

ORCHID STUDIES, VIII

BY

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THE PRESENT NUMBER of my Orchid Studies deals with a number of new species and an outstanding new genus of Philippine orchids.

Ceratostylis caespitosa *L. O. Williams sp. nov.*

Herba parva, epiphytica, caespitosa, usque ad 6 cm. alta. Pseudobulbi unifoliati. Folia elliptico-lanceolata vel oblanceolata, acuta, coriacea. Inflorescentia uni- vel forsitan pauciflora. Sepalum dorsale lanceolatum, acutum, trinervium. Sepala lateralialia lanceolata, acuta, columnae pedi adnata et mentum breve formantia. Petala lineari-lanceolata, acuta, uninervia. Labellum simplex, ovato-lanceolatum, acutum vel obtusum, unicallosum, breviter unguiculatum; unguis bi- vel tricarinatus. Columna generis.

Small caespitose, epiphytic herbs up to 6 cm. tall. Stem pseudobulbous, unifoliate, up to about 1 cm. long, covered with imbricated sheaths. Leaf elliptic-lanceolate to oblanceolate, acute, coriaceous, 2.5–4 cm. long, 6–10 mm. broad. Inflorescence one- or few-flowered, borne laterally in a cavity of the pseudobulb; peduncle 4–8 mm. long, with a peltate bract at its junction with the pubescent ovary. Dorsal sepal lanceolate, acute, 3-nerved, about 3 mm. long and 1.5 mm. broad. Lateral sepals lanceolate, acute, 3- to 5-nerved, joined to the column-foot and with it forming a short mentum, about 4.5 mm. long and 2 mm. broad. Petals linear-lanceolate, acute, 1-nerved, 2.5–3 mm. long and about 1 mm. broad. Lip simple, ovate-lanceolate, acute or obtuse, short-clawed, about 4 mm. long and 2.5 mm. broad; claw with two or three carinate ridges; disc with a bipartite callus which

extends to the thickened apex of the lip. Column characteristic of the genus.

Ceratostylis caespitosa is noticeably distinct from all the other Philippine species of *Ceratostylis* in its caespitose habit, in its short comparatively broad leaves and in its floral structure.

LUZON: Montalban, Province of Rizal, October 1912, *Loher s.n.*; Province of Rizal, September 1909, *Loher 14658* (TYPE in Herb. Ames No. 44937).

***Ceratostylis Loheri* L. O. Williams sp. nov.**

Herba epiphytica usque ad 3 dm. alta. Caules ramosi, vaginis reticulatis obtecti. Pseudobulbi unifoliati. Folia linearia, acuta, teretia. Inflorescentia uniflora. Ovarium piloso-pubescent. Sepalum dorsale ellipticum, acutum, dorso pubescens. Sepala lateralia late lanceolata, dorso pubescentia, columnae pedi adnata et mentum formantia. Petala anguste lanceolata, glabra. Labellum trilobatum; lobi laterales erecti, obtusi; lobus medius carinatus, recurvus, triangulus; discus plusminusve pubescens. Columna generis; pes columnae floccosus.

Epiphytic herbs up to about 3 dm. tall. Stems branching, covered with rufous reticulate-nerved sheaths, up to about 1.5 dm. long. Pseudobulbs unifoliate, small, slender, 1–1.5 cm. long, covered by sheaths. Leaves linear, acute, terete, canaliculate on the inner surface, up to about 2 dm. long and 2–3 mm. broad. Inflorescence 1-flowered, borne laterally in a pocket on the pseudobulb. Ovary densely sericeous-pilose-pubescent, about 10 mm. long. Dorsal sepal elliptic, more or less acute, 7-nerved, dorsally densely pubescent, about 10 mm. long and 5 mm. broad. Lateral sepals broadly lanceolate, dorsally pubescent, 8–9 mm. long and 4–5 mm. broad, adnate to the column-foot and with it forming a distinct mentum. Petals narrowly lanceolate, 3-nerved, glabrous, about 8 mm.

long and 3 mm. broad. Lip 3-lobed, triangular in outline, about 2 mm. long and as broad, joined to the column-foot by a longitudinal keel; lateral lobes erect, obtuse, about 2 mm. long, thickened on the inner surface; mid-lobe much thickened, with a median ridge, strongly recurved; disc more or less pubescent. Column characteristic of the genus; column-foot floccose near the junction with the column, about 2–3 mm. long.

