

## TWO NEW SPECIES OF EPIDENDRUM WITH LATERAL INFLORESCENCES

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**ABSTRACT.** Two new species of *Epidendrum* are described and illustrated. Both have lateral inflorescences, traditionally the diagnostic characteristic of section *Pleuranthium*. We suggest that the section is heterogeneous and probably polyphyletic. The Panamanian species, *E. brachybotrys*, is allied with other species of *Epidendrum* sect. *Pleuranthium* s. str. However, the Ecuadorian species, *E. aristatum*, is allied to *E. tropidioides* a Colombian species with terminal inflorescences.

In the last few decades, the generic circumscription of *Epidendrum* has changed considerably. Whereas during the first half of this century *Epidendrum* L. was often circumscribed in a very broad sense (e.g., Ames et al., 1936), we now have several widely accepted segregate genera and others being revived or newly proposed (e.g., Thien & Dressler, 1970; Dressler & Pollard, 1974; Dunsterville & Garay, 1976; Hagsater, 1981; Pabst & Moutinho, 1981). The frequent discovery of new species and use of fresh approaches to orchid taxonomy have forced a reevaluation of old concepts.

*Pleuranthium*, one of the recently revived segregates (Brieger, 1977), has in the past been regarded as a small section of *Epidendrum*. Traditionally, this taxon is recognized by the lateral inflorescences that emerge through the tubular leaf sheaths along the reed-like stems. This characteristic is readily recognizable and has obvious utility in species identification. Nevertheless, *Pleuranthium* is probably an artificial, heterogeneous group. With the discovery of several new species in the last 15 years, including those reported here, we find that species with radically different flower and inflorescence structures are placed together. It is also clear that the sole virtue of lateral inflorescences is insufficient to delineate the section (or genus) because other segregates have them too (*Oerstedella*, *Helleriella*). The much needed reevaluation of *Pleuranthium* is in progress (Hagsater, pers. comm.).

Herein we propose two new species of *Epidendrum*, both of which possess lateral inflorescences. The supraspecific affinities of these species must await further generic assessment.

***Epidendrum aristatum* Ackerman & Montalvo,**  
sp. nov. FIGURE 1.

Inter species *Epidendri* L. species haec rhachidi inflorescentiae geniculatis, bracteis floralibus sepalisque carinatus aristatusque, et clinandrio prolongato acrenulatoque distinguitur.

**TYPE.** Ecuador, Pichincha, epiphytic in cloud forest west of Mindo toward Puerto Quito, 1,600 m, 13 Mar 1982, Luer, Hirtz & Dalstrom 7329 (SEL, holotype).

Plant epiphytic, cane-like to more than 50 cm tall. Stems slender, terete, simple (in ours). Leaves numerous, distichous; lamina elliptic to elliptic oblanceolate, acuminate to obtuse with a point, articulate, deciduous, 7-17 cm long, 1.5-4.5 cm wide; sheaths tubular, persistent but gradually disintegrating on older stem portions, overlapping, 1.5-3 cm long. Inflorescences terminal and lateral; the terminal erect peduncle to 11 cm long, concealed by narrow sheaths, 1-several racemes, rachis 3-5 cm long, geniculate, partially concealed by short, conduplicate keeled, and awned floral bracts, 7-12 mm long, 4 mm wide folded, the upper third of keel minutely toothed; lateral inflorescences similar to terminal ones, peduncle 2-3 cm long, emerging through leaf sheath, rachis 1.5-6 cm long, erect or laxly spreading, few flowers produced at a time. Flowers creamy-green, glabrous; pedicellate ovary 12-13 mm long, slightly bulbous to apex; dorsal sepal suberect, arches over column, narrowly lanceolate, keeled, awned, 14 mm long, 4 mm wide; lateral sepals subspreading, lanceolate, keeled, awned, 16 mm long, 4 mm wide, awn 2 mm long; lateral petals

