Coelia macrostachya Lindl. var. *genuina* Reichenbach filius, Beitr. Orch. Centr.-Am. 41. 1866.
Coelia macrostachya Lindl. var. *integrilabia* Reichenbach filius, Beitr. Orch. Centr.-Am. 41. 1866.

Range: Mexico (Vera Cruz, Oaxaca and Chiapas), Guatemala, Honduras and Costa Rica.

2. BOTHRIOCHILUS BELLUS Lemaire, Illustr. Hort. 3: Misc. p. 30. 1856.

Bifrenaria bella Lemaire in Jard. Fleuriste 3: t. 325. 1853.
Coelia bella Reichenbach filius in Walp. Ann. 6: 218. 1861; Hooker in Bot. Mag. 108: t. 6628. 1882.

Range: Mexico (Chiapas), Guatemala and Honduras.
Bothriochilus bellus is new to the flora of Mexico, although it was to be expected there. The specimen seen was collected near the Guatemalan border.

40. POLYSTACHYA Hooker, Exot. Fl. 2: t. 103. 1825; Kränzlin in Fedde Repert. Beihefte 39: 1-136. 1926.

Epiphytic (or rarely terrestrial ?) caespitose, pseudobulbous (our) herbs. Inflorescence a raceme or panicle. Dorsal sepal free. Lateral sepals larger than the dorsal, forming a mentum at their bases. Petals much smaller than the sepals, usually linear. Lip non-resupinate, nearly entire or, usually, 3-lobed; disc of the lip usually with a conspicuous callus and often covered with fragile articulated or farinaceous cells. Column short, with a prominent column foot; pollinia 4, or four joined into two.

Polystachya is mainly African. The Mexican and Central American species are quite difficult taxonomically, possibly due to the excess description of new entities.

Ovary pubescent.
2. *P. masayensis*

Ovary glabrous.
Lip subrhombic, the lateral lobes obscure when the lip is expanded; sepals striped with red.
3. *P. lineata*

Lip not subrhombic, the lateral lobes prominent when the lip is expanded; sepals not striped with red.

1. *P. cerea*

1. POLYSTACHYA CEREA Lindley in Bot. Reg. 26: Misc. p. 86. 1840.

Polystachya minor Fawcett & Rendle in Journ. Bot. 48: 106. 1910; Fl. Jam. 1: 49, t. 7, figs. 6-7. 1910.

Range: Mexico (Vera Cruz, Quintana Roo, Oaxaca and Chiapas), Guatemala, Honduras, Nicaragua, Costa Rica, Panama, the West Indies and probably South America.

The following species, which have not been recorded from Mexico may belong here: *Polystachya caracasana* Reichb. f., *P. clavata* Lindl., *P. costaricensis* Schltr., *P. panamensis* Ames and *P. guatemalensis* Schltr.

Polystachya masayensis Reichb. f. is possibly only a variation of *P. cerea* with pubescent ovaries. *Polystachya cerea* apparently varies, in regard to pubescence, from a completely glabrous rachis to one quite densely pubescent.

2. POLYSTACHYA MASAYENSIS Reichenbach filius in Bonplandia 3: 217. 1855; Ames & Schweinfurth in Sched. Orch. 10: 77. 1930.

Range: Mexico (Chiapas), Guatemala, Nicaragua, Costa Rica and Panama.

Polystachya masayensis has not been reported from Mexico previously. I am inclined to doubt that the species is distinct from *P. cerea* Lindl.

3. POLYSTACHYA LINEATA Reichenbach filius in Saunders, Ref. Bot. 2: t. 80. 1869.

Polystachya lineata Reichb. f. var. *elatior* Reichenbach filius in Saunders, Ref. Bot. 2: t. 81. 1869.

Range: Mexico (San Luis Potosí (?), and Vera Cruz), Guatemala and Honduras.

EXCLUDED OR DUBIOUS SPECIES

POLYSTACHYA MINUTA Richard & Galeotti in Ann. Sci. Nat. ser. 3, 3: 27. 1845.

