Descriptions of new species of Arachnida from Cape Colony.

By John Hewitt.

ORDER ARANEÆ.

FAMILY MIGIDEÆ.

Moggridgearupicola, sp. nov.

This species is related to M. crudeni, Hewitt (Ann. Transvaal Mus., Vol. IV., Pt. I.), and more remotely to M. dyeri, O. P. Cambr., but may at once be distinguished therefrom through the complete absence, or very weak development, of the patch of spinules at the base of the coxa of the first leg; both crudeni and dyeri have a large patch of strong spinules thus disposed. From M. mordax, Purcell (Ann. S. African Mus., 3, 69), described from Montagu, it may be distinguished through the characters of the anterior row of eyes and in the spinulation of the coxa of the pedipalp inferiorly.

Types. A series of female specimens from Alicedale collected by Mr. Frank Cruden in March, 1913, and presented to the Albany Museum.

Colour. Carapace and legs pale yellowish brown above and below, with some darker olive markings, the patellae being paler than the other segments of the legs. Abdomen with or without a purple tinge above.

Carapace longer than broad, its length equal to that of the tibia, metatarsus, and one fourth of the tarsus of the fourth leg, and considerably exceeding that of the tibia, metatarsus, and tarsus of the first leg. Fovea usually almost straight but recurved at the two ends with no short backward prolongation in the midline or with only a very slight indication thereof and usually with no trace of a fine median groove behind the fovea.

Anterior row of eyes with its front margins forming a slightly procurred line, the lateral eyes of moderate size, their area con-
considerably more than twice that of an anterior median: posterior laterals and posterior medians subequal in size. Anterior medians about a diameter apart and three or more diameters distant from the anterior laterals. Width of ocular area exceeding the length of the first metatarsus. Posterior row of eyes distinctly recurved.

**Legs.** Metatarsus IV with 3 spiniform setae in the apical tuft. The band of spines and hairs along the anterior surface of patella III is composed of a double row of setiform spines and inferiorly a row of hairs. Coxa II and III with a basal patch of sharp stout spinules, that on the second coxa larger, that on coxa III, including about 12 to 16 spinules: coxa I, without spinules or with four or five very weak ones.

**Pedipalp.** On the under side of the coxa there are only from 10 to 15 teeth comprised in two irregular rows.

**Labium with 7 to 14 teeth.**

**Total Length, 10 mm.**

In the poort at Alicevale this species occurs in precisely the same localities as *M. crudenii*. The nests of both species are often found within a few feet of each other in the same rock crevice. The lids of *rupicola* and *crudenii* differ slightly in shape and thickness, that of the former being distinctly thinner and more oval than the lid of *crudenii*. I have recently taken two examples of *rupicola* on a limestone rock at Dassie Klip, Bushman's River.

The following description of the male is based on four specimens, one of which was taken by Mr. Cruden in a nest, the lid of which was exactly like that of a female *rupicola*.

**Male.**

**Colour.** Carapace brown, appendages olive-brown, the tarsi of the legs pale, more definitely so in legs I and II.

**Carapace.** Surface finely shagreened throughout except on the oblique groove on either side which marks off the cephalic area. Fovea recurved at the ends. A slight superficial median groove extends from the fovea anteriorly towards the ocular area. Ocular arrangement similar to that of female but the eyes of the
antior row more closely approximated and the anterior medians are relatively distinctly larger. Between and very slightly in front of the anterior medians is a single vertical spine. Carapace is slightly longer than broad.

**Pedipalp.** The bulb is reddish and has a straight black process which is considerably longer than the long diameter of the bulb itself. Metatarsus with numerous bristly hairs dorsally; viewed from above it is shallowly cleft anteriorly for attachment to the basal part of the bulb. Tibia considerably expanded ventrally and with very long bristly hairs arising from its lower surface, its length about 2½ times its depth.

**Legs.** On lower surface of tarsus and greater portion of metatarsus of 4th leg is a distinct scopula and indications of a scopula of coarser type occur on the other tarsi especially the third. No apical transverse row of spinules on lower surface of metatarsus IV. No stout spiniform setae below the second femur. Spinules on labium and coxae of legs very weak: coxa I. quite without spinules, coxa of pedipalp with some very weak ones, labium with 2 somewhat larger and a few scattered weak ones: a small patch on coxa II. and III. the latter including about 10 or 12 spinules. Tibia I. with some very strong spines laterally and ventrally and a few weaker ones on the metatarsus: there are also 3 or 4 strong ones on the inside of the patella. Second leg with no spines on patella or with one or several at the apex, a few long spines or strong bristles on the metatarsus and some strong spines on the ventral and lateral surfaces of the tibia. Patella IV. with no band of spinules or short bristles on its anterior side.

