

largo, y cuatro más largos, en cruz sobre éstos; el inferior de 15 a 16 mm. y los otros tres de 10 a 12 mm. de largo.

Flores de pétalos de rosado fuerte con ligero tinte violáceo; largo tres centímetros con una línea de la punta del pétalo, ligeramente lanceolado, a la base del mismo, más rosada. En el interior, desde su nacimiento hasta medio centímetro, las piezas son blancas y van pasando luego al color descrito. Cáliz lanoso con débiles espinas rojizas. Ramo estigmático rosado que llega casi al borde de la flor. Anteras rosadas más cortas, se aprietan a la mitad de la altura del estilo, que tiene doce estigmas lanceolados de amarillo intenso. Abre al medio día y cierra al caer la tarde; florece a fines de primavera (noviembre), y las flores duran cuatro o cinco días.

3º Este echinocactus lo encontramos en Blanquillo, Departamento de Durazno.

Cuerpo muy achatado, ocho centímetros de ancho por cuatro centímetros de alto, aunque después de cultivado en macetas, al cabo de cinco a seis meses,

ha perdido su aspecto típico de cono truncado, para tomar la forma franca del sub-mammulosus.

Planta verde oscuro; doce a catorce costillas anchas, de dos centímetros en su base, a lo ancho, y uno de alto. Mamelones muy pronunciados con las areolas alternando, que tienen grupos espinosos con agujones gris claro, rojizos en su nacimiento y extremos: seis radiados, de uno y medio a dos centímetros de largo y dos centrales levemente arqueados sobre la planta, uno hacia arriba y otro hacia abajo, de dos centímetros de largo por dos mm. de ancho en la base.

Flores con pétalos amarillo-azufre, muy brillantes. Las piezas exteriores son ligeramente rosadas en su parte externa. Algo lanceoladas, sépalos rojizos. Cáliz lanoso provisto de espinas débiles, rojizas, entrecruzadas sin orden, como en los anteriores. Anteras roji-negras con el ramo estigmático sobresaliendo íntegramente de éstas. Abre al mediodía hasta el oscurecer. Florece en primavera y las flores duran varios días.

No habiendo encontrado tampoco su descripción en los autores citados y otros, lo he llamado Echinocactus Eudoxius.

ORCHIDACEAE ANDINAE-II

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INTRODUCTION

In the past months I have had the opportunity to examine several recent collections of Colombian orchids. Among them are two orchids which appear to be new, besides several species hitherto unrecorded from Colombia.

The majority of these plants were collected in the Departments of Antioquia, Magdalena, Norte de Santander and Sur de Santander, but a few came from the unexplored regions of Vaupes. The collections were made by J. Cuatrecasas, O. Haught, E. P. Killip, F. W. Pennell, R. E. Schultes and E. Smith, and they were sent for determination chiefly by Dr. E. P. Killip of the United States National Museum and Dr. R. E. Schultes of the Rubber Plant Investigations (United States Department of Agriculture) and Research Fellow of the Botanical Museum, Harvard University.

The following contribution enumerates these species and includes the more important synonyms, as well as remarks on their distribution. In as much as some of the labels were written in Spanish and others in English, the effort has been made to conserve the original form.

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Habenaria heptadactyla Reichb. f. in Linnaea 22 (1849) 812. Cogn. in Martius Fl. Bras. 3, pt. 4 (1893) 47.

Vaupés: upper Apaporis basin, Río Macaya, Cerro Chiribiquete, on sandstone ledges at about 307 meters above the forest floor or 580 meters above sea level, terrestrial among grasses, flowers white. July 24, 1943, R. E. Schultes 5627.

Also Panama, Venezuela, British Guiana, Surinam and Brazil.

Habenaria petalodes Lindl. Gen. & Sp. Orch. Pl. (1835) 316 Cogn. in Martius Fl. Bras. 3, pt. 4 (1893) 100.

Department of Magdalena; near Río Casacara, about 16 km. northeast of Becerril, about 250 meters altitude. September 26, 1943; terrestrial in open savannah, flowers yellowish green, O. Haught 3701.

Also Panama and Brazil.

Sertifera aurantiaca C. Schweinfurth sp. nov.

