, large, fleshy, ovate; column cylindrical, slightly arching, with prominent rostellum apically, 3 mm excluding the anther, foot 1–1.5 mm. **Capsules** unknown. Flowering September, December, and January.

Paratypes. PANAMA. Prov. Panama: Cerro Jefe, 10 Dec. 1974, *Mori & Kallunki 3616* (MO); Cerro Jefe, *Clusia* forest at 2700–3000 ft elev., 27 Jan. 1966, *Tyson et al. 3210* (MO). Prov. Darien: SW ridge leading to alturas de Nique on border with Colombia, 1100–1200 m elev., 30 Dec. 1980, *Hartman 12411* (MO).

Etymology. Named on the basis of a collector note indicating a fragrance which is uncommon among species of *Maxillaria*.

Maxillaria fragrans is apparently endemic to Panama at 980–1200 m ranging from Cerro Jefe to the border with Colombia (*Hartman 12411*, MO), but it is expected in adjacent Colombia. It is perhaps most closely related to allopatric *M. allenii* L.O. Williams from western Panama, but the lip is much more strongly 3-lobate and the plants are generally less robust. Similar *Maxillaria parvilabia* Ames & C. Schweinf. is a much larger plant with more strongly colored, fragrant flowers and proportionately smaller lip. *Maxillaria valerioi* Ames & C. Schweinf. is easily distinguished by the pure white to light lavender fragrant flowers. The complex of forms referred to as *Maxillaria dendrobioides* (Schltr.) L.O. Williams from Costa Rica and western Panama have a single scape per leaf axil. Following is a key to the similar species.

- 1a. Plants with a single flower per leaf axil (plants of Costa Rica and western Panama) 2
 - 2a. Flowers white, lip longer than sepals *M. valerioi*
 - 2b. Flowers yellow to red, lip shorter than sepals *M. dendrobioides*
- 1b. Plants with two or more flowers per leaf axil (plants of Costa Rica and all of Panama) 3

