

PLANTS OF THE TRES MARIAS ISLANDS.

By J. N. ROSE,

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The Tres Marias, lying about 65 miles off the west coast of Mexico in about 22° north latitude, are among the last of the west coast islands to be studied. All the others have yielded valuable botanical results, but almost nothing has been known of the flora of these islands except in a commercial way. Several botanical expeditions had been planned to explore the islands, but heretofore none had succeeded in reaching them. They are out of the line of traffic, although some of the smaller steamers stop now and then for fuel, and small boats occasionally ply between the islands and San Blas. They are usually visited during the dry season, as it is dangerous to attempt the passage during summer and autumn.

Mr. Nelson visited the islands at the very close of the dry season, when the vegetation is at its poorest, and this accounts for the small number of species collected. His collection contains 154 numbers (Nos. 4179 to 4333) and 136 species, mostly from Maria Madre, the largest of the islands, and only a few from Maria Magdalena and Maria Cleofa. In the subjoined list the plants are from Maria Madre unless otherwise stated.

There are no cultivated plants on the islands, except one or two grasses. *Pithecolobium dulce*, perhaps introduced, is common and much prized for its delicious fruit. The exportation of Spanish cedar (*Cedrela* sp.) has long been the chief source of income for the islands, but the available supply of this timber is now nearly exhausted. The flora is purely tropical and does not differ essentially from that of the adjacent mainland. Many of the species have not been reported from the mainland opposite, but this is doubtless because the flora is not well known, since these species have been collected either farther north or south. One hundred and twelve species are named below, of which 11 are new. Many of them have a wide distribution in tropical America; all but 6, except the new species, have heretofore been reported from Mexico; 24 range northward into the United States; 64 extend into Central America; 61 into South America; 44 into the West Indies, and 21 are found in the Old World.

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The following report must be regarded as a preliminary one. The specimens upon which it is based are simply those in fruit or flower at the close of the dry season, a considerable number of which have not been determined specifically and a few not even generically. As will be seen from the list below, mostly trees and shrubs were collected, while the herbs, which spring up in great variety during the rainy season, are scarcely represented.

The Gamopetalæ and Apetalæ have been named by Mr. J. M. Greenman, Gramineæ by Prof. F. Lamson-Scribner, and Filices by George E. Davenport.

The following new species and varieties are based on this collection:

Ægiphila pacifica Greenman.

Beloperone nelsoni Greenman.

Buxus pubescens Greenman.

Cordia insularis Greenman.

Erythrina lanata Rose.

Euphorbia nelsoni Millspaugh.

Euphorbia subcœrulea tresmaria Millsp.

Gilibertia insularis Rose.

Pilocarpus insularis Rose.

Ternstrœmia maltbya Rose.

Zanthoxylum insularis Rose.

Zanthoxylum nelsoni Rose.

ANNOTATED LIST OF SPECIES.

Cissampelos pareira L.

Common in Mexico and other tropical countries. May 3 to 25 (Nos. 4233 and 4262).

Argemone ochroleuca Sweet.

Widely distributed throughout Mexico. Maria Magdalena Island, May 26 to 28, 1897 (No. 4318).

Capparis cynophallophora L.

Found along the coast of Mexico, South America, and the West Indies. May 3 to 25 (No. 4302).

Capparis breynia L.

Common in Mexico, South America, and the West Indies. May 3 to 25 (No. 4219).

Cratæva tapia L.?

Perhaps this is the species which has been reported from Acapulco and Mazatlan. May 3 to 25 (No. 4274.)

Ternstrœmia maltbya Rose, sp. nov.

Tree 3 to 9 meters high; leaves obovate, entire, obtuse, glabrous, thickish, not black-punctate beneath, 5 to 10 cm. long; flowers solitary; peduncles 2.5 to 3.5 cm. long becoming curved, bracteate a short distance below the calyx; sepals 5, orbicular, 8 to 10 mm. in diameter; petals united at base, acute; stamens numerous; fruit (immature) ovate, 20 mm. long, two-celled; seeds red.

This species is in all probability Seeman's No. 2148, collected on the road from Mazatlan to Durango and enumerated in the *Biologia Centrali-Americana* without specific name.

Collected on Maria Madre Island, May, 1897, by T. S. Maltby (No. 105) and E. W. Nelson (No. 4242); by J. N. Rose near Colomo, Sinaloa, July, 1897 (No. 1675).

Wissadula hirsutiflora (Presl) Rose.

The type of this species came from Acapulco. It is probably common on the west coast, although its distribution and specific limits are not well known. May 3 to 25 (No. 4250).

Abutilon reventum Watson.

This species extends as far north as Arizona. May 3 to 25 (No. 4203).

Hibiscus tiliaceus L.

A common tree in most tropical countries. Maria Magdalena Island, May 26 to 28 (No. 4328a).

Melochia tomentosa L.

Common throughout tropical America. May 3 to 25 (No. 4205).

Guazuma ulmifolia Lam.

Common throughout tropical America. Maria Magdalena Island, May 26 to 28 (No. 4325).