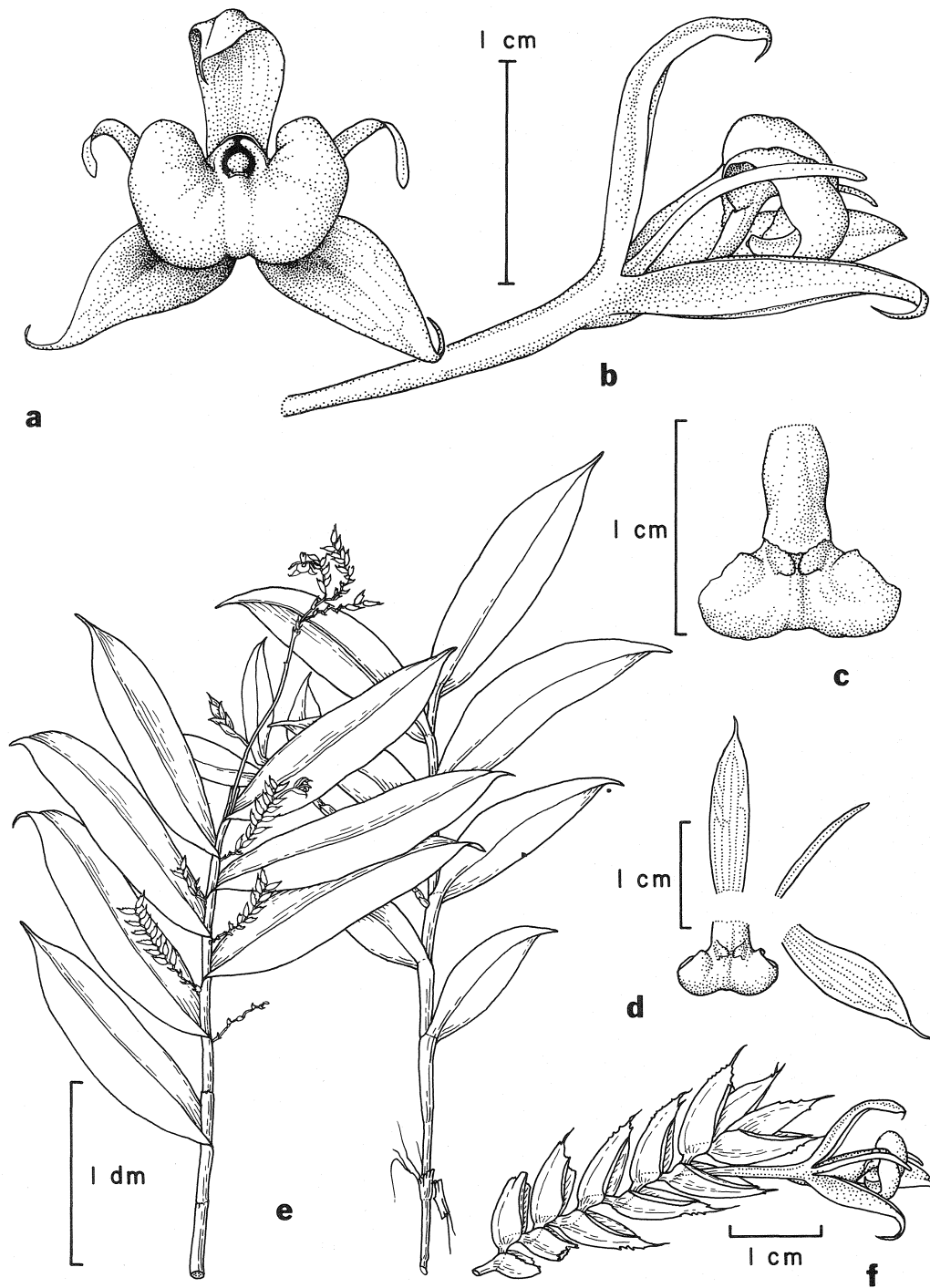


FIGURE 1. *Epidendrum aristatum*. a, flower, front view. b, flower, side view. c, lip and column, dorsal view. d, perianth parts, lip not spread out. e, plant habit. f, inflorescence. (Based on Luer *et al.* 7329 and Dodson *et al.* 7788.)

