

9. HARVEY, ATHELSTAN GEORGE. Douglas of the fir, a biography of David Douglas, botanist. 290 p., illus. Cambridge, Mass., 1947.
10. HOOKER, WILLIAM JACKSON. Flora Boreali-Americana. 2 v., illus. London, 1829-1840. (Coniferae, 2: 161-167. 1839.)
11. ———. A brief memoir of the life of Mr. David Douglas, with extracts from his letters. Comp. Bot. Mag. 2: 79-182, illus. 1836.
12. KECK, DAVID D. Bibliographic notes on *Abies bracteata* and *Pinus Coulteri*. Madroño 8: 177-179. 1946.
13. LAMBERT, AYLMEYER BOURKE. A description of the genus *Pinus*, with directions relative to the cultivation, and remarks on the uses of the several species: also descriptions of many other new species of the family of Coniferae. Ed. 3 (8°), 2 v., illus. London, 1832.
14. LAWSON, PETER, and SON. The agriculturist's manual. 430 p. Edinburgh, London, etc., 1836.
15. [LINDLEY, JOHN.] *Abies*. In Penny Cyclopaedia 1: 29-34, illus. London, 1833.
16. LITTLE, ELBERT L., JR. Notes on nomenclature in Pinaceae. Amer. Jour. Bot. 31: 587-596. 1944.
17. ———. David Douglas' new species of conifers. Phytologia 2: 485-490. 1948.
18. LOUDON, J. C. Arboretum et fruticetum Britannicum. 8 v., illus. London, 1838.
19. RENKEMA, H. W. Aylmer Bourke Lambert en zijn "Description of the Genus *Pinus*." Wageningen Landbouwhooges. Meded. 32 (8). 30 p., illus. 1928 [1929].
20. RENKEMA, H. W., and ARDAGH, JOHN. Aylmer Bourke Lambert and his "Description of the genus *Pinus*." Linn. Soc. London, Jour. Bot. 48: 439-465. 1930.
21. STAPF, O. Index Londinensis to illustrations of flowering plants, ferns and fern allies. 6 v. Oxford, 1929-1931.
22. SURINGAR, J. VALCKENIER. Plantenverzamelaars. I. David Douglas de plantenverzamelaar in het verre westen ten tijde der Indianen- en buffelheerschappij. Nederland. Dendrol. Ver. Jaarb. 2 (1926): 69-97, illus. 1926 [1927].
23. ———. Persoonlijke opvattingen bij de toepassing der Internationale Botanische Regels der Nomenclatuur . . . Wageningen Landbouwhooges. Meded. 30 (2). 84 p. 1927. English translation: Personal ideas about the application of the International Rules of Nomenclature, or, as with the rules themselves, international deliberation? I. Some denominations of conifer-species. Rijks Herb. Leiden Meded. 55. 76 p., illus. 1928.

SOME NEW ARACEAE FROM SOUTHERN MEXICO

EIZI MATUDA

***Monstera roseospadix* sp. nov.** Planta epiphitica scandens, caulibus glabris crassis 4-5 cm. diam. nodosis; petiolis gracilibus 50 cm. longis usque ad 40 cm. vaginatis, geniculo ca. 5 cm. longo; laminis perfectis, oblongo-ellipsoideis, basi semitruncatis, apice semiacutis, 45-58 cm. longis 25-28 cm. latis; nervis pinnatis numerosis utroque ca. 50; pedunculis 30 cm. cum bractea amplectente albi-virescente 35 cm. longis; spatha viridiflava decidua 28-30 cm. longa cuspidata, 7-8 cm. lata; spadice usque ad 18 cm. longo, 1.5 cm. diam. roseo, floribus hermaphroditis sine perianthius.

Mexico. Chiapas: in wet forest near Finca California, Col. Turquía, Escuintla, at 150 m. altitude, 8 September 1947, *Matuda*

17782 (type, Matuda Herbarium; isotypes, Instituto de Biología de Mexico, and Chicago Natural History Museum).

When the floral organs mature the spathe falls down and the rose-colored spadix is exposed. The stigma is sessile on a square disk, under which there is a one-celled ovary with 6 to 12 ovules. Ripe fruit has not yet been collected.

The exact affinity of *M. roseospadix* among the species hitherto described from Mexico and Central America is not certain. It is characterized by the geniculate petiole, thin, entire, large leaf, and bright rose, elongated spadix. The adventitious roots are employed as fine withes, *mimbre*.