**Chelicerae.** Inner row of teeth under chelicera comprising only about 4 weak teeth, and outer row only a single somewhat stronger tooth opposite the basal end of the inner row (in one example there are indications of more proximally situated teeth in the outer row).

**Abdomen** rather sparsely clothed above with short hairs amongst which are a few longer and more bristly ones.
Arachnida.

Measurements. Total length 8.5, first leg 11.75, fourth leg 12.25, second leg 10.5, third leg 8.75, pedipalp 7 millimetres.

*Moggridgea rupicola* sp. nov., fourth tarsal claw and palp of male.

So far as I can ascertain no male of the genus *Moggridgea* has been previously described. The Rev. O. P. Cambridge gave a description of the male of a closely related form which he referred to his genus *Caeedmon*—this being a synonym of *Poccolomigas*, Sim. —in Annals S. African Mus., Vol. III., p. 144, Pl. IX., from which it would appear that the males of *Poccolomigas* and *Moggridgea* are hardly distinguishable except in the curvature of the anterior row of eyes: on the other hand the females of *Moggridgea* and *Poccolomigas* differ in respect to several other characters. An apparently good generic character, not hitherto pointed out, is found in an oblique patch of peculiar stiff hairs arranged in one or several rows, occurring on the inferior surface of the patellae of the first and second legs in both sexes of *Moggridgea* but not in the females of *Poccolomigas*: each hair abruptly tapers to a fine point at its end but elsewhere is of uniform thickness throughout.


The thoracic fovea of this species resembles the type common to the several Malagasy genera of this family, particularly that of *Thyrocoenus*, Poc. As the character of the fovea has hitherto provided the most important distinction between the subfamilies *Migoneae* of S. Africa and New Zealand, and *Myrtaeleae* of Madagascar, the discovery of *M. crudenii* makes it inadvisable to recognise the two groups as distinct subfamilies.
I have recently found this species on sloping ground in the bush near Dassie Klip, Bushman’s River.

*Moggridgea crudeni* Hewitt, fovea and ocular arrangement in female.

**Family** Ctenizidae.

**Hermachis crudeni**, sp. nov.

**Type.** A single female specimen collected at Alicedale by Mr. F. Cruden in June, 1913, and presented to the Albany Museum.

**Colour.** Legs and carapace light chestnut brown; abdomen dull brown with a dark tree-pattern on the upper surface.

**Carapace.** Only very slightly longer than the fourth metatarsus and tarsus, and as long as the tibia, metatarsus, and $\frac{1}{4}$ of the tarsus of the first leg. Fovea straight. Posterior lateral eyes smaller than the anterior laterals and separated from them by a distance equal to about $\frac{1}{4}$ the long diameter of the latter; posterior medians almost touching the laterals and almost equal to the latter in area.

**Labium.** With 3 small apical teeth.

**Coxae of Pedipalps.** With about 50 or more teeth arranged in a triangular patch at the base.

**Legs.** Tibia I. very slightly longer than the metatarsus, inferiorly with 2 apical and 1 other spiniform setae, and 1 near the inner upper edge. Metatarsus I with 1 spine at the apex and 2 nearer the base below, scopulate to the base inferiorly; metatarsus II. scopulate almost to the base, III. and IV. not scopulate. Tarsus I. with dense undivided scopula, in II. the scopula is divided by a row of very slender inconspicuous setae, and in III., and IV. by a broad band of setae.

**Chelicerae.** Rastellum composed of stout and fine setae. Inner row of teeth on fang groove with 9 large teeth; the distal
tooth of the outer row of small teeth is opposite the interval between the third and fourth tooth of the inner row.

**Posterior spinners** very slightly exceeding the sternum in length; apical segment longer than the basal and about twice as long as the penultimate segment.

**Posterior sternal sigilla** moderately large, oval, the long diameter greater than distance from the margin of the sternum.