Ceratostylis Loheri has no near allies known to the author. It may be distinguished easily by the 3-lobed lip and by the method of attachment of the column-foot to the lip. This latter character is also found in Schlechter's genus, *Epiblastus*.

In addition to the specimens cited below, there is in the Ames Herbarium a cultivated specimen belonging to this species. This specimen was derived from Kränzlin's Herbarium. It bears an unpublished name and the following note in Kränzlin's handwriting: "Heimat unbekannt. Philippinen? Febr. 1919. Kränzlin".

LUZON: Province of Rizal, September 1909, *Loher s.n.*; Paningtingan, Montalban, Province of Rizal, *Loher 13223* (TYPE in Herb. Ames No. 44939); Province of Rizal, September 1909, *Loher 14736*.

Bulbophyllum (§. *Racemosae*) **calophyllum** *L. O. Williams sp. nov.*

Herba parva, epiphytica. Folia coriacea, oblonga vel ovalia, obtusa, breviter petiolata. Inflorescentia racemosa, brevis, plusminusve triflora; bractae lanceolatae. Sepalum dorsale lanceolatum, acutum, apice obscure serrulatum. Sepala lateraliter triangulari-lanceolata, acuta, integra vel apice obscure serrulata. Petala lineari-lanceolata, acuta. Labellum oblongo-panduratum, apice obscure serrulatum; lobi laterales erecti; discus callis binis ornatus. Columna brevis, cum stelidiis binis terminalibus lanceolatis.

Small epiphytic herbs without prominent pseudobulbs. Leaves coriaceous, oblong to oval, obtuse, very short-petiolate, 1–3.5 cm. long, 0.5–1 cm. broad; petiole of the mature leaves about 1–2 mm. long. Inflorescence racemose, very short, 1–2 cm. long, usually laxly 3-flowered; bracts subtending the flowers lanceolate, 2.5–3 mm. long. Dorsal sepal lanceolate, acute, minutely serrulate on the terminal half, with the dorsal surface obscurely papillate, 3-nerved at the base and 1-nerved above, about 3 mm. long and 1–1.5 mm. broad. Lateral sepals triangular-lanceolate, acute, entire or very obscurely serrulate toward the apex, 3-nerved at the base and 1-nerved above, about 3.5 mm. long and 1.5 mm. broad. Petals linear-lanceolate, acute, 1-nerved, 1.5–2 mm. long, about 0.5 mm. broad. Lip oblong-pandurate, about 1.5 mm. long and 1 mm. broad, obscurely serrulate toward the apical part; lateral lobes more or less distinct, erect; disc with two crests which extend from the lateral lobes toward the center of the lip. Column short, with two lanceolate, acute, terminal stamens which are about 0.3 mm. long.

Bulbophyllum calophyllum may be distinguished from *B. gimagaanense* Ames, its closest ally, by the comparatively shorter and broader leaves which are not cuneate at the base, by the shorter inflorescence, by the differently proportioned lip which lacks ciliations and by minor details of the sepals and petals.

LUZON: Province of Rizal, September 1909, *Loher 14649* (TYPE in Herb. Ames No. 45900; ISOTYPE in Herb. Bur. Sci., Manila).

***Bulbophyllum* (§. *Monanthaparva*) *caudatum* L.**
O. Williams sp. nov.

Herba epiphytica, rhizomatosa. Pseudobulbi cylindraceo-pyriformes. Folium singulum, elliptico-lanceolatum vel anguste elliptico-lanceolatum, acutum vel leviter obtusum, obscure mucronatum. Inflorescentia uniflora.

Flos pro sectione magnus. Sepala similia, longe caudata; lamina lanceolata. Petala lanceolata, acuta, tri- vel quinquenervia. Labellum lineari-lanceolatum, basi biauriculatum, obscure ciliatum. Columna generis, parva.