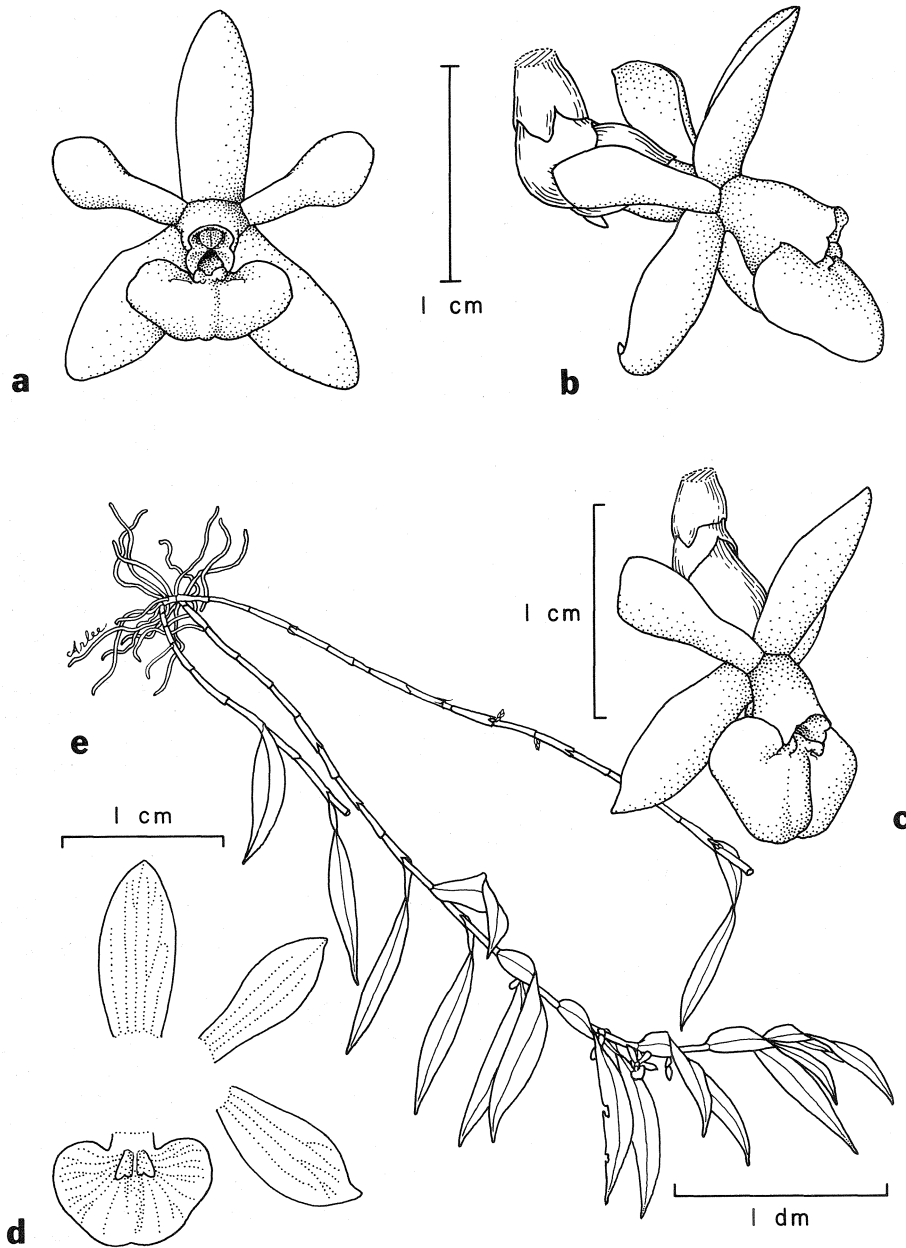


FIGURE 2. *Epidendrum brachybotrys*. a, flower, front view. b, flower and bracts, side view. c, flower and bracts, dorso-lateral view. d, perianth, parts spread out. e, plant habit. (Based on *Montalvo 383*.)

linear-filiform, 13 mm long, entire; lip lamina simple, thick, fleshy, reflexed, 13 mm long when flattened, 8 mm wide, cordate, obtuse, margin minutely ciliate, 2 basal callosities, each 2 mm long, arch toward one another in front of clinandrium which extends the floral tube; column straight, 7 mm long, clinandrium ca. 2 mm long

with crenulate margin; fruit ca. 3 cm long on a 1 cm pedicel.

