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PLANTAE AUSTRO-AMERICANAE III *

BY

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DE PLANTIS PRINCIPALITER COLOMBIAE ORIENTALIS
OBSERVATIONES

A NUMBER OF recently made collections, chiefly from eastern Colombia, represent hitherto undescribed concepts or range extensions. It appears advisable to present the following notes on the significance of these collections as a contribution to our rapidly growing understanding of the flora of the northwesternmost reaches of the Amazonian system.

It is with pleasure that I acknowledge the interest of Dr. Lyman B. Smith of the Gray Herbarium in identifying the bromeliads which are enumerated and of Dr. Leon Croizat of the Arnold Arboretum for his determinations of the species of *Mediocactus* and *Sapium* which are discussed.

The photographs were taken by the writer.

BALANOPHORACEAE

Helosis guyannensis *L.C. Richard* in Mém. Mus. Hist. Nat. Paris 8 (1822) 416, t. 20.

This curious, red, fungus-like saprophyte, of rather wide occurrence in the Amazon Valley, has apparently

* *Plantae Austro-Americanae* I and II were published in *Caldasia* 6 (1943) 11-26 and 9 (1944) 325-336 respectively.

not been reported hitherto from eastern Colombia. In the *trapezio amazonico* of Colombia, it is known by the Brazilian name *flor da terra*, and a strong decoction of the entire plant is highly esteemed in the treatment of dysenteric disturbances and diarrhea.

COLOMBIA: Amazonas, Loretoyacu River, Lake Pichuna, small, scarlet root-parasite growing in clumps in wet soil in forests, November 1944, *R. E. Schultes* 6196.

BOMBACACEAE

Septotheca Tessmannii *Ulbrich* in *Notizbl. Bot. Gart. Berlin* 9 (1924) 129, t. 3.

I have noticed individuals of this gigantic tree on some of the sandy islands of the Amazon River in the Colombian *trapezio amazonico*, but no fertile specimens were available. The collection cited below, from the Brazilian island of Aramaça near Tabatinga, only a few kilometers from the Colombo-Brazilian boundary, is a close match for the type which came from a not-too-distant locality on the Río Ucayali in Loreto, Peru. This species has apparently not been reported hitherto from Colombia or Brazil.

BRAZIL: Amazonas, Ilha Aramaça, near Tabatinga. Enormous tree, 90 ft. tall, with buttress roots, flowers greenish yellow. *Zapoterana*. October 1944, *R. E. Schultes* 6150.

BROMELIACEAE

Aechmea Mertensii (*Meyer*) *Schultes filius* in *Roemer & Schultes Syst.* 7 (1830) 1272.

This very widespread Amazonian species is rather abundant in the Vaupés.

COLOMBIA: Vaupés, Alto Río Vaupés, vecindades de Miraflores, más o menos 300 m. de altura. Parásita con flores de color rojo; frutos blancos con el apice rojo, Enero 4, 1944, *G. Gutierrez* 515.

Navia acaulis *Martius ex Schultes filius* in *Roemer & Schultes Syst.* 7 (1830) 1196.

For more than a century, *Navia acaulis* was known only from the type collection made by Martius in Araracuara on the Río Caquetá. Recently, several additional collections have been made in eastern Colombia which extend the known range of this interesting species. In *Caldasia* 5 (1942) 8, Dr. L. B. Smith reported the second collection which was made by Cuatrecasas on the granitic ridges at San José del Guaviare (*Cuatrecasas* 7707). This represents a considerable range extension northward. Later, *Navia acaulis* was discovered and collected on several of the sandstone mountains of the Upper Apaporis Basin; these collections are cited below. It is an interesting ecological note that Cuatrecasas found *Navia acaulis* growing on granitic terrain at San José (where sandstone also occurs), whereas at both the type locality at Araracuara and on the Apaporis mountains, the plant is endemic on quartzite ridges.

COLOMBIA: Vaupés, Upper Apaporis Basin, Ajaju River, Mount Campana, sandstone shelf at base of mountain, alt. 900–1500 feet above sea-level, June 1–6, 1943, *R. E. Schultes* 5570. Caquetá, upper Apaporis Basin, Apaporis River, Mount Castillo (10 km. below Ajaju-Macaya confluence), sandstone, xerophytic conditions, shady crevasses and faults, alt. 350–1000 ft. above forest floor, July 27, 1943, *R. E. Schultes* 5656.