Herba pro genere parva, caespitosa, suffruticosa. Caules rigidi, simplices vel saepissime supra breviter ramosi, vaginis arctis tubulatis numerosis parte superiore foliiferis ornati. Folia numerosa, lanceolata vel elliptico-lanceolata, apice acuminato

trilobulata, basi amplexicauli subrotundata, plicata. Inflorescentiae omnino axillares, quam folia multo breviores, subdense pauciflorae. Flores parvi, aurantiaci. Sepalum dorsale late oblongum vel ovato-oblongum, cymbiforme, acutum. Sepala lateralalia similia, obliqua, valde acuta. Petala elliptico-oblonga, subacuta vel obtusa. Labellum tubulari-involutum, super medium constrictum, expansum cuneato-obovatum, apice rotundato laceratodentato; discus basi callo oblongo ornatus. Columna gracilis, recta, apice abrupte dilatato et trilobulato.

Plant small for the genus, sufrutescent, apparently terrestrial. Rhizome abbreviated. Roots fibrous, stout, branching above, numerous. Stems caespitose, rigid, slender, about 40 cm. or less tall, simple or more commonly provided above with short often fascicled branches, adorned with numerous close tubular sheaths which are remote in the lower portions and imbricating and leaf-bearing in the upper part. Leaves confined to the upper portions of the stems and on the branches, distichous, lanceolate or elliptic-lanceolate (rarely ovate-lanceolate or linear-lanceolate), acuminate, with a tridenticulate apex, subrounded at the clasping base, up to 5.5 cm. long and 1.4 cm. wide, rigid, plicate, coriaceous.

Inflorescences on the branches or upper part of the stem, lateral in the axils of the leaves, short, subdensely racemose above; peduncles about 1 cm. or less long, spreading or arcuate, somewhat compressed; raceme 4 — to 6 — flowered, with the fractiflex rachis about 1 cm. or less long. Flowers small, yellow-orange, mostly immature in this collection. Dorsal sepal broadly oblong or ovate-oblong, cymbiform, acute, dorsally carinate near the apex, about 8.2 mm. long and 3 mm. wide when expanded. Lateral sepals broadly oblong, oblique, sharply acute or subacuminate, cymbiform, dorsally carinate above, about 8.2 mm. long and 2.9 mm. wide. Petals elliptic-oblong, subacute, or obtuse, about 8 mm. long and 2.6 mm. wide, with the upper margins irregularly erose-serrulate. Lip tubular-involute, about 8.2 mm. long in natural position, deeply constricted above the middle forming two concave portions (or convex when viewed from the side), cuneate-obovate and about 6 mm. wide above when expanded, broadly rounded and lacerate-dentate in front; disc without any transverse keel, but with an oblong callus extending nearly through the basal concavity. Column