Unknown to me but probably not a Polystachya.

POLYSTACHYA LUTEOLA (Sw.) Hooker, Exot. Fl. 2: t. 103. 1825.

Epidendrum minutum Aublet, Pl. Guian. 2: 824. 1775.
Cranichis luteola Swartz, Fl. Ind. Occ. 3: 1433. 1799.
Dendrobium polystachyon Swartz, in Kongl. Vet. Acad. nya Handl. 21: 247. 1800.
Polystachya minuta Britton in Small, Fl. S. E. U. S. 328. 1903, *non* Richard & Galeotti.

Although reported from Mexico and Central America we have seen no undoubted specimens from this region.

41. GALEANDRA Lindley in Lindley & Bauer, Illustr. Orch. Pl. Gen. t. 8. 1832.

Terrestrial or epiphytic herbs. Stems leafy, becoming pseudobulbous thickened. Leaves distichous, plicate. Sepals free, equal, spreading. Petals similar to the sepals, sometimes broader. Lip entire or bilobed, adnate to the base of the column, with a conspicuous spur at the base; lateral lobes usually erect and infolding over the column. Column erect, short, footless; anther terminal, operculate, incumbent, imperfectly 2-celled; pollinia 4, ceraceous, often in pairs.

There are three species in Mexico and Central America of which the following one occurs in Mexico.

1. GALEANDRA BAUERI Lindley in Lindley & Bauer, Illustr. Orch. Pl. Gen. t. 8. 1832; Bateman, Orch. Mex. & Guat. t. 19. 1840; Lindley in Bot. Reg. 26, t. 49. 1840; L. O. Williams in Ann. Mo. Bot. Gard. 26: 284. 1939.
Galeandra Batemanii Rolfe in Gard. Chron. ser. 3, 12: 431. 1892.

Range: Mexico (Oaxaca), British Honduras, Guatemala, Honduras, Panama and French Guiana.

There are no Mexican specimens of this species in the Ames Herbarium but there is a photograph of the Liebmann & Galeotti specimens and the plates cited.

42. EPIDANTHUS L. O. Williams in Bot. Mus. Leafl. Harv. Univ. 8: 148. 1940

Small simple or branched epiphytic herbs with slender leafy, repent or caespitose stems, lacking pseudobulbs. Leaves

distichous, jointed at the base, plane or terete, linear or subfiliform, leaf-sheaths persistent on the stem. Inflorescence a terminal, distichous, fractiflex raceme. Sepals similar, free, reflexed or spreading. Petals narrower than the sepals, with a callus at the base. Lip simple or 3-lobed, adnate to the base of the column. Column short, terete, adnate to the lip or callus of the lip for its entire length; anther terminal, incumbent; pollinia 2, ceraceous.

A small Mexican and Central American genus of three species which have usually been referred to Epidendrum but has no special affinity with that genus.

1. EPIDANTHUS PARANTHICUS (Reichb. f.) L. O. Williams in Bot. Mus. Leafl. Harv. Univ. 8: 150. 1940.

Epidendrum paranthicum Reichenbach filius in Bot. Zeit. 10: 732. 1852; Ames, Hubbard & Schweinfurth, Genus Epidendrum in U.S. & Mid. Am. 145. 1936.
Epidendrum Sancti Ramoni Kränzlin in Vierteljahrschr. Naturforsch. Gesell. Zürich 74: 137. 1929.

Range: Mexico (Chiapas), Guatemala, Honduras, Costa Rica and Panama.

43. HEXALECTRIS Rafinesque, Neogenyt. 4. 1825.

Leafless, erect, saprophytic (or parasitic ?) herbs from a subarticulated often fleshy rhizome. Inflorescence a lateral raceme. Sepals subequal, erect or spreading, free, the laterals somewhat falcate. Petals similar to the sepals. Lip erect, about as long as the sepals, nearly entire or 3-lobed, obovate. Column long, erect, curved, narrowly winged above, footless; anther operculate, incumbent; pollinia 8, waxy, ovoid, subequal.

