

7. *Platystele tica* Karremans & Bogarín, *sp. nov.*

TYPE: Costa Rica. Puntarenas: Buenos Aires, Volcán, 09°13'N, 83°26'W, *ca.* 450 m, bosque muy húmedo premontano transición a basal en bosque secundario muy alterado a orillas de un riachuelo, 17 de abril 2012, *A.P. Karremans 5315*, *J. Cambronero & J. Geml* (holotype, JBL-Spirit!; isotype, JBL-Spirit!; figs. 8, 9, 14G–H).

*Species haec P. oxyglossa (Schltr.) Garay similis, sed planta minutissima, floribus minutissimis flavis, sepalis petalisque acutis latiores, labello ovato acuto differt.*

*Plant* minuscule, epiphytic, caespitose, erect, up to 2.0 cm tall, including the inflorescence. *Roots* basal, flexuous, filiform. *Ramicauls* erect, slender, 1–2 mm long, enclosed by 2–3 tubular, imbricating,

slightly compressed, membranous sheaths, becoming brownish and papery with age. *Leaf* elliptic, erect, fleshy, coriaceous, conduplicate, subacute, emarginate, abaxially keeled and terminating in a short apiculus, 5–7 × 1.5–2.5 mm, narrowed at the base into a conduplicate petiole. *Inflorescence* racemose, distichous, successively flowered, with one flower open at a time, up to 1.5 cm long, peduncle to 1.2 cm long, pedicels 1.5–2.0 mm long. *Floral bracts* acute, conduplicate, to 0.5–0.8 mm long. *Ovary* terete, smooth, to 0.3 mm long. *Flowers* monochrome yellow, about 1.8 mm in diameter. *Dorsal sepal* narrowly ovate-elliptic, spreading widely, acute, glabrous, 0.9 × 0.5 mm. *Lateral sepals* subequal to the dorsal sepal, broadly elliptic, spreading widely, acute, glabrous, 0.9 × 0.7 mm. *Petals* spreading widely, narrowly elliptic-lanceolate, acute, margins irregular, 1-veined, 0.9 × 0.3 mm. *Lip* ovate, shortly acuminate, glandular, especially at the apex, margin irregular, with a small glenion at the base, 0.8–0.9 × 0.4–0.5 mm. *Column* short, sub-cylindrical, 0.3–0.4 mm long. *Anther* apical, *stigma* subapical, transversely bilobed at each