**Measurements**: Total length 21.5 mm. Length of carapace 7 mm., of tibia of first leg 3.75. Breadth of carapace 5 mm.

No species of *Hermachna* has been hitherto described or recorded from Eastern Cape Colony, and six out of the seven species referred to this genus are only known through male examples. *H. crudensi* seems to differ from *H. evanescent*, Purc. (Ann. S. A. Mus. III. p. 100), collected at Hanover, in the shape of the fovea, the length of the apical segment of the posterior spinners and in the absence of scopulae on the third and fourth metatarsi.

*Spiroctenus armatus* sp. nov.

**Type**: A single male example found by myself in a trap-door nest on the west bank of the Kowie River about two miles from Port Alfred in June, 1913.

**Colour**: Carapace dark reddish brown, becoming almost black in front and on the chelicerae, pedipalps and legs reddish brown the basal joints darker, especially the trochanters, abdomen pale yellowish above with an irregular black pattern: lower surfaces paler than the upper.

**Carapace** as long as the metatarsus and 4 of the tarsus of the fourth leg, about equal to the metatarsus and tarsus of the first leg but shorter than the tibia and metatarsus of that leg. Fovea distinctly procurved.

**Chelicerae** with about 15 teeth of moderate to small size in the inner row below.

**Larum** armed with numerous closely set cusps in its anterior half, and a patch of similar cusps occurs at the base of the coxa of the pedipalp in its anterior half.
Posterior spinners with the distal segment about \( \frac{1}{3} \) the length of the penultimate.

Pedipalp. Process slightly curved and tapering, not very slender, distinctly longer than the bulb if the expanded basal portion of the process be included.

Legs. Tarsi without spines. Metatarsus I. curved near the base, the underside distinctly concave, the inner surface with 2 large curved spines, outer surface inferiorly with 2 straight spines, the apex inferiorly with a pair of spines; II. with 1 spine on the inner surface and 2 on the outer surface inferiorly besides a pair at the apex below; III. and IV. with more numerous spines. Tibia I. with 2 very stout spur-like distal spines each raised on a tubercle, the more distal spur slightly twisted, its tubercle very prominent and situated on the inner inferior edge near the apex, the other spur sigmoidly curved and rather longer, its tubercle not very prominent and situated on the inner surface at a distance from the apex very slightly less than \( \frac{1}{3} \) the length of the segment, each of these tubercles terminating in a pointed projection on one side of the spur; the under surface of the tibia has otherwise only 2 rather slender spines (1 in the middle and 1 on the inner edge) and there is 1 long slender spine on the inner surface a short distance proximal to the smaller tubercle; tibia II. with 2 spines at the apex also 1 on the lower surface and 1 or 2 on the inner surface; III. and IV. with a number of spines. Patella III. with a row of 3 spines along the anterior surface but otherwise without spines. Femora armed above with strong bristles not spines. All the tarsi scopulate to the base, a mesial band of setae, narrow in the first three legs but much broader on the fourth, dividing all these scopulae; distal two fifths of metatarsus I. and one third of II. scopulate; a few scopular hairs at the distal end of metatarsus III. but none on IV.

Remarks. This species is distinct from any male Spiroctenus yet described in the procured fovea and the densely armed labium and coxae of the pedipalp. From the Eastern Province of Cape Colony only two species of this genus have been described, each
from female specimens, viz., *S. flavopunctatus* Purc. (Ann. South Afr. Mus. III p. 97) from Hogsback, and *S. fuliginous* Poc. (Ann. Mag. Nat. Hist. 7. X. p. 14) from Brakkloof, near Grahamstown. The Albany Museum has no specimens of the latter species, which unfortunately is not recognisable from the description alone; assuming that the type locality of *fuliginous* is correctly stated, *S. armatus* will probably prove to be distinct therefrom.

*Bessia minor* sp. nov.

**Types.** Two female examples from Alicedale collected by Mr. F. Cruden in May and June, 1913.

**Colour.** Carapace and appendages pale chestnut olive above, the patellae of the first two pairs of legs paler and with a reddish brown tinge; abdomen dorsally is pale with an extensive but indefinite variegated blackish pattern. Lower surfaces pale brown, the chelicerae, coxae of pedipalps, and labium with a reddish tinge.

