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VARIOUS

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No. 36.—December, 1905.

DEPARTMENT OF THE INTERIOR
BUREAU OF GOVERNMENT LABORATORIES

I. NEW OR NOTEWORTHY PHILIPPINE
PLANTS, IV

II. NOTES ON CUMING'S PHILIPPINE PLANTS
IN THE HERBARIUM OF THE BUREAU
OF GOVERNMENT LABORATORIES

By ELMER D. MERRILL

III. NOTES ON PHILIPPINE GRAMINEÆ

By E. HACKEL

IV. SCITIMINEÆ PHILIPPINENSES

By H. N. RIDLEY

V. PHILIPPINE ACANTHACEÆ

By C. B. CLARKE

MANILA
BUREAU OF PRINTING
1905

LETTER OF TRANSMITTAL

DEPARTMENT OF THE INTERIOR,
BUREAU OF GOVERNMENT LABORATORIES,
OFFICE OF THE SUPERINTENDENT OF LABORATORIES,

Manila, P. I., August 30, 1905.

SIR: I have the honor to transmit herewith, for publication in a bulletin of the Bureau of Government Laboratories, the following: "I. New or Noteworthy Philippine Plants, IV;" and "II. Notes on Cuming's Philippine Plants in the Herbarium of the Bureau of Government Laboratories," by Elmer D. Merrill, botanist; "III. Notes on Philippine Gramineæ," by E. Hackel; "IV. Scitiminæ Philippinenses," by H. N. Ridley; "V. Philippine Acanthaceæ," by C. B. Clarke.

I am, very respectfully,

PAUL C. FREER,
Superintendent of Laboratories.

HON. DEAN C. WORCESTER,
Secretary of the Interior, Manila, P. I.

I. NEW OR NOTEWORTHY PHILIPPINE PLANTS, IV.

By ELMER D. MERRILL, *Botanist*.

INTRODUCTION.

The present publication includes five papers, two by myself, the first a continuation of the series "New or Noteworthy Philippine Plants," the first three numbers having already been issued as previous publications of this Bureau, Nos. 7, 17, and 29; the second paper consists of notes on some of the more interesting plants of Cuming's Philippine collection, recently received from the British Museum; the remaining three have been submitted by the following botanists: Dr. E. Hackel, Graz, Austria, "Notes on Philippine Gramineæ"; H. N. Ridley, director of the Botanic Garden, Singapore, "Scitimineæ Philippinenses"; and C. B. Clarke, Kew, England, "Philippine Acanthaceæ." To these gentlemen I wish to extend my thanks for their kindness in examining the material sent to them and for preparing the accompanying papers.

CYPERACEÆ.

Carex rhynchachaenium C. B. Clarke, sp. nova.

Hemiscaposa, innovationum foliis culmum superantibus, 3 ad 4 mm. latis. Spicis pluribus, remotis, terminali masculi, 8 mm. longa, 1 mm. lata; utriculis 5 ad 6 mm. longis, striis longitudinalibus 15, pilosis; nucce ellipsoidea trigona, rostro crasse cylindrico; stylo vix ullo, ramis 3, oblongis brevissimis. *C. ligata* Boott., affinis.

Luzon, Province of Bataan, Mount Mariveles; altitude 1,100 m. (6983 Elmer) November, 1904.

COMMELINACEÆ

Forrestia philippinensis sp. nov.

A nearly glabrous, suberect plant about 1 m. high, with caudate-acuminate leaves which are narrowed below to the elongated petiole, axillary, dense,

capitate inflorescence, the flowers purple, the capsule shorter than the sepals. Stems simple, about 1 cm. thick, glabrous, prostrate below and rooting at the nodes. Leaves including the petioles 30 to 36 cm. long, 7 to 10 cm. wide, membranous, glabrous except the somewhat villous margin above, the young leaves slightly pubescent beneath, the apex slender caudate acuminate, narrowed below into the 6 cm. long glabrous or puberulous winged petiole; sheaths lax, 4 to 5 cm. long, glabrous or nearly so, except the ciliate villous margin. Inflorescence 3 to 4 cm. in diameter, many flowered; bracts broadly ovate, acute 6 mm. long. Sepals subequal, 12 mm. long, 5 to 6 mm. wide when spread, firm, purple, keeled, cucullate, the keel at the apex forming a small crest, slightly strigose pubescent or nearly glabrous. Petals membranous, equalling the sepals. Stamens 6, all fertile, the filaments glabrous; anthers 1.8 mm. long. Capsule ellipsoid, membranous, 9 mm. long, 6 mm. thick, somewhat trigonous, very slightly pubescent with short scattered hairs or nearly glabrous. Seeds 3.5 to 4 mm. long, 2.5 to 3 mm. thick, rugose.