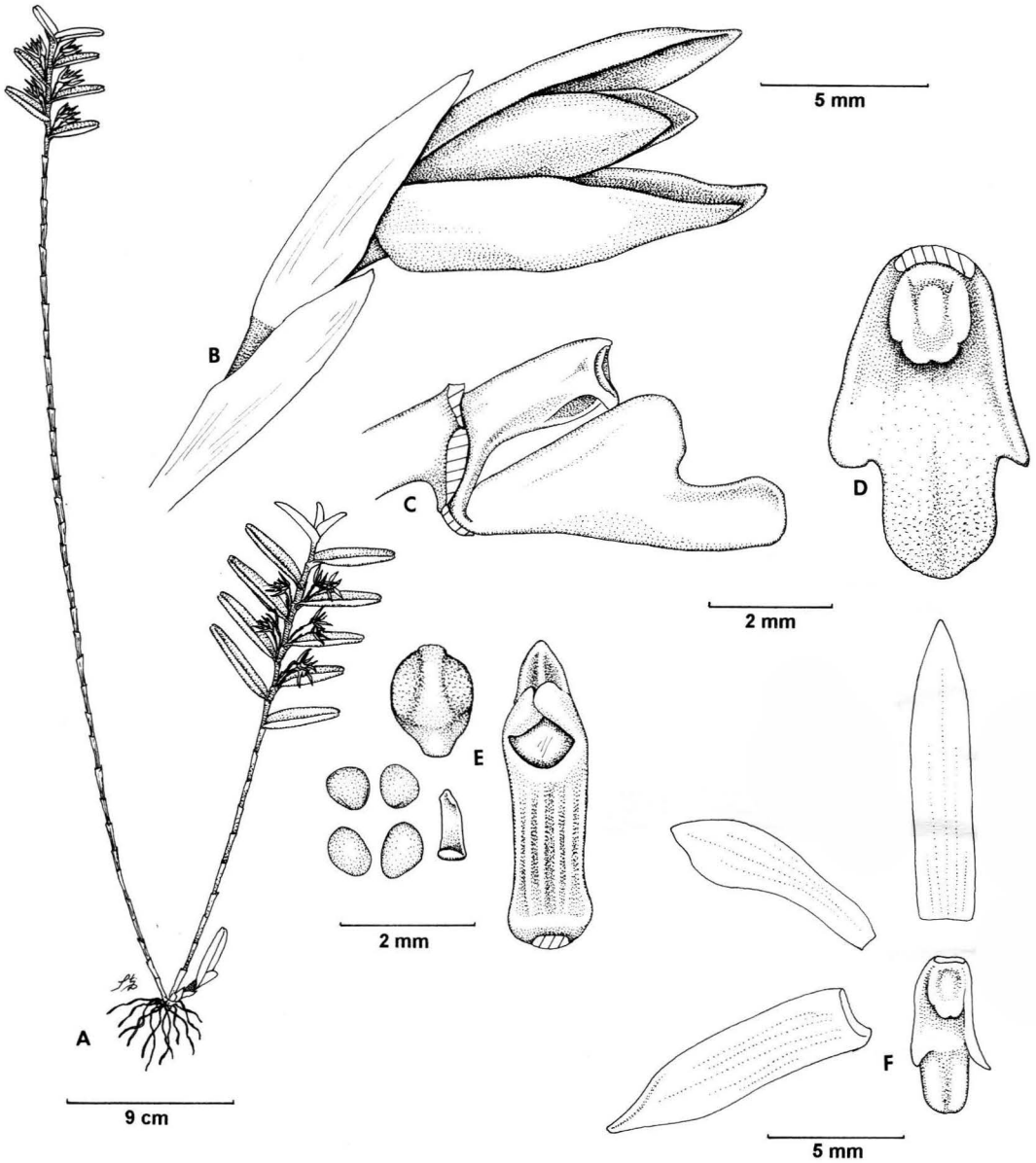


FIGURE 1. *Maxillaria fragrans* based on the holotype (Mori and Kalunki 3770, SEL). **A.** Plant habit. **B.** Flower, lateral view. **C.** Lip and column, lateral view. **D.** Lip, ventral view. **E.** Column, anther cap, stipe, and pollinia. **F.** Perianth parts spread.

- 3a. Lip less than half as long as the sepals *M. parvilabia*
- 3b. Lip at least half as long as the sepals 4
- 4a. Lip pandurate, plants west of Panama Canal *M. allenii*
- 4b. Lip equally 3-lobate, plants from Cerro Jefe to Colombia *M. fragrans*

Maxillaria longicolumna J.T. Atwood, sp. nov.
 TYPE: PANAMA. Prov. Veraguas: Road from Santa Fe, 1.5 km past Ag School to base of Cerro Tuti, ca. 1000–1200 m elev., 4 Feb. 1977, J.P. Folsom 1574 (Holotype: MO 2601923; Isotype: MO 2937286). FIGURE 2.

Species a *M. bracteata* (Schltr.) Ames & Cor-

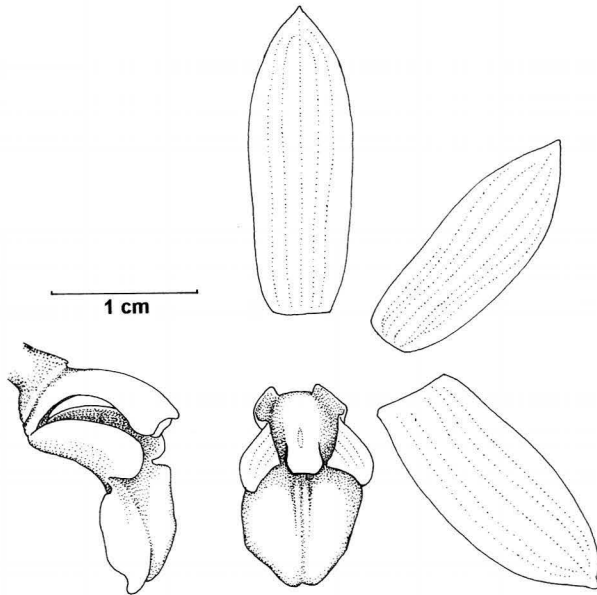


FIGURE 2. *Maxillaria longicolumna* based on Foster et al. s.n. (MO 2060994).

rell similis sed flore grandiore columnaque longiore distinguitur.