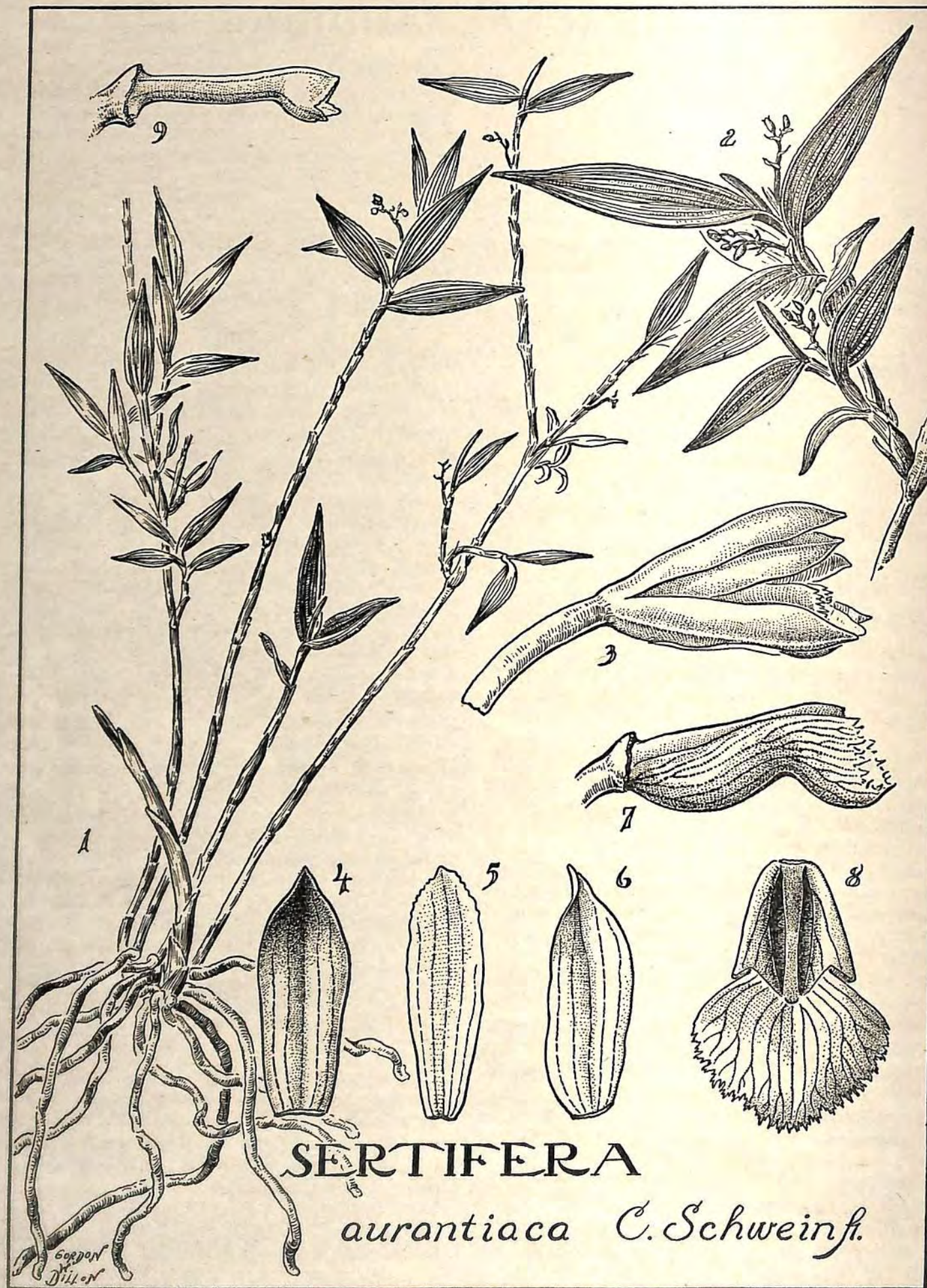


Figure 1: habit, $\times 1/2$. — Fig. 2: portion of plant, showing axillary inflorescences, natural size. — Fig. 3: flower, natural position, $\times 6$. — Fig. 4: dorsal sepal, spread out, $\times 6$. — Fig. 5: petal, $\times 6$. — Fig. 6: lateral sepal, $\times 6$. — Fig. 7: column and lip in natural position, from side, $\times 6$. — Fig. 8: somewhat expanded, from above, $\times 6$. — Fig. 9: column, from side, $\times 6$.

relatively long and slender, about 6.6 mm. long at the back, abruptly dilated at the apex with a 3-lobulate tip the lateral lobes of which are narrow and the middle lobe broadly rounded and subcrenulate. Anther semiglobose, with 8 minute pollinia.

This species appears to be unique in the genus by having the lip destitute of any transverse keel or membrane. Another peculiarity is that the stems usually have numerous short branches. A final remarkable feature of this species is the orange color of the flowers.

Departamento Norte de Santander; Cordillera Oriental, región del Sarare, Hoya del río Margua en las cabeceras del río Negro, faldas del Piano, ladera norte en El Amparo—2.000 metros alt. Noviembre 7, 1941; sufrútex, flores amarillo-anaranjadas, *J. Cuatrecasas* 12852 (Type in Herb. Nac. Colomb.; isotype in Herb. Ames N° 62282).

Cranichis muscosa Sw. Prodr. Veg. Ind. Occ. (1788) 120. Fawc. & Rendle Fl. Jam. 1 (1910) 32. Ames Contrib. to Knowl. Orch. Fl. S. Fla. (1904) 14, t. 3.

Department of Magdalena: 10 km. east of Códazzi, at 1.000 meters altitude, in mossy humus of forest at camp, leaves mottled green and white, flowers white. November 10, 1943, *O. Haught* 3827.

Also Fla. (U. S. A.), Mexico, Central America, West Indies and Venezuela.

Erythrones scrotiformis C. Schweinfurth sp. nov.

Herba terrestris, gracilis, parte basali plusminusve decumbenti radicibus lanuginosis nodis praedita. Folia plura, petiolata; lamina lanceolata vel ovato-lanceolata, acuminata, basi cuneata; petiolus brevis, in basim infundibuliformem vel ventricosam dilatatus. Inflorescentia gracilis, supra racemosus. Racemus brevis, in anthesi latus. Flores parvi, albi, late patentes. Sepala dorso sparse pubescentia, apicibus recurvis. Sepalum dorsale oblongum, apice rotundatum. Sepala lateralia similia, obliqua. Petala sepalo dorsali valde adnata, lineari-oblancoolata, obtusa, sepalis minora. Labellum more generis in partes duas divisum; pars inferior tubulari-involuta, crassa, glabra; pars anterior transversa, semilunata, pubescens, lobulo rotundato-ovato medio praedita; calcar obpyriformi-scratiforme. Columna brevis, rostello erecto, bifido.