***Navia bicolor* L. B. Smith sp. nov.**

Subacaulis, solitaria vel 6–7 aggregatae; foliis multis, dense rosulatis, 9–14 cm. longis, vaginis quam laminis paulo latioribus, omnino occultatis; laminis lineari-oblongis, acutis vel acuminatis, 15–19 mm. latis, supra glabris viridibusque, in sicco nervatis, subtus dense adpresseque albo-lanatis, margine densissime minuteque serrulatis sed prope apicem integris; scapo ad 3 cm. longo, glabro; inflorescentia dense capituliformi sed spicis apices versus distinctis, bracteis exterioribus paulo floccosis exceptis glabra, ad 35 mm. diametro; bracteis florigeris late

ovatis acuminatis, sepala subaequantibus, integris, pungentibus; floribus subsessilibus; sepalis oblongis, acutis, 5.5 mm. longis; petalis albis, laminis lanceolatis, 3 mm. longis, apice valde inflexis.

Dr. Smith writes: “*Navia bicolor* derives its specific name from the sharp contrast between the green glabrous upper side of the leaf and the white felt-like covering of the under side. This and the relatively great width of the leaf quickly distinguish it from all other known species of *Navia*.”

COLOMBIA: Vaupés, Cerro de Chiribiquete, a un lado del Río Macaya. “Hierba de flores amarillas y brácteas blancas.” Enero 17, 1944, G. Gutierrez 653 (TYPE in Gray Herb.); upper Apaporis Basin, Macaya River, Mount Chiribiquete, sandstone, xerophytic conditions, savanna, alt. 1300–2100 ft. (390–630 m.), May 15–16, 1943, R. E. Schultes 5444 (COTYPE in Gray Herb.).

***Navia graminifolia* L. B. Smith sp. nov.**

Caulibus ramosis, densissime foliatis; foliis persistentibus; vaginis parvis, ovatis; laminis linearibus, acuminatis, ca. 10 cm. longis, infra 3 mm. latis, nervatis, mox omnino glabris, margine subdense minuteque serrulatis; scapo gracili, ad 15 mm. longo, glabro; inflorescentia dense capituliformi, 15–18 mm. diametro, glabra; bracteis florigeris late ovato acuminatis, quam sepalis multo brevioribus; floribus subsessilibus; sepalis oblongis, acutis, 5 mm. longis; petalis flavis, laminis lanceolatis, 3 mm. longis, apice valde inflexis.

Dr. Smith writes: “*Navia graminifolia* appears to be closely related to *N. Schultesiana*, but its longer and much more persistent leaves make the branches practically indistinguishable and give the plant an entirely different habit.”

COLOMBIA: Vaupés, upper Apaporis Basin, Macaya River, Mount Chiribiquete, sandstone, xerophytic conditions, savanna, alt. 1300–2100 ft. (390–630 m.), May 15–16, 1943, R. E. Schultes 5492 (TYPE in Gray Herb.).

Navia Schultesiana L. B. Smith in *Caldasia* 12 (1944) 131.

Diagrammatic drawings of critical parts of the leaf, flowers and inflorescence were published with the recent description of this concept. In view of the appreciable contribution which the Apaporis collections have made to our knowledge of this very small genus, it seems advisable to publish the accompanying habit photograph of a complete colony of *Navia Schultesiana*.

Pitcairnia patentiflora L. B. Smith in *Contrib. Gray Herb.* 127 (1939) 18, t. 1, fig. 4.

A xerophytic species of sandstone exposures, *Pitcairnia patentiflora* is known only from the type locality, Mount Duida in Venezuela, and from Mount Chiribiquete.

COLOMBIA: Vaupés, Cerro Chiribiquete, a un lado del Río Macaya. Hierba de hojas acaules y frutos rojos, Enero 17, 1944, G. Gutierrez 672.

Vriesia chrysostachys E. Morren in *Belg. Hortic.* 31 (1881) 87.