Heteropterys floribunda H. B. K.

Common in Mexico and Central America.

Maria Magdalena Island, May 26 to 28 (No. 4323).

Guaiacum coulteri ? Gray.

Seemingly common on the west coast of Mexico. Island specimens do not correspond with the form found on the mainland and may represent an undescribed species. May 3 to 25 (No. 4180).

Zanthoxylum insularis Rose, sp. nov.

Tree 6 to 20 meters high, thornless; leaves oddly pinnate; leaflets 6 to 7 pairs, opposite, sessile, obovate to spatulate, obtuse or retuse, 2 to 3.5 cm. long, crenate, with large pellucid dots between the teeth and small scattered dots over the surface, glabrous; flowers unknown; fruit small, in a rather compact panicle; pedicels very short; stipe short and thick.

Collected by E. W. Nelson on Maria Madre Island. May 3 to 25, 1897 (No. 4278).

Zanthoxylum nelsoni Rose, sp. nov.

Tree 7.5 to 20 meters high, thornless(?); leaves oddly pinnate; leaflets about 6 pairs, distant, opposite, shortly petioled, 5 to 11 cm. long, rounded at base, long-acuminate, crenate, glabrous on both sides, thickly set with pellucid dots; inflorescence in small compact panicles; perianth complete; petals 4 (?); fruit large in dense head-like clusters, not stipitate.

A very peculiar species, unlike any Mexican one known to me. Collected by E. W. Nelson on Maria Madre Island. May 3 to 25, 1897 (No. 4279).

Pilocarpus insularis Rose, sp. nov.

Tree 3 to 6 meters high, glabrous throughout; leaflets usually in threes, some solitary or in rows, 5 to 7.5 cm. long, retuse at apex, cuneate at base, in the lateral ones more or less oblique; midvein prominent, lateral veins indistinct below, not very prominent above; racemes short and compact, 5 to 10 cm. long; fruiting pedicels horizontal, 16 mm. long; ovary deeply 4 or 5-lobed or parted, 1 to 4 lobes not maturing.

This species is near *P. longipes* of Mexico, but with somewhat different leaves, more compact inflorescence, etc. Collected by E. W. Nelson on Maria Madre Island. May 3 to 25, 1897 (No. 4307).

Amyris sp.

May 3 to 25, 1897 (No. 4237).

Picramnia sp.

A tree 4.5 to 7.5 meters high; flowers said to be greenish, but none with specimens. Much resembling the South American species *P. ciliata* Mast., but without flowers or fruit. Exact identification is doubtful. May 3 to 25 (No. 4276).

Ochna sp.

May 3 to 25 (No. 4238).

Bursera gummifera Jacq.

Common throughout tropical Mexico, Central America, the West Indies, and extending into Florida. May 3 to 25 (No. 4227).

Guarea sp.

May 3 to 25 (Nos. 4222 and 4230).

Trichilia spondioides Swartz.

Common in tropical America. May 3 to 25 (Nos. 4214 and 4309).

Ximenia americana L.

Common in most tropical countries. May 3 to 25 (No. 4224).

Schœpfia schreberi Gmel.

Seemingly rare, but has been collected in Mexico and South America. May 3 to 25, 1897 (No. 4271).

Hippocratea sp.

Maria Magdalena Island, May 26 to 28 (No. 4320). Maria Madre Island, May 3 to 25 (No. 4226).

Colubrina arborea Brandegeë.

Reported from Lower California and the west coast of Mexico. May 3 to 25 (No. 4213).

Cissus sicyoides L.

A common species in tropical America. May 3 to 25 (No. 4198).

Serjania mexicana Willd.

A common species in tropical America. May 3 to 25 (No. 4231).

Paullinia sessiliflora Radl.

Heretofore only known from the type specimens collected by Dr. Edward Palmer in the State of Colima, Mexico. May 3 to 25 (No. 4210).

Urvillea ulmacea H. B. K.

Common in Mexico and northern South America. May 3 to 25 (No. 4277).

Cardiospermum corindum L.

A widely distributed species. Maria Magdalena Island, May 26 to 28 (No. 4328).

Crotalaria lupulina ? H. B. K.

Perhaps this species, which is common in Mexico, and extends into the United States. May 3 to 25 (No. 4248).

Tephrosia sp.

May 3 to 25 (No. 4193).

Desmodium sp.

May 3 to 25 (No. 4287).

Erythrina lanata Rose, sp. nov.

A small tree, 4.5 to 7.5 meters high, with a trunk 10 cm. in diameter; branches glabrous, bearing mostly single infrastipular spines; leaflets triangular, shortly acuminate, 5 to 10 cm. long, 5 to 7.5 cm. broad, glabrous or nearly so.