Plant terrestrial, slender, with a more or less decumbent basal portion which is provided at the nodes with stout or slender lanuginose roots. Stem leafy, about 11 cm. or more long. Leaves 7-9, loose below, approximate or imbricating above, petioled; lamina lanceolate or ovate-lanceolate, acuminate or long-acuminate, cuneate to subrounded at the base, up to 6.8 cm. long and 2 cm. wide (the upper and lower blades much smaller), submembranaceous, many-nerved with three nerves prominent beneath; petioles short, 1.4-2.2 cm. long, soon dilated below into a loose infundibuliform or ventri-

cose scarious sheath. Inflorescence racemose above; peduncle about 11-15 cm. long, commonly glabrous below, finely pubescent above, provided with three or four remote scarious acuminate sheaths; raceme short, 4 to nearly 7 cm. long, very loose below. Floral bracts lanceolate, acuminate, scarious, concave below, equaling or slightly exceeding the densely pubescent pedicellate ovary at the base of the raceme. Flowers small, white, horizontally spreading in anthesis, tubular with parallel segments which are recurved at the apex. Dorsal sepal oblong, slightly narrowed near the middle, abruptly rounded at the apex, 1-nerved, sparingly pubescent on the back, about 5 mm. long and 1.2 mm. wide. Lateral sepals similar, obliquely linear-oblong, slightly wider near the base, abruptly rounded at the apex, 1-nerved, about equaling the dorsal sepal. Petals strongly adnate to the dorsal sepal, linear-oblancoolata, obtuse, oblique, lightly dilated above, about 4.2 mm. long and 1 mm. wide above. Lip spurred; lamina divided into two portions (as in the genus); lower (basal) part relatively elongate, tubular-involute, fleshy, glabrous, about 3.7 mm. long, lanceolate-subquadrate and about 2 mm. wide when expanded; anterior part relatively thin, abruptly dilated into a transverse semilunate lobe which has a median round-ovate lobule or blunt apicule, densely cellular-pubescent, about 1.2 mm. long in the middle and 2.8 mm. wide; spur very short and ventricose, obovoid-scratiform, about 2 mm. long. Column short, with a prominent erect bifid rostellum.

This species appears to be closely allied to the peruvian *Erythrones ovata* (Lindl.) Ames; but differs in having a relatively short peduncle, rounded outer sides to the apical lobe of the lip and an obovoid-scratiform spur.

Departamento Norte de Santander: Cordillera Oriental, región del Sarare, Alto de Santa Inés, 2200 metros de altitud. Octubre 12, 1941. *J. Cuatrecasas*, *R. E. Schultes* y *E. Smith* 12108; Páramo de Tamá, vertientes de Samaria, 2600-2900 metros de altitud. Octubre 29, 1941. *Cuatrecasas*, *Schultes* y *Smith* 12750 (Type in Herb. Nac. Colomb.; isotype in Herb. Ames N° 62281).

Pleurothallis Reymondii (Karst.) Reichb. f. in Walp. Ann. 3 (1852) 520.

Duboisia Reymondii Karst. in Otto & Dietr. Allg. Gartenz. 15 (1847) 394.

Department of Cauca: La Capilla, 25 km. north of Popayán, at 1740 meters altitude, in dense forest along stream, on base of three trunk, perianth pink. May 24, 1944. *E. P. Killip* 38458.

Also in Venezuela.

Scaphyglottis longicaulis S. Wats. in Proc. Amer. Acad. 23 (1888) 286. *S. unguiculata* Schltr.