This species of *Vriesia* occurs in extraordinary abundance in rocky places under light forest in the creeks and brooks which drain the Cerros Pacú, Cacurí and Circasia on the Vaupés River above Mitu. It is known from Trinidad to eastern Peru where the type was collected.

COLOMBIA: Vaupés, Lower Vaupés River, Caño Pacú near Tayasú and Circasia, alt. 280 m., savannah, forming dense masses on rocks, March 6, 1944, R. E. Schultes 5826.

Vriesia socialis L. B. Smith *sp. nov.*

Verisimiliter acaulis, ad 5 dm. alta; foliis ignotis; scapo recto, 6 mm. diametro, glabro; scapi bracteis erectis, quam internodiis bene brevioribus, ellipticis, acutis, membranaceis, obscure punctulato-lepidotis; inflorescentia erecta, simplicissima, laxissime secundeque 6-7-

flora, 10–12 cm. longa, glabra; rhachide flexuosa; bracteis florigeris cum floribus secunde versis, ovatis, acutis, nullo



VRIESIA SOCIALIS. Inflorescence, one half natural size. Sepal, natural size.

modo carinatis, ad 25 mm. longis, quam internodiis paulo longioribus, membranaceis; floribus subpatentibus; pedicellis robustis, 7 mm. longis; sepalis suboblongis, ad 4 cm. longis, bracteas capsulasque multo superantibus, 9 mm. latis, ecarinatis, tenuibus; petalis ignotis; capsulis crasse ellipsoideis, ad 24 mm. longis.

Dr. Smith states: "In my treatment of the species of *Vriesia* with a simple secund-flowered inflorescence in "Lilloa" VI, 388 (1941), *Vriesia socialis* would run down to the vicinity of *V. brassicoides* and *V. Platzmannii*, both of them native of southeastern Brazil over two thousand miles distant. *Vriesia socialis*

has much longer and narrower sepals and both its sepals and floral bracts are much thinner than in either Brazilian species."

COLOMBIA: Vaupés, forming dense masses with *Vriesia chrysostachys* on rocks, savanna along banks of Caño Pacú, affluent of Vaupés near Tayasú and Circasia, alt. 280 m., March 6, 1944, R. E. Schultes 5826A (TYPE in Gray Herb.).

BURMANNIACEAE

Gymnosiphon cornutus (*Benth.*) *Bentham* & *Hooker filius* Gen. Pl. 3 (1883) 458.

The collection cited below establishes the occurrence of *Gymnosiphon cornutus* in the Colombian Amazonas. This species is much rarer in herbaria and is apparently much more restricted in its distribution than the closely related *Gymnosiphon tenellus* (*Benth.*) *Urban* which occurs from Guatemala to Brazil.

COLOMBIA: Amazonas, Loretoyacu River, Lake Pichuna, pale bluish white root-parasite found with *Triuris* and *Leiphaimos*, November 1944, *R. E. Schultes* 6180 A.

CACTACEAE

Mediocactus megalanthus (*Schum.*) *Britton* & *Rose* Cactaceae 2 (1920) 212, fig. 292.

The occurrence of this beautiful epiphytic cactus within the boundaries of Colombia is established by the collection *Schultes* 5811. *Croizat* (*Caldas* 9 (1944) 350) had previously included it in an enumeration of cacti which were to be expected in Colombia. The type was collected at Tarapoto, Peru, far from the Vaupés.

Mediocactus megalanthus is said to have the largest flowers of any of the *Cactaceae*.

COLOMBIA: Vaupés, extensive vine-like epiphyte. Leaves triangular in cross section, ash-grey with very small spines. Joints 3-4 feet long. Flower large and showy. Petals white, sepals light brownish red and yellowish. Pedicel reddish green, fleshy with red-tipped bracts, each with a small spine in the axil. Hanging on gigantic trees. Río Vaupés, 5 kilometers above Cerro Circasia, March 4, 1944, *R. E. Schultes* 5811.

EUPHORBIACEAE

Hevea viridis *Huber* var. **toxicodendroides** *R. E. Schultes* & *E. L. Vinton* in *Caldas* 11 (July, 1944) 25.