Type specimen: Baco River, Mindoro (4061 Merrill), March 15, 1905; also, from the same locality (323 McGregor), May 9, 1905. A rare plant in very humid forests, found once only by the author and once by Mr. McGregor. No. 654 Whitford, Atimonan, Tayabas Province, Luzon, is the same, growing along streams in forests.

The first species of the genus to be reported from the Philippines, apparently related to *Forrestia marginata* Hassk., and *F. hispida* Less., differing from the former in its larger, nearly glabrous leaves, much larger flowers, and the capsule shorter than the sepals, and from the latter in its caudate acuminate leaves and other characters. *Forrestia mollis* Hassk., differs especially from the species here proposed in its smaller leaves and flowers, the leaves being villous beneath.

JUGLANDACEÆ.

Englehardtia subsimplicifolia sp. nov.

A small tree 8 or 9 m. high, with simple, or at most 1-jugate leaves, the leaflets entire, glandular on both surfaces. Branches gray or brown, glabrous, the young parts densely lepidote-glandular. Leaves alternate, the rachis lepidote glandular, 1.5 cm. long; leaflet solitary or a single terminal pair, subcoriaceous, oblong-ovate, acute, subacuminate or obtuse, the base narrowed, inequilateral, the upper surface dark, the lower surface pale, not at all pubescent, the glands numerous above, very numerous beneath; nerves 14 to 18 pairs, prominent beneath, the reticulations obscure; petiolules 1 to 2 mm. long. Male inflorescence axillary, simple or slightly branched, subpendulous, 1 to 1.5 cm. long, the rachis and bracts glandular-lepidote; anthers ovoid, about 1 mm. long. Female flowers not known, the racemes in fruit, including the peduncle, 8 to 12 cm. long, erect, the rachis glandular-lepidote, hirsute with scattered hairs, the bract 3-lobed, sparingly glandular-lepidote, the middle lobe 1.5 cm. long, 4 mm. wide, oblong-spatulate, acute or obtuse, the lateral lobes less than 1 cm. long.

Type specimens from Mount Mariveles, Province of Bataan, Luzon (3942 (male flowers) and 3951 (fruit) Merrill), March, 1905.

A small or medium sized tree growing in the forests and on exposed ridges from 700 to 1000 m. above the sea, readily distinguished from all described species of the genus by its simple or 1-jugate leaves.

MAGNOLIACEÆ.

TALAUMA.

1. Flowers 9 to 10 cm. long; pistils pubescent.----- (1) *T. grandiflora*
 1. Flowers 8 cm. long or less; pistils glabrous or nearly so.
 2. Flowers 5 cm. long, broad, not contracted below, the leaves
 broad, usually acute----- (2) *T. angatensis*
 2. Flowers 6 to 8 cm. long, elongated, contracted below, the leaves
 usually narrow, acuminate----- (3) *T. villariana*
 1. Flowers unknown.
 2. Fruit 15 to 18 cm. long; leaves 25 to 45 cm. long, the petioles 4 to
 5 cm----- (4) *T. oblongata*
 2. Fruit 10 cm. long; leaves 17 to 35 cm. long, the petioles 3 cm----- (5) *T. buconensis*

(1) *Talauma grandiflora* Merrill, Govt. Lab. Publ. 29:13. 1905.
 Guimaras Island, (314 Gammit) February, 1904.

(2) *Talauma angatensis* (Blanco) Vidal, Cat. Pl. Prov. Manila, 17,
 November, 1880; Sinopsis, Atlas, t. 3. 1883; Rev. Pl. Vasc. Filip. 38,
 1886; F. Vill. Nov. App. 3, December, 1880, excl. syn. Hook. f. et
 Th. *Magnolia angatensis* Blanco, Fl. Filip. ed. 1, 859. 1837; ed. 2,
 328. 1845; ed. 3, 2:243.