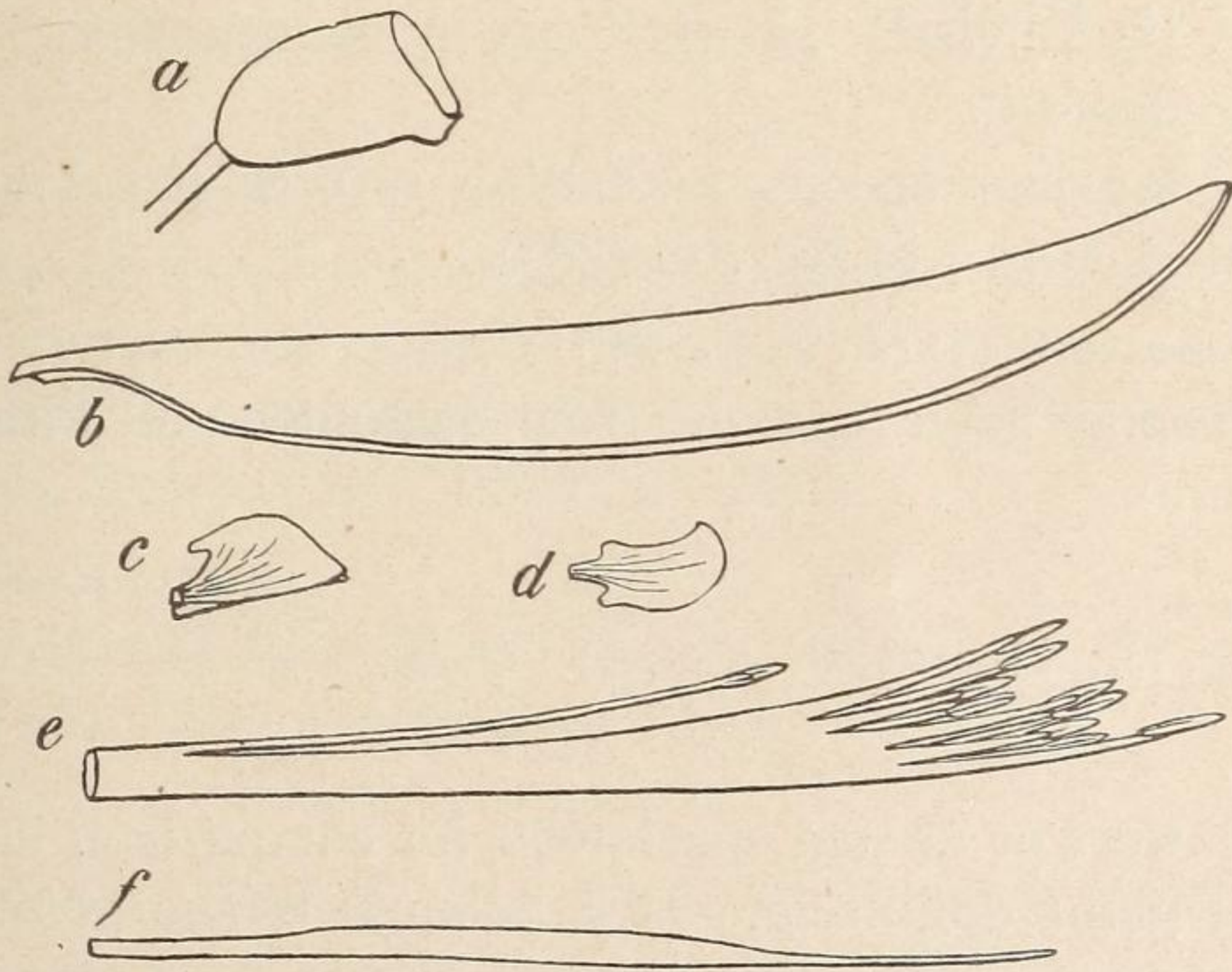


FIG. 1.—*Erythrina lanata*; a, calyx; b, banner; c, keel; d, wing; e, stamens; f, ovary.

Inflorescence unknown; calyx lanate becoming glabrate, tubular, 10 to 13 mm. long, truncate, one-toothed; banner 68 mm. long, folded, densely white-lanate, rounded at apex; wings (9 mm. long) and keel (10 mm. long) included within the calyx; ovary densely lanate; legume glabrous, 12.5 to 15 cm. long, strongly constricted between the seeds, long-stipitate, attenuate at tip; seeds small (for the genus), nearly orbicular, 6 to 8 mm. long, bright scarlet, with a dark spot at the micropyle.

The type of this species is Dr. Edward Palmer's No. 129, from Acapulco, Mexico, collected in 1894-95. To this species I would refer specimens collected by Frank Lamb near Villa Union, State of Sinaloa, January, 1893 (No. 428), and flowering specimens by W. C. Wright from the head of Mazatlan River, January, 1889 (No. 1292), and also those collected by J. N. Rose at Rosario, Sinaloa, July 10, 1897 (No. 1592), and July 22 (No. 1822). The latter two specimens are not in flower and their reference here is attended with some doubt. The seeds are larger and the pods less constricted between the seeds. Here also belongs E. W. Nelson's No. 4303 from the Tres Marias, collected May, 1897. I have tentatively referred to this species E. W. Nelson's No. 2699, taken at an altitude of 480 meters, near Santo Domingo, State of Oaxaca, June 18, 1895. It has similar pods, but is described as being but 6 to 12 cm. high and has more bluntish leaflets.