“*Hevea toxicodendroides* R. E. Schultes” ex P. H. Allen in Mo. Bot. Gard. Bull. 32 (February, 1944) 50; *nomen nudum*.

It is unfortunate that the nomen “*Hevea toxicodendroides*” was published inadvertently in a letter which Mr. Allen wrote from the field and which appeared in print before the description of the new variety.

Sapium Cuatrecasasii Croizat in Journ. Arnold Arbor. 24 (1943) 172.

This concept was described from material collected in the Valle de Sibundoy in the Alto Putumayo not remote from the locality of *Schultes 5145* which is the second collection which has been made. The close relationship of the flora of the Sibundoy Mountains and the so-called Villalobos Range southwest of Pitalito in Huila is obvious from numerous collections of species which are known only from these two areas. Among these, we may cite *Ficus sibundoya* Dugand and *Saurauia putumayonis* R. E. Schultes & H. Garcia-Barriga, both of which were described from material from the Sibundoy area and later turned up in the region of the Villalobos.

COLOMBIA: Huila, area of Rio Villalobos, southwest of Pitalito, 1500–2000 m. alt. “Cauchillo blanco.” Latex thin, yellow, does not easily coagulate. Bark grey-red, smooth. Tree 80 ft. high, diam. 1.5 ft. Jan. 3–13, 1943, R. E. Schultes 5145.

FLACOURTIACEAE

Mayna integrifolia (Kuhlmann) R. E. Schultes comb. nov.

Carpotroche integrifolia Kuhlmann in Mem. Inst. Oswaldo Cruz 21 (1928) 396, t. 68.

In 1912, Dr. Adolpho Ducke collected the type of *Mayna integrifolia*, an exceedingly interesting and very distinct species, “in silvis non inundatis prope Puerto Cordoba, Río Caquetá, Colombia, juxta fines Brasiliens.”

This region is very poorly known and is rich in endemic or restricted species, as is indicated by the classic collections of Von Martius from La Pedrera.

Mayna integrifolia has since been collected by Dr. Ducke on the Upper Amazon River (Solimões) at São Paulo Olivença, near the Colombian border. I have examined three excellent collections (*Ducke* 387, 405, 24013) which are unquestionably referable to this concept.

***Mayna longifolia* Poeppig var. *phasmatocarpa* R. E. Schultes var. nov.**

Arbuscula vel arbor parva, usque ad 6 m. sed saepissime circa 3.5 m. alta, in parte superiore parce ramificata foliosaque. Truncus erectus, usque ad 6 cm. (saepius 3–4 cm.) in diametro, nigro vel atrogriseo-fulvo cum cortice terete protectus. Rami, ramuli, petiolique striati, fulvo-rubescences, aliquid scabro-scariosi vel minute squamiferi; ramuli juveniles obscure et primo pulverulento-puberuli. Folia alterna, simplicia, ampla, firmissime chartacea, pallide viridia, subconcoloria. Petioli 6–8 cm. longi, robusti, obscure puberuli. Stipulae 5 mm. longae, deciduae. Foliorum laminae obovato-lanceolatae, margine integrae, apice breviter acuminatae, basi attenuato-cuneatae, nervis secundariis viginti ad viginti-quinque marginem versus potius arcuatis, pertiis reticulatis; supra glabrae, nitidae, nervis satis prominentibus, pilis minutis et deciduis prope nervos; infra pallidiores, epidermide et nervis satis dense sed minutissime et molliter pilosiusculis, nervo medio robusto, valde elevato; 40–50 cm. longae, 11–14 cm. latae in statu adulto. Monoecia. Flores in fasciculis brevibus caularibus congesti, inflorescentiis paucifloris. Alabastra globosa, 5–6 mm. in diametro, minute et dense pulverulento-tomentulosa. Bracteae minutae, subsquamiformes. Flores staminiferi albi, 1.5