Epiphytic herb with a repent rhizome. Pseudobulbs cylindric-pyriform, sulcate when dry, unifoliate, about 1 cm. long and 0.5 cm. in diameter, mostly about 1–2 cm. apart on the rhizome. Leaves elliptic-lanceolate to narrowly elliptic-lanceolate, acute or somewhat obtuse, occasionally obscurely mucronate, 3.5–7 cm. long, 0.8–1.2 cm. broad. Inflorescence 1-flowered; flower large for the subgenus; peduncle filiform, much exceeding the leaves, up to 15 cm. long; bracts two, one subtending the flower and one near the base of the peduncle. Sepals similar, very long-caudate, about 40 mm. long; blade lanceolate, 4-to 5-nerved, about 14 mm. long and 3 mm. broad; apex caudate, filiform, about 26 mm. long. Petals lanceolate, acute, 3-to 5-nerved, about 12 mm. long and 3 mm. broad. Lip linear-lanceolate, 8–9 mm. long and about 1.5 mm. broad, biauriculate at the base; auricles rounded, erect, obscurely ciliate, about 1 mm. long. Column small, about 0.75 mm. long, with two aristate apical stelia.

Bulbophyllum caudatum is most closely allied to *B. Bolsteri* Ames from which it may be easily distinguished by the very long-caudate sepals and by the narrower and longer leaves, as well as by the several-nerved petals.

MINDANAO: epiphyte in forest, Tubud Placer, Province of Surigao, at 150 meters altitude, flowers yellow, August 2, 1913, *Wenzel 10030* (TYPE in Herb. Ames No. 45925).

***Bulbophyllum* (§. *Racemosae*) *nemorale* L. O. Williams sp. nov.**

Herba epiphytica, rhizomatosa. Pseudobulbus parvus, monophyllus. Folium singulum, elliptico-lanceola-

tum, acutum. Inflorescentia racemosa, pluriflora. Sepalum dorsale lanceolatum, acutum, naviculare. Sepala lateralialia lanceolato-acuminata, falcata et leviter obliqua, margine posteriore paulo serrulata. Petala lanceolata, longe acuminata. Labellum profunde trilobatum; lobi laterales erecti, rotundati; lobus medius lanceolatus, obtusus. Columna generis.

An epiphytic herb with a rhizome. Pseudobulb inconspicuous, small, probably nearly round (in the living state), about 1–1.5 cm. in diameter, bearing one large leaf from its summit. Leaves elliptic-lanceolate, acute at both ends; blade 15–20 cm. long and 4.5–5.5 cm. broad; petiole sulcate, 5–7 cm. long. Inflorescence racemose, about 15- to 20-flowered; peduncle about as long as the leaves, with two or three sheathing bracts below; bracts lanceolate, acuminate, 6–9 mm. long. Dorsal sepal lanceolate, acute, strongly navicular, about 15 mm. long and 4 mm. broad. Lateral sepals lanceolate-acuminate, falcate and somewhat oblique, about 12–15 mm. long and 4–5 mm. broad, minutely serrulate on the posterior margin. Petals lanceolate, long-acuminate, about 12 mm. long and 2.5 mm. broad; the broad basal portion narrowly oblong, abruptly contracted into the narrow terminal part which is as long as the broad portion, serrulate at the constriction. Lip strongly 3-lobed; lateral lobes erect, round, about 2 mm. long; mid-lobe lanceolate, obtuse, about 3 mm. long and 1 mm. broad; disc with one large bilobate central callus at the base and two smaller longitudinal calli near the sinuses of the lobes. Column about 4 mm. long, rather stout, with a linear tooth on either side at the apex; column-foot prominent, curved, about 2.5 mm. long.

Bulbophyllum nemorale is distinguished easily from all the previously described Philippine species of *Bulbophyllum* by the strongly 3-lobed lip. It has also the larg-

est flowers of the section *Racemosae* growing in the Philippine Islands. Superficially *Bulbophyllum nemorale* most resembles *B. masaganapense* Ames (also from the Island of Leyte), but is distinguished easily from that species by the structure of the flowers and also by the presence of a pseudobulb.

LUZON: Province of Rizal, without date or number, *Loher*.

LEYTE: epiphyte in forest, Jaro, Masaganap, at 700 meters altitude, flowers pale yellow with purple spots, February 15, 1915, *Wenzel 871* (TYPE in Herb. Ames No. 45575).

***Phaius fragilis* L. O. Williams sp. nov.**

Herba terrestris, parva. Folia plura, lanceolata vel elliptico-ovata, acuminata. Inflorescentia vulgo biflora, lateralis; bractae lanceolatae vel ovatae, acuminatae, scariosae. Flores magni, albi, tenues. Sepalum dorsale elliptico-lanceolatum, acutum. Sepala lateralia lanceolata. Petala elliptica, acuta vel obtusa. Labellum integrum, oblongo-obovatum, cum calcaris gracili longo; discus callis binis praeditus. Columna generis.

