

SOME PROBLEMS IN *TRICHOPILIA* (ORCHIDACEAE: ONCIDIINAEE) WITH TWO NEW SPECIES OF MODEST FLOWER SIZE

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Abstract. The taxonomy of several species of *Trichopilia* sect. *Trichopilia* with small, mostly white flowers is discussed. Two new species, *T. endresiana* and *T. tubella*, are described and illustrated. Both new species are closely allied to *T. turrialbae*, but can be distinguished by the smaller flowers and the lateral keels of the lip subequally branched to clasp the small osmophores in acute angles, and by the lip distinctly longer than the sepals and the smooth area of the osmophores, respectively.

Keywords: Orchidaceae, *Trichopilia* sect. *Trichopilia*, *Trichopilia albida*, *Trichopilia endresiana*, *Trichopilia modesta*, *Trichopilia oicophylax*, *Trichopilia tubella*, new species.

A small-flowered *Trichopilia* was described as *T. modesta* by Cooper (1928), who proposed it as a provisional name. As the original description did not specify geographic origin, the name has not been listed for the Flora Mesoamericana project. However, Cooper stated “The plant has the habit of *T. suavis*, with which popular species it was sent home.” It is very probable, then, that the plant came from either Costa Rica or Panama. Though *T. suavis* has been said to occur in Colombia, Panama was then part of Colombia, and we are aware of no *T. suavis* from the present-day Colombia. Cooper’s description of *T. modesta* lacks many details, and a photograph of the type shows a small-flowered *Trichopilia* with wide leaves

and an inflorescence of 3 flowers. The description of *T. modesta* came to our attention after *T. olmosii* had been described (Dressler, 2001). It is quite possible that *T. olmosii* is the species described by Cooper. Until someone can soften one of the flowers of *T. modesta* with ammonia it’s identity must remain in doubt (softening the flower with hot or boiling water would risk destroying one of the three flowers). “Provisional names” are not usually accepted in botanical nomenclature, and one wonders whether a name classed as provisional in the title can be considered valid under art. 34.1 of the International Code of Botanical Nomenclature [Greuter *et al.* 2000; see in particular Ex. 4 (b)].

TRICHOPILIA ALBIDA WENDL.

This species was described in 1851 based on a plant sent from Caracas by Wagener (Wendland 1851). Wendland’s description is rather complete and specifies a white flower about 7.5 cm in diameter. There is apparently no specimen at Goettingen. Drawings in the Reichenbach Herbarium (W-*Reichb Orch*) of

other plants sent by Wagener as *T. albida* suggest that *T. albida* is the oldest (and thus correct) name for *T. oicophylax* Rchb.f. However Dodson & Bennett (1989) illustrate a Peruvian plant with 5-6 pinkish-tan flowers as *T. albida*, but we believe that the Peruvian plant is *T. laxa*.

We are deeply indebted to Dr. Wojciech Klikunas, who first told us of *Trichopilia tubella* and who shared his material with us, and to Carlos R. Bonilla, who told us of its origin.

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AVAILABILITY OF MATERIAL

There are some problems when one tries to identify plants of *Trichopilia*. The flowers are rather delicate and do not preserve well, so that many specimens may be difficult to identify. Much of the herbarium material has been on loan for many years, so that some critical material is not available for study. There are a few small- or medium-flowered species apparently without names, and we have been seeking good material of these species for several years, so that they can be properly named or identified.

One of the species to be described here was collected and drawn by A.R. Endres, who sent the specimens and drawings to Reichenbach. These specimens and drawings are still in the Reichenbach Herbarium in Vienna (*Endres 2611*, *W-Reichb Orch 37588!*). In the unpublished drawings kept at Vienna, Endres suggested the name *Trichopilia proboscidea*, probably referring to the form of the column, but Reichenbach did not describe the species.

A plant apparently of this species flowered in November of 2004 at Jardín Botánico Lankester. Effectively, the column is quite like the one drawn by Endres in 1879. Thus, we here describe this as a “new” species, as Reichenbach should have done long ago.

Trichopilia endresiana Dressler & Pupulin, *sp. nov.* TYPE: COSTA RICA. Without locality data, flowered in cultivation at Jardín Botánico Lankester, accession No. JBL-02951, 27 November 2004, *F. Pupulin 5318* (holotype, USJ; isotype, JBL-Spirit). Fig. 1.

