

6. *Platystele sylvestrei* Karremans & Bogarín, *sp. nov.*

TYPE: Costa Rica. Cartago: Paraíso, Orosi, Tapantí, Parque Nacional Tapantí, camino entre el portón del Mirador hacia el Río Humo, Proyecto

Hidroeléctrico Tapantí, 9°41'32.9"N 83°47'03.2"W, 1650 m, bosque pluvial premontano “*supra arbores et ad truncos prostratos vetustos ad sylvarum versuras ad viam flumen Humo in Tapantí*”, 18 Noviembre 2010, D. Bogarín 8240, R. Gómez, A.P. Karremans, B. Klein, G. Meza & F. Pupulin (holotype, JBL-Spirit!; fig. 6, 7).

Species haec P. oxyglossa (Schltr.) Garay similis, sed planta majore, floribus autogamus albus, sepalis petalisque angustissimis, labello angusto-ovato lanceolato differt.

Plant medium for the genus, epiphytic, caespitose, erect, up to 12–13 cm tall, including the inflorescence. Roots basal, flexuous, filiform. Ramicauls erect, slender, 5–8 mm long, enclosed by tubular, imbricating, slightly compressed, membranous sheaths, becoming brownish and papery with age. Leaf narrowly obovate-elliptic, erect, conduplicate, obtuse, emarginate, 20–35 × 5–7 mm, narrowed at the base into a conduplicate petiole. Inflorescence racemose, distichous, successively flowered, with one flower mature (not necessarily open) at a time, up to 12 cm long, peduncle to 7 cm long, pedicels 1.0–1.5 cm long. Floral bracts acute, conduplicate, to 1 mm long. Ovary terete to suborbicular, smooth, to 2 mm long (fertilized). Flowers cleistogamous or autogamous (at least in the material at hand), sepals and petals transparent whitish, with a violet blotch on the base of the lip and violet markings on the column, about 4 mm in diameter. Dorsal sepal narrowly ovate, spreading widely, acute, glabrous, 2.3–2.4 × 0.5 mm. Lateral sepals subequal to the dorsal sepal, narrowly ovate, spreading widely, acute, glabrous, 2.3 × 0.6–0.7 mm. Petals spreading widely, linear to narrowly lanceolate, acute, margin somewhat irregular, 1-veined, 2.0 × 0.2–0.3 mm. Lip very narrowly ovate-lanceolate, shortly acuminate, glabrous, without an evident glenion at the base, 1.6–1.7 × 0.5 mm. Column short, thick due to autogamy, sub-cylindrical, 0.5 mm long. Anther not noted, stigma deformed, apical. Pollinia not observed. NOTE: Description based only on Bogarín 8240.

PARATYPES: Costa Rica. Alajuela: San Ramón, Piedades, unpaved road from Piedades Norte to Piedades Sur, San Antonio de Zapotal, 10°09'51.9"N 84°35'36.5"W, 1410 m, Caribbean watershed of the

Continental Divide, premontane cloud forest, 24 March 2005, F. Pupulin 5595, E. Salas-Pupulin, D. Bogarín & A.C. Rodríguez (JBL-Spirit!). Puntarenas: Reserva Biológica Monteverde, Ojo de Agua, Finca de Leonel Hernández. Bosque pantanoso semiachaparrado. Lado Pacífico de la reserva. 10°15'N 84°46'W, 1600 m. 14 nov. 1987. W. Haber & E. Bello 7808 (INB!; Illustration-INB!). Puntarenas: Monteverde Cloud Forest Reserve. Pacific slope and continental divide, road to divide, swamp along Sendero Pantanoso and Sendero Chomogo. 10°18'N 84°47'W, 1550–1600 m. Epiphyte. 14 Mar. 1990. W. Haber & W. Zuchowski 9798 (INB!). Costa Rica - Panama: Puntarenas-Bocas del Toro: Coto Brus-Valle del Risco, línea fronteriza sobre la divisoria de aguas ingresando por el camino de la Finca Sandí-Hartmann “El Capricho”, 8°57'12.34"N 82°43'32.69"W, 2154 m, bosque pluvial montano bajo, 11 diciembre 2013, A.P. Karremans 6130, D. Bogarín, M. Fernández & L. Sandoval (JBL-Spirit!; fig. 7A). Same locality and date, D. Bogarín 10744, A.P. Karremans, M. Fernández & L. Sandoval (JBL-Spirit!; fig. 7B).

DISTRIBUTION: known only from Costa Rica and Panama.

ETYMOLOGY: El Silvestre (the uncultivated) was the name of Charles H. Lankester's farm before becoming Lankester Botanical Garden in the hands of the University of Costa Rica. This species honors the garden's 40th anniversary.

HABITAT IN COSTA RICA: epiphytic in mature humid premontane forest, between 1410 and 1650 m elevation. It is known from a few but distant localities, Tapantí National Park in Cartago, close to San Ramón in Alajuela, the Monteverde area in Puntarenas, and on both sides of the continental divide close to the Costa Rica - Panama border.