A terrestrial herb up to 4 dm. tall, small for the genus. Stems slender, scarious-sheathed, with several nodes; sheaths becoming fibrous with age. Leaves lanceolate to broadly elliptic-oval, acuminate, with five to seven more prominent nerves and numerous smaller ones, very thin, gradually contracted into a petiole at the base, 8–30 cm. long, 3–10 cm. broad. Inflorescence borne laterally at a node, commonly about 2-flowered; peduncle up to 2.5 dm. long; bracts lanceolate to ovate, acuminate, scarious, 1–2 cm. long. Flowers large, delicate, white with the lip possibly somewhat yellow at the base. Dorsal sepal elliptic-lanceolate, about 35 mm. long and 12 mm. broad, acute, several-nerved. Lateral sepals similar, but tending to be more lanceolate. Petals elliptic, about 35 mm. long and 12–14 mm. broad, acute or

obtuse, several-nerved. Lip simple, oblong-obovate, several-nerved, about 3.5–4 cm. long and 2 cm. broad above the middle, with a long slender spur; disc with two short inconspicuous longitudinal calli; spur slender, acute at the tip, directed straight backward from the lip and only slightly curved, about 2.5 cm. long and 4–6 mm. broad at the throat. Column slightly winged and with two short broadly lanceolate arms at the apex.

Among the Philippine species of *Phaius*, *P. fragilis* is most nearly allied to *P. linearifolius* Ames and *P. Lyonii* Ames. The alliance to these species, however, is not very close. *Phaius fragilis* may easily be distinguished from these species by its lower habit of growth, by its shorter and broader leaves and especially by the long slender acute spur.

LUZON: Lucban, Province of Tayabas, May 1907, *Elmer 9444*; Irosin (Mt. Bulusan), Province of Sorsogón, August 1916, *Elmer 16882* (TYPE in Herb. Ames No. 47580); Los Baños (Mt. Maquiling), Province of Laguna, June-July 1917, *Elmer 17768*; Montalban, Province of Rizal, April 1912, *Loher s.n.*; epiphyte, Mt. Binuang, Province of Tayabas, May 12, 1917, *Ramos & Edaño 28821*.

PANAY: near Flores, Culasi, Antique Province, at 1200-1500 meters altitude, June 7, 1918, *McGregor 6003* (Herb. Bur. Sci., Manila); mossy forest, hills east of Culasi, Antique Province, at about 900 meters altitude, July 18, 1918, *McGregor 6290*.

NEGROS: Canlaon Volcano, June 1906, *Banks 1141* (Herb. Bur. Sci., Manila).

MINDANAO: Todaya (Mt. Apo), District of Davao, May 1909, *Elmer 10632a*.

CAMAGUIN DE MINDANAO: terrestrial, Mt. Mahinog, April 17, 1912, *Ramos 14424* (Herb. Bur. Sci., Manila).

Macropodanthus *L. O. Williams gen. nov.* Orchidacearum—Acrotonae—Sarcanthinae—Aerideae.

Sepala lateralía, petala et labellum columnae pedi elongato adnata. Sepalum dorsale liberum. Labellum valde saccatum, carinatum ad columnae pedem articula-

tum, obscure quinquelobatum, in sacco callus nullus. Columna brevis, truncata, prope apicem utrinque ala parva vel stelidio ornata, in pedem longissimum producta. Rostellum terminale, columnae subaequale, filiforme. Pollinia duo, globosa; stipes glandulae singulae adnatus.

Herbae epiphyticae cum foliis distichis conduplicatis. Species una adhuc nota, habitu *Aeridis*.

Lateral sepals, petals and lip attached to the elongated column-foot. Dorsal sepal free. Lip articulated to the column-foot, strongly saccate, carinate, inconspicuously 5-lobed; lateral lobes four, erect; callus in the sac lacking. Column short, truncate, with a pair of small wings or stelidia toward the apex, produced below into an exceptionally long foot. Rostellum terminal, about as long as the column, filiform, closely appressed to the inner surface of the column. Pollinia two, globose; stipe attached to a single gland.

Epiphytic herbs with distichous conduplicate leaves. A single species known, having the habit of *Aerides*.