A small genus of 5 of 6 species. — Mr. Hinton reports, in one case, that the plants seem to be firmly fixed to tree roots.

Lip less than 1 cm. long.
2. *H. nitida*

Lip more than 1 cm. long.
Petals about 2 mm. broad.
1. *H. parviflora*

Petals 3 mm. or more broad.
3. *H. brevicaulis*

Lateral sepals more than 2.5 cm. long.

Lateral sepals 1-2 cm. long.
Lip obscurely 3-lobed; the sinus not prominent, not more than 1 mm. deep.
6. *H. spicata*
Lip prominently 3-lobed; the sinus 2-5 mm. deep.
The sinus 2-3 mm. deep; lamina of the lip about as broad as long.
4. *H. grandiflora*
The sinus 4-5 mm. deep; lamina of the lip longer than broad
5. *H. revoluta*

1. HEXALECTRIS PARVIFLORA L. O. Williams in Am. Orch. Soc. Bull. 9: 126, t. 1940.

Range: Mexico (Sonora and Jalisco).

A new addition to the genus which has much the superficial aspect of a Corallorrhiza.

2. HEXALECTRIS NITIDA L. O. Williams in Journ. Arn. Arb. 25: 81. 1944.

Range: Texas (U.S.A.), Mexico (Coahuila).

3. HEXALECTRIS BREVICAULIS L. O. Williams in Am. Orch. Soc. Bull. 9: 125, t. 1940.

Range: Mexico (Morelos, Michoacan and Guerrero).

Hexalectris brevicaulis is allied to *H. grandiflora* but differs in having larger flowers; the lip never so deeply 3-lobed; flowers in anthesis in late August and September not June and July.

4. HEXALECTRIS GRANDIFLORA (Rich. & Gal.) L. O. Williams in Journ. Arn. Arb. 25: 81. 1944.

Helaxectris mexicana Greenman in Proc. Am. Acad. 39: 77. 1903.

Corallorrhiza grandiflora Richard & Galeotti in Ann. Sci. Nat. ser. 3, 3: 19. 1845.

Range: Texas (U.S.A.) and Mexico (Coahuila, Nuevo Leon, Chihuahua, San Luis Potosí, Michoacan, Puebla and Oaxaca).

Hexalectris grandiflora is apparently fairly well distributed through the mountains of Mexico. It is closely allied to *H. spicata* (Walt.) Barnh.

5. HEXALECTRIS REVOLUTA Correll in Bot. Mus. Leafl. Harv. Univ. 10: 19, fig. 1941.

Range: Texas (U.S.A.), Mexico (Nuevo Leon).
Closely allied to *H. spicata* (Walt.) Barnh.

6. HEXALECTRIS SPICATA (Walt.) Barnhart in Torreya 4: 121. 1904.

Arethusa spicata Walter, Fl. Carol. 222. 1788.
Corallorhiza arizonica S. Watson in Proc. Am. Acad. 17: 379. 1882.
Range: Maryland and Indiana to Florida and Arizona (U.S.A.) and Mexico (Nuevo Leon).

44. CORALLORRHIZA [Haller] R. Brown in Aiton, Hort. Kew. ed. 2, 5: 209. 1813.

Leafless plants with articulated coralloid, minutely squamose rhizomes. Raceme lateral. Sepals unequal; the dorsal free; laterals forming a short mentum or gibbous at the base. Petals similar to the sepals or often smaller. Lip simple or three-lobed, usually contracted at the base, larger than the sepals or petals. Column slender, terete, often arcuate, narrowly winged or often prominently so at the base; anther operculate; pollinia 4, soft, ceraceous, broadly ovate.

Although there are not a great many species of Corallorrhiza their taxonomy is difficult. — Variant spellings of Corallorrhiza are: Corallorhiza and Coralliorrhiza.