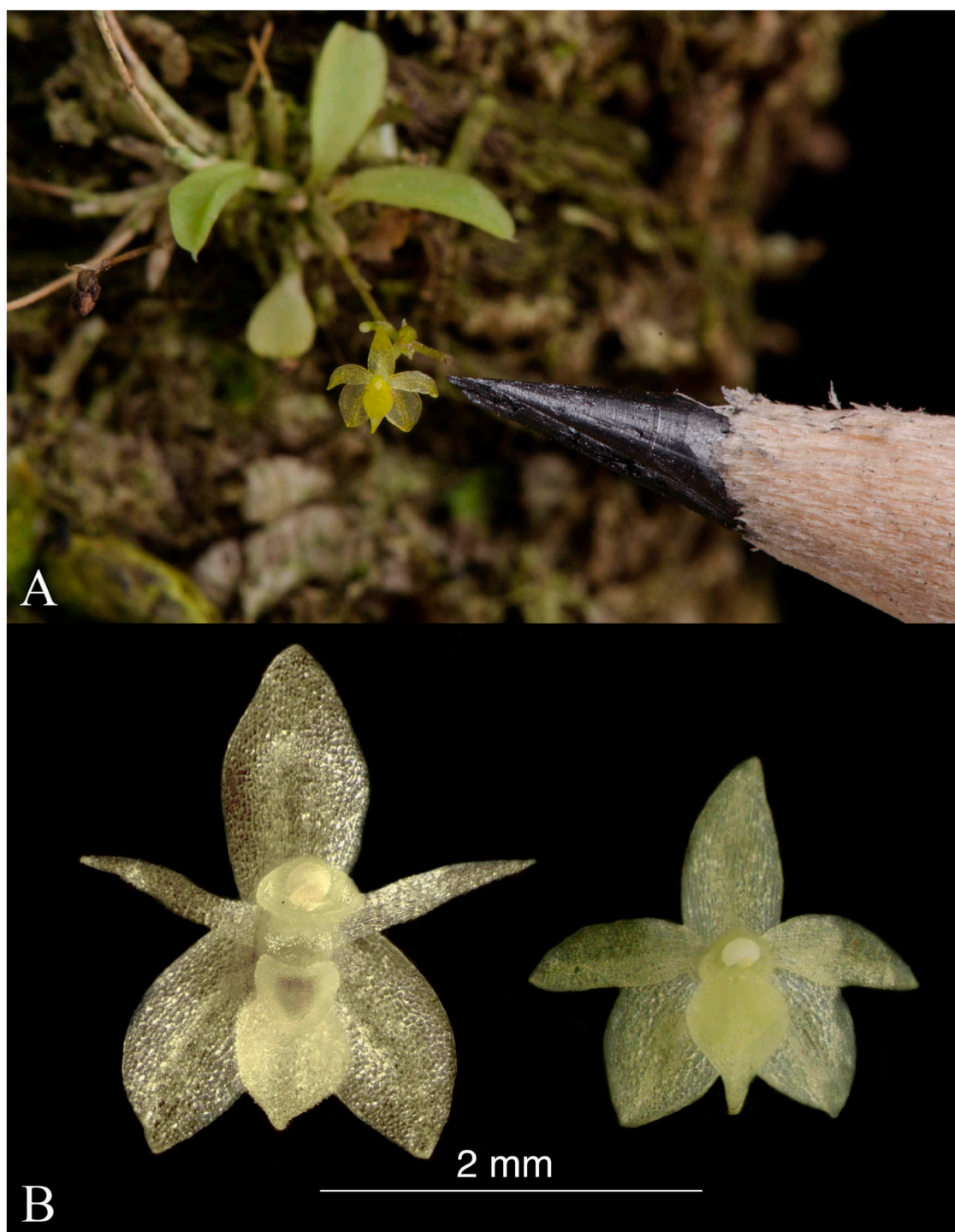


FIGURE 8. Size comparison of *Platystele tica* Karremans & Bogarín: A — The specimen that served as type material, *in situ*, compared with a pencil. B — On the left *Platystele microtatantha* (Schltr.) Garay (Bogarín 10241), on the right *Platystele tica* (Karremans 5929A). Photographs by A.P. Karremans.