Dr. Palmer says this tree flowers in January, and is often used for hedge fences. It differs from all other Mexican species which I have seen in its white lanate banner. Its one-toothed calyx suggests *E. rosea*, but in the latter the calyx is described as obliquely truncate.

Phaseolus sp.

Maria Magdalena Island, May 26 to 28, 1897 (No. 4319).

Canavalia gladiata DC.

A species of wide distribution, perhaps throughout tropical America. May 3 to 25 (No. 4190).

Rhynchosia minima DC.

A common Mexican species extending into South America and the United States. May 3 to 25 (No. 4206).

Rhynchosia precatória (?) (H. B. K.) DC.

This species has been reported from Acapulco and Panama. May 3 to 25 (No. 4179).

Lonchocarpus sp.

May 3 to 25 (No. 4310).

Ateleia (?) sp.

Without flowers or named specimens for comparison it is impossible to name this plant definitely. If it belongs to the genus *Ateleia* it is perhaps *A. pterocarpa*, the only species known from Mexico. A shrub or small tree 3.5 to 10.5 meters high. May 3 to 25 (No. 4186).

Cassia emarginata L.

Common in Mexico, South America, and the West Indies. May 3 to 25 (Nos. 4192 and 4297).

Cassia biflora L.

Common in tropical America. May 3 to 25 (Nos. 4194 and 4196).

Cassia atomaria L.

Common in Tropical Mexico and South America. Maria Magdalena Island, May 26 to 28 (No. 4321).

Bauhinia sp.

Apparently belonging to the genus *Bauhinia*, but very unlike any of the Mexican species with which I am familiar. A vine 6 to 9 meters long; only in fruit. May 3 to 25 (No. 4300).

Acacia sp.

This appears to be an undescribed species, of which I collected specimens on the mainland. May 3 to 25 (No. 4188).

Albizzia occidentalis Brandegee.

Probably the above species, which is found in Lower California and has been reported from western Mexico. May 3 to 25 (No. 4252).

Pithecolobium dulce Benth.

Common in tropical Mexico and South America. Often cultivated. May 3 to 25 (No. 4285).

Pithecolobium ligustrinum Klotzsch.

Common in tropical Mexico and northern South America. Maria Magdalena Island, May 26 to 28 (No. 4314).

Conocarpus erectus L.

Common throughout tropical America extending into Florida and reported from tropical Africa. May 3 to 25 (No. 4220).

Psidium sp.

Tree 6 to 9 meters high; flowers white; called 'palo prieto.' This species is not represented in the National Herbarium. May 3 to 25 (No. 4306).

Casearia corymbosa (?) H. B. K.

The Tres Marias specimens should probably be referred to this species although our herbarium material seems to represent more than one species. This form is common on the west coast of Mexico and Central America. May 3 to 25 (Nos. 4270 and 4308).

Casearia sylvestris Swartz.

Widely distributed throughout tropical Mexico, South America, and the West Indies. May 3 to 25 (No. 4241).

Casearia sp.

Maria Magdalena Island. May 26 to 28, 1897 (No. 4326).

Passiflora sp.

May 3 to 25 (No. 4249).

Opuntia sp.

May 3 to 25 (Nos. 4263 and 4286).

Gilibertia insularis Rose, sp. nov.

Tree 6 to 12 meters high; leaves 25 to 35 cm. long, including the slender petioles (7 to 18 cm. long), 9 to 20 cm. broad, entire or 3-lobed, oblong, rounded at base, rounded at apex or with a short acumination, glabrous, 3-nerved at base; fruiting inflorescence a short dense panicle;

rays 2 to 3 cm. long; pedicels 4 to 8 mm. long; fruit white, 6-lobed, 4 mm. high; styles short, connate to near the top.

Collected on Maria Madre Island May 3 to 25 (No. 4282).

Portlandia pterosperma Watson.

A species recently described by Dr. Watson, the type coming from near Guaymas, Sonora. May 3 to 25 (No. 4211).

Eupatorium sp.

May 3 to 25, 1897 (No. 4225).

Eupatorium sp.

May 3 to 25, 1897 (No. 4244).

Eupatorium collinum DC.

Common in Mexico and Central America. May 3 to 25, 1897 (No. 4199).

Mikania cordifolia Willd.

Reported from Central and South America. May 3 to 25, 1897 (No. 4299).

Conyza lyrata H. B. K.

Reported from Mexico, Central and South America. May 3 to 25 (Nos. 4290 and 4312).

Baccharis glutinosa Pers.

A common Mexican and Central American plant. May 3 to 25, 1897 (No. 4291).

Pluchea odorata Cass.

Widely distributed in Mexico and South America. May 3 to 25, 1897 (No. 4181).

Parthenium hysterophorus L.

Common in Mexico, South America, and in the southern United States. May 3 to 25, 1897 (No. 4267).

Perityle microglossa Benth.

A common Mexican plant. May 3 to 25, 1897 (No. 4266).

Porophyllum nummularium DC.