Lip 3-lobed.
  Lip about 10 mm. long.
    3. *C. macrantha*
  Lip less than 7 mm. long.
    Lip less than 4 mm. long, lateral lobes (if present) obscure.
      6. *C. odontorhiza*
    Lip 4.5-7 mm. long, lateral lobes conspicuous.
      4. *C. maculata*
Lip entire, at least not conspicuously lobed.
  Lip fimbriate or lacerate.
    1. *C. fimbriata*
  Lip not fimbriate nor lacerate.
    Lip fleshy, with 3 deeply colored lines.
      Sepals and petals 8-10 mm. long.
        8. *C. Ehrenbergii*

Sepals and petals up to 7 mm. long.
9. *C. involuta*
Lip not fleshy, without 3 deeply colored lines, usually maculated with crimson.
Lip elliptic; plants of northern Mexico.
2. *C. elliptica*
Lip not elliptic; plants of central and south Mexico.
Lip with two calluses.
Lip 5.5-7 mm. long.
5. *C. Wisteriana*
Lip less than 4 mm. long.
6. *C. odontorhiza*
Lip without calluses.
7. *C. Williamsii*

1. CORALLORRHIZA FIMBRIATA Schlechter in Fedde Repert. 21: 339. 1925; in Fedde Repert. Beihefte 59: t. 59, fig. 236. 1931.

Range: Mexico (Mexico).

2. CORALLORRHIZA ELLIPTICA Schlechter in Beihefte Bot. Centralbl. 36, Abt. 2: 410. 1918.

Range: Mexico (Chihuahua, Coahuila).
I have seen no material of this species but have seen a sketch of it drawn by Schlechter.

3. CORALLORRHIZA MACRANTHA Schlechter in Beihefte Bot. Centralbl. 36, Abt. 2: 411. 1918; in Fedde Repert. Beihefte 59: t. 60, fig. 237. 1931.

Range: Mexico (Vera Cruz, Distrito Federal and Oaxaca) and Guatemala.
This is, perhaps, the largest flowered species of the genus.

4. CORALLORRHIZA MACULATA Rafinesque in Am. Mo. Mag. 2: 119. 1817.

Cladorhiza maculata Rafinesque in Am. Mo. Mag. 1: 429. 1817.
Corallorrhiza multiflora Nuttall in Journ. Acad. Sci. Nat. Sci. Phila. 3: 138, t. 7. 1823.
Corallorrhiza mexicana Lindley, Gen. & Sp. Orch. Pl. 534. 1840.

Corallorrhiza multiflora B. *occidentalis* Lindley, Gen. & Sp. Orch. Pl. 534. 1840.
Corallorrhiza maculata Lindl. var. *occidentalis* Cockerell in Torreya 16: 232. 1916.

Range: Widely distributed through the United States and adjacent Canada, Mexico (Vera Cruz, Zacatecas, Hidalgo, Tlaxcala, Mexico, Morelos, Jalisco, Michoacan, Oaxaca and Chiapas) and Guatemala.

Unfortunately we have been able to find no sound basis for maintaining *C. mexicana* as distinct from *C. maculata*. *C. maculata* is extremely variable, at least as it is understood at present.

5. CORALLORRHIZA WISTERIANA Conrad in Journ. Acad. Nat. Sci. Phila. 6: 145. 1829.

Range: Widely distributed in the United States, Mexico (Mexico and "south central Mexico").

Corallorrhiza Wisteriana may be only a variety, with entire lip, of *C. maculata* Raf. It is new to the flora of Mexico.

6. CORALLORHIZA ODONTORHIZA (Willd.) Nuttall, Gen. Am. Pl. 2: 197. 1818.

Cymbidium odontorhizon Willdenow, Sp. Pl. ed. 4, 4: 110. 1805.
Corallorrhiza Pringlei Greenman in Proc. Am. Acad. 33: 475. 1898.

Range: Eastern part of the United States, Mexico (Hidalgo, Distrito Federal, Morelos, Puebla, Michoacan, Guerrero, Oaxaca and Chiapas), Guatemala and Honduras.

