

THE FERNS OF CEYLON

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The Ferns of Ceylon by Lorenzo G. Yates

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LORENZO G. YATES

**THE FERNS
OF CEYLON**

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FERNS OF CEYLON

— BY —

Lorenzo G. Yates.

With extracts from manuscript notes of the
late Dr. Thwaites, and the pub-
lished works of Hooker,
Baker and Wall.

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PREFACE.

THIS little manual is not intended to take the place of the larger and more important works on this subject, but simply as a work of ready reference for Pteridologists and botanists generally, especially where the magnificent works of Beudant, Hooker, and others, are inaccessible; and for students who may be desirous of knowing what species of ferns are indigenous on the Island, and also something of the conditions of growth in their native habitat, for the purpose of cultivating the species most advantageously. The genera and species are arranged alphabetically, as being more convenient for reference, and also to obviate the necessity of indexing. It affords me much pleasure to express my obligations to Sir Joseph Hooker, for valuable specimens, and to Mr. J. G. Baker, of the Kew Herbarium, for valuable assistance in the way of books and information.

LORENZO G. YATES.

SANTA BARBARA, Cal., February, 1887.



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INTRODUCTION.

THE Island of Ceylon is situated between 5 deg. 51 min. and 9 deg. 51 min. north latitude, and between 79 deg. 41 min. 40 sec. and 81 deg. 54 min. 50 sec. east longitude, and has an area of about 25,000 square miles.

The southern portion of the Island consists of an interior mountainous region, surrounded by a low coast line of from thirty to eighty miles in width. The mountain zone covers an area of about four thousand miles. The highest mountain is Piduru Talagala, or Pedrotallagalla—8,293 feet. The rivers in this region are bordered by a dense growth of forest, and diversified with innumerable cascades and rapids, flowing through deep chasms, whose rocky walls furnish admirable conditions for fern growth, where they grow on the rocks and trees, especially in the Central and Southern Provinces. The northern portion of the Island forms a vast unbroken plain.

The summits of the highest ridges are covered with verdure, and the slopes were formerly covered with forests of lofty trees, which have rapidly disappeared under the ax of the coffee planter.

Newera Ellia Plain is at an elevation of about 6,200 feet; the Horton Plains, 7,000 feet, and Kandy, in the Central Province, is 1,727 feet.

The climate of the Island is regulated by the monsoons. The southwest monsoon prevails along the southwest coast in the early summer; the northeast monsoon reaches the northeast coast about October or November. The former drives the clouds against the lofty mountains of the south and west, supplying copious rains, which do not reach the eastern and northern por-

tions of the Island. The effects of the northeast monsoon are more uniform, and the showers extend over the entire surface of the Island. At Ratnapura, lying immediately under Adam's Peak, the yearly amount of rain is about 146 inches, and the number of rainy days 228; while at Badulla, at an altitude of 2,220 feet, the rainfall is about 58 inches, with 57 rainy days. This wide difference of climatic conditions gives suitable conditions for species having widely differing requirements for their growth, and presents a goodly list of species as indigenous to the Island.

The majority of the species grow at an elevation of between 2,000 and 5,000 feet.

The localities in the following notes are taken, principally, from "A Catalogue of the Ferns Indigenous to Ceylon, by G. W.," published in London.





FERNS OF CEYLON.

The page numbers, after the names of the species, refer to the latest edition of Hooker & Baker's *Synopsis Filicum*.

ACROSTICHUM.

A. (*Egenolfa*) *APPENDICULATUM*, *Willd.* (p. 415).

Very common among stones, in the beds of streams, in the forests of the Central Province, up to an altitude of 5,000 feet.

A. (*Chrysodium*) *AUREUM*, *L.* (p. 423).

Very abundant in swamps about Galle and Colombo. Widely distributed throughout the tropics.

A. (*Elaphoglossum*) *CONFORME*, *Sw.* (p. 401).

Common in the forests of the Central Province, above an altitude of 4,000 feet, on rocks and trees. Widely distributed, and has a long list of synonyms.