(rarenter 1.3)- 1.8 cm. in diametro, brevissime pedicellati; pedicelli usque ad 5 mm. longi, pulverulenti. Sepala tria, saepissime aliquid inaequalia; majus rotundato-ovatum vel late ovato-ellipticum, 6 mm. longum, 5 mm. latum, apice subacutum, extus dense pubescens, intus glabrum, carnosum-subcoriaceum; minora elliptica, apice obtusa, 7-8 mm. longa, 4 mm. lata, extus praeter prope marginem pubescentia, intus glabra. Stamina circa triginta quinque usque ad quinquaginta, petalis multo breviora, libera, erecta, antheris sessilibus vel subsessilibus, lineari-ellipticis, utrinque obtusis, apice poricidis, densissime pilosis vel hirsutis, 4 mm. longis. Petala septem, subaequalia, alba, membranacea, extus pulverulenta, intus glabra, elongato-elliptica, apice obtusa, margine subsinuosa, 6-7 mm. longa, 3-4 mm. lata. Capsulae ovoideae vel aspectu subsphaericae, basi obscure acuminatae vel saepe rotundatae (numquam umbilicatae), apice obscure et breviter acuminatae sed aspectu praeter costas alasque obtuse rotundatae, sepalis persistentibus, 4-5 cm. longae, 3.5-4 cm. in diametro maturitate, longe pedunculatae (pedunculi robusti, pulverulenti, usque ad 2 cm. longi), extus omnino albae luridae, subdense sed minute et propter colorem inconspicue puberulentae, saepius novemcostatae, costis longitudinalibus suturalibus et dorsalibus prominentissimis cum alis membranaceis irregulariter et profunde lacerato-fimbriatis, usque ad 8 vel 12 mm. altis. Semina aequalia, obovato-rhombica, plus minusve quinquaginta, 10 mm. \times 6 mm. \times 5 mm., in sicco straminea, extus valde carnosum tamquam pulpa arillata involuta, cum pulpa atrocrocea vel forte miniana, acidula vel demum in maturitate dulcia, cum testa tenuiter papyracea crustacea, puberulenta et grossiuscule ruguloso-granulosa, raphe elongata fulva in pulpa recepta. Crescit in silvis umbrosis humidisque in terra fertili qua quotannis diluvium profundam sustinet. In provincia Vaupesensi

ab agrestibus "cacaoito" et "cacao blanco," ab indigenis tribubus Karijonorum "ha-pe'-ta-ke" appellatur.

Mayna longifolia var. *phasmatocarpa* differs from *M. longifolia* in the length of the petioles, the size and shape of the leaves, their margin (entire, instead of sinuate), the pilosity (pubescent only on the under side, instead of usually on both sides), the size and alation of the capsules, and in several floral characters, especially in the sepals and petals. This new variety, known only from the Upper Vaupés River where it is abundant, is apparently the northwesternmost representative of the widespread Amazonian *Mayna longifolia*. To the best of my knowledge, *Mayna longifolia* has not been collected in eastern Colombia, but the extensive range of this species and its apparent abundance in adjacent Peruvian and Brazilian localities (in Loreto and at Tabatinga respectively) would seem to indicate that it may yet be discovered in Colombia.

The varietal epithet *phasmatocarpa* has reference to the ghastly white color of the fruit. I collected fruits which were ripe almost to the point of opening, and they showed no sign of darkening into a brown or a green as has been reported for some species. Furthermore, natives of the region state that the fruit is always white. The resemblance of the plant, especially the fruit, to *Herania* (a member of the *Sterculiaceae*) is interestingly borne out by the common names *cacaoito* and *cacao blanco* which the settlers in the Vaupes apply to *Mayna longifolia* var. *phasmatocarpa*. We may note also that in Brazil, *Mayna longifolia* is known as *cacau branco* and in Loreto, Peru, as *cacahuito*.

The brilliant orange-vermilion pulp surrounding the seeds of this plant is usually somewhat acidulous, but, according to natives, it is sweet when the fruit is completely ripe. The Karijona Indians, who call the species

ha-pe'-ta-ke, when on hunting trips, often place a few of these seeds in the mouth for the sweet taste. There is apparently no other use made of the plant in the Vaupés.