PHENOLOGY: flowering recorded at least in March and November and December, considering the successiveness of the inflorescence it is likely found flowering-fruiting all year round.

Platystele sylvestrei probably belongs to the *P. oxyglossa* species complex, however, it has a relatively large habit, reaching above 10 cm when including the inflorescence. The species can be easily recognized by

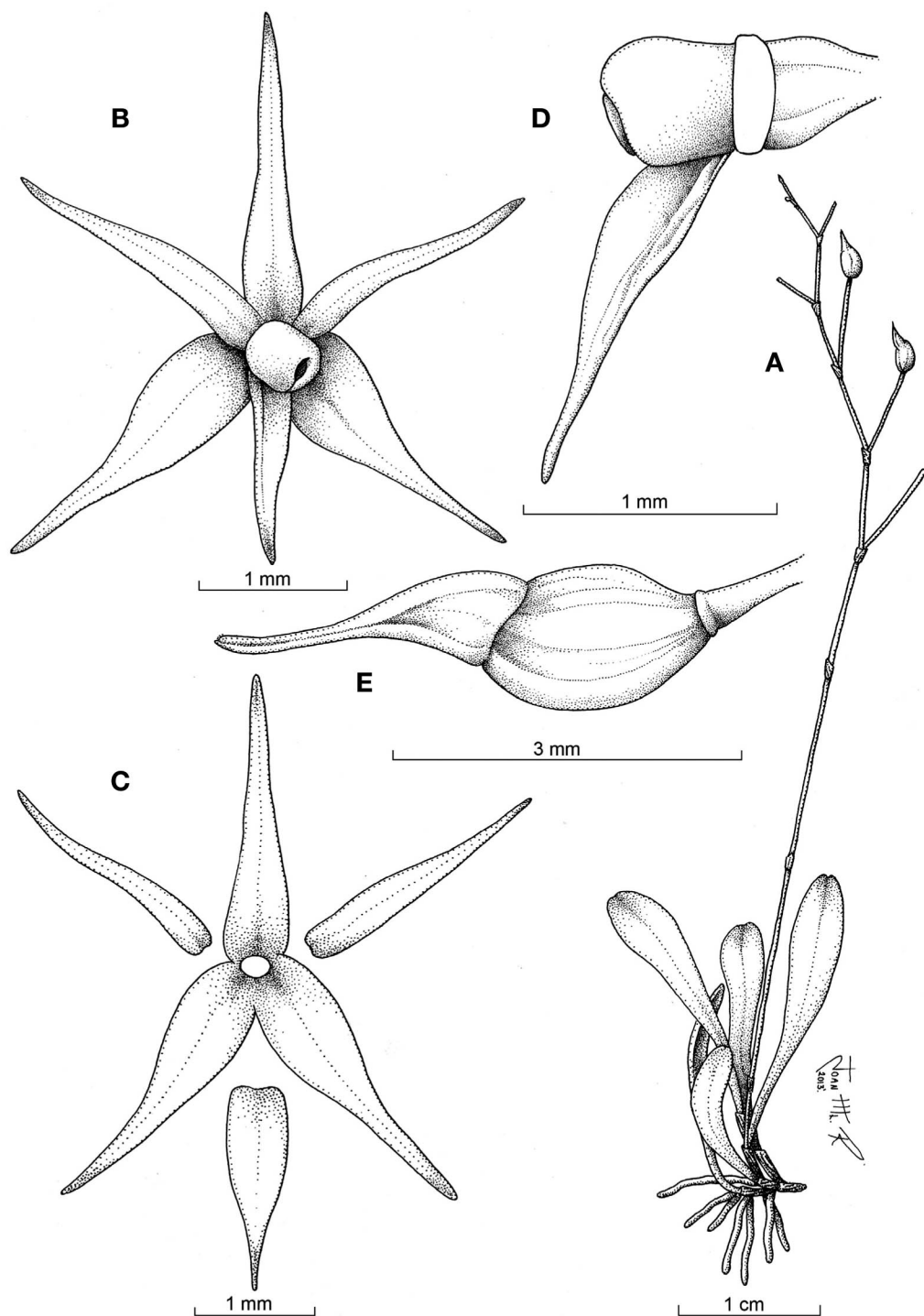


FIGURE 6. *Platystele sylvestrei* Karremans & Bogarín. A — Habit. B — Flower. C — Dissected perianth. D — Column and lip, lateral view. E — Fruit with persistent perianth, lateral view. Drawing by D. Bogarín and J.M. Ramírez from D. Bogarín 8240 (JBL-Spirit).



FIGURE 7. *Platystele sylvestrei* Karremans & Bogarín. A — A rare case of a fully opening flower, already pollinated (Karremans 6130) . B — Plant habit showing the long lax inflorescences with the characteristic fruiting (Bogarín 10744). Photographs by A.P. Karremans (A) and D. Bogarín (B).

the lax inflorescence, the long pedicels, the whitish-transparent, autogamous/cleistogamous flowers and the narrow, glabrous flower segments, with a narrowly ovate-lanceolate lip.