Restricted to Mexico. May 3 to 25, 1897 (No. 4292).

Trixis frutescens P. Brown.

A common Mexican and Central American plant. May 3 to 25, 1897 (Nos. 4191), and Maria Cleofa Island, May 30, 1897 (No. 4331).

Jacquinia macrocarpa Cav.

Species not represented in the National Herbarium, but reported from Mexico, and Central and South America. May 3 to 25, 1897 (No. 4208).

Gonolobus sp.

Fruit only. May 3 to 25, 1897 (No. 4313a).

Buddleia verticillata H. B. K.

A common Mexican species. May 3 to 25, 1897 (No. 4183).

Cordia sonorae Rose.

A recently described species from Sonora. May 3 to 25, 1897 (No. 4207).

Cordia insularis Greenman.

Cordia insularis Greenman, Proc. Amer. Acad. 33: 483. 1898.

The original description is as follows: "Shrub 3 to 5.5 m. high; stems and branches glabrous, reddish brown, conspicuously dotted with numerous whitish lenticels; the extreme branchlets covered with hirsute pubescence; leaves scattered, elliptic-ovate or sometimes slightly obovate, 1.5 to 3 cm. long, 1 to 1.5 cm. broad, narrowed below into a short petiole, obtuse, the upper portion more or less deeply crenate-dentate, occasionally sharply toothed, entire toward the base, hispid above, spreading hirsute-pubescent beneath, especially on the midrib and veins; inflorescence capitulate; heads small (after the corolla has fallen, about 5 mm. in diameter); peduncles, during anthesis, 1 cm. or less in length, covered with a spreading hirsute pubescence; calyx 2 mm. long, 5-dentate; teeth short, acute; corolla 3 mm. long, nearly cylindrical, with short recurved lobes, externally glabrous, pubescent inside along the line of the filaments, stamens included; style a little exserted. Collected by E. W. Nelson on Maria Madre Island of the Tres Marias group of islands. May 3 to 25, 1897 (No. 4296)."

Tournefortia candida Walp.

Not previously in herbarium. May 3 to 25, 1897 (Nos. 4217 and 4229).

Tournefortia cymosa L. -

I have only seen specimens from Guatemala. May 3 to 25, 1897 (No. 4189).

Tournefortia velutina H. B. K.

Reported from the west coast of Mexico and Guatemala. May 3 to 25, 1897 (No. 4209).

Heliotropium indicum L.

Common in Mexico and most tropical countries. May 3 to 25, 1897 (No. 4253).

Heliotropium curassavicum L.

Common in Mexico and South America as well as in the Old World. Reported in the United States as far north as Oregon and Virginia. May 3 to 25, 1897 (No. 4313).

Ipomoea bona-nox L.

A common tropical plant extending into Florida. May 3 to 25, 1897 (No. 4269).

Ipomoea peduncularis Bertol.

Common in Mexico and Central America. May 3 to 25, 1897 (No. 4235).

Jacquemontia violacea Choisy.

Reported from Mexico, Central and South America, and the West Indies. May 3 to 25, 1897 (No. 4251).

Solanum nigrum L.

A widely distributed species. May 3 to 25, 1897 (No. 4200).

Solanum lanceaefolium Jacq.

A common tropical plant. May 3 to 25, 1897 (No. 4240).

Solanum callicarpaefolium Kunth & Bouché.

Common in south Mexico and northern South America. Maria Magdalena Island, May 26 to 28, 1897 (No. 4322).

Solanum torvum Swartz.

Common in Mexico and Central America. May 3 to 25, 1897 (No. 4185).

Solanum verbascifolium L.

Only reported hitherto from one station in southern Mexico. May 3 to 25, 1897 (No. 4216).

Physalis pubescens L.

A common tropical plant. May 3 to 25, 1897 (No. 4255).

Bassovia donnell-smithii Coulter.

A recently described South American and Guatemalan species. May 3 to 25, 1897 (No. 4232).

Datura discolor Bernh.

Reported from Mexico and West Indies. May 3 to 25, 1897 (No. 4197).

Nicotiana trigonophylla Dun.

Common in Mexico. May 3 to 25, 1897 (No. 4212).

Russelia sarmentosa Jacq.

A common Mexican and Central American species. (May 3 to 25, 1897 (No. 4289).

Capraria biflora L.

A widely distributed plant, extending into Florida. May 3 to 25, 1897 (No. 4195).

Bignonia aequinoctialis L. (*B. sarmentosa* Bertol.)

Recently collected at Acapulco by Dr. Edward Palmer. It is common in Central and South America. May 3 to 25, 1897 (No. 4301), and Maria Magdalena Island, May 26 to 28 (No. 4324).

Beloperone nelsoni Greenman.

Beloperone nelsoni Greenman, Proc. Amer. Acad. 33: 488. 1898.

"It is nearest *B. comosa* Nees, in DC. Prodr. 11: 416, but differs very markedly in the size of the flower and the character of the lower lip."—Greenman in litt. May 3 to 25, 1897 (No. 4246).