**Carapace** much longer than broad, about as long as the tibia metatarsus and tarsus of the first leg. Anterior lateral eyes quite 3 or 4 times as large as the anterior medians; posterior medians only a little smaller than anterior medians in area.

** Legs.** On the sides of the tarsus and distal third of the metatarsus of the first leg there is a well developed scopula; a less strongly developed scopula occurs on the sides of the second tarsus. On metatarsus I. inferiorly there are 2 short spines at the apex and 2 along the lower surface; on metatarsus II. the corresponding spines are much longer and stronger whilst others of smaller size may or may not be present; on III. and IV. the spines are more numerous. Superiorly on metatarsus II. there is a single spine on the inner surface, on III. a number of strong spines on the upper and inner surfaces and on IV. there is a number of strong spines on the inner surface and 2 or 3 along the outer side of the upper surface. At the apex of tibia III., femur IV. and tibia IV. a weak mastellum is present. On the anterior surface of patella III. is an extensive patch of setiform spines reaching from
base to apex; amongst them are 3 or 2 very stout spines. Inferior claws of tarsi well developed. Paired claws of tarsus I. have 3 basal teeth (2 large and 1 small) constituting the outer row, and 2 or 3 very minute teeth about half way up the claw representing the inner row; tarsus IV. is similar except that there are 4 basal teeth. Coxa of third leg having the inferior medio-basal naked area quite short but that at the anterior lower edge long and narrow reaching half way along the segment: elsewhere however the surface is only sparsely clothed with hairs.

**Chelicerae.** Rastellum composed of rather slender spines but including about 4 or 5 stout ones in its inner portion. The teeth on the fang groove not arranged in straight lines excepting distally where the group ends in a short series of about 4 teeth; elsewhere there may be 2 or 3 teeth in the same transverse line; altogether there are about 16 larger teeth and rather more small ones, the former occupying the inner and more anterior portions of the group, and the latter mainly situated posteriorly and externally.

**Labium** wider than long, but not twice as wide as long, beset with about 22 cusps in its anterior half. At base of coxa of pedipalps there is a triangular patch of about 30 cusps.

**Posterior sternal sigilla** elongated pear-shaped, a little less than their own length distant from the margin of the sternum, and about 1½ times their own length distant from each other.

**Posterior spinners.** Apical segment shorter than penultimate segment.

**Measurements.** Total length 22.5 mm. Length of Carapace 8 mm. Breadth of same 5.5.

---

This species I refer with some hesitation to the genus *Bessia* Poc. (A. M. N. H. 7. 6. p. 320).

According to Mr. Pocock, his *Bessia fosoria* from Port Elizabeth has amongst other characters "legs not scopulate, claws
Arachnida.

471

armed with 3-4 basal teeth, mandible armed below with a single row of about 15-16 teeth a few smaller cusps at the posterior end of the row." If these characters prove to be strictly applicable to *fossoria* it will be necessary to refer the Alicevale species to some other genus near *Homostola*, Sim. or *Spiroctenus*, Sim. I am inclined to suspect however, that *B. fossoria* is founded on a very immature specimen (total length 12 mm.) for we have a much larger example from near Redhouse, Port Elizabeth (Mrs. T. V. Paterson) which has most of the characters ascribed to *fossoria* and is probably identical therewith; the Redhouse example agrees with *minor* in respect to the scopulation of the anterior tarsi and the spinulation of the claws.

*B. minor* differs from the Redhouse species in the labium, which in the latter species has much more numerous cusps (more than 100), also in the eye characters, the anterior laterals of the latter species being not more than twice as large as the anterior medians. The Redhouse species is much stouter than *B. minor*.

*Acanthodon micros*, sp. nov.

**Type.** A single adult female, the nest of which was found by my wife on a steep-sloping roadside cutting near the Grey Reservoir, Grahamstown, Aug. 4, 1913. Type in the Albany Museum.

**Colour.** Carapace and appendages olivaceous brown above, abdomen with a dull purplish tinge; lower surfaces somewhat paler, sternum castaneous, abdomen pale.

**Carapace** as long as the patella, tibia, and three-fifths of the metatarsus of the first leg and as long as the tibia and metatarsus of the fourth leg.