***Monstera chiapensis* sp. nov.** Planta epiphitica scandens, radicibus aeriis; caulibus crassis 3–3.5 cm. diam.; petiolo ut videtur terete 27–40 cm. longo, longitudinaliter 25–38 cm. vaginato; lamina in sicco chartacea oblongo-ovata 45–65 cm. longa et prope medium 27–35 cm. lata, ad apicem obtusa vel breviter acuta; nervis 12 pinnatis; in vivo foliorum nervis primariis dorso albis incrassatis notabilibus; pedunculo terete 10–13 cm. longo, 1.2 cm. diam.; spatha decidua, non visa; spadice sessile cylindrico apice rotundato 17–20 cm. longo, 2.5–3 cm. diam. lacteo; floribus hermaphroditis sine perianthium.

Mexico. Chiapas: in wet, advanced, tropical forest near Finca California, Col. Turquia, Escuintla, at 150 m. altitude, 29 August 1947, *Matuda 17789* (flower); in wet forest of Finca Esperanza, at 200 m. altitude, about 10 km. northeast of Escuintla, *Matuda 17786* (fruit) (type, Matuda Herbarium; isotype, Instituto de Biología de Mexico).

In fresh material the dorsal surface of the leaf is noteworthy because of the conspicuous, broad, milky-white principal veins. The stigma is sessile on the ovary; the stigma and ovary are 6 mm. long. The pistil is surrounded by four stamens, each consisting of a thin, broad filament and two oblong, 2-celled anthers (fig. 1c). The stamens are 6–7 mm. long when mature. The fruit contains a single seed which is oblong and 7 mm. long, and has a white testa and black endosperm.

In the genus there are very few species known with entire leaves and ours is most distinct because of its large, entire leaves with broad, white veins on their dorsal surface.

***Monstera acacoyaguensis* sp. nov.** Planta scandens epiphitica glabra, ramulorum internodiis superioribus ca. 7–10 cm. longis et 3 cm. diam. crassis cum radicibus adventitiis semi-compressis non cylindricis; petiolo ut videtur terete 42–52 cm. longo ca. 1.5 cm. diam. et e basi circa 35–40 cm. longi-vaginato, geniculo ca. 4 cm. longo; lamina coriacea rigidula oblongo-ovata 55–60 cm. longa et 32–37 cm. lata, ad apicem semi-acuta, integerrima, irregulariter perforata, nervis primariis 14–16; pedunculo crasso vix ultra 30

cm. longo terete 2 cm. diam.; spatha lactea dense coriacea, decidua, 23–27 cm. longa, 16–18 cm. lata breviter cuspidata, concava; spadice in vivo lacteo, sessili 15–19 cm. longo, cylindrico, ad apicem rotundato, 2.5 cm. diam.

Mexico. Chiapas: in shaded woods or forest, along the Rio Grande, Acacoyagua, near Escuintla, at about 100 m. altitude, 25 May 1948, *Matuda 17853* (type, Matuda Herbarium; isotype, Chicago Natural History Museum).

Monstera acacoyaguensis, because of the general aspect of its leaves, is most often confused with *M. pertusa* which occurs very commonly in the Pacific slope of Chiapas, from 150 m. to 500 m. altitude or more, and is well known to natives as *mimbre* on account of its useful adventitious roots. But our new species is quite distinct because of its longer petiole and the fact that this petiole is sheathed for four-fifths of its length, while in *M. pertusa* it is sheathed for the whole length of the petiole. Also, the adventitious roots of our species are not used as *mimbre*.

Philodendron linearipetiolatum sp. nov. Caulibus ut videtur gracilibus, atque dense foliatis scandentibus, petiolo alato, gracili 7–8 cm. longo, vaginato; lamina laevigata integerrima oblongo-lanceolata, ad apicem cuspidata, ad basin anguste rotundata, 10–15 cm. longa, 3–5 cm. lata; nervis obsoletis pinnatis utroque 6–8; spatha semi-sessili ochroleuca saepe 10 vel 12 cm. longa, oblongo-elliptica concava ad apicem breviter cuspidata, ad basin rotundato-truncata; spadice breviter stipitato vel sessili, 8–9 cm. longo, 1–1.2 cm. diam. cylindrico (fig. 1a).