COLOMBIA: Vaupés, Vaupés River, near confluence of Unilla and Itilla Rivers, at "Las Bocas," alt. c. 200 m., in forest. Treelet 12 ft. tall. Bark grey and brown mottled or black, thin. Basal diameter $1\frac{1}{2}$ –2 inches. Fruit cauline, pure white, 9-ribbed with two fringes deeply fimbriated on each rib. Inflorescence in fascicles. Stems have strong odor of cyanide. Leaves firmly papyraceous. Seeds with vermillion aril. Flowers cream-white. January 18, 1944, *R. E. Schultes* 5728 (TYPE in Econ. Herb. Oakes Ames); Vaupés River, Puerto Naré. Small treelet 18 ft. tall. Basal diameter 3 inches. Bark smooth, brown. Fruits pure snow-white. Seeds numerous, brownish yellow with brilliant orange aril. "Cacao blanco," cacaoito." Karijona: "ha-pe'-ta-ke," April 10, 1943, *R. E. Schultes* 5378. Ibid. Flowers white. Treelet 11–15 ft. tall. Basal diameter 3 inches. April 10, 1943, *R. E. Schultes* 5366; Vaupés River, near Miraflores, February, 1944, *G. Gutierrez* V. 797.

LORANTHACEAE

Phthirusa magdalenae (*Cham. & Schlecht.*) Eichler ex Martius Fl. Brasil. 5, pt. 2 (1866–68) 55.

This parasite is very commonly found attacking *Hevea* trees in the Upper Apaporis Basin.

COLOMBIA: Vaupés, Upper Apaporis Basin, confluence of Ajaju and Macaya (Puerto Hevea), forest, alt. ca. 900 ft., July 23, 1944, *R. E. Schultes* 5641.

MORACEAE

Castilla Ulei *Warb.* forma **lecithogalacta** *R. E. Schultes* forma nov.

A *Castilla Ulei* foliis amplioribus, subtus densus mol-liter ferrugineo-tomentosis, margine integris sine setis denticulatis, fructibus multo majoribus (diametro paene $\times 2$ ad $2\frac{1}{2}$), fructuum bracteis apice longissime (4 mm.) acuminatis, cortice fere albo, vulgo tenuiore, latice luride flavo-luteo differt.

In reality, little is known about the genus *Castilla* in the Amazon for there is relatively little good material in our herbaria. Under *Castilla Ulei*, moreover, one can find material which would appear to represent several species.

Even less is known of the subspecific variations of *Castilla Ulei*. This is due chiefly to the lack of extensive and systematic field studies devoted primarily to this tree. Furthermore, the general collector is handicapped in making comparative studies and collections of *Castilla Ulei* because of the size and habit of the tree. It is my belief, after having seen a relatively large number of individuals of this species in the Vaupés and Apaporis basins of eastern Colombia, that there are many undescribed subspecific variants in *Castilla* as is the case in *Hevea*. Old *caucheros* (rubber workers) who have cut *Castilla* all their lives have distinguishing names for the different "types" of trees which produce the so-called *caucho negro* of commerce. These "types" probably would be found to represent taxonomically distinct subspecific variants, for it is my experience that the *caucheros* of eastern Colombia are rather keen in their perception of differences in plants. These subspecific variants of *Castilla Ulei* cannot be fully understood, however, until some investigator carries out field studies on thousands of individuals over a rather wide area.

The form described here, *lecithogalacta*, is one of the most common and widely recognized of the "types" of *caucho negro* in the Upper Vaupés River. The very appropriate name *yema de huevo* ("egg-yolk") refers to the bright yellow color of the latex. As the latex, which is extremely thick, flows out of the cuts, it is a deep cream; on contact with the air, however, it almost immediately deepens in color and very shortly becomes a yellow so brilliant that one finds it difficult to realize that one is

actually dealing with *Castilla Ulei*. The latex of this species is usually a pure white or, at the most, a light cream. That the color of the latex, in the concept which I have just described, is not due to soil or other site-factors is borne out by the facts that (1) there are numerous morphological characters which likewise differentiate forma *lecithogalacta* from typical *Castilla Ulei*; and (2) I encountered this form in several rather widely separated localities, in each locality growing in association with individuals of *Castilla Ulei* which yielded the usual white latex.

The epithet which I have applied to the new form refers to the unusual color of the latex and is a rendition into Greek of the common name *yema de huevo*.