7. CORALLORRHIZA WILLIAMSII Correll in Bot. Mus. Leafl. Harv. Univ. 9: 152, t. 3. 1941.

Range: Mexico (Morelos).

Very closely allied to *C. odontorhiza* (Willd.) Nutt. from which it differs in the narrower perianth segments, and in the ecallose lip which has a slightly different shape.

8. CORALLORRHIZA EHRENBERGII Reichenbach filius in Linnaea 22: 833. 1849.

Range: Mexico (Nuevo Leon, Mexico, Vera Cruz, Puebla and probably other states).

Quite similar to *C. striata* Lindl. and possibly the same.

9. CORALLORRHIZA INVOLUTA Greenman in Proc. Am. Acad. 33: 474. 1898.

Range: Mexico (Coahuila, Chihuahua, Mexico, Morelos, Puebla, Jalisco and Oaxaca).

Corallorrhiza involuta is somewhat allied to *C. Ehrenbergii* Reichb. f.

OBSCURE OR UNRECOGNIZED SPECIES

CORALLORRHIZA BULBOSA Richard & Galeotti in Ann. Sci. Nat. ser. 3, 3: 19. 1845; Finet in Bull. Soc. Bot. Fr. 55: 103, t. 2, figs. 25-31. 1908.

Range: Mexico (Oaxaca).

Mexico: Galeotti 5057; Diguet (fide Finet).

I have seen a photograph (poor) of the type and have Finet's figures. On the basis of the available evidence I am inclined to regard the species as a synonym of *C. maculata* Raf.

CORALLORRHIZA PUNCTATA Richard & Galeotti in Ann. Sci. Nat. ser. 3, 3: 19. 1845.

Range: Mexico.

There is no specimen of this species in Mus. d'Hist. Nat. Paris according to notes made by A. A. Eaton. It is unknown to me except by the meager description but judging from that it is not improbable that it is a synonym of *C. maculata* Raf.

45. CALANTHE R. Brown in Bot. Reg. 7: sub. t. 573. 1821.

Terrestrial herbs with very short leafy stems or the stems thickened into pseudobulbs. Leaves few, plicate, veined, often broad, contracted into a petiole at the base. Sepals subequal, free, spreading. Petals similar to the sepals or narrower. Lip spurred; claw of the lip connate with the column; lamina spreading, 3-lobed, the mid-lobe often bilobed. Column erect, short, footless; anther subterminal, operculate, incumbent;

pollinia 8, 4 in each cell of the anther, ceraceous. — (*Ghiesbreghtia* Richard & Galeotti in Ann. Sci. Nat. ser. 3, 3: 28. 1845).

The genus Calanthe is not common in this hemisphere but has many species in Africa, and in Oceania.

1. CALANTHE MEXICANA Reichenbach filius in Linnaea 18: 406. 1844; in Xenia Orch. 1: 205, t. 79, figs. 1-3. 1856.

Ghiesbreghtia calanthoides Richard & Galeotti in Ann. Sci. Nat. ser. 3, 3: 28. 1845.

Ghiesbreghtia mexicana "A. Rich. Gal." ex Reichenbach filius Xenia Orch. 1: 205, *in synon.* 1856.

Calanthe mexicana var. *retusa* Correll in Lloydia 10: 214. 1947.

Range: Mexico (Vera Cruz, Hialgo, Puebla, Oaxaca and Chiapas), Guatemala, Costa Rica, Panama and the West Indies.

46. BLETIA Ruiz & Pavón, Fl. Peruv. & Chil. Prodr. 119, t. 26. 1794.

Erect terrestrial herbs. Pseudobulbs subglobose, epigeous or hypogeous, occasionally tuber-like. Scapes lateral on the pseudobulbs, leafless. Leaves few or lacking, plicate, petiolate. Inflorescence simple or racemose. Sepals free or the laterals somewhat connate and gibbous at the base, subequal. Petals similar to the dorsal sepals. Lip free, erect, the base usually contracted, sometimes a little gibbous, entire or 3-lobed; the lateral lobes usually broad, parallel or their apices spreading; mid-lobe erect or recurved, often retuse or bilobed; disc often lamellate. Column elongated, semiterete, winged, often bi-auriculate at the base, footless or with a short foot. Anther operculate, incumbent; pollinia 8, ceraceous. — (*Thiebautia* Colla, Hort. Ripul. 139. 1824.).