Department of Sur de Santander; Vicinity of Barranca Bermeja, Magdalena Valley, between Sogamoso and Colorado rivers, near El Centro, at

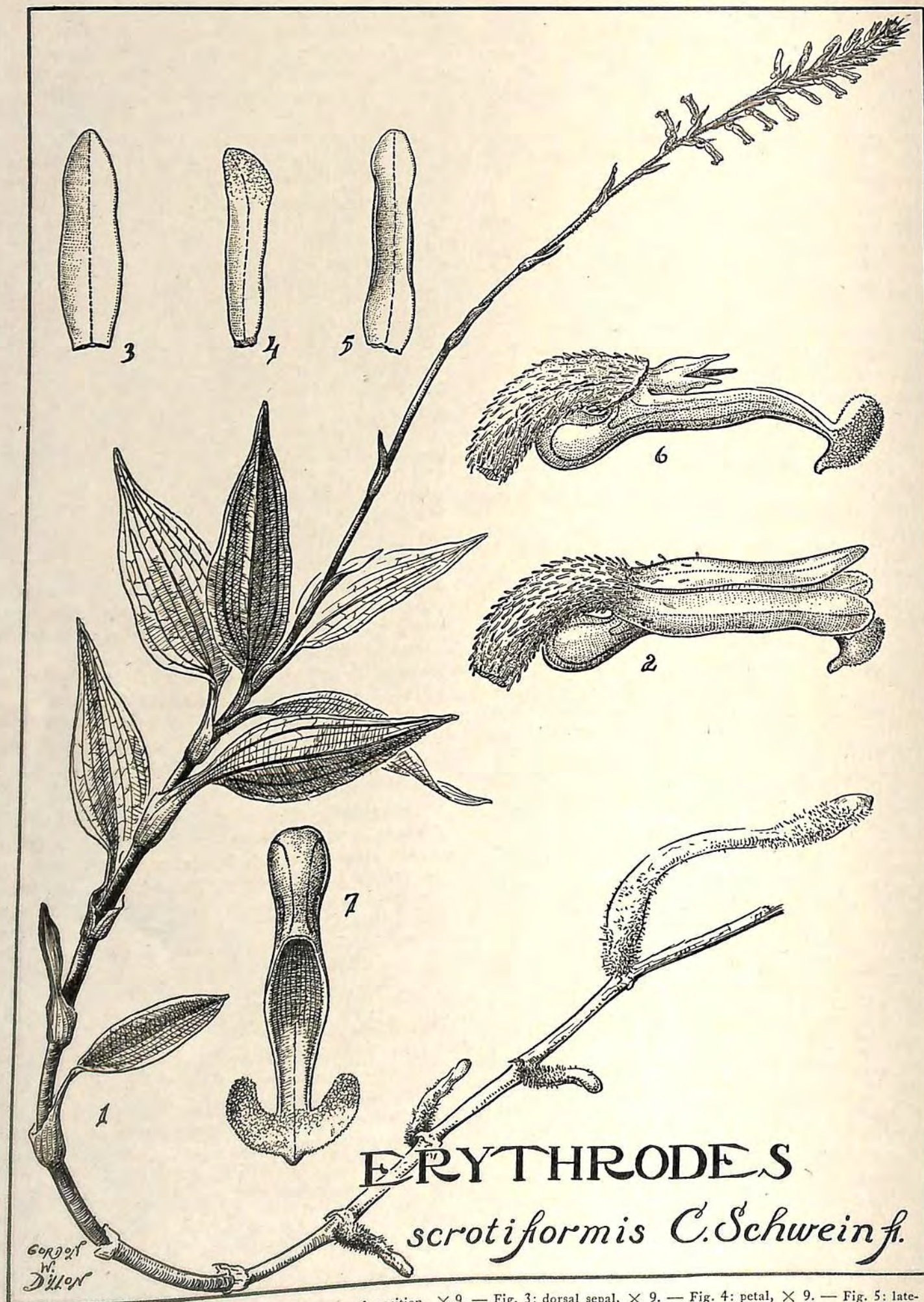


Figure 1: habit, natural size. — Fig. 2: flower, natural position, $\times 9$. — Fig. 3: dorsal sepal, $\times 9$. — Fig. 4: petal, $\times 9$. — Fig. 5: lateral sepal, $\times 9$. — Fig. 6: column and lip in natural position, $\times 9$. — Fig. 7: lip, somewhat expanded, from above, $\times 9$.

100–500 meters altitude, on fallen tree trunk. July 1934. *O. Haught* 1261.

Chocó: Banks of Quebrada Togoroma, epiphyte in dense tidal forest, perianth white. June 13, 1944. *E. P. Killip & J. Cuatrecasas* 32132.

Also Central America.

Epidendrum caespitosum B. Rodr. Gen. et Sp. Orch. Nov. 1 (1877) 60. Cogn. in Martius Fl. Bras. 3, pt. 5 (1898) 118, t. 34.