***Macropodanthus philippinensis* L.O. Williams**
sp. nov.

Herba epiphytica, caule brevi. Folia disticha, anguste oblongo-lanceolata, acuta, obscure retusa et apice paulo obliqua, coriacea. Inflorescentia foliis subaequalis, plusminusve decemflora; bracteae ovatae. Sepalum dorsale elliptico-ovatum, obtusum. Sepala lateralia late ovata, obtusa, leviter obliqua, columnae pedi adnata. Petala anguste obovata, obtusa, columnae pedi adnata. Labelum ad columnae pedem articulatum, saccatum, carinatum, obscure quinquelobatum; lobi laterales erecti.

An epiphytic herb. Stem short, about 4 cm. long. Leaves distichous, narrowly oblong-lanceolate, acute, obscurely retuse and slightly oblique at the apex, coria-

ceous, up to 11 cm. long and 2.3 cm. broad. Inflorescence about as long as the leaves, breaking through the leaf-sheaths approximately opposite the base of a leaf, about 10-flowered; rachis becoming slightly thickened upward; bracts ovate, 1–2 mm. long. Dorsal sepal slightly concave, elliptic-ovate, obtuse, several-nerved, about 14 mm. long and about 9 mm. broad. Lateral sepals broadly ovate, obtuse, slightly oblique, attached to the column-foot, several-nerved, about 15 mm. long and 10 mm. broad. Petals narrowly obovate, obtuse, several-nerved, attached to the column-foot, about 13 mm. long and 7 mm. broad near the apex. Lip articulated to the long column-foot, strongly saccate, carinate, inconspicuously 5-lobed, with the four lateral lobes erect; sac toward the apex of the lip, about 12 mm. long, 6 mm. in diameter dorso-ventrally and 2–3 mm. laterally, ecallose within.

Macropodanthus is apparently a most distinct genus and is somewhat difficult to place as to relationship among the known genera. It seems to be most closely allied to *Aerides* and possibly should be placed between *Aerides* and *Rhynchostylis* in the system proposed by Schlechter in Notizbl. Bot. Gart. Berlin 9 (1926) 563-591.

Macropodanthus differs from *Aerides* in having the column-foot much more strongly developed, in the structure of the lip, in having the petals as well as the lateral sepals attached to the column-foot, and in the structure of the column (especially of the rostellum).

A sketch of the flower, drawn by Ramos, gives the coloration of the flower in part as follows: sac of the lip green, with the upper part pink and yellow; column-foot brown; the half of the lateral sepals nearest the column-foot yellow with the apical half white. No color is noted for the petals and dorsal sepal; possibly they were the same color as the lateral sepals.

EXPLANATION OF THE ILLUSTRATION

MACROPODANTHUS PHILIPPINENSIS *L.O. Williams*. 1, plant, about one fourth natural size. 2, flower, about natural size. 3, dorsal sepal, about one half natural size. 4, lateral sepal, about one half natural size. 5, petal, about one half natural size. 6, lip, column-foot and column, about natural size. 7, stipe with one of the two pollinia, about five times natural size.



MINDANAO: Malangas, Zamboanga District, October 26, 1919, Ramos & Edaño 37063 (TYPE in Herb. Ames No. 44400).

Saccolabium brevirhachis *L. O. Williams sp. nov.*

Folia disticha, elliptica vel oblanceolata, obtusa vel apice leviter retusa et obliqua, coriacea. Inflorescentia brevis, plusminusve quindecimflora; rhachis leviter incrassata; bracteae breves, inconspicuae. Sepalum dorsale lanceolatum, acutum, naviculare, trinervium. Sepala lateralalia lanceolata, acuta, leviter obliqua, trinervia. Petala lineari-lanceolata, acuta vel obtusa, trinervia. Labellum valde concavum, obscure trilobatum; lobi laterales erecti, triangulares, prope labelli apicem; lobus medius parvus, carinatus. Columna generis.