The genus Bletia is a natural one but the species are difficult and generally not easily definable. We offer the present treatment of the Mexican species realizing that a monographic treatment will doubtless indicate many desirable changes.

In Mexico the greatest concentration of species of Bletia is in the mountains south of the great central plateau. All except one of the Mexican species is represented in this area.

Lip entire (species known only from Mt. Orizaba).
11. *B. Greenmaniana*

Lip 3-lobed.
Ovary papillose; flowers yellow or orange.
3. *B. adenocarpa*

Ovary not papillose; flowers not yellow or orange.
Lateral lobes of the lip basal, small.
10. *B. secunda*

Lateral lobes of the lip not basal, usually not small.
Mid-lobe of the lip with a distinct isthmus.
Margin of the mid-lobe of the lip undulate.
14. *B. macristhmochila*

Margin of the mid-lobe of the lip not undulate.
15. *B. fulgens*

Mid-lobe of the lip without a distinct isthmus.
Mid-lobe of the lip about equal in length to the apices of the lateral lobes.
12. *B. jucunda*

Mid-lobe of the lip conspicuously longer than the lateral lobes.
Lip as broad as long.
8. *B. ensifolia*

Lip longer than broad.
Leaves less than five times longer than broad; apical lobe of the lip usually as broad as the basal lobes.
Lip with 1-3 terminal lamellate calluses, not verrucose.
9. *B. gracilis*

Lip lacking terminal lamellate calluses or if present the lip verrucose as well.
9a. *B. gracilis* var. *Roezlii*

Leaves if present more than five times longer than broad; apical lobe of the lip usually narrower than the basal lobes.
Lip ecarinate.
2. *B. Nelsonii*

Lip carinate.
Dorsal sepal 2.5-4.5 cm. long, not linear.
13. *B. reflexa*

Dorsal sepal less than 2.5 cm. long or if that long then linear.
Sepals and petals linear to elliptic-linear.
1. *B. Parkinsonii*

Petals and sepals (either or both) broader than linear or elliptic-linear.

Leaves subfiliform or narrowly linear, rarely more than 5 mm. broad.
Mid-lobe of the lip less than 1/2 as broad as the basal lobes.
7. *B. tenuifolia*
Mid-lobe of the lip slightly narrower than the basal lobes.
5. *B. Nagelii*
Leaves elliptic-linear or broader, usually 10 mm. or more broad.
Sinus between the mid-lobe and the lateral lobes 1/2 as long as the mid-lobe.
4. *B. Palmeri*
Sinus between the mid-lobe and the lateral lobes, if present, not 1/2 as long as the mid-lobe; polymorphic species.
6. *B. purpurea*

1. BLETIA PARKINSONII Hooker in Bot. Mag. 66: t. 3736. 1839.

Range: Mexico (Morelos, Puebla and Guerrero).

Our specimens differ from the plate of the type in having the mid-lobe of the lip more or less fimbriated and the petals obtuse instead of acute. The nearest ally is *B. Nelsonii* Ames, a native of Oaxaca, which may not be distinct.

2. BLETIA NELSONII Ames in Proc. Biol. Soc. Wash. 35: 82. 1922.

Range: Mexico (Oaxaca).

Bletia Nelsonii is very closely allied to *B. Parkinsonii* Hook. More material may show them to be inseparable.

3. BLETIA ADENOCARPA Reichenbach filius in Bonplandia 4: 216. 1856.

Range: Mexico (Mexico, Michoacan, Guerrero and Morelos).

Bletia adenocarpa is the only yellow flowered species of the genus which is known to me. Nagel indicated the color as "Empire yellow" (Ridgeway). The species is apparently closely allied to *B. Palmeri* S. Wats.

