

PROCEEDINGS  
OF THE  
BIOLOGICAL SOCIETY OF WASHINGTON

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DESCRIPTIONS OF NEW ORCHIDS FROM TROPICAL  
AMERICA WITH NOMENCLATORIAL CHANGES.

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IN further study of the orchids of tropical America, the following plants appear to deserve recognition as new species or to require nomenclatorial attention.

***Aa Rosei*, sp. nov.**

Similitudinem gerit cum *Aa Matthewsio* (Reichb. f.) Schltr. Herba gracilis. Caules erecti, vaginis scariosis arcte adpressis vestiti. Racemus densiflorus, cylindraceus. Bractea albae, acutae. Sepala lateralia glabra, oblonga, obtusa, uninervia. Sepalum dorsale ovatum, glabrum, obtusum, uninervium. Petala oblongo-elliptica, obtusa, uninervia. Labellum subglobose-cucullatum, ostio valde contractum, marginibus basi excepta minute fimbriatum, basi utrinque glandula ornatum. Columna brevis.

Roots fleshy, up to 5 mm. in diameter when dry. Leaves wanting at flowering time. Stems slender, 30-35 cm. tall, 1-3 mm. thick, invested with whitish closely appressed sheaths. Raceme about 4 cm. long, 5-6 mm. in diameter, cylindrical, many flowered. Floral bracts whitish, translucent, triangular-lanceolate, acuminate, acute. Rhachis puberulous, hairs flaccid, whitish. Pedicel abbreviated, together with the ovary 2 mm. long. Flowers more or less globose, crowded. Lateral sepals 2.25 mm. long, 1 mm. wide, oblong, concave, with a conspicuous mid-nerve, smooth. Upper sepal 2 mm. long, 1.25 mm. wide at base, triangular-ovate, obtuse, one-nerved. Petals about 2 mm. long, oblong-elliptic, obtuse, conspicuously one-nerved. Labellum 2.5 mm. long, subglobose-cucullate, margin fimbriate beyond the middle, basal margin entire; near the base a large gland is situated on each side. Column minute, dilated upward.

From the closely related *Aa macra* Schltr. this species differs in the smaller flowers, broader petals and shorter stems.

PERU, Cuzco. Mr. & Mrs. J. N. Rose 19039. September, 1914. (Type in United States National Herbarium 761630.)

**Bletia Nelsonii**, sp. nov.

Differt ab affinis praesertim labello ecarinato. Radices et pseudobulbi non praestant. Folia tria (plus minusve?), anguste oblongo-lanceolata, utrinque attenuata, membranacea, subtus, in sicco, conspicue et prominenter nervosa, ad basim vaginantia. Scapus erectus, gracilis, vaginis brevibus instructus. Racemus laxis, plus minusve quindecimflorus. Flores in sicco pallidi. Sepala petalaeque ligulato-spathulata. Labellum trilobatum, per discum prominenter nervosum. Lobi laterales permagni, irregulariter lobulati vel crenulati, valde obtusi. Lobus medius profunde retusus, irregulariter lobulatus. Columna gracilis.

Roots and pseudobulbs wanting. Leafy shoot about 76 cm. long, slender below, terminating in the narrow leaves which are attenuated at both ends, lamina of the largest leaf about 46 cm. long, 3.1 cm. wide near the middle, conspicuously three-nerved, the other nerves more or less prominent; narrowest leaf about 1.4 cm. wide. Scape slender, including the raceme about 76 cm. long, 5 mm. in diameter near the base, four-bracteate, the bracts sheathing and tubular,  $\pm$  2.5 cm. long. Raceme laxly flowered, up to 2 dm. long. Pedicels, with the ovary, 1.7–2 cm. long, subtended by lanceolate, acuminate, acute bracts 4.7 mm. long. Flowers yellowish in dried specimens (pinkish when fresh?)  $\pm$  3 cm. apart, 1.8 cm. long. Lateral sepals subspreading,  $\pm$  1.7 cm. long, 3 mm. wide, narrowly spathulate, abruptly acute, many-nerved. Upper sepal similar. Petals rhombic-spathulate, obtuse, 1.7 cm. long, 4.25 mm. wide, many-nerved. Labellum 1.7 cm. long, 1 cm. wide between the lateral lobes, obovate-lanceolate in outline, ecarinate, but prominently nerved longitudinally, lateral lobes very broad, angularly lobulate or crenulate on the margin, porrect; middle lobe subquadrate, deeply retuse, 4 mm. long, 6 mm. wide, irregularly crenate-dentate or lobulate on the margin. Column 1.3 cm. long, gradually dilated upward.

