



EPIDENDRUM ISTHMOIDES Hágsater & E.Santiago

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Type: COSTA RICA: Alajuela: Reserva Biológica Monteverde, Río Peñas Blancas, Campo 3, 900 m, 26 VI 1989, *Erick Bello 1516*.
Holotype: INBI (Illustration voucher). Isotype: MO!

Epidendro pilifero Rchb.f. simile sed floribus minoribus immaculatis, segmentis floralibus leviter patentibus, labello trilobato isthmum brevem inter lobulos laterales et lobulum medium ferenti, lobulis lateralibus rectangularibus, margine regulari, differens.

Hierba epífita o litófito, simpodial, cespitosa, de más de 100 cm de alto. **Raíces** basales, carnosas. **Tallos** sencillos, tipo caña, lateralmente aplanados, erectos, rectos, de más de 100 x 0.3-1.2 cm. **Hojas** ca. 9-11, distribuidas a lo largo del tallo, articuladas, alternas, cartáceas; vainas tubulares, lateralmente algo comprimidas, finamente estriadas, 11-50 x 3-14 mm; lamina elíptica, cortamente acuminada, con las nervaduras claramente resaltadas en el haz, margen entero, extendido, 13-23 x 3-5 cm. **Bráctea** espatácea ausente. **Inflorescencia** apical, florece una sola vez, paniculada, suberecta, pluriflora, densa, 35-40 cm de largo; pedúnculo corto, delgado, algo lateralmente aplanado, recto, hasta 4.5 cm de largo; desprovisto de brácteas; las brácteas de las ramificaciones basales, muy prominentes, angostamente triangulares, conduplicadas, largamente acuminadas, abrazadoras, 4-13 cm de largo. **Bráctea floral** de tamaño variable, desde más cortas hasta más largas que el ovario, linear triangulares, largamente acuminadas, abrazadoras, 4-14 mm de largo. **Ovario** terete, delgado, no inflado, papiloso, 9-11 mm de largo. **Flores** 150-300, simultáneas, (aunque algunas apicales presentes aún en botón floral) resupinadas, de color verde cremoso; sin datos de fragancia. **Sépalos** entreabiertos, libres, oblongo oblanceolados, subagudos, 5-nervados, margen entero, extendido, 9-10 x 1.5-2 mm; los **laterales** oblicuos, con una quilla dorsal prominente. **Pétalos** entreabiertos, libres, filiformes, redondeados, 1-nervados, margen entero, extendido, 9 x 0.3 mm (ancho cerca del ápice). **Labelo** unido a la columna, trilobado, truncado en la base, 4 x 4 mm; bicalloso, los callos prominentes, subglobosos; disco con 3 quillas carnosas, romas, el par lateral más corto, la central alargada casi hasta el seno apical de la lámina, con una joroba cerca del ápice; lóbulos laterales rectangulares, margen dentado, 1.3 x 2.5 mm; lóbulo medio con un istmo corto en la base, el ápice bilobado, los lóbulos lineares, redondeados en el ápice, fuertemente divergentes, margen irregular, extendido, 1.5 x 3.6 mm. **Columna** recta, delgada, 7 mm de largo. **Clinandrio** reducido, margen entero. **Antera** subreniforme, con una quilla central, 4-locular. **Polinios** 4, tipo ala de pájaro, fuertemente comprimidos lateralmente, el par interior ligeramente más corto. **Rostelo** subapical, hendido. **Lóbulos laterales del estigma** prominentes, ca. de ½ del largo de la cavidad estigmática. **Nectario** poco profundo, penetrando 1/3 del ovario, no inflado, liso. **Cápsula** no vista.