A. (*Chrysodium*) *LANCEOLATUM*, *Hobk.* (p. 420).

At Rambodde and below Pittswells, on rocks, in river-beds.

A. (*Gymnopteris*) *QUERCIFOLIUM*, *Retz.* (p. 418.)

Common in the Western Province, about Colombo, on roadside banks.

A. (*Stenochlæna*) *SCANDENS*, *J. Sm.* (p. 412).

Very common, climbing on trees, in the Western, Central and Southern Provinces, up to an altitude of 3,500 feet; fruits from August to October.

ACROSTICHUM (*Elaphoglossum*) SPATHULATUM, *Dory.* (p. 403).
—*A. piloselloides*, *Prest.*; *A. acutum*, *Fee.*

On rocks, in the forests about Newera Ellia, and in the Southern Province, at a lower elevation.

A. (Hymenolepis) SPICATUM, *L.* (p. 424).

In the forests of the Central Province, at an altitude of from 2,000 to 4,000 feet; on trees. Not uncommon.

A. (Elaphoglossum) SQUAMOSUM, *Ste.* (p. 411).

Above Rambodde, at an altitude of about 5,000 feet; on trees. Fruits from August to November.

A. (Gymnopteris) VARIABLE, *Hook.* (p. 417).

The simple fringed form is common on rocks and banks in the forests of the Central Province, at an altitude of from 3,000 to 6,000 feet. The pinnate form, in the forests about Matale, at an altitude of 3,000 feet; abundant during southwest monsoon.

A. (Gymnopteris) VIRENS, *Wall.* (p. 420).

In the ground, in Oodawella forests.

A. (Chrysodium) WALLII, *Baker.* (p. 523).

In a rocky ravine, on mossy stones, at Moorooa, Southern Province. Peculiar to Ceylon.

ACTINIOPTERIS.

A. RADIATA, *Link.* (p. 246).—*A. australis*, *Link.*; *Acrostichum dichotomum*, *Porsk.*

At Trincomalee and Gonogamma, near Kandy. The only species of the genus.

ADIANTUM.

A. CAPILLUS-VENERIS, *L.* (p. 123).

On wet rocks, about Hackgalla.

A. CAUDATUM, *Lin.* (p. 115).—*A. Edgeworthi*, *Hk.*; *A. rhizophorum*, *Ste.*

Abundant in the Central, Western and Southern Provinces, up to an altitude of 2,000 feet; on rock, walls and dry banks.

ADIANTUM FLABELLULATUM, L. (p. 126).—*A. amceum*, *Hk.* and *Gr.*

Found in Ouwah District.—Thwaites.

A. HISPIDULUM, *Swz.* (p. 126).

Common in the forests of the Central Province, up to an altitude of 4,000 feet. Terraneous, and on rocks.

A. LUNULATUM, *Burm.* (p. 114).—*A. deflectens*, *Mart.*; *A. dolabriforme*, *Hk.*; *A. filiforme*, *Gard.*

Common on old walls about Kandy and Central Province; very abundant on eastern ranges, down to Binteuse.

ALLANTODIA.

A. BRUNONIANA, *Wall.* (p. 246).

Common in the forests of the Central Province, at an altitude of from 2,000 to 4,000 feet; terraneous. The only species of the genus.

ALSOPHILA.

A. CRINITA, *Hook.* (p. 42).

Large tree fern, from ten to twenty feet high. Abundant in the forests of the Central Province, at an altitude of from 4,500 to 6,000 feet.

A. GLABRA, *Hk.* (p. 43).—*A. gigantea*, *Hk.*

Large fronded tree fern, of low stature. In forests of the Central Province, at an altitude of from 3,000 to 5,000 feet. Not common.

ANGIOPTERIS.

A. ERECTA, *Hoffm.* (p. 440).

Common in the forests of the Central Province, at an altitude of from 3,000 to 5,000 feet. Terraneous. The only known species of the genus.