**Ocular area** about as wide as long, extending backwards quite two-fifths of the distance from the anterior margin of the carapace to the fovea: its width equal to the length of the first metatarsus. Area formed by the frontal and anterior median eyes wider in front, its length slightly exceeding 2½ times the posterior width: the frontal eyes large, their clear areas separated by a distance equal to ⅓ of the long diameter of an eye, but placed on a
common tubercle which is deeply grooved above in front; median eyes of moderate size, a little less than a diameter apart. Posterior row of eyes with its posterior margins in a slightly recurved line, the medians very slightly nearer to the laterals than to each other, the anterior margins of the laterals in a line with the posterior margins of the antero-medians: medians small and rounded, much smaller than the antero-medians: laterals large and reniform: area formed by the four median eyes slightly broader behind. A few long bristles arise from the anterior region of the carapace, viz.: 1, the longest and strongest, between the anterior median eyes, 2 much weaker ones between the posterior median eyes, and 2 of moderate length and strength between the ocular area and the fovea but nearer to the former.

LEGS. Band of spines on anterior surface of tibia I reaching almost to the base, of tibia II including about 12 spines most of which are very short and which are absent in the basal fourth or third of the segment. Metatarsus III with 4 or 5 long spines below as well as a stout pair at the apex inferiorly. On distal edge of upper surface of patella III are 3 spines on both anterior and posterior sides, the band along the anterior surface including about 12–14 spines in addition to those on the distal edge. Metatarsus IV with 9 or 10 spines on the lower surface in addition to 3 at the apex inferiorly; tibia with 3 inferior apical spines and 4 or 5 long but rather weak spines along the lower surface; patella with a band of short stout spines along the anterior surface, stretching quite ¼ of the length of the segment. Coxa of legs without spinules below, the third coxa having a patch of rather coarse bristles along its posterior border ventrally.

Labium with a row of 3 apical teeth.

Chelicerae. Inner row of teeth on under surface including 4 strong teeth separated by an interval from a strong basal tooth; outer row short, including only 2 or 3 small teeth which are almost in a line with the 4 strong teeth of the inner row.

Measurements. Total length 18 mm., length of carapace 6.5 mm., width of same 5.8, length of tibia of first leg 3 mm.
The specific name applied to this species has reference to the small size of the posterior median eyes. A species of the same genus was described by Mr. Pocock from 'near Grahamstown' (Mrs. White)—probably taken at Brak-kloof—in Ann. Mag. Nat. Hist. 7:7, p. 286, under the name of *Acanthodon flavolium*, but unfortunately the description is too imperfect to be utilised for identification purposes, and the Albany Museum possesses no examples of the species: however, according to information received from Mr. S. Hirst of the British Museum, who has very kindly re-examined the type of *flavolium* on my behalf, there can be no doubt but that *flavolium* is quite different from *microps*. The characters of the ocular area and of the third coxa will serve to distinguish *microps* from any species of which the female is described. It appears to be related to *Ctenolophus kentanicus* Purcell,† from Kentani.

**Gorgyrella abrahami**, sp. nov.

This species can at once be distinguished from the other Cape species of the genus (*G. nauaquensis*, Purc. and *G. schreineri*, Purc.) through the total absence of spinules on the coxae of the legs: it is also considerably smaller than either. In these respects it resembles certain species of *Acanthodon*‡ and I believe that *Gorgyrella* will eventually rank only as a sub-genus of the former:

---

*I am indebted to Mr. Hirst for the following notes on *A. flavolium* Poc.: Frontal eyes on a common substrate, placed very close together, being about ¼ of the long diameter apart: the anterior margins of the posterior lateral eyes are about in a line with the centres of the anterior medians: a line touching the posterior margins of the posterior laterals would pass through the posterior medians a little in advance of their centres: coxa III with a strip of very fine setae along the posterior margin of its lower surface: patella III with 19–21 spinules on its anterior surface; mandible with an inner row of 7 teeth most of which are well developed, outer row including a very small tooth forming a short basal series.

†According to Mr. S. Hirst, the genus *Ctenolophus* Purcell is a synonym of *Acanthodon* Guérin, the type of which *A. petitii* Guér., from Brazil is in the British Museum.

