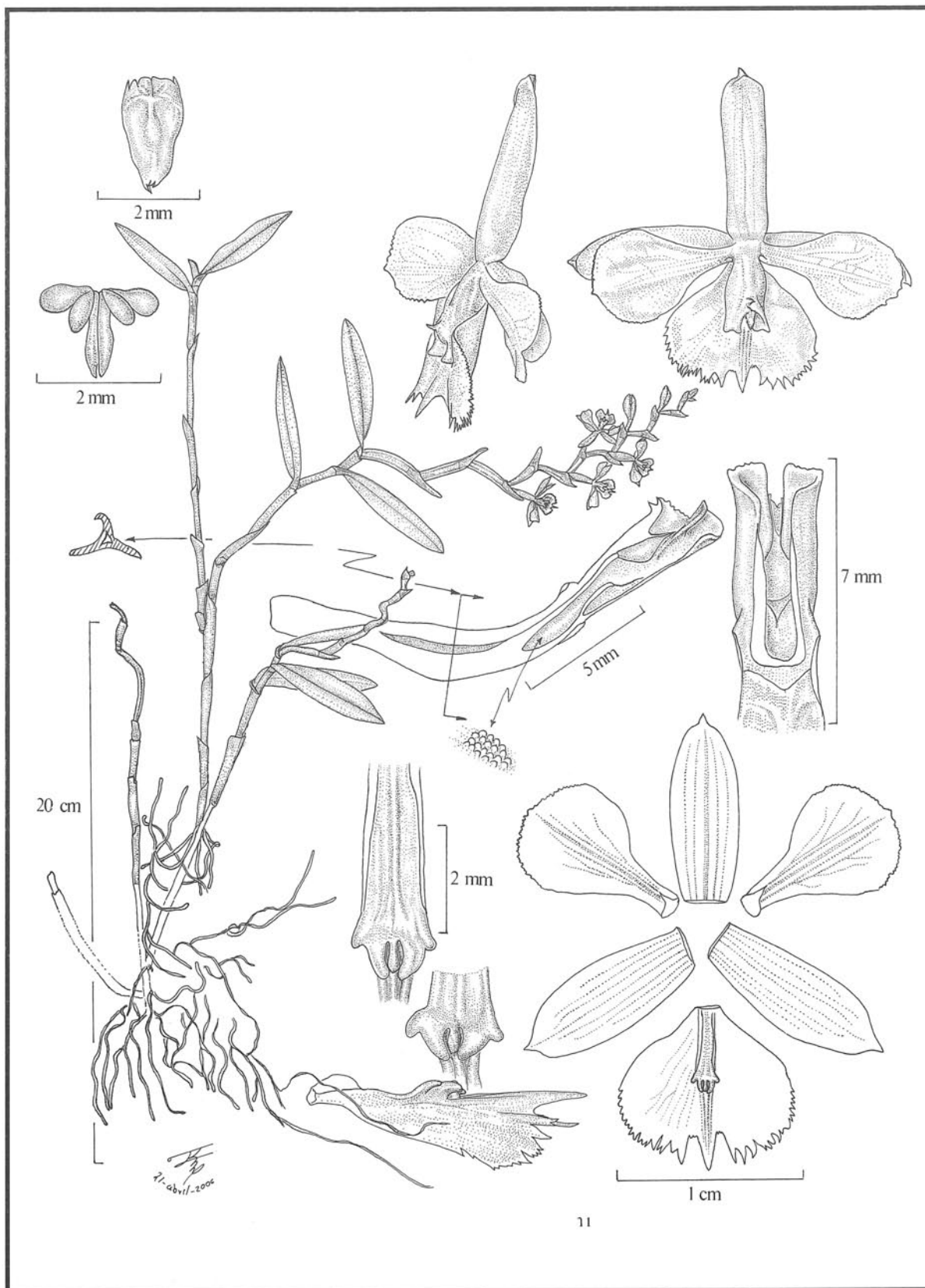




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EPIDENDRUM BICUNICULATUM Hágsater & E.Santiago