4. BLETIA PALMERI S. Watson in Proc. Am. Acad. 26: 153. 1891.

Range: Mexico (Durango, Nayarit and Jalisco).

Bletia Palmeri is very closely allied to *B. adenocarpa* Reichb. f. It has more lamellate calluses, smooth ovaries and apparently not yellow flowers.

5. BLETIA NAGELII L. O. Williams in Bot. Mus. Leafl. Harv. Univ. 12: 247. 1946.

Range: Mexico (Oaxaca).

A species with white or light pink flowers and long linear leaves.

6. BLETIA PURPUREA (Lam.) de Candolle in Mém. Soc. Phys. Hist. Nat. Genève 9: 97, 100. 1841; Huit. Not. Pl. Rar. 23. 1841.

Limodorum purpureum Lamarck, Encycl. Méth. Bot. 3: 515. 1791.
Limodorum verecundum Salisbury, Prod. Stirp. 9. 1796.
Limodorum floridum Salisbury, Prod. Stirp. 9. 1796.
Bletia verecunda R. Brown in Aiton, Hort. Kew. ed. 3, 5: 206. 1813.
Bletia florida R. Brown in Aiton, Hort. Kew. ed. 2, 5: 206. 1813; Lindley in Bot. Reg. 17: t. 1401. 1831.
Bletia pallida Loddiges, Bot. Cab. 7: t. 629. 1822.

Range: Florida (U.S.A.), Mexico (Vera Cruz, Tabasco, Mexico, Morelos, Michoacan, Guerrero, Oaxaca and Chiapas), British Honduras, Guatemala, Honduras, Costa Rica, Panama, the West Indies, Colombia and Venezuela.

Bletia purpurea has usually gone under the name of *Bletia tuberosa* (L.) Ames (*Limodorum tuberosum* L.) but that name belongs to the plant generally called *Calopogon pulchellus* (Salisb.) R. Br.

We have placed *Bletia florida* (Salisb.) R. Br. here as a synonym, which is somewhat at variance with most recent authors, as we are unable to find satisfactory characters by which it may be separated.

7. BLETIA TENUIFOLIA Ames and Schweinfurth in Bot. Mus. Leafl. Harv. Univ. 1, No. 10: 6, fig. 1933.

Range: Mexico (Chiapas).

8. BLETIA ENSIFOLIA L. O. Williams in Bot. Mus. Leafl. Harv. Univ. 12: 245. 1946.

Range: Mexico (Durango, Nayarit and Jalisco).
An interesting species with narrow ensiform leaves.

9. BLETIA GRACILIS Loddiges, Bot. Cab. 20: t. 1977. 1833; Lindley in Bot. Reg. 20: t. 1681. 1835.

Range: Mexico (Morelos, Mexico, Michoacan and Guerrero), reported from Guatemala.
Bletia gracilis is one of the most distinctive of the Mexican Bletias. Until recently it has been little known in herbaria.

9a. BLETIA GRACILIS Lodd. var. ROEZLII (Reichb. f.) L. O. Williams in Ceiba 1: 188. 1950.

Bletia Roezlii Reichenbach filius in Linnaea 4: 7. 1877.
Bletia papillifera Ames in Bot. Mus. Leafl. Harv. Univ. 1, No. 6: 5, t. 1933.

Range: Mexico (Chihuahua, Morelos, Michoacan, Guerrero and Oaxaca), Guatemala and Honduras.
The variety is distinguished from the species in having the nerves of the lip raised into verrucose lines.

10. BLETIA SECUNDA Lindley in Bot. Reg. 26: Misc. p. 57. 1840.
Eulophia dilatata Lindley in Ann. & Mag. Nat. Hist. 10: 184. 1842.

Range: Mexico (Michoacan, Jalisco, Morelos, Mexico and Oaxaca).
One of the most distinctive of the Mexican species.