‡I may here mention that the species described by me under the name of *Ctenolophus transvaalensis* (Rea. Alb. Mus. II., p. 412) should provisionally be placed under the genus *Gorgyrella* as it possesses 3 pairs of sigilla though the 3rd pair is very small.
at any rate if the number of sternal sigilla being utilised as the main distinction between the two genera, intermediate conditions will no doubt be found: for instance, in one specimen of *Acanthodoron spiricola* from Kentani, I find 3 left sternal sigilla, the third one being smallest, but only two sigilla on the right side.

**Types.** A series of female specimens from Alicedale, one of which was collected many years ago by the Rev. N. Abraham, and the remainder were taken by Mr. F. Cruden during February, March, and April, 1913, a brood of newly hatched young being taken in May.

**Colour.** The whole of the upper and lower surfaces more or less uniformly pale yellowish brown.

**Carapace** as long as the tibia, metatarsus and \( \frac{3}{4} \) of the tarsus of the fourth leg and as the patella, tibia, metatarsus and tarsus of the first leg. Ocular area only slightly wider than long, its width very slightly exceeding the length of metatarsus I., its length only slightly more than one third of the distance from the anterior margin of the carapace to the fovea. Area formed by the frontal and anterior-median eyes very slightly wider behind, the median eyes about \( \frac{1}{4} \) times their diameter apart, the frontal eyes appreciably larger than the medians, about a diameter or slightly less apart and generally situated on quite separate tubercles. Posterior median eyes nearer to the posterior laterals than to one another: the area formed by the 4 median eyes distinctly wider behind than in front: posterior lateral eyes large, their distance from the anterior margin of the carapace about \( \frac{1}{4} \) the width of the ocular area: a few long, curved, very strong spiniform hairs arise from the anterior region of the carapace, viz: 1 between the frontal eyes, 1 between the anterior median eyes, 2 between the posterior median eyes and several somewhat weaker ones just behind the ocular area.

**Pedipalp and Legs** as described in *Namaquensis* (Trans. S. A. Phil. Soc. XI., p. 357) except that the femur of the pedipalp has no spiniform setae along its inner inferior edge: tibia IV. with 2—4 spinules along the outer surface; metatarsus III. with 2 apical
spines below as well as 2 or 3 others along the inferior surface: patella III. on its posterior upper edge has 3 (or 2 or 1) apical spinules, on the anterior upper edge are 5, 4 or 3 apical spinules: coxae of the legs quite without spinules, but along the posterior half of coxa III. inferiorly is a compact tuft of bristly hairs, a larger patch, but less compact and less conspicuous, occurring on coxae II.

Chelicerae. The abbreviated outer row of teeth under the chelicera includes one fairly large tooth and from 2 to 4 smaller ones: the former is not so large as any of the 5 composing the inner row.

Labium broader than long, usually with 4 strong teeth on its anterior edge, but sometimes 5 or 6.

Sigilla. Posterior sternal sigilla long and narrow, not larger in area than either of the anterior sigilla.

Measurements. Total length 19 mm. Length of carapace 7 mm. Width 5½ mm. Length of tibia of first leg 2 mm.

Mr. Abraham found the nests of this species in the steep sloping sides of a "donga." According to Mr. Cruden, the lid of the nest hangs almost vertically, and the tube runs horizontally for an inch or more before it descends, the nests being on a hill side or on sloping ground under the lee of stones or protected by vegetation. The D-shaped lid is heavy and thick, sometimes very much so, its edge being strongly bevelled and the hinge being considerably longer than the width of the cylindrical part of the tube. It is of interest to note that a species of Acanthodon, indistinguishable to the naked eye from Gorgyrella abrahami, is also found at Aliceadale. Mr. Cruden informs me that the two species do not occur together, the Acanthodon being found on the surface of clay banks exposed to wind and weather. Its lid, also D-shaped, is comparatively thin and light, the edge not bevelled: the tube enters the ground at an angle of about 45° to the perpendicular.

I have recently taken G. abrahami at Bushman's River, near Dassie Klip.
Albany Museum Records.

Family Agelenidae.

Desis becheri, sp. nov.

Type. A single female specimen collected by myself at Port Alfred in March, 1913. The spider was obtained on breaking into the calcareous masses of serpulid worm tubes found attached to the rocks exposed at low tide.* It is not quite adult.

Colour. Mandibles castaneous and cephalic region of the carapace lightly so, the margin of the carapace at the anterolateral corners deep brown: rest of carapace and legs pale, except the tarsi of first 2 pairs of legs which are castaneous: abdomen greyish brown.