Epiphytes, conspicuously rhizomatous, ascending, to ca. 40 cm; rhizome concealed by rugose sheaths, to ca. 1 cm in diameter; roots white, to ca. 1 mm in diameter; pseudobulbs 1.5–3 × 1–1.5 cm, compressed, cylindric-ovoid, mostly concealed by the rugose sheaths of 1–3 leaves, apex 1-foliolate. **Leaves** including foliaceous sheaths shortly petiolate above the articulation, blade 3–14 × 1–2 cm, linear-lanceolate to elliptic, coriaceous, keeled beneath, the apex obtuse and emarginate. **Inflorescences** 2 or more in the axils of subtending leaves; scapes 4–6 cm, ovary with pedicel 10–20 (old flowers?) mm; floral bract 1.6–2.3 cm, ovate. **Flowers** variable in color, described by collectors as brownish to yellow or green sometimes mottled with maroon, lip white to yellow or orange sometimes tinged with pink, variously streaked with purple. Sepals 19–23 × 5.5–7.5 mm, elliptic to linear oblanceolate, acute. **Petals** 18–21 × 5.5–6.5 mm, elliptic-oblanceolate, somewhat falcate, forming a hood with the dorsal sepal. **Lip** hinged with the column foot, 13–15 × 8–9 mm when spread (difficult), fleshy, ovate in general outline, arcuate, 3-lobate at about the middle; lateral lobes embracing the column, rounded, 7.5–8 mm long from base of lip; midlobe very fleshy, keeled beneath and with central furrow above, 8–9 × 6.5–8 mm, apex rounded and retuse; callus fleshy, 2–2.5 mm broad, somewhat ligulate with blunt keel at its base, 2–2.5 somewhat truncate in front. **Column** arching, fleshy, ca. 10 mm

without the anther; foot 3–4 mm. Fruit an ellipsoid capsule, 2–3 cm, with short pedicel 2–3 mm and with beak (column remnant) 8–9 mm. Flowering November to February; fruiting March.

Paratypes. PANAMA. Prov. Chiriquí: San Ramon, headwaters of Rio Caldera, ca. 2000 m elev., 22 Oct. 1967, Dressler 3109 (MO). Prov. Coclé: on the Rio Coclé del Norte, rain forest, 1550 m elev., 29 Jan. 1960, Dunn 23 (MO). Prov. Panamá: Cerro Jefe, low cloud forest, 900 m elev., 1 Dec. 1972, Maas & Dressler 699 (MO); Cerro Campana, 3 Jan. 1971, Foster, Kennedy & Dressler s.n. (MO).

Etymology. Named for the long column compared to those of closest relatives.

Maxillaria longicolumna is accepted in Flora of Panama (Allen 1949) as *Maxillaria vagans* Ames & C. Schweinf., a name treated as a synonym of *Maxillaria bracteata* by J.T. Atwood (1999). It is a species of rain forests of Central Panama at (200)400–2000. The variable color described by collectors may be due to a combination of aging and/or co-pigmentation with base color of the lip white to yellow tinged with magenta pigment. Orange could result from a combination of yellow and magenta, and the yellow pigment may be due to aging.

Maxillaria longicolumna is closely related to *M. bracteata* (Schltr.) Ames & Correll and *M. gomeziana* J.T. Atwood, but its column is about twice as long. The acceptance of this species is based solely on herbarium specimens, but the entire wide-ranging complex needs field study.

A key to members of the *Maxillaria imbricata* Lindl. complex in Central America follows.

- 1a. Column (less anther) 8 mm long or more
 *M. longicolumna*
- 1b. Column (less anther) less than 7 mm 2
 - 2a. Ovary terete *M. bracteata*
 - 2b. Ovary trigonous *M. gomeziana*

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