Mexico. Chiapas: in wet, advanced forest of Finca Corcega, about 14 km. northeast of Pueblo Nuevo Comaltitlan, 12 May 1948, *Matuda 17781* (type, Matuda Herbarium; isotypes, Instituto de Biologia de Mexico and Chicago Natural History Museum).

In the inner, concave part of the spathe at first appear thin dark red lines, but these, when the flower is mature, exude a dark red, mucous, sticky sap similar to that seen in *P. calderense*. The lower one-fourth of the spadix bears pistillate flowers, while the upper three-fourths is staminate. Fruits have not yet been collected. The winged petiole is prolonged at the base and sheathes the stem at the node. The flower-spathe grows from the upper node, consequently the sheathed petiole which embraces the spathe is always broader than the others (fig. 1a.). *Philodendron alatum* and *P. guttiferum* seem to be related because of their winged petioles, but apparently our new species is well separated from the former of these two Peruvian species by its much smaller leaf, and from the latter by its much shorter internodes which are only 1.5 cm. long. In general, the spathe and floral structure are conspicuously similar to those of *P. calderense* which was collected recently in the same region (*Matuda 17786, 17790*), but our

species is readily distinguished by its much smaller flower, as well as by its smaller leaf with winged petiole. The petiole of *P. calderense* in herbarium specimens often appears to have a winged petiole because the sheath of the petiole has opened widely (especially in the case of specimens dried by artificial heat), but the sheathed petiole of *P. calderense* in its natural state is so com-

