

Contributions to a Knowledge of the Terrestrial Isopoda of Natal.

Part II.

By

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With Plate XIV.

THE peculiar and interesting genus here described was discovered by Dr. Conrad Akerman at Umhlali, Natal, in May, 1916, and I have much pleasure in associating with it his name as a slight appreciation of his indefatigable energy and labours in connection with the elucidation of the Terrestrial Isopoda of Natal.

There are a number of characters which separate the genus *Akermania* from any hitherto described, not the least striking being the shape of the cephalon, the folded coxopodite beneath the pleural plates of the 1st mesosomatic segment, the feeble walking legs on segments 2—7, the short expanded uropoda with their characteristic setæ, and the shape of the telson.

As to the relationship with other genera, it is somewhat difficult to place this new genus. The oral appendages afford no assistance. In all probability it belongs to the Cubaridæ, but it is widely separated from *Cubaris Brandt*, or any of the allied genera.

AKERMANIA gen. nov.

Body oblong oval, strongly convex, richly setose or spiny; scales large and definite, variable in shape. Cephalon without lateral or median lobes; anterior and posterior margins distinct; epistome almost flat. Eyes compound, ocelli large, situated dorso-laterally. Antennulæ absent. Antennæ very short; flagellum 2-jointed. Coxopodite of the 1st and 2nd mesosomatic segments folded to form a groove and ridge beneath the pleural plates. Appendages of the mesosome feebly developed. Uropoda short and small, not extending beyond the telson, thick, strongly-raised, and convex; exopodite small, situated in a groove on the lower inner margin of the basipodite. Telson ovals expanded anteriorly, broader than long, posterior margin almost truncate.

This genus differs from *Cubaris Brandt* in the form of the cephalon, the absence of antennulæ, in the feeble development of the mesosomatic appendages, and in the form of the telson and uropoda. Further, in the great development of the spines, setæ, and scales, it differs from any other genus of the family Cubaridæ.

Akermania spinosa sp. n. Pl. XIV, figs. 1-12.

Body oblong oval, strongly convex, with numerous bluntly-ending spines and short setæ with bulbous bases, on the cephalon and mesosomatic segments; on the metasomatic segments the spines are fewer (fig. 1). Cephalon (fig. 2) without lateral or median lobes; anterior and posterior margins distinct, anterior margin with tooth-like spines; epistome almost flat. Eyes fairly large, compound, with large ocelli, situated dorso-laterally. Antennulæ absent. Antennæ (fig. 3) short, setose; flagellum 2-jointed, the distal joint being slightly more than twice the length of the proximal one, with terminal setose style. First maxillæ (fig. 4), outer lobe terminating in four stout, incurved spines and six smaller, straighter ones; inner lobe narrow, with two equal-sized setose spines. Second maxillæ (fig. 4) thin and plate-like, terminating distally in a

setaceous lobe on the inner side. Maxillipedes (fig. 6) with broad basal plate; terminal joint of the outer palp multi-spinous, with single spine on the middle joint and two stout ones on the inner border of the first joint; the inner palp is rounded terminally, and has three prominent spines. The segments of the mesosome (fig. 7) are strongly arched, and have two transverse rows of spines. The coxopodite of the first segment forms a deep groove beneath the pleural plate (fig. 8), into which the coxopodite of the second segment fits. Mesosomatic appendages 2 to 8 (fig. 10) feebly developed, sparsely setose. Metasomatic segments similar to those of the mesosome, but smaller. Uropoda (fig. 12) short and small, not extending beyond the telson; basal plate with prominent diagonal ridge, setose, thick, strongly raised, and convex; posterior margin obtusely rounded; antero-dorsal surface expanded and concave; exopodite short, and situated in a groove on the lower inner margin of the basal plate; endopodite small, setose, with terminal spine, articulating on the anterior and inner border of the basal plate. Telson (fig. 11) ovally expanded anteriorly, with posterior portion with straight sides; there are two short, broad, obtusely-pointed spines at the posterior of the expanded region; terminal margin truncate, broader than long.

Length (of largest specimen) 4.5 mm.