This species, at least as interpreted by Vidal, is represented by a specimen from Bosoboso, Province of Rizal, Luzon (2880 Ahern's collector), March, 1905, the specimens referred to this species by Vidal (Nos. 912, 1099 Vidal) being from the same province and the latter from the same locality. No. 2880 is identical with the plant figured by Vidal, and, like Vidal's figure, differs from *Magnolia angatensis* as described by Blanco, in having but 6 petals instead of 9. Until other material is collected agreeing more closely with Blanco's description, it is believed that this form should be considered to represent his species. The form here referred to *Talauma angatensis* is doubtless the same as the one credited to the Philippines by F. Villar as *Talauma gigantifolia* Miq.

(3) *Talauma villariana* Rolfe, Journ. Linn. Soc. Bot. 21:307. 1884;
 Vidal, Rev. Pl. Vasc. Filip. 38. 1886; *Talauma mutabilis* F. Vill.
 Nov. App. 3. 1880; Naves, in Blanco Fl. Filip. ed. 3, pl. 148; Vidal,
 Cat. Pl. Prov. Manila, 15. 1880, non Blume.

A small tree with lanceolate to broadly oblanceolate acuminate leaves 18 to 30 cm. long, 3 to 9 cm. wide, glabrous and shining, except for the usually pubescent midrib beneath. Flowers white, elongated, contracted below, 6 to 8 cm. long, very fragrant. Sepals 3. Petals 6, in two series. Pistils glabrous. Fruit 4 to 6 cm. long, the carpels few, glabrous, maculate.
 Specimens examined: Luzon, Province of Bataan, Lamao River (668, 1746

Borden), April, August, 1904, the former in flower, the latter in fruit, from the same tree; (2606 Meyer) January, 1905 (flower); Dinalupihan (2512 Merrill), January, 1903 (flower); Antipolo (50 Merrill), Decades Philippine Forest Flora, a specimen with immature flowers, 5 cm. long, considerably smaller than those of the other specimens cited above.

This species is exceedingly variable in its vegetative characters, leaves from the same tree being from 3 to 9 cm. in width, without proportional variation in length. It was based in the plate cited above, and Nos. 942 and 1099 Vidal. The specimens under discussion agree well with the plate, except that the flowers are somewhat larger than they are represented to be in the figure, and are doubtless identical with the ones cited by Rolfe.

(4) *Talauma oblongata*, sp. nov.

A tree with subcoriaceous, oblong-lanceolate, acute leaves, 25 to 45 cm. long and oblong, many carpelled fruit 15 to 18 cm. long. Branches thickened, annular, nearly glabrous. Leaves glabrous and shining above, when young, dull and sparingly pubescent beneath, becoming glabrous and shining with age, 25 to 45 cm. long, 6 to 11 cm. wide, the apex acute, the base acute or slightly decurrent-acuminate; nerves about 20 on each side of the midrib, the reticulations prominent on both surfaces; petioles stout, 4 to 5 cm. long, glabrous, thickened at the base, somewhat flattened above. Flowers unknown. Peduncle terminal, stout, appressed pubescent, annular, 4 to 5 cm. long. Fruit about 7 cm. thick, glabrous, the axis about 2 cm. thick, deeply pitted. Carpels numerous, the exposed portions glabrous, shining, somewhat roughened-maculate, grayish brown, 3 cm. long, somewhat acuminate at the apex. Seed dark brown, irregularly compressed, about 1 cm. in diameter.

Type specimen: Baler, Province of Principe, Luzon (1003 Merrill), August, 1902.

(5) *Talauma luzonensis* Warb. in Perk. Frag. Fl. Philip. 171. 1905.

The type of this species is No. 11767 Warburg, Malauog, Province of Cagayan, Luzon. *T. grandiflora* Merrill may not be distinct.

F. Villar¹ credits to the Philippines five species of *Talauma*, *T. mutabilis* Blume, *T. angatensis* (Blanco) Vidal, *T. pumila* Blume, *T. rumphii* Blume, and *T. gigantifolia* Miq. Of these five species two were certainly correctly identified, *T. angatensis* Vidal, considered above, and *T. pumila* Blume = *Magnolia pumila* Andr., the latter a species introduced from southern China, and occasionally cultivated for ornamental purposes. *Talauma mutabilis* F.-Vill., non Miquel, is *Talauma villariana* Rolfe. The remaining two species must for the present, at least, be excluded, and we can only surmise what species F. Villar had in mind, as his botanical material no longer exists. It is probable that the species credited to the Philippines as *Talauma rumphii* is *Magnolia pumila* Andr., and the one enumerated as *Talauma gigantifolia* Miq., is either *Talauma angatensis* Vidal or *T. oblongata* Merrill.

¹ Nov. App. 3. 1880.