The original description is as follows: "Erect; stems branching, sub-

terete, covered with a spreading or slightly reflexed grayish pubescence; leaves ovate-lanceolate or oblong-lanceolate, 5 to 10 cm. long, 2 to 4 cm. broad, obtuse at the apex, entire, narrowed below into a slender petiole, densely lineolate above, pubescent on either surface, especially on the veins, later becoming glabrous; petioles about 2 cm. in length; inflorescence terminating; the stem and branches in rather close bracteate spikes; bracts oblong or obovate; bracteoles linear, nearly 1 cm. long, exceeding the calyx; calyx about 5 mm. long, deeply 5-parted; divisions nearly equal, lanceolate, acute, ciliate; corolla 2 to 2.5 cm. long; tube exceeding the limb; upper lip shortly 2-lobed, the lower more deeply 3-lobed, rather broad, somewhat plaited in the throat; capsule 10 to 12 mm. long, pubescent. Collected by E. W. Nelson on Maria Madre Island of the Tres Marias group of islands, 3-25 May, 1897 (No. 4246).

“A species closely resembling *B. comosa* Nees, but with a much shorter corolla, and broader lower lip. The leaves are also somewhat larger, longer-petioled, and much less pubescent. It may be that further material will prove this to be a variety of *B. comosa* Nees, but as the material at hand shows no sign of intergradation, it seems best for the present at least to regard Mr. Nelson's plant as a distinct species.”

Lantana horrida H. B. K.

Reported from both northern and southern Mexico. May 3 to 25, 1897 (No. 4187).

Citharexylum affinis D. Don.

This is a rare Mexican species which has been “compared with the *Prodromus* specimen at Geneva by C. De Candolle”—J. M. G. May 3 to 25, 1897 (No. 4311).

Ægiphila pacifica Greenman.

Ægiphila pacifica Greenman, Proc. Amer. Acad. 33:485. 1898.

The original description is as follows: “Shrub 2.5 to 7 m. high; stems and branches terete, covered with a grayish brown bark and dotted here and there with lenticels, glabrous; branchlets terete, somewhat compressed at the nodes, fulvous-pubescent; leaves opposite, oblong-ovate, 5 to 15 cm. long, 3.5 to 7.5 cm. broad, more or less acuminate, entire, rounded or rather abruptly narrowed at the slightly unequal base, glabrous, or at least glabrate above, with scattered, tawny, subappressed hairs beneath, especially upon the midrib and veins; petioles less than 1 cm. in length; inflorescence terminating the stems and branches in rather close paniculate cymes; peduncles, pedicels, the subulate bracts and calyx covered by a fulvous subappressed pubescence; calyx about 4 mm. long, 4-lobed; lobes broader than long, submucronate, greenish; corolla tubular, 10 to 12 mm. long, glabrous; tube somewhat amplified above; lobes oblong-elliptic, about 4 mm. long, obtuse; stamens equal or rarely unequal, exserted; filaments pubescent below, glabrous above; drupe yellow, obovoid, 8 to 10 mm. long, 6

to 8 mm. in diameter, one-half or more exerted from the persistent coriaceous subcrenately lobed, cup-shaped calyx.—Collected by E. W. Nelson on Maria Madre Island of the Tres Marias group of islands, 3–25 May, 1897, No. 4245 (in flower) and No. 4254 (in fruit).”

Hyptis albida H. B. K.

Several times reported from Mexico. May 3 to 25, 1897 (No. 4223).

Salvia aliena Greene.

A Mexican species. May 3 to 25, 1897 (No. 4247).

Stachys coccinea Jacq.

Common in Mexico and Central America, extending into Texas and Arizona. May 3 to 25, 1897 (No. 4265).

Iresine interrupta Benth.

Reported from western and central Mexico. May 3 to 25, 1897 (No. 4234).

Phytolacca octandra L.

May 3 to 25, 1897 (No. 4293).

Stegnosperma halimifolia Benth.

Common along the west coast of Mexico. May 3 to 25, 1897 (No. 4184).

Batis maritima L.

Extending from Florida and California to Brazil and the West Indies and also reported from the Sandwich Islands. Magdalena Island, May 26 to 28, 1897 (No. 4327).

Coccoloba leptostachya Benth.

This species has not been heretofore found in Mexico, but has been reported from Central America and South America. Maria Magdalena Island, May 26 to 28, 1897 (No. 4315).

Antigonon leptopus Hook. & Arn.

A very common vine on the west coast of Mexico. May 3 to 25, 1897 (No. 4204).

Aristolochia pardina Duch.

A little-known plant collected at Colima many years ago by Ghiesbrecht, and recently at the same place by Dr. Edward Palmer. May 3 to 25, 1897 (No. 4304).

Piper aduncum L.

Reported from Mexico, Central and South America, and the West Indies. May 3 to 25, 1897 (No. 4283).

Euphorbia sp.

May 3 to 25, 1897 (No. 4268).

Euphorbia subcaerulea tresmariae Millspaugh, var. nov.