Vaupés: Upper Apaporis basin, Río Macaya, Cerro Chiribiquete, on sandstone ledges about 307 meters above the forest floor or 580 meters above sea level, flowers greenish yellow, odorless. July 24, 1943. *R. E. Schultes* 5632.

Also Brazil.

Epidendrum ibaguense HBK. var. *Schomburgkii* (Lindl.) C. Schweinf. in Bot. Mus. Leaflet. Harvard Univ. 11 (1944) 235. *E. Schomburgkii* Lindl., *E. splendens* Schltr.

Departamento Norte de Santander: Cordillera Oriental, región del Sarare, Hoya del río Cubugón, El Indio, 420–480 metros de alt. Noviembre 13, 1941. Flor anaranjada, *J. Cuatrecasas* 13090.

Also Venezuela, Trinidad, British Guiana, Surinam, Brazil and Peru.

Epidendrum imatophyllum Lindl. Gen. & Sp. Orch. Pl. (1831) 106. *E. lorifolium* Schltr.

Department of Antioquia, Puerto Berrio, edge of swamp, at 130–140 meters altitude. January 11–13, 1918. Fls. pink-violet, *F. W. Pennell* 3760.

Department of Magdalena: near Conejo, 14 km. south of Fonseca, at about 250 meters altitude, epiphyte on low trees, root mass in ant nest. March 7, 1944. *O. Haught* 4027.

Department of Sur de Santander: Vicinity of Barranca Bermeja, Magdalena Valley, between Sogamoso and Colorado Rivers, at 100–500 meters altitude. Camp Seis, root mass infested by fierce ants, local name Santa Lucia. November 17, 1934. *O. Haught* 1419.

Department of Sur de Santander: Vicinity of Puerto Berrio, between Carare and Magdalena rivers, San Juan Valley (Camp VI), at 100–700 meters altitude. June 15, 1935. *O. Haught* 1785.

Also Mexico, Central America, northern South America, Brazil and Peru.

Epidendrum moyobambae Kränzl. in Fedde Repert. 1 (1905) 185. *E. subpatens* Schltr., *E. benignum* Ames, *E. amazonicum* Schltr.

Department of Magdalena: Near stream of Manauare, at 700 meters altitude, epiphyte up to 75 cm. tall. Fls. cream-color. April 27, 1944. *O. Haught* 4121.

Also Central America and Peru.

Bletia purpurea (Lam.) DC. in Mém. Soc. Phys. & Hist. Nat. Genève 9. pt. 1 (1841) 100. Fawc. & Rendle Fl. Jam. 1 (1910) 110, t. 21, figs. 1–7 *Limodorum purpureum* Lam., *Bletia verecunda* R. Br., Hitchc., *B. tuberosa* Ames.

Department of Magdalena: about 8 km. east of Codazzi, at about 800 meters altitude, terrestrial on dry sandy hillside in second-growth. November 19, 1943. *O. Haught* 3857.

Departamento Norte de Santander: Cordillera Oriental, región del Sarare, entre Toledo y Iabateca, 1600 metros de alt. Octubre 31, 1941. Flor lila, *J. Cuatrecasas*, *R. E. Schultes* y *E. Smith* 12830.

Department of Sur de Santander, vicinity of Barranca Bermeja, Magdalena Valley, between Sogamoso and Colorado rivers, at 100–500 m. alt., fl. rose-purple with deep red lip. January 3, 1935. *O. Haught* 1492.

Also Fla. (U. S. A.), Mexico, Central America, West Indies, and Venezuela.

Bifrenaria sabulosa B. Rodr. Gen. et Sp. Orch. Nov. 1 (1877). 111. Cogn. in Martius Fl. Bras. 3, pt. 5 (1902) 491, t. 95.

Vaupés: Upper Apaporis basin, Río Ajaju, Cerro Campana, on sandstone about 169 meters above the forest floor or 460 meters above sea level, epiphytic on Sapium bushes, flowers yellow with red-brown dots. June 1943. *R. E. Schultes* 5575.

Also Brazil and Peru.

Maxillaria crassifolia (Lindl.) Reichb. f. in Bonpl. 2 (1854) 16. Reichb. f. in Saunder's Refug. Bot. 2 (1882) t. 135. *M. gatunensis* Schltr.

Department of Magdalena: about 7 km. south-east of La Jagua, at about 200–300 meters altitude, epiphyte on fallen tree, flowers uniform pale yellow. August 21, 1943. *O. Haught* 3630.

Also Fla. (U. S. A.), Mexico, Central America, Cuba, Venezuela and Brazil.