Colour (in alcohol) creamy-white, with numerous irregular, dark sepia-brown markings.

Habitat.—Umhlali, Winkle Spruit, Natal. (C. Akerman.)

Type.—In the Natal Museum.

The external spines, setæ, and scales in this species are of considerable interest, and would well repay further investigation. In view of the small number of perfect specimens so far obtained, I have not felt justified in making this investigation beyond utilising the specimen dissected for the appendages, etc.

The spines on the cephalon are represented by three distinct types (fig. 9, *a-c*), probably stages in the development, *a* being the perfect spine, *b* the worn-out spine with

the developing one within, and *c* a later stage, in which part of both the *a* and *b* stages are present. There are a number of lateral setæ given off from these spines in all stages. Whether or not this represents an incipient ecdysis or a condition in which the new spine, previous to a general ecdysis, is found within the old one, I am unable to say. On the dorsum of the mesosomatic segments the spines are very similar, but the edges of all the segments show numerous peculiar setæ. On the metasome the spines are shorter and stouter (fig. 11). On the antennæ, and the appendages of segments 2-8 of the mesosome, the spines and setæ are not abundant; they are of the usual character, but those towards the distal portion of the uropoda are more like those on the meso- and metasome.

Between the large spines of the mesosomatic segments there are distributed two sets of setæ which both arise from small bulbous bodies (fig. 7); the larger of the two show an indentation at their apex from which a short hair-like seta arises (fig. 13), whilst in the smaller ones two or three setæ arise from the summit.

The whole of the body and appendages are covered with a series of prominent scales varying in shape in different regions (figs. 8, 12 and 14), and a series of fine thread-like setæ.

I have been unable to find any antennulæ, and believe that they are absent.

The cephalon is strongly arched, and has three transverse rows of spines, whereas there are only two rows on the segments of the mesosome and a single row on those of the metasome.

The oral appendages do not call for any special mention. All the appendages of the mesosome are feebly developed.

The uropoda are small, and do not extend beyond the telson. The basipodite is a thickened plate, triangular in section, with a prominent diagonal ridge, formed partly by a slight elevation of the plate in this region, and partly by four rows of scales; towards the inner margin the scales become lanceolate in shape and overlap, and partly surround

the small exopodite; the posterior margin is almost truncate, whilst anteriorly the margin of each side is strongly raised, leaving a deep concavity between the two; the endopodite is club-shaped, setose, and has a long terminal spine in addition to other smaller ones.

EXPLANATION OF PLATE XIV,

Illustrating Dr. Walter E. Collinge's paper, "Contributions to a Knowledge of the Terrestrial Isopoda of Natal," Part II.

Akermania spinosa gen. et sp. nov.

FIG. 1.—× 12. Dorsal view.

FIG. 2.—Anterior view of the cephalon.

FIG. 3.—× 84. Left antenna, dorsal view.

FIG. 4.—× 230. Terminal portion of the inner and outer lobes of the left 1st maxilla, ventral view.

FIG. 5.—Terminal portion of the left 2nd maxilla, ventral view.

FIG. 6.—× 220. Terminal portion of the left maxillipede, ventral view.

FIG. 7.—× 36. First segment of the mesosome, anterior view.

FIG. 8.—Underside of the lateral margin of the 1st mesosomatic segment.

FIG. 9.—Spines from the mesosome.

FIG. 10.—× 56. Appendage of the 1st free segment of the mesosome.