In habit similar to *Bletia Parkinsonii* Hook., which bears larger flowers with a very different labellum. In dried specimens the flowers are yellowish with inconspicuous pinkish stains here and there. Perhaps when fresh they are altogether pink in color.

MEXICO, OAXACA, Vicinity of Choapam, *E. W. Nelson 913*, July 28–29, 1894. 3800–4500 feet altitude. (Type in United States National Herbarium.)

**Malaxis mexicana**, sp. nov.

Herba terrestris. Similitudinem gerit cum *M. fastigiata* Ktze. Folia duo, ovato-lanceolata, approximata. Flores in racemum subumbellatum dispositi. Sepala oblongo-elliptica. Petala linearia. Labellum antice trilobatum, lobulis obtusis.

Plant 2 dm. tall, resembling *M. fastigiata*, from which it is clearly separated by the three-lobed labellum. Stem tumid at the base, sheathed by several scarious bracts, 9 cm. long to the base of the lowermost leaf, in dried specimens longitudinally sulcate, naked above, bifoliate near the middle. Leaves about 4 cm. long, up to 2.5 cm. wide, ovate-lanceolate, acute.

Flowers numerous, crowded in a subumbellate raceme. Floral bracts much shorter than the pedicels of the flowers. Pedicels slender, together with the ovary 5.6 mm. long, ascending. Lateral sepals 3.25 mm. long, 1 mm. wide, oblong-elliptic, rounded at the tip, three-nerved. Upper sepal 3 mm. long, 1 mm. wide. Petals linear, 2 mm. long. Labellum ecallose, 2 mm. long, 1.5 mm. wide, rounded at the base, three-lobed in front, the lateral lobes triangular obtuse much exceeded by the oblong obtuse middle-lobe. Column minute.

MEXICO, STATE OF PUEBLO. Between Tepeaca and Santa Rosa. *J. N. Rose and Walter Hough 4735*. June 27, 1899. (Type in United States National Herbarium 346724.)

**Malaxis Rosei**, sp. nov.

Aff. *M. crispifoliae* (Reichb. f.) Ktze. Herba gracilis, bifoliata, foliis ovato-lanceolatis vel anguste ellipticis. Flores numerosi, in racemum umbellatum dispositi. Sepala oblonga. Petala linearia. Labellum subhastatum, lobulis basilaribus acutis.

Plant slender, 38.5 cm. tall. Roots fibrous, slender. Stem somewhat tumid at the base, 11 cm. long to the base of the lowermost leaf, about 20 cm. long from the uppermost leaf to the base of the inflorescence. Leaves 6 cm. apart, about 6 cm. long, 28–41 mm. wide, the lower one ovate-lanceolate, the upper one narrower, narrowly elliptical, subacute. Raceme umbelliform. Floral bracts about 1 mm. long, triangular, scale-like. Pedicels slender, together with the ovary up to 1 cm. long, obliquely ascending, glabrous. Lateral sepals 2.5 mm. long, about 1 mm. wide, somewhat convex, elliptic-oblong, obtuse, three-nerved. Upper sepal similar to the laterals, 2.75 mm. long, three-nerved. Petals linear, 2 mm. long. Labellum 2 mm. long, fleshy, cymbiform-hastate, subacute, with an erect uncinat lobule on each side near the base, tricarinate, the central keel broad, and conspicuously thickened, the lateral carinae membranaceous. Column minute, bilobulate.

Similar to *Malaxis crispifolia* (Reichb. f.) Ktze., but with different leaves, and short triangular bracts. In habit similar to *Malaxis rupestris* (Poepp. & Endl.) Ktze., but sufficiently distinct from it in the form of the labellum.

MEXICO, STATE OF DURANGO. *J. N. Rose 3753*. August 16, 1897. (Type in United States National Herbarium 302747.)

**Malaxis tepicana**, sp. nov.

Planta monophylla. Racemus erectus, cylindræus, multiflorus. Sepala lateralia oblongo-elliptica, obtusa, plus minusve obliqua, apice incrassata. Sepalum dorsale simile. Petala lineari-oblonga vel lineari-spathulata, valde obtusa. Labellum cordato-triangulum, ecallosum. Columna minuta.