COLOMBIA: Vaupés, Río Vaupés near Puerto Naré, alt. 900 ft. Tree 100 ft. tall, 2 ft. in diameter. Latex brilliantly yellow. Bark light ashy grey or almost white, smooth. Common name: *yema de huevo*. February 18, 1944, *R. E. Schultes 5798* (TYPE in Econ. Herb. Oakes Ames).

TRIURIDACEAE

Triuris hyalina *Miers* in Proc. Linn. Soc. London 1 (1841) 96.

Schultes 6180 represents the first collection of a member of this rare family from Colombia and, apparently from the entire northwestern sector of South America.

COLOMBIA: Amazonas, Río Loretoyacu, Laguna Pichuna. Very small, white root-parasite. November, 1944, *R. E. Schultes 6180*.

VELLOZIACEAE

Vellozia phantasmagoria *R. E. Schultes sp. nov.*

Frutex usque ad quattuor pedes altus. Caudex fibroso-lignosus, erectus, basi usque ad 3 cm. in diametro, indivisus vel saepius bi-vel trifurcatus, foliorum vaginis cinereo-stramineis persistentibus arcte adpressis, spiraliter

imbricatim dispositis obtectus, in parte superiore distincte lineatis. Folia in apice ramorum subrosulate conferta, non numerosa, rigide erecta sed exteriora etiam juniora saepe aliquid subpatentia, plana, valde sicca, coriacea, dense et minute albo-hirsuta, pilis in marginibus irregulariter plurichotome ramosis, linearia, margine integra, apice longissima et sensim acuminata, 250–300 mm. (plerumque 280–290 mm.) longa, 10–11 mm. lata. Flores duo usque ad quinque, pseudoterminalis, grandes, speciosissimi, albi, quam foliis breviores, longissime pedunculati; pedunculo filiformi, triquetro, superne minute squamoso-echinato, inferne glabro, rubro-fulvo, usque ad 8 cm. longo. Perigonii tubus tenuis gracilisque, cylindricus, 50–55 mm. longus, 2.5 mm. in diametro, dense viscoso-glandulosus; limbus infundibuliformis, vivo 60–80 cm. in diametro, segmentis elongate lanceolato-obovatis vel paene pseudospathulatis, 50–60 mm. longis, 8–9 mm. latis, apice acutis, extus in parte inferiore glandulosus. Stamina octodecim, tepalis multo breviora; antherae elongatissime ellipsoideae, glabrae, albae, quam filimenta multo longiores, antheris lateralibus plus minusve 9 mm. longis, mediana 7 mm. longa, sed omnes subaequales. Ovarium oblongo-clavatum, apice truncatum, paleis iis pedunculi similibus sed multo robustioribus, viscoso-glandulosus, sordide luteis densissime ornatum. Stylus filiformis, 6–8 cm. longus, trigonus, inclusus, stamina superans. Stigma trilobatum. Capsula adhuc ignota. Crescit in montibus siccis areno-saxosisque in provincia colombiana Vaupesensi.

Vellozia phantasmagoria is the first representative of the genus known from northwestern South America. It is apparently not closely related to any previously described species.

The specific epithet has reference to the peculiar habit of this showy and anomalous plant. This species occurs

on some of the flat, dry sandstone expanses on the summit of Mount Chiribiquete in dense stands which, at first sight, seem fanciful and unreal to the observer because of the oddity of the shrub. A description of the unusual habitat of *Vellozia phantasmagoria* has been published in *Caldasia* 12 (1944) 124-130.

Vellozia phantasmagoria has its flowering period in December. When the type was collected on January 18, only a few flowers were found, although several thousand plants were seen.