Carapace about as long as the tarsus and metatarsus of the 4th leg, a little shorter than the patella and tibia of the 1st leg, and about equal to the metatarsus and half the tarsus of that leg. Eyes of the posterior row in a straight line, almost equally spaced, the medians only a little nearer together than either is to the lateral, the medians about 2 diameters apart and 2½ diameters from the laterals: anterior medians about half a diameter apart and about 1½ diameters, or slightly more, distant from the anterior laterals. (The ocular arrangement is very like that of a young example of Desis tubicola, Poc., from Muizenberg.) In comparison with an example of tubicola of same size, the carapace of becheri is distinctly longer and narrower than that of tubicola.

Mandibles: of the two teeth on the outer border of the fang groove, the distal is much the larger, the proximal one being very small and very much nearer to the 2nd tooth of the inner row than to the distal one of the outer row (see text fig. B): there are 6 teeth in the inner row, the distal one being slightly but distinctly separated from the rest and practically as near to the end of the fang groove as to the 2nd tooth, the remaining 5 teeth are equally spaced and progressively decrease in size.

*An interesting account of the habits of a species of Desis was recently published in Agricultural Journal of S. Afrcia, 1, p. 827, by Rev. N. Abraham.
Arachnida.

Legs. 1, 4, 2, 3 in length. Upper surfaces entirely without spines, the nearest approach thereto being a weak bristle at the apex of the 2nd patella and another near the apex of the 3rd metatarsus. Inferiorly at the apex of the 2nd, 3rd and 4th tibiae there is an apical pair of long slender spines; metatarsus of 2nd, 3rd and 4th legs spined at the apex and the third metatarsus has also one or two weak spines along the inferior surface; tarsi of legs III and IV each with 5 or 6 spines arranged somewhat irregularly in pairs; towards the distal ends of the metatarsi of the 2nd, 3rd and 4th legs, the hairs form a thickish dark-coloured cluster.

Measurements. Total length (including chelicerae) 10 mm. Carapace 3/4, 1st leg 12.5, 2nd leg 8.75, 3rd leg 8 mm., 4th 10.25.

This species is named after Dr. H. Becker, the well-known conchologist, who for many years has been actively engaged in the study of the marine fauna and flora of Port Alfred and who seems to have been the first to observe the occurrence of marine spiders on the African coast (see Rev. N. Abraham's note in Mr. R. I. Pocock's description of D. lubicola). The species may at once be distinguished from D. lubicola, Poc.1 of which the Albany Museum possesses a good series of both sexes from Muizenberg (presented by Dr. W. F. Purcell), through the arrangement of the teeth on the fang groove, and the spines on the legs (second tibia, third metatarsus), and perhaps also in the ocular arrangement; the spinulation of the legs seems to be fairly constant in lubicola though it may be noted that in the male, and sometimes the female also, apical spines are not found on the third tibia inferiorly and there is only one at the apex of the four tibiae. A small and very immature specimen, apparently referable to this species, collected by Dr. A. Penther, at Port Alfred, has been in our collection for some years under the name of D. formidabilis, O. P. Camb.2 and is believed to have been thus determined by Mons. Simon. As Mr. Pocock has expressed some doubt with regard to the identity of


the latter species, the description being short and without precise locality data, I wrote for particulars to the Rev. N. Abraham who collected the types both of *formidabilis* and of *tubicola*; according to Mr. Abraham both species were collected at Muizenberg and he suspects that the two are identical. This point can only be determined by re-examination of the type of *formidabilis*. No other species have been recorded from South Africa though Pocock has suggested that *D. maxillosa* (Fabr.) from St. Crux Island may really have come from St. Croix Island in Algoa Bay; however this may be, the figures of that species published by Simon (Hist. Nat. Araign. II p. 225) undoubtedly relate to a species totally distinct from *D. beckeri*. Besides the type we have a few much smaller specimens from precisely the same locality, and a single half-grown example taken amongst barnacles at the Black Rock, Kowie River (Miss L. Britten).

There is also another species of *Desis* at Pt. Alfred, apparently a form of *tubicola* but smaller than the type; it can be easily obtained by breaking open the large masses of terebellid-worm tubes which encrust the rocks between tide marks. It is stouter and darker than *D. beckeri*.

