

**NO. 29. - SEPTEMBER, 1905; DEPARTMENT
OF THE INTERIOR BUREAU OF
GOVERNMENT LABORATORIES; I. NEW
OR NOTERWORTHY PHILLIPINE PLANTS,
III; II. THE SOURCE OF MANILA ELEMI**

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ELMER D. MERRILL

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(Continued on third page of cover.)

No. 20.—SEPTEMBER, 1905

DEPARTMENT OF THE INTERIOR
BUREAU OF GOVERNMENT LABORATORIES

I. NEW OR NOTEWORTHY PHILIPPINE
PLANTS. III
II. THE SOURCE OF MANILA ELEMI

BY
ELMER D. MERRILL, BOTANIST

MANILA
BUREAU OF PUBLIC PRINTING
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LETTER OF TRANSMITTAL.

DEPARTMENT OF THE INTERIOR,
BUREAU OF GOVERNMENT LABORATORIES,
OFFICE OF THE SUPERINTENDENT OF LABORATORIES,
Manila, P. I., December 1, 1904.

SIR: I have the honor to transmit herewith and recommend for publication two articles: (1) New or Noteworthy Philippine Plants, III; (2) The Source of Manila Elemi; by Elmer D. Merrill, Botanist.

Very respectfully,
RICHARD P. STRONG,
*Director Biological Laboratory,
Acting Superintendent Government Laboratories.*

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

I. NEW OR NOTEWORTHY PHILIPPINE PLANTS, III.

By ELMER D. MERRILL, *Botanist.*

Two previous articles have been published under this title, Bureau of Government Laboratories publications 6 and 17, the third and present paper having been prepared as material and data became available. In order to facilitate reference to the preceding papers, a full index to all species considered in the three publications has been included in the present one.

PANDANACEÆ.

Sararanga philippinensis, sp. nov.

An erect tree 6 to 8 m. high, branched at the top, the inflorescence a long compound panicle 100 to 120 cm. long. Leaves about 2 m. long, 7 cm. wide, the margins stoutly antrorsely toothed throughout, the midrib beneath antrorsely toothed, above glabrous. Axis and branches of the inflorescence densely grayish stellate pubescent throughout. Flowers unknown. Fruit yellowish, glabrous, 6 to 8 mm. wide, 5 mm. long, subreniform, sulcate between the pyrenes when dry, subtended by a discoid entire or slightly lobed calyx-like bract, sessile, the stigmas small, about 16, arranged in two parallel rows along the median portion of the fruit. Pyrenes 3 mm. long, 2 mm. wide, thin, broadly ovate, both ends rounded, about 16 in each fruit, arranged in two parallel rows.

Type specimen No. 749. (H. N. Whitford.) Tinuan River, Province of Tayabas (Infanta), Luzon, September 4, 1904. Growing in forests along the seashore at 3 to 5 m. above the sea.

This genus was based on a single species from New Guinea, and the discovery of a second species in the Philippines is of special interest.

Pandanus pallidus, sp. nov. § *Sussea*.

A small shrub 2 m. high or less, with elongated leaves, which are gradually narrowed upward to the long, slender, acute, scarcely acuminate apex, the fruits globose, 4 to 5 cm. in diameter, dull white when mature, 5 to 7 crowded in a dense, erect raceme about 24 cm. long. Trunk erect,

5 cm. in diameter, the bark smooth, dull gray, somewhat sealy, the branches 3 to 5, terminating the trunk, ascending. Leaves 1 to 1.2 m. long, 3 to 4 cm. wide below, gradually narrowed upwards to the apex, the margins antrorsely toothed throughout, the midrib on the upper surface glabrous, beneath with scattered antrorse teeth or in part glabrous, the lateral nerves on the upper surface sparingly antrorsely toothed in the upper part of the leaf, beneath glabrous. Raceme 25 cm. long or less, erect, the heads crowded, short pedunculate, each subtended by a broad bract, the lower bracts acuminate, exceeding the raceme, the upper ones much shorter, triangular acute, the margins and midrib finely serrate toothed. Drupes closely packed, about 75 in each fruit, obovate, irregularly 5 to 6 angled, 1.5 cm. long, 0.8 to 1.2 mm. thick above, tapering from near the apex to the cuneate base, the apex abruptly rounded or convexly subpyramidal, striate, the stigmas plane, 2 mm. in diameter, the loculi 2 to 4 in each drupe.

Type specimen No. 5840 (A. D. E. Elmer), Baguio, Province of Benguet, Luzon, March, 1904. Growing in open grass lands along streams in the pine region, not common. Staminate flowers were observed by the collector in July, but could not be preserved.

Pandanus caudatus sp. nov. § *Keoca*.

A tree 7 to 8 m. high, with solitary, pendant, subglobose or ellipsoid fruits about 17 cm. long, the leaves tapering above to the slender caudate-acuminate apex. Trunk 25 cm. in diameter, with yellowish bark, beset with small scattered conical spines, the aerial roots wide spreading, 2 to 3 m. long, the few short branches crowded at the apex of the trunk. Leaves 1.2 to 1.8 m. long, about 5 cm. wide, the margins antrorsely toothed throughout, the midrib above glabrous, beneath finely antrorsely toothed, the two lateral nerves antrorsely toothed on the upper surface for the upper third of the leaf, the caudate apex antrorsely toothed, about 6 cm. long. Fruit yellowish red, fragrant, about 17 cm. long, nearly as thick, with 60 or 70 or more drupes, the peduncle about 30 cm. long. Drupes about 6 cm. long, 2.5 to 3 cm. thick, irregularly 4 to 6 angled, obovate, tapering below to the nearly cuneate base, scarcely or slightly narrowed at the apex which is truncate, flattened, the apex about 1.5 cm. wide, and 3 cm. long, sulcate, the sulci between the loculi about 5 mm. deep; loculi irregularly disposed, 10 to 12 in each drupe, their apices irregular convexly conical; stigmas 1 to 2 mm. in diameter, more or less oblique.

Type specimen No. 6143 (A. D. E. Elmer), Sablan, Province of Benguet, Luzon, April, 1904. Not common, in thickets along streams.

Pandanus simplex sp. nov. § *Bragantia*.

An erect, unbranched tree about 6 m. high, the leaves about 3 m. long and 11 cm. wide, the fruit solitary, cylindrical or subglobose, about 9 cm. in diameter. Margins of the leaves toothed, the teeth below, stout and distant 2 to 3 cm., above small and close, the midrib beneath with scattered teeth, above glabrous. Peduncle stout, triangular, 3 to 3.5 cm. thick. Drupes 1-celled, 3 cm. long, about 1 cm. thick, many, obovoid, the basal portion 2 cm. long, compressed, angular, narrowed below, the apical portion angular, subpyramidal, the tip smooth and rounded, scarcely truncate. Stigma plain, sessile, sublateral, about 2 mm. in diameter.