Usage synonym: *Trichopilia proboscidea* Endres, *nom. herb.* Costa Rica. Without locality data, *A.R. Endres 2611* (*W-Reichb Orch 37588*).

Species Trichopiliae turialbae Rchb.f. similis, floribus minoribus, carinis lateralibus in basi labelli pauci incrassatis versus apicem lobatis lobo externo longiore, osmophorum parvum in angulo acuto amplectentibus differt.

Caespitose epiphyte, roots 1–1.3 mm in diameter, pseudobulb ovoid, compressed, unifoliate, 2–4 × 2.2–3 cm, the apices shallowly indented (with slight “shoulders” at each side of the scar); leaves elliptic-lanceolate, acute, 7.5–16 × 2.3–3.9 cm; inflorescence lateral, basal, peduncle 3–4 cm, raceme to 2.5 cm, with 1–3 flowers, bracts 12–15 mm, tubular. Flowers greenish cream, the lip pale lemon yellow within; floral

bracts 10–20 × 8–12 mm, elliptic, slightly inflated; ovary and pedicel 2.4–3.5 cm, arcuate; dorsal sepal 25–26 × 4–5 mm, narrowly elliptic, acuminate, margin minutely crisped; lateral sepals 3.6 cm long, united for 2 cm, 9 mm wide; petals 25 × 5–6 mm, slightly unguiculate, lanceolate, obtuse or acute; lip 38 × 22–25, cuneate, 3-lobed, the mid lobe 12 × 25 mm, emarginate, lateral lobes rounded; base of lip infundibuliform, with prominent lateral “cheeks”; lip with 3 keels, the lateral keels dividing to clasp the osmophores, in narrow, acute angles; column 15–17 mm, basally adnate to lip 3–3.5 mm, clinandrium 4.5–5 mm, with prominent keel and narrow beak.

Both this and the following species resemble *T. turialbae* in having the lateral sepals connate for more than half their length. The flowers of *T. proboscidea* are somewhat smaller than those of *T. turialbae* and the thickened lateral veins (scarcely keels) of the lip are subequally branched to clasp the small osmophores in acute angles. In *T. turialbae* there are low, descending keels on the inner edge of each osmophore. The lateral keels are, thus, quite asymmetrical, though mere shadows of the alpine keels of *T. hennisiana*.

Trichopilia tubella Dressler, *sp. nov.* TYPE: COSTA RICA. Cartago, Turrialba, near La Suiza, collected by C.A. Bonilla, flowered in cultivation at Jardín Botánico Lankester, accession No. JBL-11126, 19 April 2005, *R.L. Dressler 5640* (holotype, USJ; isotype, JBL-Spirit). Fig. 2.

A Trichopiliae turialbae Rchb.f. floribus multo minoribus, labelli longitudine quam sepalis lateralibus insigniter longiore, osmophoris laevibus recedit.

Epiphytic, roots ca. 1 mm in diameter; pseudobulbs 2.8–6.4 × 1.2–1.7 cm, oblong to narrowly ovate, compressed, with slight “shoulders,” young sheaths green with brown specks; leaf 6.5–11 × 2–3.2 cm, ovate-oblong to oblong, short-petiolate, obtuse or abruptly apiculate; inflorescence with 1–2 flowers, peduncle 1.5–2.8 cm; ovary and pedicel ca. 3 cm; floral bracts to 1.9 × 1 cm, green with brown specks. Flowers creamish white, the lip suffused with yellow inside the throat; dorsal sepal 21 × 3 mm, narrowly elliptic, acute; lateral sepals united nearly to apex, 23 × 4.5 mm; petals 23 × 4 mm,

