

T. estrellense Pupulin & J.B. García *sp. nov.*
 TYPE: COSTA RICA. Cartago: El Guarco, in valleys under Palo Verde, epiphytic in shadow on tall trees along a minor tributary of Río Reventazón, 1250 m, 30 Apr. 1992, *F. Pupulin* 209 (Holotype, USJ; Isotype, Herb. Pupulin). Fig. 8.

Species *Trichocentron pfavii* similis, sed labello minore marginibus planis, lobulis lateralibus abbreviatis rotundatis, alis columnae abbreviatis marginibus laceratis et inflorescentia heterocronica differt.

Plant epiphytic, caespitose, pendent, with abbreviated rhizome. **Roots** filiform, flexuous, glabrous, silvery white with green apex. **Pseudobulb** cylindric, up to 10 mm long, 5 mm wide, monophyllous. **Leaf** linear-elliptic to elliptic-oblong, obtuse to retuse, narrowed to a conduplicate, sessile base, light green, 8–12 cm long (to 20 cm), 2.5–3 cm wide. **Inflorescence** lateral, basal, pendent, successive, sometime branched at the base, 3- to many-flowered; peduncle terete, 4 to 11.5 cm long, concealed by 2–3 concave, ovate bracts. **Ovary** linear-clavate, about 3 cm long including the pedicel. **Flowers** rather large for the genus, with free sepals and petals, ivory white with a narrow chestnut brown blotch at the first third of their length and white lip, marked near the base by two rose-purple bars. **Dorsal sepal** obovate-elliptic, obtuse to retuse, slightly concave toward the apex, to 16 mm long, 8.5 mm wide. **Lateral sepals** obliquely elliptic, obtuse to retuse, with a short, rounded apicule, subcarinate towards the apex and slightly concave, to 16 mm long, 6.5 mm wide. **Petals** linear-elliptic, obtuse, slightly concave towards the apex, 16 mm long, 6.5 mm wide. **Lip** obovate-subpandurate, adnate to the column, 21 mm long, with a short, linear claw 2 mm long, with two broad, subquadrate, pubescent lateral lobes at the base, expanding abruptly to the subpandurate blade, 16 mm long, 15.5 mm

wide, deeply emarginate in front, with plane, entire margins, producing with the column base a very short, blunt, saccate spur, 2.6 mm long, 3.5 mm wide. **Column** short, stout, without a foot, 3 mm long, with a pair of short, erect, subdolabriliform, lacerate wings, spotted and blotched with brown along the margins. **Anther** white, cucullate, papillose. **Pollinia** 2, pyriform, rugulose, on a short obtriangular stipe; viscidium elliptic, brown when fresh.

ETYMOLOGY: Named from La Estrella, the region on northwestern slopes of the Cordillera de Talamanca, where the species was first found.

DISTRIBUTION: Endemic to Costa Rica.

REPRESENTATIVE SPECIMENS: COSTA RICA. Cartago: La Estrella, *C.H. Lankester s.n.*, 9 Jan. 1923 (AMES); El Guarco, bajo Palo Verde, *F. Pupulin* 205 and 208 (Herb. Pupulin); Agua Caliente, *J.M. Quiróz s.n.* (fide J.B. García). Limón: Siquirres, Bajos del Tigre, 450 m, *L. Acosta & F. de Acosta s.n.* (fide J.B. García).

Trichocentrum estrellense inhabits submontane, evergreen, tropical rain forests of the Atlantic slopes of the Cordillera de Talamanca and Cordillera Central in Costa Rica, where the plants of this species grow on shady branches and trunks covered by live moss, mainly over streams. The climate of the high basin of Río Reventazón is wet, temperate, with a moderate water deficit (Herrera, 1985). Minimum and maximum temperature average at La Estrella region are 18 and 21 °C, respectively. Flowering generally begins in early summer, and many flowers are produced successively from June to September. *Trichocentrum estrellense* was first collected in January 1923 by C.H. Lankester near La Estrella, in the Province of Cartago, and a specimen was sent to Oakes Ames who identified it as *T. pfavii* (AMES 26162). Another anonymous collection from the same area was illustrated in a delicate and delightful watercolor by Rafael Lucas Rodríguez Caballero. This plate, together with many other botanical drawings of Costa Rican orchids by Rodríguez, was posthumously published in 1986 as *T. pfavii* (Rodríguez Caballero et al., 1986). Due to the variable regional forms of *T. pfavii* (Pupulin & Mora-Retana, 1994) it is not surprising that herbarium material of *T. estrellense* was overlooked for over 70 years. In fact, most of the morphological differences between the two taxa are better observed in living material, and the characteristic successive inflores-

cence, unique among the species close to *T. pfavii*, may be noticed only when plants are kept in cultivation. Joaquín B. García first pointed out the difference between plants native of La Estrella area and the typical form of *T. pfavii*. In April 1992 I had the opportunity to confirm the specific status of *T. estrellense* after a visit to the Valle del Guarco, in the high basin of Río Reventazón, where large colonies of this species were found. Within the genus, *T. estrellense* is so far the species with longer leaves: a leaf of the type specimen was 20 cm long.