Plate 913

EPIDENDRUM BICUNICULATUM Hágsater et E.Santiago, *sp. nov.*

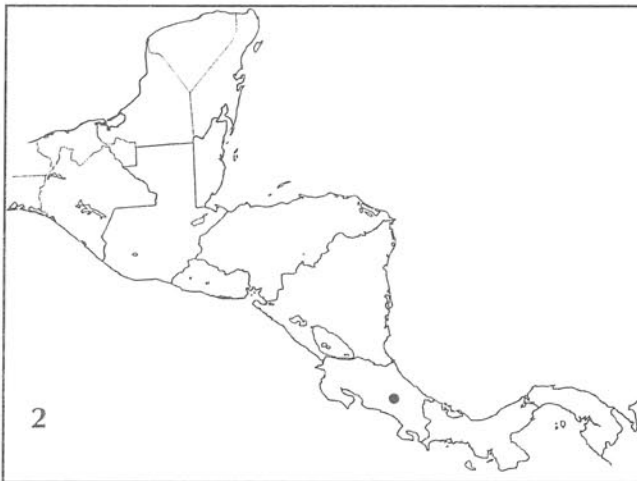
Type: COSTA RICA: Cartago: Near and along crest of ridge S of Alto Patillos (and a continuation of the latter), ca. 6 km SE of Tapantí, 9°43'N 83°46.5'W, 1700-1840 m, 9 October 1986, **Michael H. Grayum & Gerardo Herrera**

7716. Holotype: MO! (Illustration voucher.) Known only from the type.

Epidendro epidendroides (Garay) Mora-Retana & J. García simile sed inflorescentia racemosa, floribus leviter minoribus, albis ex magenteo suffusus, petalis obtusis, labello subintegro late obovato, columna dentem apicalem ferenti et interne cum cavitate cuniculata in ovarium non penetranti, callo 5 lóbulos subdigitiformes ferenti, discrepans.

Hierba epífita, simpodial, escandente, 17-35 cm de alto. **Raíces** producidas en los entrenudos basales de cada tallo, filiformes, blancas, 0.2-0.8 mm de grosor. **Tallos** sencillos, producidos de los entrenudos basales o medios de tallos anteriores, tipo caña, teretes en la base y lateralmente aplanados distalmente, delgados, erectos, rectos, 10-17 x 0.15-0.37 cm; cubiertos en los 2/3 basales por vainas no foliáceas, tubulares, agudas, fibrosas con el tiempo, 10-35 mm de largo. **Hojas** 3, distribuidas cerca del ápice de los tallos, alternas, articuladas; vaina tubular, ligeramente ancipitosa, 10-25 x 2.5-3.7 mm, con una ligula del lado opuesto de la lámina, triangular, subaguda, 0.6-0.8 mm de largo; lámina oblongo elíptica, obtusa, diminutamente apiculada, subcoriácea, margen entero, 4-5.5 x 0.8-1 cm. **Bráctea espátácea** ausente. **Inflorescencia** apical, florece una sola vez, racemosa, distíca, pauciflora, laxa, erecta, 13.5 cm de largo; pedúnculo sinuoso, lateralmente aplanado, ancipitoso, 4 cm de largo; provisto en la parte media de una bráctea angostamente triangular, acuminada, tubular en la base y conduplicada en el ápice, ancipitosa, semejante a las florales aunque algo más grande, 1.8 cm de largo; raquis fuertemente fractiflexo, lateralmente aplanado, ancipitoso, 9.5 cm de largo. **Brácteas florales** ca. de 1/2 del largo del ovario, deltoides, agudas, conduplicadas, ancipitosas, amplexicaules, 4-12 mm de largo. **Ovario** triquetro, triangular, delgado, no inflado, liso, 8-14 mm de largo. **Flores** 10, sucesivas, con la mitad o más abiertas de manera simultánea, no resupinadas, distícas, sépalos de color ocráceo, pétalos, labelo y columna de color blanco fuertemente teñido con magenta; sin datos de fragancia. **Sépalos** libres, oblongo elípticos, redondeados, aristados, margen extendido, entero, 10 x 3.5 mm; el dorsal algo reflexo, 5-nervado; los laterales extendidos, 7-nervados. **Pétalos** extendidos, fusionados de manera oblicua a la base de la columna, espatulados, redondeados, 3-nervados, las nervaduras laterales ramificadas a todo lo largo, margen extendido, eroso dentado en el ápice, 9.5 x 6 mm. **Labelo** unido a la columna, trilobado, anchamente obovado en forma general, cuneado, la lámina extendiéndose desde la base de la columna, 8.5 x 9.2 mm; unicalloso, el callo oculto en su totalidad por el ápice de la columna, de diseño complicado, formado por 5 lóbulos subdigitiformes, redondeados y desiguales en forma y longitud, el par lateral corto y algo divaricado, los tres centrales formando un tridente; disco con algunas venas engrosadas frente al callo; lóbulos laterales oblicuamente obovados, redondeados, margen dentado, 4 x 8.2 mm; lóbulo medio muy corto, angostamente triangular, agudo, margen entero, 2 x 2 mm. **Columna** recta, delgada, alargada hasta la mitad del labelo, dorsalmente provista con un diente pequeño, triangular, erecto y agudo en el ápice, márgenes laterales laminares, truncados, formando una estructura tubular, con los lados verticalmente canaliculados, margen apical eroso dentado, 5 mm de largo. **Clinandrio** reducido, bilobado, margen eroso. **Antera** 4-locular, angostamente ovoide, con una quilla dorsal baja, el ápice con el margen escasamente ciliado. **Polinios** 4, angostamente obovoides; caudículas 2, laminares, duras, del doble del largo de los polinios. **Rostelo** subapical, hendido. **Lóbulos laterales del estigma** no vistos. **Nectario** poco profundo, penetrando 1/4 del ovario, no inflado, cortamente papiloso, con un cuniculo adicional en la base del labelo, corto, tan amplio como el nectario mismo. **Cápsula** no vista.

