

ANNALS  
OF THE  
SOUTH AFRICAN MUSEUM

*VOLUME XVI*



PRINTED FOR THE  
TRUSTEES OF THE SOUTH AFRICAN MUSEUM  
BY NEILL AND CO., LTD., 212 CAUSEWAYSIDE, EDINBURGH.

1917 - 1933.

## LIST OF CONTRIBUTORS.

S. GARABEDIAN.	PAGE
Contributions to a Knowledge of the Flora of South-West Africa.	
No. 1. List of Grasses. Plate VIII . . . . .	381
E. P. PHILLIPS.	
A Contribution to the Flora of the Leribe Plateau and Environs: with a Discussion on the Relationships of the Floras of Basutoland, the Kalahari, and the South-eastern Regions. Plates I-VII . . . . .	1
M. A. POCKOCK.	
<i>Volvox</i> and Associated Algae from Kimberley. With Field Notes by J. H. POWER. Plates XXV-XXXVII, and Seven Text-figures . . . . .	473
M. A. POCKOCK.	
<i>Volvox</i> in South Africa. Plates XXXVIII-XLIX, and Ten Text-figures . . . . .	523
F. RICH and M. A. POCKOCK.	
Observations on the Genus <i>Volvox</i> in Africa. Plates IX-XXIV, and Six Text-figures . . . . .	427

DATE OF ISSUE OF THE PARTS.

Part 1, June 21st, 1917.

Part 2, April, 1925.

Part 3, July, 1933.

# ANNALS

OF THE

# SOUTH AFRICAN MUSEUM.

(Vol. XVI.)

---

1. - *A Contribution to the Flora of the Leribe Plateau and Environs: with a Discussion on the Relationships of the Floras of Basutoland, the Kalahari, and the South-Eastern Regions.*—By E. P. PHILLIPS, M.A., D.Sc., F.L.S., Assistant.

## CONTENTS.

	PAGE
I. INTRODUCTION . . . . .	2
II. THE LERIBE FLORA . . . . .	3
Orography and Geology . . . . .	3
Meteorology . . . . .	4
Oecological and Biological Features . . . . .	5
Native Names and uses of Plants . . . . .	10
Alien Flora . . . . .	12
Systematic Constituents of the Flora . . . . .	13
III. THE EASTERN MOUNTAIN REGION. . . . .	14
Orography . . . . .	15
Geology . . . . .	17
Meteorology . . . . .	19
Systematic Constituents of the Flora . . . . .	21
IV. THE KALAHARI FLORA . . . . .	23
Introduction . . . . .	23
Meteorology . . . . .	25
Systematic Constituents of the Flora . . . . .	26
V. A COMPARISON OF THE FLORAS OF THE EASTERN MOUNTAIN AND KALAHARI REGIONS . . . . .	27
VI. THE SOUTH-EASTERN REGION . . . . .	30

VII. A COMPARISON OF THE FLORA OF THE EASTERN MOUNTAIN AND SOUTH-EASTERN REGIONS . . . . .	31
VIII. SUMMARY . . . . .	32
IX. LIST OF SPECIES OCCURRING IN THE EASTERN MOUNTAIN REGION, WITH DESCRIPTIONS OF NEW SPECIES . . . . .	33
X. INDEX TO GENERA . . . . .	372

## I. INTRODUCTION.

THE present paper is the outcome of an investigation undertaken by the writer, of the flora of Leribe in northern Basutoland. Hitherto Basutoland has not received the attention from botanical collectors which it deserves, and the only collections as far as I am aware, are those of Cooper, who journeyed through Basutoland (unfortunately his plants are not properly localised); the Rev. J. Buchanan, who botanised in the Leribe District; Mr. J. Thode, who collected on the Basutoland side of the Drakensbergen; and Mr. E. E. Galpin, who explored the high mountains separating Basutoland from Barkly East and as far inland as the Buffalo River Waterfall. The results of Mr. Galpin's investigations were read before the South African Association for the Advancement of Science in 1908.

The Rev. H. Dieterlen and his wife, Madame A. Dieterlen, of the French Protestant Missionary Society, who were stationed for many years at Leribe, have been deeply interested in the local flora. Madame Dieterlen has made an exhaustive collection of the native plants, the bulk of which she forwarded to the South African Museum herbarium for identification. The writer has thus had unique opportunities during the past seven years of becoming fairly well acquainted with a part of the Basutoland flora, and more especially with that of Leribe. In February 1913, he paid a visit to Leribe for the purpose of studying the flora on the spot.

When naming Madame Dieterlen's plants and comparing them with the specimens in our herbarium, I was particularly struck by the fact that so many of the species also occurred in the Eastern parts of South Africa such as the Transkei, Komgha, Pondoland, East Griqualand, Natal, etc., and then came to the conclusion that Basutoland ought not to be included in the Kalahari Region. This led me to make a more detailed study of the subject, with the result that I have attempted in the following pages to prove what Bolus\* first suggested, viz. that Basutoland and parts of the surrounding country form a distinct floral area.

\* "Sketch of the Floral Regions of South Africa," Science in South Africa. Cape Town. 1905.

George. Knysna. Uitenhage. Albany. Pondoland. Tembuland. Natal. Transvaal (Pilgrim's Rest).

SESUTO: *Lehōrōmetso. Lesiea.* The one who leaves (or goes away).

TODEA, *Willd.*

**T. barbara**, Moore.

Natal, Drakensbergen, *Kunze.*

DISTRIBUTION: Cape. Uitenhage. Albany. Natal.

MOHRIA, *Sw.*

**M. caffrorum**, Desv.

Shady spots and under rocks on mountain slopes. 3-18 in. high. sporing in December. *A. Dieterlen*, 475!, 841!

DISTRIBUTION: Cape. Tulbagh. Caledon. Somerset East. Stutterheim. Stockenström. Komgha. Transkei. Natal. Transvaal (Magaliesberg, Johannesburg).

SESUTO: *Lehōrōmetso.* See *Gleichenia polyodioides.* See also note under *Adiantum Capillus-Veneris.*

OPHIOGLOSSUM, *Linn.*

**O. vulgatum**, Linn.

Under rocks on mountain slopes. 3-9 in. high, sporing in Summer-Autumn. *A. Dieterlen*, 718!

DISTRIBUTION: Cape. Beaufort West. Uitenhage. Bedford. Somerset East. Graaff Reinet. King William's Town. Tembuland. Natal. Transvaal (Magaliesberg).

SESUTO: '*Maliyo.* The mother of food. *Tsèbè ngoe.* One ear. *Tseyananyane.* A small ear. When this plant is abundant, the natives say that there will be a good crop; they explain this by saying the plant likes moisture, and that when the plant is plentiful it is due to much rain having fallen and consequently the crops will be good. A warm decoction of the rhizomes is used as a lotion to bathe boils.

EQUISETACEAE.

EQUISETUM, *Linn.*

**E. ramosissimum**, Desf.

Growing in streams. 6-25 in. high, cones greyish. Summer. *A. Dieterlen*, 6!