

A NEW SPECIES OF FERN OF GENUS POLYPODIUM
FROM JAMAICA

By WILLIAM R. MAXON

Among the ferns collected in Jamaica by the writer in 1904 is a simple-leaved *Polypodium* which is distinct from the several related species of middle America. It may be known as

POLYPODIUM NESIOTICUM new species

Rhizome suberect, about 1 cm. long, densely clothed with closely appressed imbricate lanceolate dull light-brown scales: fronds few, approximate, 15 to 22 cm. long; stipe relatively very short (1 to 2 cm. long), densely beset with slender spreading rigid reddish hairs; lamina (largest) 20.5 cm. long, 0.9 cm. broad, bright green, firm, moderately thick, linear-lingulate, rather blunt at the apex, attenuate and decurrent at the base, the under surface sparsely hairy, the upper surface glabrate, the margins regularly marked by broad shallow undulations, ciliate; midvein apparent on the under surface nearly throughout, on the upper surface concealed by the parenchyma except towards the base; venation free, the oblique veins for the most part alternately 3 to 5 times forked; sori round, either terminal or dorsal, wholly superficial, 2 to 4 to each group of veins, irregularly disposed in two or four interrupted rows.

JAMAICA.—Founded upon a single specimen, U. S. National Herbarium, no. 520770, from the vicinity of Vinegar Hill, altitude 1200 meters; William R. Maxon, no. 2773; June 23, 1904. Growing upon the trunk of a forest tree, ten feet from the ground.

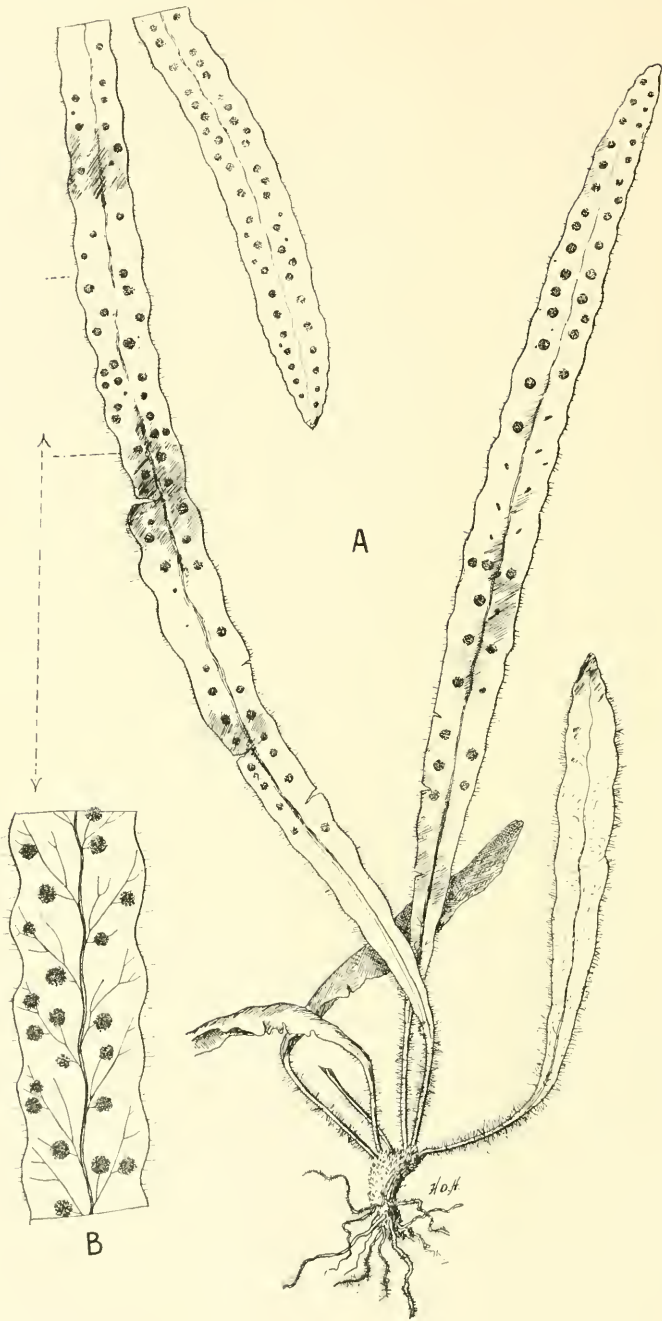
The present species appears to be a very rare member of a group of tropical American species represented in Jamaica by the well known *Polypodium trifurcatum* L., *P. fawcettii* Baker,¹ and *P. dendricolum* Jenman,² the last apparently very close to the Colombian *P. parietinum* Klotzsch.³ *P. fawcettii* and *P. dendricolum* have been well distinguished by Jenman⁴ since their original publication.

¹ *Journ. Bot. Brit. and For.* 27: 270. 1889.

² *Gard. Chron.* III. 16: 467. 1894.

³ *Linnaea* 20: 373. 1847. Illustrated by Kunze, *Farrenkr.* 2: 41. pl. 117, f. 1. 1848-1851.

⁴ *Bull. Bot. Dept. Jamaica* II. 4: 68-69. 1897.



POLYPODIUM NESIOTICUM MAXON

A. — Entire plant, natural size.

B. — Section of large frond to show venation, twice natural size

P. nesioticum is very distinct from both, but for the benefit of those who have not material of these rare species the following notes may be of use.

P. favcettii is correctly said by Jenman to be "infrequent at 4,000 to 6,000 feet altitude in damp forests on the trunks and branches of trees." Two numbers (2723, 2760) were collected in such situations by the writer in 1903 and 1904. It is characterized, briefly, by its dark villous slender conspicuously upright rhizome, numerous closely set small, very narrow fronds, and almost simple veins,—the sori being borne in two rows near the midvein, each upon a short spur given off by the otherwise simple vein. In all these characters the plant contrasts strongly with *P. nesioticum*.

P. dendricolum appears to be a very rare species. Professor Underwood states (*in litt.*) that it is "represented at Kew only by a tracing of the type," the type being presumably in the Herbarium of the Jamaican Botanical Department at Kingston, Jamaica. There is, however, a single frond from the type specimen preserved in the Jenman herbarium at New York, and this agrees absolutely with two other numbers of Jamaican specimens, *viz.*: one (without definite locality), collected by D. E. Watt in 1903; and another, from the slopes of Monkey Hill (above New Haven Gap), altitude about 1,800 meters, Maxon, no. 2736; both of which numbers are represented in the herbarium of the New York Botanical Garden and the U. S. National Herbarium. This species is somewhat more closely related to *P. nesioticum* than is *P. favcettii*. It is distinguished by its reduced stature (5 to 7 cm.), thicker texture, more general villous covering, deeply scalloped (instead of undulate) margins, simpler venation, and particularly (1) by having the midvein covered on both surfaces by parenchyma, and (2) by what Jenman calls "embossed receptacles," *i. e.*, having the parenchyma considerably raised (on the under surface) above the concealed veins toward their extremities, thus imparting a marked rugose effect to the under surface. The last character is sufficient in itself to distinguish *P. dendricolum* at sight.

The venation of *P. nesioticum* is peculiar and shows an approach to that of *P. trifurcatum*. It is well indicated in the accompanying plate which has been prepared under the author's supervision by Mr. H. D. House.