Plant 24–27 cm. tall, rather stout. Stem tumid at base, sheathed by a large tubular loosely appressed bract, monophyllous. Leaf 6–8.5 cm. long, about 1.5 cm. wide (in *Rose 2034* up to 3.2 cm. wide), subacute or obtuse, at base sheathing the stem. Raceme up to 13 cm. long, cylindrical, about 6 mm. in diameter. Rhachis sulcate. Floral bracts minute, triangular.

Flowers numerous, densely crowded. Pedicel together with the ovary 2 mm. long. Lateral sepals 2 mm. long, about 1 mm. wide, oblong-elliptical, rounded and obtuse at the thickened apex, three-nerved, strongly convex. Upper sepal similar, 2.5 mm. long. Petals 2 mm. long, linear or linear-spathulate, obtuse, middle nerve conspicuous. Labellum 2 mm. long, nearly 3 mm. wide below the middle, cordate-triangular in outline, trulliform, four-nerved, without auricles, basal angles broadly triangular, acute, bluntly pointed at the apex, ecallose. Column .75 mm. long. Ovary smooth.

Allied to *Malaxis crispata* (Lindl.) Ames, but monophyllous, and without crisped ridges on the ovary.

MEXICO, SIERRA MADRE, Territorio de Tepic. Between Santa Gertrudis and Santa Teresa. *J. N. Rose 2097*. August 8, 1897. (Type in United States National Herbarium 300997.) *Rose 2034*, from the same region, collected August 7, 1897, between Dolores and Santa Gertrudis is apparently the same as *M. tepicana*. (U. S. Nat. Herb. 300931.)

The following changes are necessitated in accordance with the rules governing nomenclature.

**Malaxis acianthoides** (Schltr.) comb. nov. *Microstylis acianthoides* Schltr. in Fedde Repert. 15 (1918) 200.

**Malaxis blephariglottis** (Schltr.) comb. nov. *Microstylis blephariglottis* Schltr. in Fedde Repert. 12 (1913) 202.

**Malaxis brachyrrhyncha** (Reichb. f.) comb. nov. *Microstylis brachyrrhyncha* Reichb. f. in Flora 71 (1888) 152.

**Malaxis Javesiae** (Reichb. f.) comb. nov. *Microstylis Javesiae* Reichb. f. in Flora 71 (1888) 152.

**Malaxis lepanthiflora** (Schltr.) comb. nov. *Microstylis lepanthiflora* Schltr. in Fedde Repert. 15 (1918) 200.

**Malaxis lepidota** (Finet) comb. nov. *Microstylis lepidota* Finet in Bull. Soc. Bot. Fr. 54 (1907) 531.

**Malaxis linguella** (Reichb. f.) comb. nov. *Microstylis linguella* Reichb. f. in Flora 71 (1888) 153.

**Malaxis minutiflora** (Schltr.) comb. nov. *Microstylis minutiflora* Schltr. in Bull. Herb. Boiss. 7 (1899) 540.

**Malaxis monticola** (Schltr.) comb. nov. *Microstylis monticola* Schltr. in Fedde Repert. 3 (1906) 17.

**Malaxis ocreata** (S. Wats.) comb. nov. *Microstylis ocreata* S. Wats. in Proc. Am. Acad. 22 (1887) 453.

**Malaxis pandurata** (Schltr.) comb. nov. *Microstylis pandurata* Schltr. in Fedde Repert. 3 (1906) 77.

**Malaxis Pittieri** (Schltr.) comb. nov. *Microstylis Pittieri* Schltr. in Fedde Repert. 12 (1913) 203.

**Malaxis platyglossa** (Robins. & Greenm.) comb. nov. *Microstylis platyglossa* Robins. & Greenm. in Proc. Am. Acad. 32 (1896) 35.

**Malaxis Pringlei** (S. Wats.) comb. nov. *Microstylis Pringlei* S. Wats. in Proc. Am. Acad. 23 (1888) 282.

**Malaxis streptopetala** (Robins. & Greenm.) comb. nov. *Microstylis streptopetala* Robins. & Greenm. in Proc. Am. Acad. 32 (1896) 36.

**Malaxis tenuis** (*S. Wats.*) comb. nov. *Microstylis tenuis* S. Wats. in Proc. Am. Acad. 26 (1891) 152.

**Malaxis Tonduzii** (*Schltr.*) comb. nov. *Microstylis Tonduzii* Schltr. in Fedde Repert. 3 (1906) 106.

**Malaxis Tuerckheimii** (*Schltr.*) comb. nov. *Microstylis Tuerckheimii* Schltr. in Beihefte Bot. Centralbl. 36, Abt. 2 (1918) 382.

