

A TRIO OF TRICHOPILIAS

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Eric Christenson often tackles difficult problems involving the horticultural taxonomy of orchids in an effort to stabilize names and promote ex situ cultivation and propagation of rarely seen species. Wojciech Klikunas is a semi-retired psychologist and an AOS Judge with a 30 year interest in the genus Trichopilia.

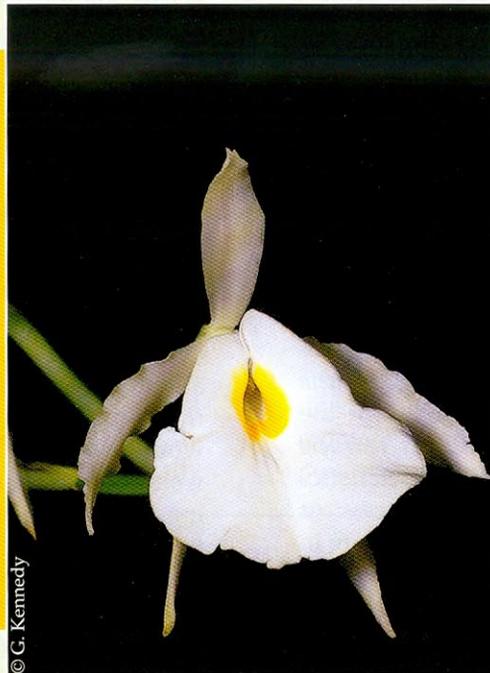
THE GENUS *TRICHOPILIA* is one of the least studied genera of neotropical orchids despite its having a number of very showy species. In compiling a checklist of the genus, we encountered many taxonomic problems that will require extensive future study to resolve. We have, however, been able to characterize three previously undescribed species that have been confused with either *T. fragrans* or *T. rostrata* in the literature. All three are showy species and should be more widely grown. In addition, as far as we have been able to ascertain, each species is endemic to a single country and thus may be of interest to conservation efforts in Bolivia, Ecuador, and Peru. We take this opportunity to describe these species here and ask anyone with an interest in the genus to contact us.



Trichopilia fragrans



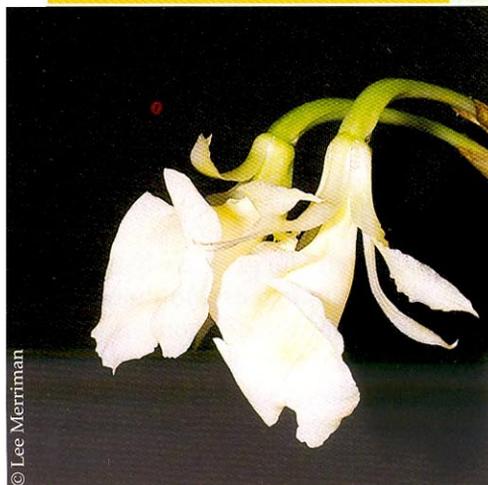
Trichopilia fragrans



Trichopilia fragrans



Trichopilia nobilis 'Maria Amada' CBR/AOS



Trichopilia occidentalis

Trichopilia boliviensis* Klikunas and Christenson, *sp. nov.

TYPE: BOLIVIA. Cochabamba, Chapare, near the Río Rogue Mayu, 20 Mar 1979, R. Vásquez 1290 (holotype: Herb. Vásquezianum).

Species haec T. laxa (Lindl.) Reichb.f. similis sed grandifloribus, sepalis lateralis petalisque falcatis, labello non pandurato, callo longiore differt.

Caespitose epiphytes. Pseudobulbs ellipsoid, strongly compressed, two-edged, 3.9 x 1.2 in. (10 x 3 cm), subtended by closely appressed papery bracts about half the length of the pseudobulbs. **Leaves** one, lanceolate, abruptly petiolate at the conduplicate base, acuminate, 5.9 x 2 in. (15 x 5 cm). **Inflorescences** horizontal arching-supendent pedunculate racemes to 4.7 in. (12 cm) long, the floral bracts tubular, papery, acute, much shorter than

the ovaries, 0.6 in. (1.5 cm) long. **Pedicels** and **ovaries** elongate, often curved, ca. 1.6 in. (4 cm) long. **Flowers** 1-4, the sepals and petals green, the lip white with yellow spots surrounding the yellow callus. **Sepals** and **petals** subsimilar, linear, long-acuminate, widely spreading, with finely undulate margins, the dorsal sepal 1.8 x 0.2 in. (4.5 x 0.5 cm), the lateral sepals falcate, 1.6 x 0.2 in. (4 x 0.5 cm), the petals falcate, 1.4 x 0.2 in. (3.5 x 0.5 cm). **Lip** unlobed, rhombic, notched at the apex, with suberect revolute lateral margins that embrace but do not obscure the column, 1.1 x 1 in. (2.8 x 2.5 cm), the callus a linear keel fused to the column from the base to the middle of the lip. **Column** cylindrical, straight, 0.7 in. (1.8 cm) long, the clinandrium fringed.

Etymology: Named for its country of origin.

Distribution: Bolivia.

Illustration: *Icon. Pl. Trop.*, ser. 2, pl. 388. 1989, as *T. fragrans*.



Trichopilia boliviensis

We contrast our new species with *T. laxa* despite its historic confusion with *T. fragrans*. Even though the two species are unlikely to be confused, they share the unusual feature of having lips that do not cover or obscure the top of the column. *Trichopilia boliviensis* differs from *T. laxa* by having larger flowers, falcate petals and lateral sepals, an unlobed lip that is not pandurate, and a longer callus which extends to the lip base.

With the reidentification of *Vásquez 1290* as *T. boliviensis* it is unclear whether true *T. fragrans* occurs in Bolivia.