“In the characters present in the specimens collected, this agrees well with *E. subcaerulea* Rob. and Greenm. (Pringle No. 6265, Oaxaca), except in the hairy involucre more regularly toothed involucre lobes, and in

having the styles bifurcate, to the middle only, and flat-spreading with no tendency to reflexion or peltation as in the other species. The fruits may prove this to be a distinct species. May 3 to 25, 1897 (Nos. 4298 and 4202).”—Millspaugh MSS.

Euphorbia sp.

Specimens are indeterminable from lack of characters. May 3 to 25, 1897 (No. 4215).

Euphorbia nelsoni Millspaugh.

Euphorbia nelsoni Millspaugh, Bot. Gaz. 26:268. 1898.

May 3 to 25, 1897 (No. 4294, not 4284, as published).

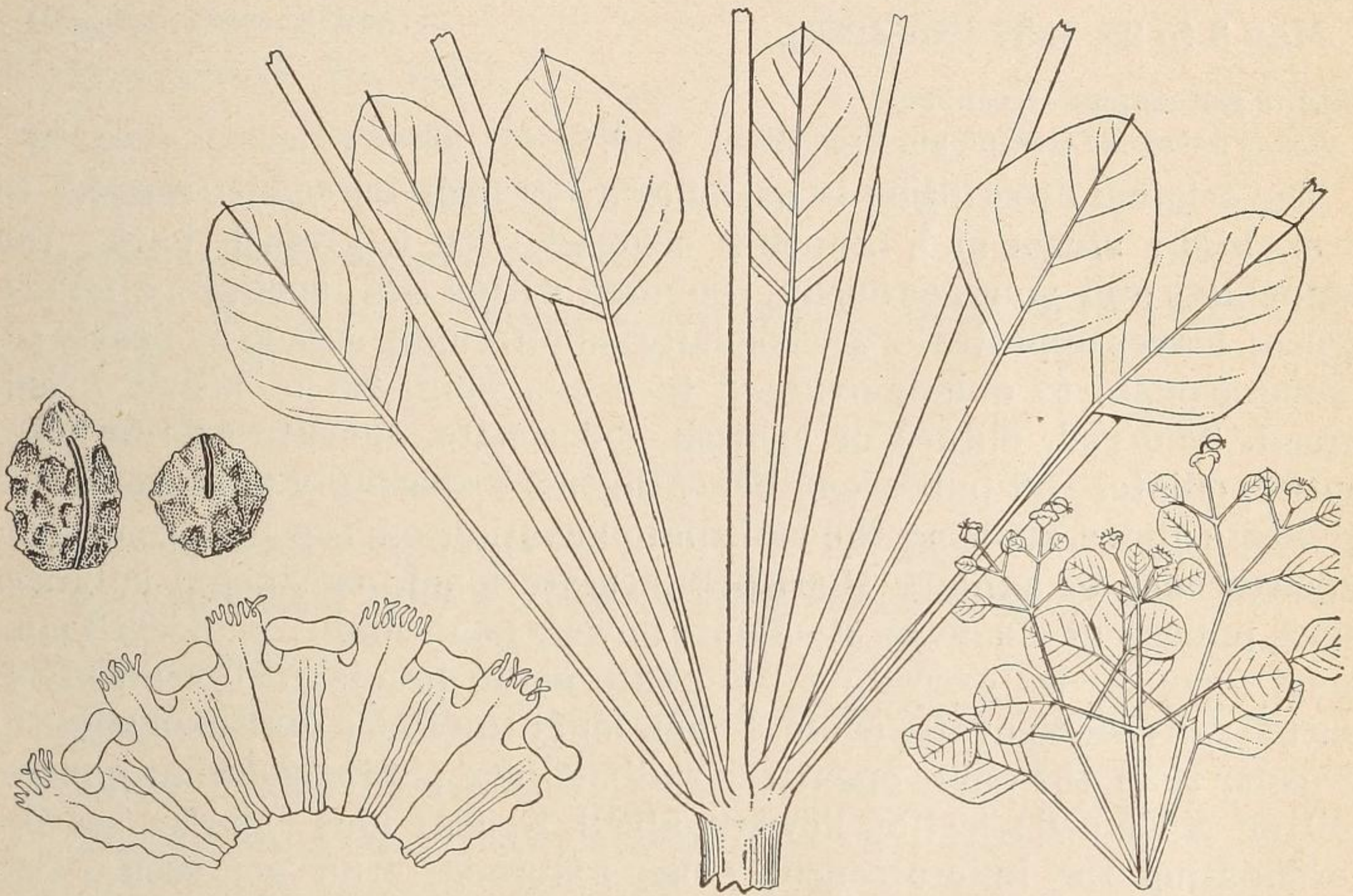


FIG. 2.—*Euphorbia nelsoni*.