Epiphytic or lithophytic, sympodial, caespitose, tall **herbs**. **Roots** basal, fleshy. **Stems** simple, cane-like, laterally compressed, erect, straight, tall. **Leaves** ca. 9-11, distributed throughout the stem, articulate, alternate, chartaceous; sheaths tubular, laterally somewhat compressed, minutely striated; blade elliptic, short-acuminate, with the veins clearly marked on the upper side, margin entire, spreading. **Inflorescence** apical, flowering only once, paniculate, suberect, densely many-flowered; peduncle short, somewhat laterally flattened, straight, without bracts, the bracts of the lower branches very prominent, narrowly triangular, conduplicate, long-acuminate, amplexicaul. **Floral bracts** variable in size, from much shorter than to longer than the ovary, linear-triangular, long-acuminate. **Ovary** terete, thin, not inflated, papillose. **Flowers** 150-300, simultaneous (though some apical buds may be present), resupinate, creamy green. **Sepals** partly spreading, free, oblong-oblanceolate, subacute, 5-veined, margin entire, spreading; the lateral sepals oblique, with a prominent dorsal keel. **Petals** partly spreading, free, filiform, rounded, 1-veined, margin entire, spreading. **Lip** united to the column, 3-lobed, base truncate; bicallose, the calli prominent, subglobosa; disc with 3 fleshy, rounded keels, the lateral keels somewhat shorter than the mid-keel with runs down to the apical sinus, with a small hump near the apex; lateral lobes rectangular, margin dentate; midlobe with a short isthmus at the base, the apex bilobed, the lobes linear, rounded at the apex, strongly divergent, margin irregular, spreading. **Column** straight, thin, long. **Clinandrium-hood** reduced, margin entire. **Anther** subreniforme, with a central keel, 4-celled. **Pollinia** 4, "bird-wing" type, strongly laterally compressed, the inner pair shorter. **Rostellum** subapical, slit. **Nectary** shallow, penetrating 1/3 of the ovary, not inflated, smooth.

OTHER SPECIMENS: COSTA RICA: Alajuela: Río Peñas Blancas, 900 m, 8 I 1987, *Haber 6768*, MO! Ibid. 23 VII 1987, *Haber 7342*, MO x2!

DISTRIBUTION AND ECOLOGY: Endemic to western Costa Rica on the Atlantic slope, growing Epiphytic and lithophytic, at 900 m altitude. Flowering from January to June.

RECOGNITION: *Epidendrum isthmoides* belongs to the Pseudepidendrum Group which is characterized by caespitose plants, cane-like stems, acute to acuminate leaves, usually apical inflorescence, the filiform petals and the lip usually 3-lobed (with 3 parallel fleshy keels), the apical lobe often bifurcate, the "bird-wing" type pollinia, and Paniculatum Subgroup which has green and white flowers, often marked with purple on the disc of the lip and apex of the column. The species is recognized by the large plants, chartaceous, elliptic leaves with the veins clearly marked, (13-23 x 3-5 cm.); the creamy green flowers with the floral segments partly spreading, sepals 9-10 mm

long, the lip immaculate, with a short isthmus between the lateral lobes and the midlobe. *Epidendrum isthmii* Schltr. has shorter, narrower, lanceolate to elliptic-lanceolate leaves (5.5-13 x 1.3-3.4 cm), a few-flowered inflorescence with larger flowers, sepals 13-15.5 mm long, the flowers greenish with the disc of the lip creamy white. *Epidendrum piliferum* Rchb.f. is vegetatively similar in size, but the flowers are larger, green, with the lip and apex of the column white, the disc with 5 purple lines, the reflexed sepals 12.5-17 mm long. *Epidendrum horichii* Hágsater has shorter plants, 37-75 cm tall, the elliptic to lanceolate leaves 3.5-15 cm long, the flowers green with the white lip often marked with a purple blotch.

CONSERVATION STATUS: DD. Data deficient. Known from few highly localized collections in a protected area.

ETYMOLOGY: Derived from the Greek ἵσθμος a narrowing, and the suffix -οῖδες, resemblance, in reference to the superficial similarity of the species with *E. isthmii*, especially the illustration prepared from the type of that species by Schlechter, with the very angular lateral lobes of the lip, the wide isthmus, and the apical lobes.