Size of plant unknown. Leaves distichous, elliptic to oblanceolate, obtuse or slightly retuse and oblique at the apex, coriaceous, 10–15 cm. long, 2–3 cm. broad. Inflorescence short, about 15-flowered; rachis somewhat thickened, 2–3 cm. long; bracts short, inconspicuous, about 1 mm. long. Dorsal sepal lanceolate, acute, navicular, 3-nerved, about 6 mm. long and 2.5 mm. broad. Lateral sepals lanceolate, acute, 3-nerved, slightly oblique with the margins somewhat inrolled toward the apex, about 6 mm. long and 2.5 mm. broad. Petals linear-oblanceolate, acute or obtuse, 3-nerved, about 4.5–5 mm. long and 1–1.5 mm. broad. Lip deeply concave (not spurred), minutely 3-lobed, about 4 mm. long, 1.5 mm. broad and 2 mm. in depth; lateral lobes erect, triangular, situated near the apex of the lip, about 0.5 mm. long; mid-lobe small, much thickened. Column small, about 1 mm. long; column-foot obscure; rostellum prominent, lanceolate.

Saccolabium brevirhachis is closely allied to *S. Loheri* Ames and apparently (from the description) also to *S. sarcochiloides* Schltr. From both of these species *S. brevirhachis* may be distinguished by the shorter perianth parts which are (on the average) 2 mm. shorter and by

the lip which is concave only instead of saccate toward the base.

LUZON: Province of Rizal, September 1909, *Loher s.n.* (TYPE in Herb. Ames No. 45010).

Saccolabium Quisumbingii *L. O. Williams* sp. nov.

Herba epiphytica, caule abbreviato. Folia disticha, conferta, ligulata, coriacea, obtusa, retusa et apice inaequaliter bilobata. Inflorescentia foliis subaequalis, paene usque ad basim florifera; rhachis leviter carnosae et alatae; bractae hyalinae. Sepalum dorsale oblongo-ellipticum, obtusum, carinatum. Sepala lateralibus similia sed paulo obliqua. Petala anguste-obovata, obtusa, carinata, trinervia. Labellum valde saccatum, trilobatum, plusminusve triangulare; lobus lateralis leviter obliquus, rotundatus, obtusus; lobus medius brevis, valde carinatus, callum simulans.

Epiphytic herb. Stem abbreviated, 2–3 cm. long. Leaves ligulate, coriaceous, distichous, crowded, obtuse, retuse and unequally lobed at the apex, constricted and articulated at the base, 8–15 cm. long, 1.5–3 cm. broad. Inflorescence about as long as the leaves, floriferous nearly to the base; rachis somewhat thickened and winged (at least in dried material); bracts hyaline, broader than long. Dorsal sepal elliptic-oblong, obtuse, thickened, dorsally with a short apiculation toward the apex, about 6 mm. long and 4 mm. broad. Lateral sepals similar but slightly oblique, at the base adnate to the claw of lip, 4- to 5-nerved, dorsally with a short apiculation toward the apex, about 6 mm. long and 3 mm. broad. Petals narrowly obovate, obtuse, thickened, 3-nerved, about 5 mm. long and 2 mm. broad. Lip strongly saccate, 3-lobed, approximately triangular in outline, about 6 mm. long from the base of the sac to the apex of the erect lateral lobes;

lateral lobes slightly oblique, rounded, obtuse, about 2 mm. long and as broad at the base, with a short erect acute callus within; mid-lobe short, very much thickened and callus-like; sac or spur narrowed toward the tip. Column about 2 mm. long, prolonged into a distinct foot.

Saccolabium Quisumbingii is most closely allied to *S. Escritorii* Ames with which it had been confused. The two species may be distinguished as follows:

Saccolabium Escritorii

Lip, as seen from the side, approximately quadrangular in outline.

Lateral lobes of the lip lanceolate, acute.

Leaves apparently not retuse at the apex, comparatively small.

Inflorescence comparatively densely flowered.

Saccolabium Quisumbingii

Lip, as seen from the side, approximately triangular in outline.

Lateral lobes of the lip oblique, rounded, obtuse.

Leaves retuse and oblique at the apex, comparatively large.

Inflorescence comparatively laxly flowered.

LUZON: cultivated in the Bureau of Science Orchid House, Manila, December 24, 1929, *Quisumbing* 78806 (TYPE in Philipp. Nat. Herb., Manila; fragment and analytical drawings in Herb. Ames No. 44200). The original living specimen is said to have been collected by McGregor at Majayjay, Province of Laguna, at 300 meters altitude. The flowers are noted by Quisumbing as white with the lobes of the lip purple-violet.



Williams, Louis O. 1938. "Orchid Studies, VIII." *Botanical Museum leaflets, Harvard University* 6(5), 96–111. <https://doi.org/10.5962/p.295118>.

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