The original description is as follows: “Fruticosa, glabra, longe et corymbosa ramosa, ramis teretibus, internodiis longis, cortex maculatus, maculae oblongae roseae. Foliis inferioris fasciculatis, petioliis longis filamentosis, pagina tenuis ovato-cuneatis, obtusis, apiculatis, foliis floralibus oppositis, orbiculatis petioliis limbum aequantibus. Involucris terminalibus corymbosis, pedunculatis, campanulatis glabris, lobis latis truncatis irregulariter 6–8 fimbriatis, glandulis 5, transversis oblongis integris, appendicibus minutis vel nullis. Stylis longis revolutis circinalibus. Capsulae luridae profunde tri-sulcatae, semine sub-globosis pallide-fuscis, scrobiculatis, linea media nigra geminatis, rugae anastomosantis tuberculatis 2 mm. long, 1.9 mm. lat.”

Several *Euphorbias* were collected on the islands in too imperfect condition to determine, and it has been thought advisable to reproduce the cut¹ of the present species for the purpose of assisting future study of the flora.

¹Through the kindness of the editors of the Botanical Gazette I am permitted to use this illustration.

The main figure shows a cluster of leaves. To the right is a flower cluster and to the left a dissected flower with end and side views of the seed.

Garcia nutans Rohr.

Found in Mexico and South America. May 3 to 25, 1897 (No. 4228).

Croton ciliato-glandulosus Ort.

May 3 to 25, 1897 (No. 4218).

Acalypha sp.

May 3 to 25, 1897 (No. 4260).

Celtis monoica Hemsley.

May 3 to 25, 1897 (No. 4236).

Buxus pubescens Greenman.

Buxus pubescens Greenman, Proc. Amer. Acad. 33:481. 1898.

The original description is as follows: "Shrub or small tree, 4.5 to 8 m. high; stems and branches covered with a grayish bark; the branchlets and younger shoots provided with a soft, spreading pubescence; leaves opposite or occasionally subalternate, sessile or nearly so, rhombic-ovate to oblong-ovate, 2 to 5 cm. long, 1.5 to nearly 3 cm. broad, 3-nerved, obtuse or acutish, mucronate, cuneate at the base, entire, ciliate, soft-pubescent beneath, more sparingly pubescent and glabrate above, showing the reticulate venation on the upper surface; inflorescence of axillary short-pedunculate much contracted subracemose pubescent clusters; staminate flowers pedicellate; pedicels 3 mm. long, about twice exceeding the ovate acute bracts; calyx deeply 4-parted; divisions ovate, acute, 2 mm. long, the inner divisions slightly broader than the outer ones; the rudimentary pistil somewhat quatrefoil or X-shaped; fertile flowers about 5 mm. long, single, sessile, terminating the inflorescence; ovary glabrous; fruit not seen.—Collected on Maria Madre Island by E. W. Nelson, 3–25 May, 1897, No. 4221.

"A species apparently endemic in the Tres Marias Islands, and most nearly related to the West Indian *B. pulchella* Bail."

Ficus radulina Watson.

A recent species of Dr. Watson's from northern Mexico. May 3 to 25, 1897 (No. 4261).

Ficus fasciculata Watson.

Only known from western Mexico. May 3 to 25, 1897 (No. 4288).

Ficus sp.

May 3 to 25, 1897 (No. 4182).

Myriocarpa longipes Liebm.

Found in Mexico and Central America. May 3 to 25, 1897 (No. 4275).

Agave sp.

Six meters high, leaves 9 to 18 dm. long; marginal teeth small, distant; end spine short, stout, pungent; capsules oblong, large, 7 cm. long.

This species belongs to the subgenus *Eugave* and the *Rigidae* group of Mr. Baker's revision. It is near *A. vivipara*, and perhaps not distinct. Mr. Nelson's plant does not seem to differ from specimens collected by me on the mainland. May 3 to 25, 1897 (No. 4264).

Cyperus ligularis L.

Reported from Mexico, Central and South America, and West Indies, as well as Africa and Australia. Maria Cleofa Island, May 30, 1897 (No. 4330).

Cyperus incompletus Link.

Reported from Mexico and Brazil. May 3 to 25, 1897 (No. 4259).

Panicum brevifolium L.

May 3 to 25 (No. 4257).

Eleusine indica Gaertn.

May 3 to 25, 1897 (No. 4305).

Dactyloctenium aegyptiacum Willd.

May 3 to 25, 1897 (Nos. 4295 and 4256); Maria Magdalena Island, May 26 to 28 (No. 4317).

Arundo donax L.

Maria Cleofa Island, May 30 (No. 4332).

Zamia loddigesii (?) Miq.

Reported from Mexico. Maria Cleofa Island, May 30, 1897 (No. 4329).

Pteris longifolia L.

Maria Madre Island, May 3 to 25, 1897 (No. 4201).

Aspidium trifoliatum Swartz.

Maria Madre Island, May 3 to 25, 1897 (No. 4280).

Aspidium patens Swartz.

A widely distributed species. Maria Magdalena Island, May 26 and 28, 1897 (No. 4316).

Adiantum concinnum H. B. K.

Maria Madre Island, May 3 to 25, 1897 (No. 4273).

Adiantum tenerum Swartz.

Maria Madre Island, May 3 to 25, 1897 (No. 4281).

Gymnogramme calomelanos Kault.

A widely distributed species. Maria Cleofa Island, May 30, 1897 (No. 4333).