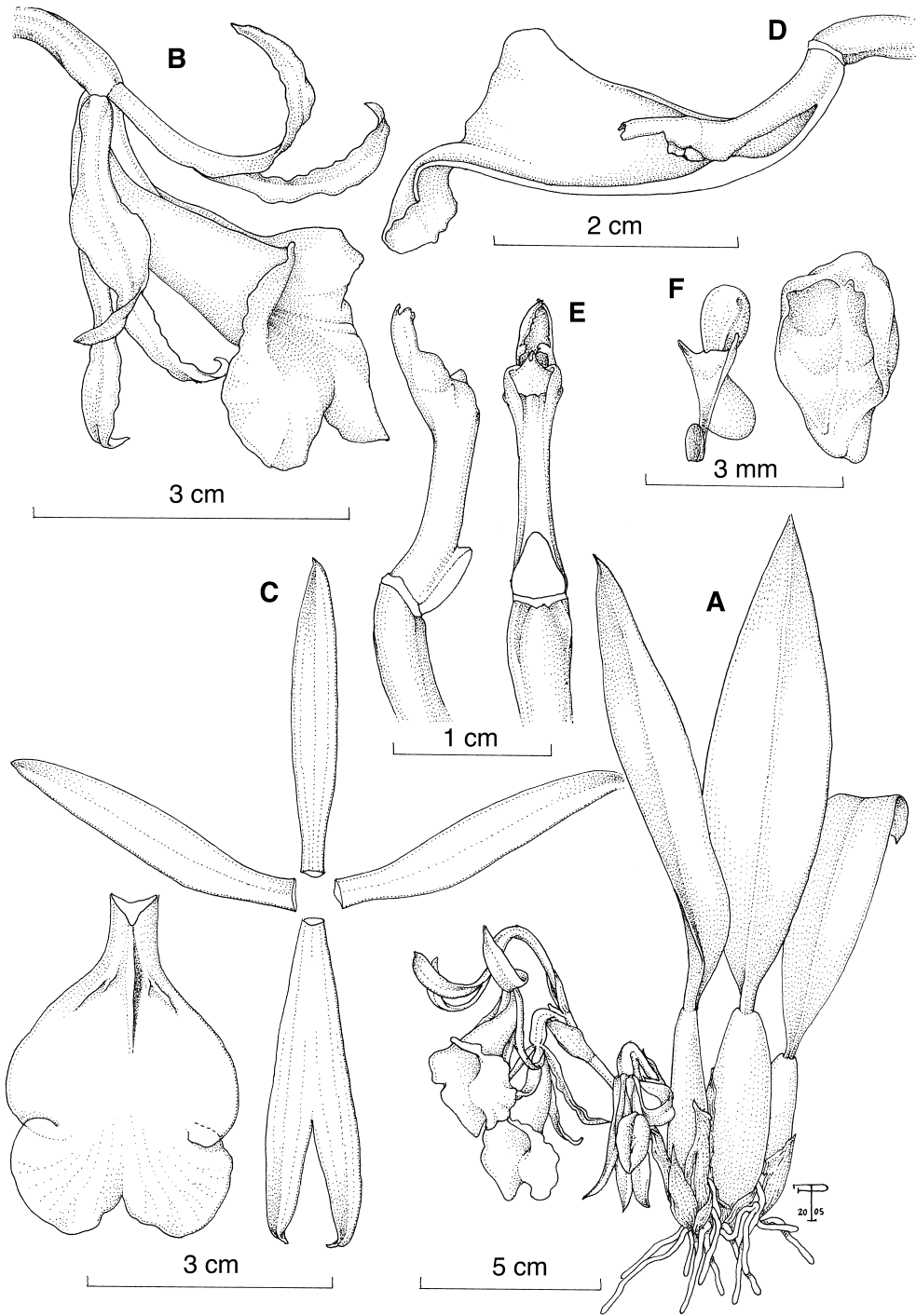


FIGURE 1. A–F, *Trichopilia endresiana* Dressler & Pupulin. A, Habit; B, Flower; C, Dissected perianth; D, Column and lip, lateral view (the lip longitudinally sectioned); E, Column, lateral and ventral views; F, Pollinarium and anther cap. Drawn from the holotype.

