

17. — *The fauna and Stratigraphy of the Stormberg Series.* — By S. H. HAUGHTON, B. A., D.Sc., F. G. S., Hon. Curator of the Palaeontological Collections, formerly Assistant Director, S. A. Museum. (With 55 Text-figures.)

INTRODUCTION.

In the following pages an attempt is made to bring together facts, previously scattered through a number of publications, bearing upon the stratigraphy and palaeontology of the Stormberg Series and to incorporate among them the results of three collecting expeditions made by the author mainly in the districts of Herschel and Wodehouse. The whole of the fossil collection of the South African Museum has been reviewed — the animals by the author, the plants by Dr. A. L. du Toit. The work of the latter is not yet ready for publication; but Dr. du Toit has kindly forwarded a provisional list of his identifications, which is incorporated below. To him I am also indebted for constant critical advice and, as will be seen, I have drawn largely upon his published descriptions of the stratigraphy of the beds.

Mr. Macgregor, of the Rhodesian Geological Survey, has been good enough to supply me with notes and specimens from Southern Rhodesia. Rock-sections have been cut in the Geological Department of the University of Cape Town, where Professor A. Young has critically examined the petrological work, besides discussing the many interesting points of palaeogeography which arose. Thanks are due to the Royal Society of South Africa for a grant which resulted in the discovery of the skeleton of *Mussospondylus hurriesi*; and, among others, I am indebted for help to Dr. L. Péringuey for examination of the insect-remains and to Mr. K. H. Barnard for inspection of the crustacea.

FAUNA AND FLORA.

The following list shows the forms found in the Stormberg Series.

PLANTS.

(List supplied by Dr. A. L. du Toit.)

- *Neocalamites (Schizoneura) Carrerei*, (Zeill.).
- Neocalamites* sp. Sew.

ORDER PLECOPTERA.

FAM. EPHEMERIDAE.

PHTHARTUS AFRICANUS, sp. nov.

Text fig. 2.

This is represented by several imperfect larvae of which the specimen figured (Cat. No. 5732) is nearly complete, lacking the head and lateral appendages. The cercal setae are faintly indicated — and have been drawn in on the evidence of a second specimen (No. 5733) consisting of the hinder portion of an abdomen in which the long setae are well-marked.

As preserved, the body without the cerci is 15 mm. long and 3.5 mm. broad in the middle.

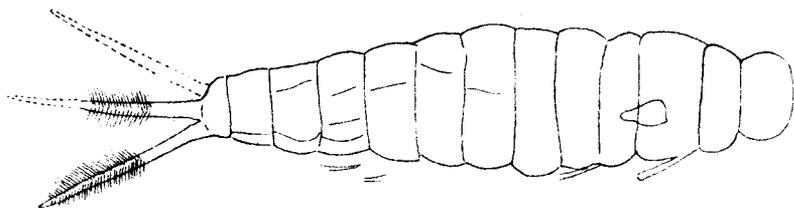


Fig. 2. *Phthartus africanus*, Htn.

The earliest Ephemeropterid larvae belong to the genus *Phthartus* Handl. from the Permian of Russia. The present form seems fairly similar to that genus, but the cerci are shorter and stouter. It may be grouped provisionally as *Phthartus africanus* sp. nov.

Type. Impression on shale — S. Afr. Mus. Cat. No. 5732.

Locality. Road-cutting, Siberia, Wodehouse, C. P.

Horizon. Shale-band near base of Cave Sandstone.

ORDER ORTHOPTERA.

FAM. MESOBLATTINIDAE, Handl.

STRIATOTEGMEN AFRICANUM, gen. et sp. nov.

Text fig. 3.

Tillyard's emendation of the characters of this family runs as follows: — "Subcosta much reduced. Radial area extensive and strongly developed, sending numerous branches towards the anterior