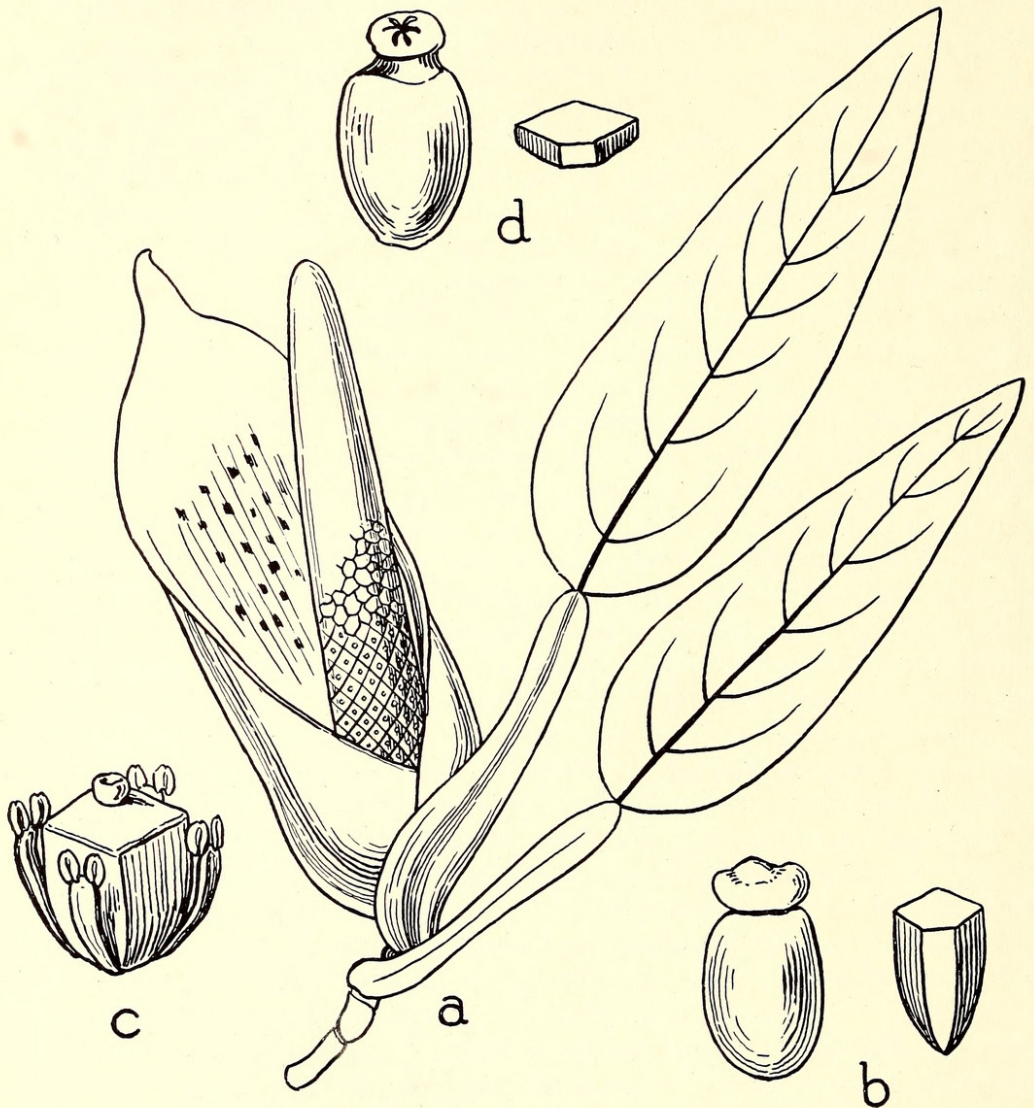


FIG. 1. Mexican Araceae: a, *Philodendron linearipetiolatum* Matuda showing general aspect of flower and leaves with winged petioles, $\times 2/3$; b, *Philodendron linearipetiolatum*, staminate and pistillate flowers, $\times 9\frac{1}{2}$; c, *Monstera chiapensis* Matuda, floral organ, $\times 6\frac{1}{2}$; d, *Philodendron escuintlensis* Matuda, floral organ, $\times 6\frac{1}{2}$.

pletely closed that it seems like a cylindrical tube, and this is the reason that the plant is called *chupa-pito* by natives. *Philodendron linearipetiolatum* is well distinguished by its handsome little leaves with petioles that are winged in the natural state as well as in

dried specimens, quite unlike that of any other species known from Mexico and Central America.

Philodendron escuintlensis sp. nov. Planta epiphitica scandens, caule ut videtur crasso 2–3 cm. diam.; petiolo 25–42 cm. longo usque $\frac{2}{3}$ longitudinis vaginato; lamina chartacea oblongo-cordata 25–28 cm. longa, 18 cm. lata; nervis primariis utroque circa 14 pallidis elevatis; pedunculo $\frac{10}{12}$ cm. longo vel longiore gracili; spatha ochroleuca 20 cm. longa, ad apicem cuspidata, 7–8 cm. lata; spadice sessili 15 cm. longo 1–1.2 cm. diam. cylindrico, e basi $\frac{1}{3}$ longitudinis pistillato et $\frac{2}{3}$ staminato (fig. 1d).

Mexico. Chiapas: in wet forest of Salto de Agua, 16 km. northeast of Escuintla, at 500 m. altitude, 30 August 1947, *Matuda 17783* (type, Matuda Herbarium; isotypes, Instituto de Biología de Mexico, and Chicago Natural History Museum); Jilguero, 20 km. east of Escuintla, in advanced forest at 350 m. altitude, *Matuda 17784*.

Only the upper half of the spathe opens when the floral organs are mature, and it closes completely when pollination has been accomplished and remains closed until the fruit is ripe. On the inner parts of the spathe are found many thin, dark, red lines extending in a vertical direction. When the flowers are mature, dark, red, mucous sticky sap exudes from these lines as in the case of *P. calderense* and *P. linearipetiolum*, described above. The adventitious roots produce very fine *mimbre*. In the genus there are many related species similar in leaf-form, but the long petioles and thinner leaves readily distinguish our species.

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Matuda Herbarium,
Escuintla, Chiapas, Mexico.

THE CHASE OAK, A NEW GIANT HYBRID OAK FROM SANTA CLARA COUNTY, CALIFORNIA

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In December of 1947 a letter from Harold S. Chase of Santa Barbara, California to H. E. McMinn of Mills College contained information about an unusually large tree (fig. 1) which had been identified as $\times$ *Quercus Morehus* Kell., oracle oak, a hybrid between *Q. Wislizenii* A. DC. and *Q. Kelloggii* Newb. This tree is growing on the Castro Valley Ranch about six miles southwest of Gilroy, California. Since all known specimens of the oracle oak are small trees rarely more than 40 feet high and with a spread of not more than 30 feet, this tree aroused immediate interest.



Matuda, Eizi and Herbarium, Matuda. 1949. "SOME NEW ARACEAE FROM SOUTHERN MEXICO." *Madroño; a West American journal of botany* 10, 47-51.

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