Trichopilia mesoperuviensis Klikunas and Christenson, *sp. nov.*

TYPE: PERU. Huanuco, Ambo, Muña, 1850 m, D. E. Bennett & J. Schunke 454 (holotype: MO).

Species haec T. boliviensis Klikunas et Christenson similis sed parvifloribus, sepalis petalisque non undulatis, petalis non falcatis differt.

Caespitose **epiphytes** or **terrestrials**. **Pseudobulbs** ovoid, strongly compressed, two-edged, to 4.7 x 2 in. (12 x 5 cm), subtended by imbricating papery bracts. **Leaves** one, elliptic-lanceolate, petiolate at the abruptly conduplicate base, acute, 12.5 x 2.7 in. (32 x 7 cm). **Inflorescences** erect pedunculate racemes to 7.8 in. (20 cm) long, produced on newly matured growths, the floral bracts ovate, acute, to 0.8 in. (2 cm) long, much shorter than the pedicel and elongate ovary. **Pedicel** and grooved **ovary** to 1.6 in. (4 cm) long. **Flowers** typically three, starry, the sepals and petals pale translucent green, the lip stark white, the throat and callus carrot orange. **Sepals** and **petals** subsimilar, subequal, spreading, linear-lanceolate, acuminate, 1.4 x 0.3 in. (3.5 x 0.7 cm), the lateral sepals free, slightly clawed. **Lip** unlobed, rhombic, shallowly notched at



Trichopilia juninensis 'Veritas' AM/AOS

the apex, with the lateral margins incurved and embracing the column, 1.3 x 0.9 in. (3.3 x 2.4 cm) when expanded, the **callus** a low keel from the base of the lip to the middle, terminating in an elevated subtruncate knob. **Column** club-shaped, 0.8 in. (2 cm) long.

Etymology: Named for its restricted geographic range in central Peru.

Distribution: Peru, recorded from the Departments of Huanuco and Junin at elevations of 5250-6050 ft. (1600-1850 m).

Illustration: *Icon. Pl. Trop.*, ser. 2, pl. 198. 1989, as *T. fragrans*.

Trichopilia mesoperuviensis is most similar to *T. boliviensis* described above but differs by its smaller flowers, sepals and petals without undulate margins, and straight, rather than sickle-shaped, petals and lateral sepals. This species has been confused with *T. fragrans*, which does however also occur in Peru.

Trichopilia occidentalis Christenson, *sp. nov.*

TYPE: ECUADOR. Hort. W. Klikunas, Christenson 2063 (holotype: NY).

Species haec T. juninensis C. Schweinf. *similis sed sepalis petalisque acuminatissimis, sepalis lateralis connatis magis, unicallo differt.*

Caespitose **epiphytes**. **Pseudobulbs** oblong, strongly compressed, 3.9 x 1 in. (10 x 2.5 cm), subtended by broadly ovate, acute, tightly appressed papery bracts to about 1/3 the length of the pseudobulbs. **Leaves** one, lanceolate, abruptly petiolate at the conduplicate base, acute, 5.9 x 1.3 in. (15 x 3.2 cm). **Inflorescences** laxly pendent pedunculate racemes, 3.9 in. (10 cm) long, the floral bracts lanceolate, acute, shorter than the ovaries, 0.8 in. (2 cm) long. **Pedicel** and **ovary** 1.4 in. (3.5 cm) long. **Flowers** 2-3, the sepals and petals ivory, the lip white. **Sepals** and **petals** subsimilar, linear-lanceolate, acuminate, recurved, the dorsal sepal 1.3 x 0.2 in. (3.2 x 0.6 cm), the lateral sepals fused for about 2/3 their length, 1.5 in. (3.8 cm) long, 0.4 in. (1.1 cm) wide at the notch formed by the free apices, the petals 1.3 x 0.2 in. (3.4 x 0.6 cm). **Lip** three-lobed, pandurate, notched at the apex, tubular with flared lobules, 1.3 x 1.1 in. (3.4 x 2.8 cm), the callus a broad keel fused to the column from the base to below the middle of the lip. **Column** cylindrical, straight, 0.7 in. (1.9 cm) long, the clinandrium minutely denticulate.

Etymology: Named for its habitat on the western slopes of the Andes in Ecuador.

Distribution: Ecuador.

Illustrations: Dodson and Dodson, 1980, as *T. rostrata*; Teuscher, 1962, as *T. rostrata*.

This new species has been illustrated twice and both times it was confused with the Colombian *T. rostrata* Reichb.f. (Dodson and Dodson, 1980; Teuscher, 1962). *Trichopilia rostrata* has lateral sepals that are free of each other except at the very base and the throat of the lip is striped with orange. *Trichopilia occidentalis* has the lateral sepals fused for about two thirds of their length without any striping on the lip. Dodson and Dodson (1980) record the sepals as "green-brown" but all the material we have seen of this species have ivory-white sepals and petals.

Trichopilia occidentalis is most closely related to the Peruvian *T. juninensis* C. Schweinf. but differs by having more acuminate sepals and petals, the lateral sepals fused for more than half their length, and a single callus keel. In *T. juninensis* the lateral sepals are fused for

less than half their length and the callus is distinctly three keeled (Bennett and Christenson, 1993).

Trichopilia occidentalis is also quite similar to the Central American *T. turialvae* but that species has broader leaves, 2-5 flowers per inflorescence, a more fimbriate clinandrial hood, and a callus of three keels.

With the reidentification of Dodson 7234 as *T. occidentalis* it is unclear whether true *T. rostrata* occurs in Ecuador.

Dodson (1962) recorded the pollinator of this species as male bees (*Euglossa viridissima*).

ACKNOWLEDGEMENTS

We thank Dale Borders for kindly lending his photograph of *T. mesoperuviensis* for this article.*

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