**Malaxis Wercklei** (*Schltr.*) comb. nov. *Microstylis Wercklei* Schltr. in Beihefte Bot. Centralbl. 36, Abt. 2 (1918) 382.

**Pelexia Maxonii**, sp. nov.

Radices incrassatae, validae. Folia longipetiolata, erecta, lamina ovato-elliptica, acuta. Scapus erectus, superne puberulus, bracteis vaginantibus, oblique acutis instructus. Racemus dense multiflorus, rhachide puberulus. Bracteae inflorescentiae elongatae, lineari-lanceolatae, acutae. Sepala lateralia patentia, ligulata, supra medium dilatata, prope apicem cymbiformia, extus pubescentia, mentum acutum formantia. Sepalum dorsale ligulatum, acuminatum, subacutum, extus pubescens. Petala basi angustata, spathulata, acuta, margine anteriore ciliato-pubescenti. Labellum supra medium dilatatum, prope apicem constrictum, infra apicem callo  $\wedge$ -formi instructum, basi utrinque auriculatum, auriculis incrassatis. Columna elongata.

Plant 29 cm. tall. Leaves few (two in the type), long petioled; petioles 8–10 cm. long, sheathing at base, erect or spreading, in dried specimens tinged with purple, lamina membranaceous, 12–14 cm. long, 4.5–5.8 cm. wide, in dried specimens conspicuously netted-veined, ovate-elliptical, acute, rounded at the base, glabrous. Scape with the raceme  $\pm$  28 cm. tall, in part concealed by sheathing bracts, glandular-pubescent above. Raceme densely many flowered,  $\pm$  12 cm. long, about 4 cm. in diameter, rhachis pubescent. Flowers with pedicellate ovary about 3 cm. long, subtended by linear, acute bracts,  $\pm$  1.7 cm. long. Lateral sepals including the mentum 1.7 cm. long, narrowed below the middle, linear-lanceolate, cymbiform near the tip, carinate, pubescent on the outside. Free part of the mentum about 3.5 mm. long. Upper sepal 1.3 cm. long, 3.5 mm. wide, oblanceolate, abruptly acuminate, acute, sparsely pubescent. Petals adherent to the upper sepal, spathulate-oblanceolate, acute, 12 mm. long, ciliate-pubescent on the anterior margin, one-nerved. Labellum 1.7 cm. long, 4.75 mm. wide above the middle, narrowed toward the base, dilated above the middle into an oblong-elliptical, acute plate, constricted by a fold on each side, and with an inverted V-shaped thickening 2 mm. from the tip, sagittate at base, the sagittal divisions thickened and about 2 mm. long. Column dilated above. Anther triangular-cordate, acute.

CUBA. "Posesion de Starck" southeast of Jaguey, Yateras, Oriente. *William R. Maxon 4437*. May 3, 1907. Altitude 450–525 meters. Terrestrial on rich forest slopes. (Type in United States National Herbarium 523200.)

**Platystele compacta**, comb. nov.

*Stelis compacta* Ames Orch. 3 (1908) 76, t. 53. The genus *Platystele* is at present confined to Central America and as now limited contains only

two species, *P. bulbinella* Schltr. from Costa Rica and the present species which was described originally from material collected in Guatemala by H. von Tuereckheim. These species are very closely related, *P. bulbinella* being a much stouter plant than *P. compacta*, with longer leaves and a more robust raceme, but with very similar flowers. An examination of more material than I have seen may prove that the Costa Rican species is simply a larger form of *P. compacta*.

***Pleurothallis palliolata*, sp. nov.**

Caules secundarii elongati, erecti, monophylli, prope basim paucivaginati, vaginis tubulatis. Folium permagnum, ovato-lanceolatum, longe acuminatum, acutum, basi rotundatum, amplexicaule. Flores duo, permagni, roseo-striati, labello roseo-purpureo. Pedunculus abbreviatus, quam folium multo brevior. Sepala lateralia usque ad apicem cohaerentia, leviter convexa, ovato-lanceolata, acuta, quam sepalum dorsale multo minora. Sepalum dorsale galeiforme, decem-nervium, laminam semi-ellipticam formans. Petala carnosae, anguste falcata, acuta, apice valde curvata, incrassata, triquetra, marginibus serrato-dentata. Labellum carnosum, rotundato-cordatum, infra medium utrinque angulatum, trinervium, nervis claviformibus, basi transverse incrassatum. Unguis trinervius. Columna carnosae, superne dilatata.