**SPECIMENS EXAMINED.** Ecuador. PICHINCHA: Quito to Santo Domingo, old road to Quito via Chiriboga, km 84-88, elev. 1,200-1,350 m, 8 Jul 1979, *Dodson, Lojtnant, Molau & Fallen 7788* (SEL).

Geniculate inflorescences, keeled and awned floral bracts and sepals, simple labellum with 2 long arching basal callosities, short straight column with an elongate clinandrium, and lateral and terminal inflorescences distinguish this species from others.

*Epidendrum aristatum* is vegetatively very similar to *Epidendrum tropidioides* Garay, a species from Colombia with terminal inflorescences. The column structure of the two is also similar, but the latter has a serrate clinandrium. The perianth parts are also quite different. *Epidendrum tropidioides* lacks the keeled sepals and has broader petals. The lip is cuneate-obovate and the callosities are different. *Epidendrum tropidioides* is illustrated in Garay (1978, pl. 6).

The inflorescence structure of *E. aristatum* is similar to that of *E. dunstervilleorum* Foldats. Both have a geniculate inflorescence rachis and glume-like floral bracts (see Foldats, 1970: figure 465). However, the flowers and narrow leaves of *E. dunstervilleorum* are quite unlike those of *E. aristatum*.

***Epidendrum brachybotrys* Ackerman & Montalvo, sp. nov.** FIGURE 2.

*Epidendri lilijae* Foldats affinis sed labello convexo callis basalibus duobus et sepalis petalisque patentibus liberisque.

TYPE: Panama, Coclé, N of El Copé, near sawmill, edge of continental divide, elev. 1,200–1,400 m, windward slope, 22 Jan 1980, *Montalvo 383* (SEL, holotype).

Plant epiphytic, cane-like, glabrous, to 45 cm long. Stems simple, slender, terete. Leaves numerous, distichous; lamina lanceolate, acuminate, entire, 7–11 cm long, 12–16 mm wide, articulate, deciduous; sheaths tubular, persistent, overlapping or nearly so, 1.5–3 cm long. Inflorescences lateral, single-flowered, several also on leafy portions of stem, short, peduncle 3–6 mm long, concealed by short, broad, imbricated bracts. Flowers fleshy; pedicellate ovary ca. 6 mm long; sepals and petals pale creamy-green, spreading; dorsal sepal oblong-elliptic, obtuse, entire, ca. 9 mm long, ca. 5 mm wide; petals spatulate, obtuse, entire, ca. 8 mm long, 3–4 mm wide; lip lamina trapezoid, rounded, slightly cordate, truncate 5–6 mm long, 7–8 mm wide, disc with 2 auriculate basal callosities, mid-rib fleshy and prominent extending nearly to apex; column pale green at lower half, white apically, straight, 5–6 mm long, clinandrium ca. 1 mm long, margin entire.

SPECIMENS EXAMINED. Color transparencies of the holotype before it was pressed.

*Epidendrum brachybotrys* is a cloud forest epiphyte found on moss covered trunks and branches of the understory.

These plants are relatively small, unbranched, and slender with single-flowered inflorescences (in ours). The perianth parts are spreading, the pedicellate ovary is short, and the trapezoid lip has 2 basal callosities. These characteristics distinguish the species.

*Epidendrum brachybotrys* is closely allied to *E. dendrobii*, *E. aggregatum*, *E. lilijae*, *E. pleurobotrys*, *E. neo-cauliflorum* and *E. infaustum*, all of which probably constitute section *Pleuranthium* s. str. (Hagsater, pers. comm., 1983).

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