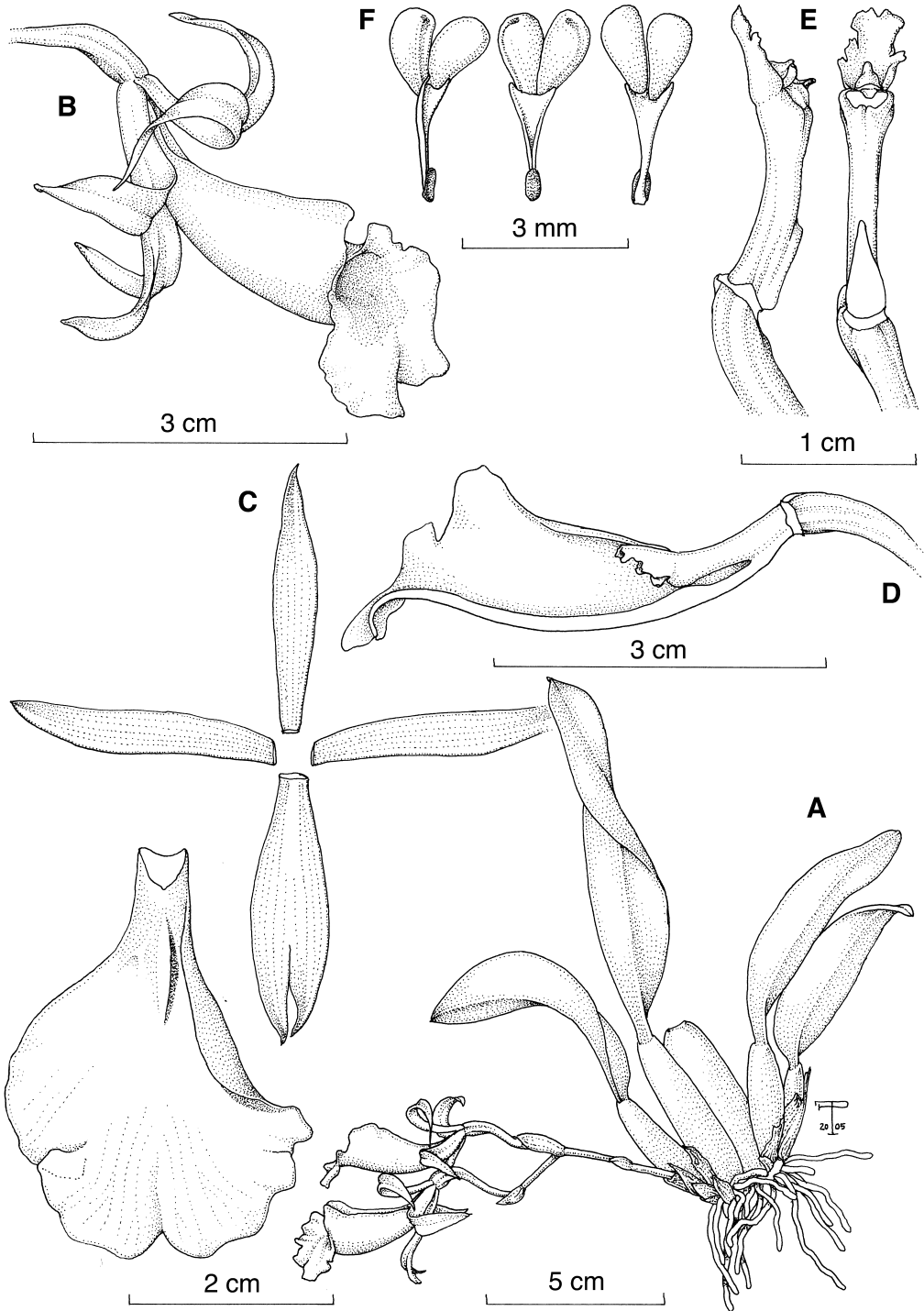


FIGURE 2. A–F, *Trichopilia tubella* Dressler. A, Habit; B, Flower; C, Dissected perianth; D, Column and lip, lateral view (the lip longitudinally sectioned); E, Column, lateral and ventral views; F, Pollinarium. Drawn from the holotype.

narrowly elliptic, acute; lip 35 × 22 mm, shallowly 3-lobed; midlobe ca. 6 × 17.5 mm; ventral outline of lip strongly convex; within with 1 median keel ca. 10 mm long, osmophores without keels or thickenings; column 15 mm, adnate to lip for 5–7 mm, slender basally, clinandrium 3-lobed, the midlobe ca. 5 mm long, the lateral lobes ca. 3 mm.

Etymology: The epithet *tubella* is the Latin diminutive for “trumpet,” referring to the form of the lip.

This tiny species was found near La Suiza de Turrialba by Bonilla, who sold plants to

Tennis Wylee, who, in turn, shared his plant with Woji Klikunas, who told Dressler of this tiny gem. *Trichopilia tubella* is one of the smallest species of *Trichopilia* Section *Trichopilia*. It is distinctive in that the area of the osmophores is quite smooth, rather like a diminutive *T. marginata* in that respect, but without a median groove. It is possible that *T. tubella* is the same species described by Cooper as *T. modesta*, though the very wide leaf of *T. olmosii*, and the number of flowers fits *T. modesta* better than it does *T. tubella*.

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