Secondary stems erect, 11-14 cm. long, about 2 mm. in diameter, invested below the middle with several brownish, closely appressed sheaths, monophyllous. Leaf 9-10 cm. long, 3.8 cm. wide, coriaceous, rigid, ovate-lanceolate, acuminate, acute, rounded at the base, clasping the stem. Peduncle about 2.5 cm. long, bearing two large flowers about 1 cm. apart, arising from a complanate sheath. Lateral sepals united to form an ovate-lanceolate acute lamina, 1.5 cm. long, 1 cm. wide, about twice longer than the petals. Upper sepal about 2 cm. long, 1 cm. wide when flattened out, hood-shaped, semi-elliptical in outline, obtuse. Petals 7 mm. long, 2 mm. wide near the middle, linear-falcate, sharply bent backward near the tip, thickened along the middle and at the tip, margin fimbriate-dentate. Labellum 6 mm. long, 6.5 mm. wide, orbicular-cordate, fleshy, with four callus-like thickenings at base in front of the three-nerved, oblong claw; abruptly narrowed below the middle with a reëntrant angle on each side; three-nerved, the lateral nerves slenderly claviform in outline, the middle one broadly clavate above the middle. Column about 2 mm. long, fleshy.

Allied to *P. cardiothallis* Reichb. f. from which it differs in the cordate labellum and coarsely fringed petals. *P. costaricensis* Schltr. is closely allied, but differs in having subequal sepals and an ovate-oblong labellum. *P. phyllocardia* Reichb. f. is very similar to *P. palliolata* in having toothed petals as shown by Reichenbach's type at Vienna, but the sepals are different, the coherent laterals being equal to the upper sepal.

COSTA RICA. Lankester  $\frac{192.}{1920}$ . (Type in Hort. Bot. Reg. Kew.)

**Stelis Johnsonii**, sp. nov.

Similitudinem gerit cum *S. microchila* Schltr. Radices albae, fibratae. Caules secundarii abbreviati, monophylli. Folium oblanceolatum, coriaceum, quam inflorescentia brevius. Pedunculus gracilis, multiflorus. Flores in sicco brunneo-rubentes, minuti. Sepala triangulari-ovata, trinervia. Petala flabellata, labello multo majora, apice incrassata, trinervia. Label- lum parvum, circuitu rhombicum, apice incrassatum, obtusum, prope medium callo instructum. Columna basi angustata, apice utrinque lobulo ornata.

Epiphyte. From base of secondary stem to tip of inflorescence 8.5 cm. high. Secondary stems erect, about 1 cm. long, when young concealed by two elongated tubular sheaths, monophyllous. Leaf 2.5–4 cm. long, up to 6 mm. wide, oblanceolate, obtuse, minutely bidentate at the apex, narrowed toward the base into a sulcate petiole about 4 mm. long. Peduncles with the lax-flowered raceme up to 7.5 cm. long, solitary or rarely two, unibracteate below the raceme. Raceme 3.5–4.5 cm. long. Floral bracts 1.5–2 mm. long, obliquely infundibuliform, acuminate, acute, shorter than the pedicels. Flowers twelve more or less, reddish-brown in dried specimens, 3 mm. apart on the rachis. Pedicel together with the ovary up to 2.5 mm. long. Sepals adherent at base, 1.5 mm. long, about 1.5 mm. wide, triangular-ovate, obtuse, conspicuously three-nerved. Petals 1 mm. long, 1.25 mm. wide near the apex, fan-shaped, thickened at the tip, three-nerved. Labellum .5 mm. long, rhombic in outline, triangular in side-view, margins erect, apex thickened, near the apex provided with a large fleshy callus. Column slender near the base, dilated upwards.

Allied to *Stelis bidentata* Schltr. from which it is distinguished by wider leaves and a different lip. In habit similar to the Costa Rican *S. obscurata* Reichb. f.

GUATEMALA, DEPARTMENT ALTA VERAPAZ, Chamá. *Harry Johnson* 252. May 15, 1920. Epiphytic on trees, flowers reddish, odorless. Altitude 900 feet. (Type in Herbarium of Oakes Ames 22114. Duplicate type in United States National Herbarium 1081106.)

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