Epiphytic, sympodial, scandent herb. **Roots** produced from the basal internodes, filiform. **Stems** simple, new stem produced from a basal to middle internodes of the previous stem, cane-like, terete below, laterally compressed above, thin, erect, straight; the lower 2/3 covered by non-foliaceous, tubular, acute sheaths, becoming fibrous with time. **Leaves** 3, distributed near the apex of the stems, alternate, articulate; sheath tubular, somewhat ancipitose, with a short, triangular, subacute, ligule opposite the blade; blade oblong-elliptic, obtuse, minutely apiculate, subcoriaceous, margin entire. **Inflorescence** apical, flowering only once, racemose, distichous, lax, few-flowered, erect; peduncle sinuous, ancipitose; provided in the middle with a narrowly triangular, acuminate bract, similar but larger than the floral bracts; rachis strongly zigzag, ancipitose. **Floral bracts** about half as long as the ovary, deltoid, acute, conduplicate, ancipitose. **Ovary** triquetrous, 3-winged, thin, smooth. **Flowers** 10, successive, half or more are open at one time, non-resupinate, distichous, sepals tawny-colored, petals, lip and column white strongly tinged with magenta. **Sepals** free, oblong-elliptic, rounded, aristate, margin entire, spreading; the dorsal sepal somewhat reflexed, 5-veined, the lateral sepals spreading, 7-veined. **Petals** spreading, slightly and obliquely fused to the base of the column, spatulate, rounded, 3-veined, the lateral veins branching throughout, margin spreading, erose-dentate apically. **Lip** united to the column, 3-lobed, widely obovate in outline, base cuneate, the blade spreading from the base of the column; callus hidden by the apex of the column, complicated, forming 5 somewhat digitiform, rounded to acute lobes, unequal in shape and length, the lateral pair short and somewhat divaricate, the 3 central lobes forming a trident; disc with several thickened veins in front of the callus; lateral lobes obliquely obovate, rounded, the apical margin dentate; midlobe very short, narrowly triangular, acute, margin entire. **Column** straight, thin, elongate, reaching the middle of the lip, dorsally provided with a small, erect, acute tooth, lateral margins laminar, truncate, forming a tubular structure, with each side vertically canaliculate, apical margin erose-dentate. **Clinandrium**-hood reduced, two-lobed, margin erose. **Anther** 4-celled, narrowly ovoid, with a low, dorsal keel, the apex scarcely ciliate. **Pollinia** 4, narrowly obovoid; caudicles 2, laminar, hard, twice as long as the pollinia. **Rostellum** subapical, slit. **Nectary** shallow, penetrating 1/4 of the ovary, not inflated, short-papillose, with an additional, short, cunicule at the base of the lip, about 1/3 the length of the column, about as wide as the nectary proper.



DISTRIBUTION AND ECOLOGY: Endemic to Tapantí, Costa Rica, epiphytic, 1700-1840 m altitude; growing sympatric with *E. wercklei* Schltr. and at higher altitude than *E. epidendroides*. Flowering in October.

RECOGNITION: *Epidendrum bicuniculatum* belongs to the Neowilliamsia Group. The species is recognized by the simple inflorescence, strongly zigzag rachis, white petals, lip and column heavily tinged with magenta, lip cuneate, widely obovate in outline, the apical margin dentate, with a very small, narrowly triangular midlobe, petals spatulate, rounded, column with an apical, erect, acute tooth, ovary triquetrous. *E. epidendroides* (Garay) Mora-Retana & J. García has a strongly zigzag, paniculate inflorescence, sepals 11-14 mm long, flowers yellowish tinged with red-brown, lip 3-lobed, lateral lobes subquadrate, midlobe long, linear. *Epidendrum spathulipetalum* Hágsater & Dressler has a paniculate inflorescence with numerous pink-white flowers, sepals 7-8 mm long, lip clearly 3-lobed, margin of lateral lobes erose to deeply laciniate, midlobe acicular.

CONSERVATION STATUS: DD. Data deficient.

ETYMOLOGY: From the Latin *bi-*, two-, and *cuniculatus*, an underground rabbit-hole, in reference to the twice-cuniculate nectary, or a gallery within the nectary, which appears to be unique to this species.