---

A and B, dentition of chelicerae in *Desis tubicola* Poc. and *D. beckeri* sp. nov. respectively. C, outline of carapace and chelicerae in *D. beckeri* sp. nov.
ORDER SOLIFUGÆ.

Solpuga maraisi, sp. nov.

**Type:** A single male example from Caledon collected by Mr. B. Marais in December, 1912, and presented to the Albany Museum.

**Flagellum** reaching back about as far as the ocular tubercle, the anterior bend immediately above the interval between the first and second teeth; the recurrent portion more or less cylindrical but in the terminal third of its length it expands into a lamina with infolded edges and divides into two main portions; the outer and upper portion gradually tapers to a point, its posterior half being upcurved and slightly twisted and its margins being frayed or serrated; the inner and lower portion ends abruptly but is provided with a comparatively short and slender serrated extension which for a short distance runs parallel with the larger terminal process just mentioned. Basal enlargement longer than high, being produced anteriorly: upper margin forming a well-developed keel which is raised above the exposed outer turgid portion.

**Upper Jaw of Mandibles:** First tooth fairly large, second large, followed by a long concave toothless interval, after which comes a small tooth which is almost confluent basally with the very large one which terminates the single series. Terminal fang of moderate length, the apex suddenly and strongly curved downwards but not outwards; on the inner edge superiorly there is an inconspicuous low tooth which is nearer to the flagellum than to the apex of the fang; no distinct keel in connection with this tooth. No other tooth on the inner side of the fang.

**Lower Jaw** with two large curved teeth and a smaller one between them, nearer the hind tooth.

**Pedipalp.** Metatarsus scopulate over the greater portion of its length. The whole palp slightly exceeding the third leg in length.

**Posterior Legs** with some very long hairs which do not form a mane.
COLOUR. Headplate, mandibles and legs brownish, with darker brown on the tarsus and metatarsus of the pedipalps and on the tibia, metatarsus and tarsus of the fourth leg. Dorsal plates of abdomen blackened laterally; brown or reddish brown in the middle, the posterior plates however wholly black. Sides of abdomen with silvery white hairs. Abdominal sterna not infuscated. Malleoli with infuscated edges.

MEASUREMENTS. Total length 32 mm. Length of flagellum 7.5, of mandibles 9, of tibia of palp 7½, of tarsus and metatarsus of palp 8, of tibia of fourth leg 7½, of metatarsus of same 6.5.

This species belongs to the vinca group of the genus but seems to be very distinct from any species hitherto described.

ORDER SCORPIONES.

Uroplectes triangulifer (Thor.) var. nov. flavidus.

Amongst the various known forms of Uroplectes triangulifer, the most widely distributed scorpion in S. Africa, a race found at Kimberley is sufficiently distinct to be worthy of varietal rank. Its principal distinguishing characters are as follows:—Basal pectinal tooth of the female not enlarged; each abdominal tergite, except the last, with an extensive smooth and polished area in its anterior half which area is very finely, though rather sparingly, granulated in the male (in var. typica the tergites have no smooth and polished area except on the articulating border anteriorly); ocular tubercle quite smooth above; superior keels of fourth caudal segment not sharply defined, the terminal tooth not enlarged or only feebly so;
sides of fifth caudal segment quite smooth above but becoming granular below; sides and lower surface of vesicle either almost smooth, or more or less roughened and granular but not coarsely granular, the prominence below the aculeus blunt and not conspicuous; median area of upper surface in first four caudal segments either quite smooth or only very finely granulated. The female is almost uniformly yellow throughout, the campace and abdominal tergites only slightly infuscated but the yellow V-shaped markings on the latter are quite distinct; the male is more deeply infuscated. This variety is appreciably larger than the typical form and the tail is stouter. It differs from Thorell's var. *trisilis* in the not enlarged basal pectinal tooth, in colour and size, and whereas *trisilis* has a perfectly smooth and polished area immediately in front of and at either side of the ocular tubercle, such is not the case in *flavidus*. Total length of female 53 mm. (somewhat swollen specimen), of male 49 mm., length and width of fourth caudal segment in female 5·3·5, in male 5·75, 3·mm.

**Types:** Three female specimens and one male collected at Kimberley and presented to the Albany Museum by Bro. J. H. Power.