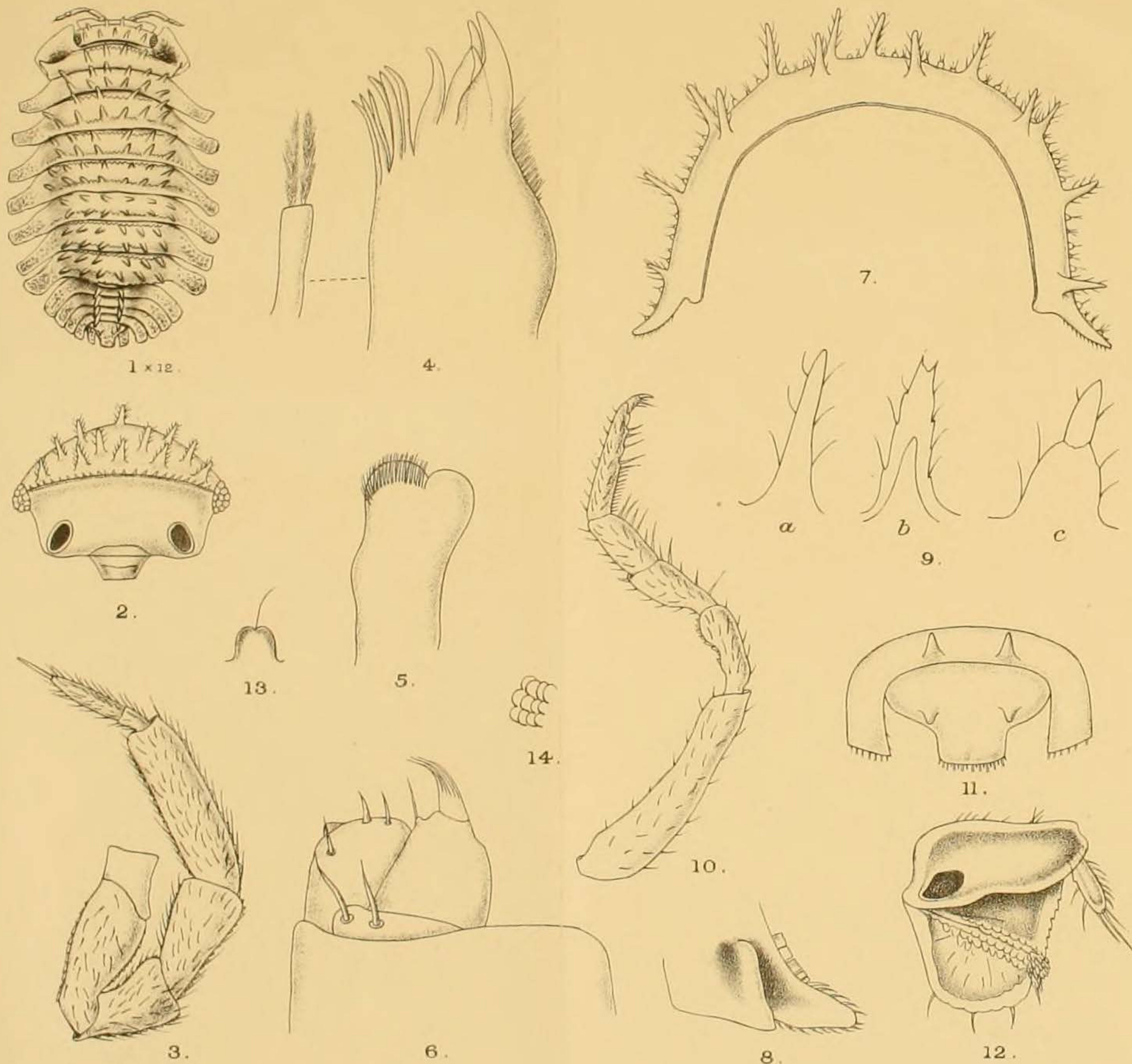
FIG. 11.—Dorsal view of the telson and last metasomatic segment.

FIG. 12.—Dorsal view of the left uropod.

FIG. 13.—Bulbous body bearing a hair-like seta.

FIG. 14.—× 320. Overlapping scales on mesosomatic segments.

The author desires to thank the Carnegie Trust for the Universities of Scotland for a grant to defray artists' charges.



S.R.K. et E.R.B. del.

Huth, London.

AKERMANIA SPINOSA, *gen. et sp. nov.*

VOL. IV.

MAY, 1919.

PART I.

ANNALS
OF THE
NATAL MUSEUM



EDITED BY

ERNEST WARREN, D.Sc.(LOND.), DIRECTOR.



PRINTED BY ORDER OF THE TRUSTEES.

LONDON:
ADLARD & SON & WEST NEWMAN, LTD.
BARTHOLOMEW CLOSE
1919

Price 10s. net.

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