11. BLETIA GREENMANIANA L. O. Williams in Bot. Mus. Leafl. Harv. Univ. 12: 246. 1946.

Range: Mexico (Vera Cruz).
Bletia Greenmaniana is unusual in that the lip is essentially entire, not 3-lobed as in all of the other species of the genus. The species is named for the late Dr. J. M. Greenman who studied the specimens in 1897 and indicated them as unusual.

12. BLETIA JUCUNDA Linden & Reichenbach filius in Bonplandia 3: 221. 1855.

Range: Mexico (Michoacan).

I think that it is quite possible that this is a form of *B. reflexa* Lindl. The record of this species from Reichenbach's herbarium seems to differ only in having an extremely short mid-lobe of the lip.

13. BLETIA REFLEXA Lindley in Bot. Reg. 21: t. 1760. 1835.

Limodorum Lankesteri Ames & Schweinfurth in Sched. Orch. 10: 78. 1930.

Bletia Lankesteri Ames, Hubbard & Schweinfurth in Bot. Mus. Leafl. Harv. Univ. 3: 41. 1934.

Bletia amabilis Schweinfurth in Bot. Mus. Leafl. Harv. Univ. 6: 62. 1938.

Range: Mexico (Sonora, Durango, Sinaloa, San Luis Potosí, Vera Cruz, Guanajuato, Distrito Federal, Mexico, Morelos, Jalisco, Michoacan, Guerrero, Oaxaca and Chiapas), Guatemala, Honduras, Costa Rica and Panama.

Bletia reflexa is probably the commonest species of Bletia in Mexico, and one of the most variable.

14. BLETIA MACRISTHMOCHILA Greenman in Proc. Am. Acad. 32: 297. 1897.

Range: Mexico (Sinaloa, Puebla, Morelos, Mexico, Michoacan and Jalisco).

A handsome species which is characterized by the long isthmus of the mid-lobe of the lip. It is closely allied to *B. reflexa* Lindl.

15. BLETIA FULGENS Reichenbach filius in Bonplandia 3: 221. 1855.

Range: Mexico (Mexico, Morelos, Jalisco, Michoacan, Guerrero and Oaxaca).

Bletia fulgens is an interesting species which is easily distinguished by the narrow mid-lobe of the lip.

OBSCURE SPECIES

BLETIA ANOMALA Richard & Galeotti in Ann. Sci. Nat. ser. 3, 3: 23. 1845.

Mexico.

The type is not at Paris and the species cannot be determined.

BLETIA COCCINEA Llave & Lexarza, Nov. Veg. Descr., Orch. Opusc. 16. 1825.

Mexico.

Authentic specimens are not known to exist and in this technical genus it is thought best not to attempt to make determinations from descriptions.

BLETIA CAMPANULATA Llave & Lexarza, Nov. Veg. Descr., Orch. Opusc. 17. 1825.

Limodorum campanulatum Ames & Schweinfurth in Sched. Orch. 10: 79, in textu. 1930.

Mexico.

See comment under *B. anomala*.

BLETIA LILACINA Richard & Galeotti in Ann. Sci. Nat. ser. 3, 3: 23. 1845.

Range: Mexico (Oaxaca).

Mexico: Galeotti 1586.

The type, according to a manuscript note of A. A. Eaton who studied it, is a "Flowerless fragment 18 cm. long from bulb up. Slender, no leaves." If a better record does not exist in Reichenbach's herbarium, or elsewhere, the species can probably never be accurately determined.

BLETIA PUNCTATA Llave & Lexarza, Nov. Veg. Descr., Orch. Opusc. 15. 1825.

Range: Mexico.

See comment under *B. coccinea* Llave & Lex.

47. CHYSIS Lindley in Bot. Reg. 23: t. 1937. 1837.

Epiphytic herbs. Stems fleshy, fusiform, pseudobulbous, sheathed at the base, foliose at the apex. Inflorescence lateral, often from the axils of the lower leaves. Flowers several, large and fleshy. Sepals free from one another, spreading; the laterals broadest, somewhat oblique and adnate to the column-