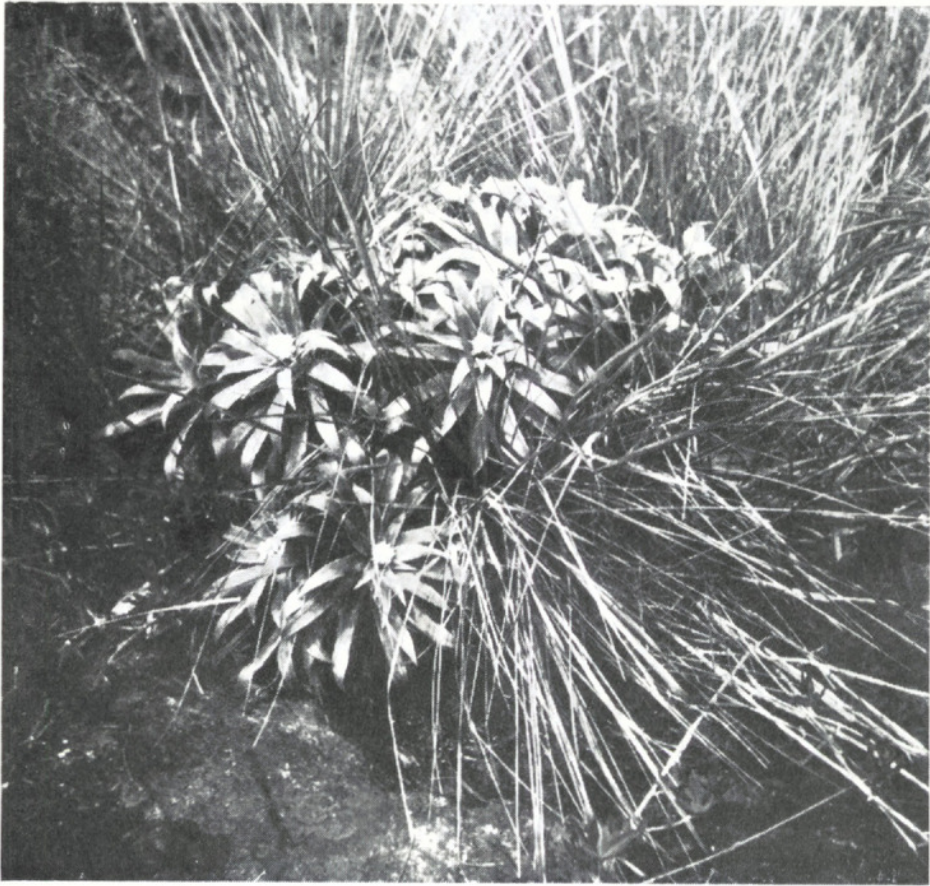
COLOMBIA: Vaupés, Upper Apaporis Basin, Macaya River, Mount Chiribiquete, sandstone, xerophytic conditions, savannah, alt. 400-1200 ft. above the forest floor or 1300-2100 ft. above sea-level, January 18, 1944, *R. E. Schultes 5741* (TYPE in Herb. Gray; DUPLICATE TYPE in Herb. Nac. Colomb.).

PLATE XIII



HELOSIS GUYANNENSIS *L. C. Rich.* A photograph of the plant which furnished the collection *Schultes 6196*, Loretoyacu River, Amazonas, Colombia.

PLATE XIV



NAVIA BICOLOR *L. B. Smith*. A photograph of the plant from which the collection *Schultes 5444* was obtained. Mount Chiribiquete, Vaupés, Colombia.

PLATE XV



NAVIA SCHULTESIANA *L. B. Smith*. A photograph of the colony from which the type collection was made. Mount Castillo, Caquetá, Colombia.

PLATE XVI



MEDIOLACTUS MEGALANTHUS (*Schum.*) *Britt. & Rose*. A habit photograph of the plant from which the collection *Schultes 5811* was taken, Vaupés River, Vaupés, Colombia.

PLATE XVII



MAYNA INTEGRIFOLIA (Kuhlmann) R. E. Schultes. A photograph of the type.

PLATE XVIII



MAYNA LONGIFOLIA Poepp. var. *PHASMATOCARPA* R. E. Schultes. A habit photograph showing the characteristic waxy-white fruits, Schultes 5378, Vaupés River, Vaupés, Colombia.

PLATE XIX



VELLOZIA PHANTASMAGORIA *R. E. Schultes*. A habit photograph of the type material. Mount Chiribiquete, Vaupés, Colombia.

PLATE XX



VELLOZIA PHANTASMAGORIA *R. E. Schultes*. The flower of the type specimen, Mount Chiribiquete, Vaupés, Colombia.



Schultes, Richard Evans. 1946. "Plantae Austro-Americanae III." *Botanical Museum leaflets, Harvard University* 12(4), 117–132.

<https://doi.org/10.5962/p.168447>.

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