

## TWO NEW FERNS OF THE GENUS LINDSAEA

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The two ferns of the genus *Lindsaea* here to be described, one from Colombia, the other from Cuba, we regard as very distinct and readily recognizable; otherwise we should hesitate to add to the list of names in a genus so thoroughly in need of careful revision.

### LINDSAEA PITTIERI Underwood & Maxon, sp. nov.

Apparently mature plants 10 to 11.5 cm. high. Rhizome very short-creeping, with close-set, bright brown, glistening, narrow, lanceolate-attenuate scales about 1 mm. in length; fronds subcespitose, conform, erect, simply pinnate, very dark green; stipes 2.5 to 3 cm. long, relatively stout (about 0.75 mm. in diameter), castaneous, smooth, lustrous, convex dorsally, the upper surface concave with two narrow greenish-yellow wings extending to the quadrangular rachis; lamina exactly lanceolate, 8 to 9 cm. long, with about 10 pairs of approximate or somewhat spaced pinnæ and a hastate unequal terminal segment (3 cm. long); pinnæ nearly sessile, spreading, the lowermost pair lunate and strongly deflexed, the lower margin nearly parallel to the rachis, the other pinnæ subopposite and nearly of equal size, 11 to 13 mm. long, 5 mm. maximum width, decidedly lunulate, spreading or somewhat deflexed, at the base sharply cuneate, the inner margin (length 5 mm.) slightly concave and parallel to the rachis, the superior margin continuously rounded, the lower decurved; venation free, oblique, repeatedly dichotomous, ultimate veinlets 10; sori continuous, following the deeply curved upper margin from the base above around the subobtuse apex; indusium narrow (less than 0.5 mm. broad), one-third or less as wide as the opposed indusiform margin, at maturity the sporangia distant about 1 mm. from the sharply and irregularly erose margin.

Type in the U. S. National Museum, sheet no. 530,720, collected at an altitude of 30 to 100 meters near Córdoba, in the Dagua Valley, Pacific coastal zone, State of Cauca, Colombia, in December, 1905, by H. Pittier, no. 533.

*L. Pittieri* probably finds its nearest ally in *L. Leprieurii* Hook.,<sup>1</sup> a French Guianan species erroneously referred to *L. falcata* by

<sup>1</sup> Sp. Fil. 1: 208, pl. 62. D. 1846.

Christensen. It is similar in its pinnate condition, enlarged hastate terminal segment, and in having the narrow indusium at a considerable distance from the margin. It differs specifically, however, in having its subfasciculate fronds borne upon a stout short-creeping rhizome, in having the pinnæ decidedly rounded at the apex (instead of acuminate), and in its much smaller fronds, both fronds and pinnæ being about one-half the size of those of *L. Leprieurii*.

**LINDSAEA CUBENSIS** Underwood & Maxon, sp. nov.

A slender cespitose plant rising from a short, slender, creeping rhizome with spreading brown scales 1 mm. or less in length. Fronds light green, delicate, simply pinnate, the sterile spreading in a cluster, 5 to 6 cm. long, about 8 to 10-jugate, the fertile taller, erect, attaining 20 to 30 cm., 10 to 25-jugate; stipes sulcate, as long as the lamina in the fertile fronds, shorter in the sterile, slender, stramineous, darkened near the base, smooth throughout; pinnæ of the fertile fronds short-stalked, mostly lunate, the apices obtuse, the lower margins straight or somewhat decurved, or the lowest pinnæ sometimes obliquely and broadly cuneate, these 8 to 11 mm. long by 5 to 7 mm. wide, the succeeding pairs very gradually smaller, smooth, the outer margin denticulate; veins free, about 4 or 5 times dichotomously forked; sori terminal on the veins, forming a continuous band about 0.5 mm. distant from the margin; indusia subcontinuous, pale, the margins irregularly and often deeply erose.

Type in the herbarium of the New York Botanical Garden; collected in Cuba by Charles Wright, no. 3947. This number is also in the U. S. National Museum. Other Cuban specimens are:

PINAR DEL RIO:

Herradura, *Shafer*, 427;

El Guama, *Palmer and Riley*, 287;

Mountains north of San Diego de los Baños, *Palmer and Riley*, 550.

ISLE OF PINES:

Managua, *Palmer and Riley*, 1060;

Nueva Gerona, *Palmer and Riley*, 1027; *Curtiss*.

Among American species of the genus *L. cubensis* is unique in its slight texture and delicate stramineous vascular parts, in which particulars, as well as in general appearance, it bears a superficial resemblance to the East Indian *L. cultrata*. The difform fronds are characteristic.