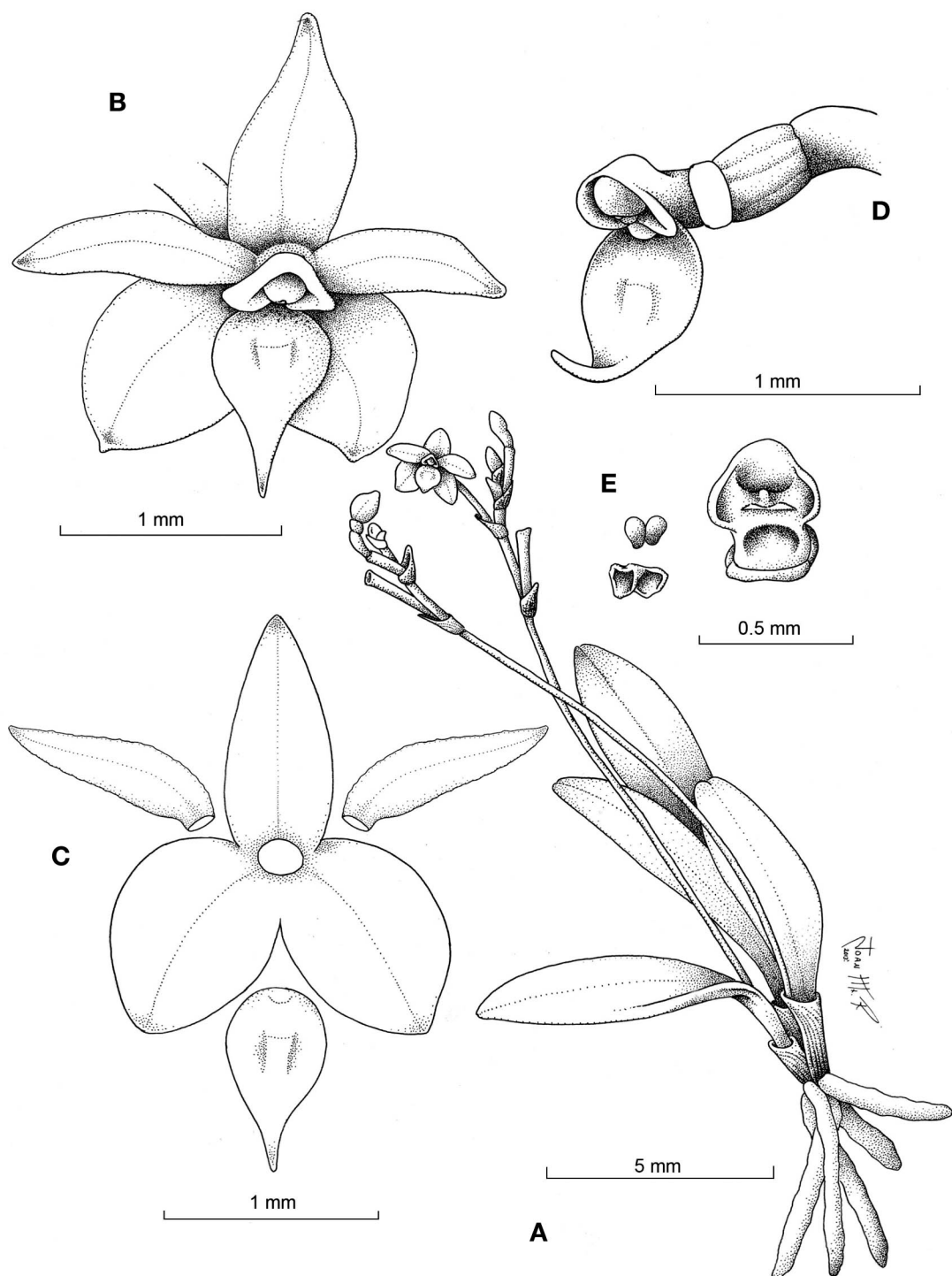


FIGURE 9. *Platystele tica* Karremans & Bogarín. A — Habit. B — Flower. C — Dissected perianth. D — Column and lip, lateral view. E — Column, front view. F — Pollinarium and anther cap. G — Sepal margin. Drawing by D. Bogarín and J.M. Ramírez based on A.P. Karremans 5315 (JBL-Spirit).

side of the anther. *Pollinia* 2, ovoid. NOTE: Description based on *Karremans* 5315, 5829A and *Pupulin* 2928.

PARATYPES: Costa Rica. Puntarenas: Buenos Aires, Volcán, Cacao, orillas del Río Cacao en bosque secundario bajo el puente de la Carretera Interamericana, 9°13'10.441"N 83°28'19.002"W, 449 m, bosque muy húmedo premontano transición a basal, 20 marzo 2013, *A.P. Karremans* 5829A, *D. Bogarín*, *J. Cambronero* & *F. Pupulin* (JBL-Spirit!; figures 8 & 9). San José: Pérez Zeledón, El Brujo, road to El Llano, along the boarder of río División, 320 m, 9°25'40"N 83°54'58"W, epiphytic on tall trees along the river shore, 21 Jan. 2001, *F. Pupulin* 2928, *D. Castelfranco* & *L. Elizondo* (JBL-Spirit!).

OTHER RECORDS: Costa Rica. San José: Tarrazú. No protegida. Cuenca del Naranjo y Paquita. Valle del General, Longo May. Río Sonador, 1400-1800 m, 9°36'30"N 84°06'00"W, epifita, 16 may 2006, *J. F. Morales* 13937 (INB!; INB-Spirit). Geographical distribution, plant habit and size, and flower coloration suggests that this specimen is *P. tica*, however, the flowers on the dried specimen are too damaged to tell with certainty and we were not able to locate the spirit specimen.

A text and its accompanying photographs by Pontus Aratoun featuring a *Platystele* species from Mecana beach, Choco, Colombia (available through <http://miniorchids.wordpress.com>), possibly represents the same species.

DISTRIBUTION: known only from Costa Rica. It may also be present southwards into Colombia.

EPONYMY: the name honors Costa Rica, country where this minuscule species was found, and the people of which are known as *tico* and *tica*. The nickname *tico* or *tica* comes from the Costa Rican linguistic custom of using it as a diminutive suffix, alluding thus as well to the small size of this *Platystele*.

HABITAT: epiphytic in secondary forest in premontane wet forest, between about 300 and 450 m (1400-1800 m?) elevation. It is known only from the Costa Rican south-Pacific, in the Valle de El General area.

PHENOLOGY: flowering recorded at least from April to June, however considering the slowly successive inflorescences, each is likely to flower continuously for months at a time.

*Platystele tica* is without obvious close relatives in Costa Rica. General plant morphology would suggest affinity with the *P. oxyglossa* group, as does the lip shape. The new species, however, lacks the typical caudate sepals and the reddish-purplish coloring of the lip. Flower coloration and size are somewhat reminiscent of *Platystele minimiflora* (Schltr.) Garay, however that species has a creeping habit. *P. tica* has one of the smallest flowers in the genus rivaled only by that of *P. enervis* Luer, *P. ornata* Garay and *P. umbellata* P.Ortiz. It makes the previous Costa Rican famous dwarfs, *P. jungermannioides* (Schltr.) Garay and *P. microtatantha* (Schltr.) Garay, look large. This species might not necessarily be rare, we have observed at least a couple of specimens more in the field and photographed by enthusiasts, but considering the minuscule size of the plant and flower, the lack of herbarium collections and habitat loss in the area it grows, it is not unsurprising that it had escaped description.

