

A Contribution to the Opilionid Fauna of Natal and Zululand.

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Natal Museum.

With 9 Text-figures.

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MOST of the new forms listed above were captured in January, 1938, at the Cathkin Peak Reserve, Drakensberg Mountains, by the writer. One of the new species of *Purcellia* was taken by Mr. W. G. Rump at Port St. Johns, and a second new species by Mr. W. G. Rump and the writer at the Nkandhla Forest, Zululand.

Suborder CYPHOPHTHALMI Simon.

Gen. *Purcellia* Hansen and Sorensen.

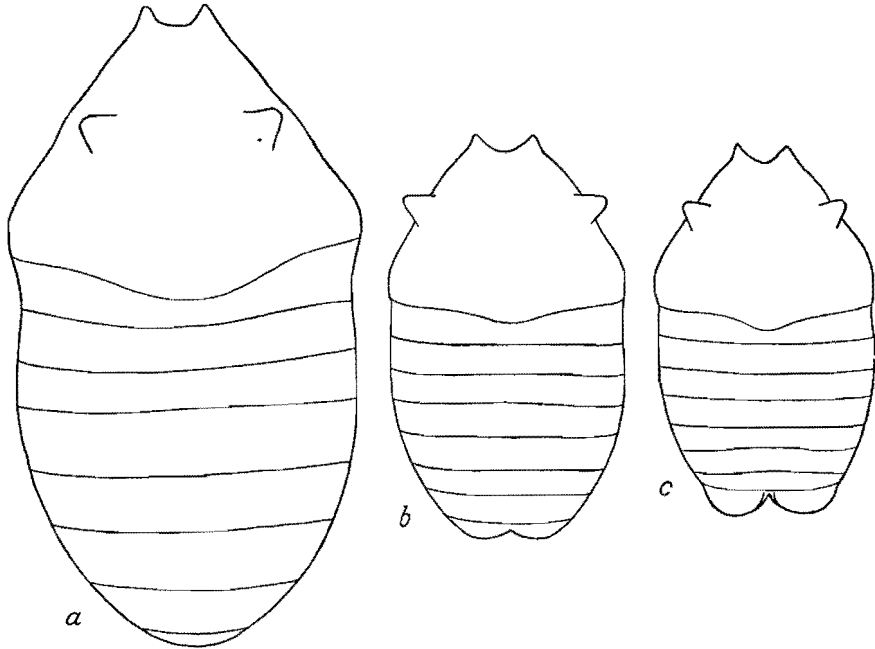
Purcellia rumpiana Lawrence. Text-figs. 1, *b* ; 2, *b* ; 3, *b*.

Purcellia rumpiana Lawrence, Ann. Natal Mus., vol. vii, Pt. 2, p. 212, text-fig. 1, *a-f*, 1933.

In the original description a very brief account of the male of this species was given, and only the fourth leg was figured. Fig. 2, *b*, represents more accurately the appearance and shape of the tarsal segments and the process

on the basal tarsal segment, than does the original figure. The process of the basal segment is actually fairly strongly bent in its apical half and is not "more or less straight" as was stated and figured in the original description. Seen from above the male (fig. 1, *b*) is considerably smaller than that of *illustrans*, and the posterior apex of the abdomen is slightly notched, while that of *illustrans*

TEXT-FIG. 1.



a. Purcellia illustrans. b. P. rumpiana. c. P. fissa. Outline drawing to show comparative sizes of the body in males.

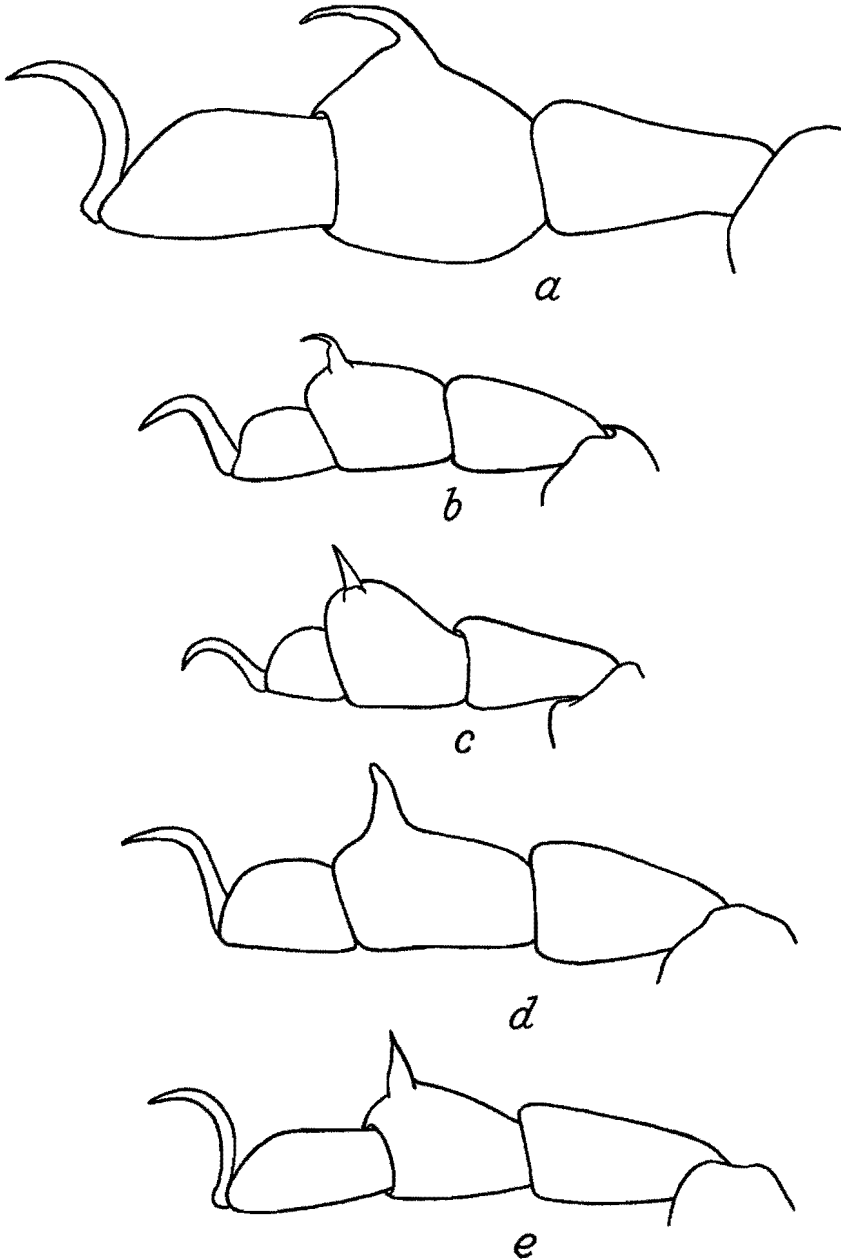
is rounded. The corona analis (fig. 3, *b*) differs considerably from that of *illustrans*, and also from the other species described below. The length of the male is 1.7–1.8 mm., that of the female being 1.9–2.1 mm.

Purcellia fissa n. sp. Text-figs. 1, *c*; 2, *c*; 3, *d*.

Colour of both sexes in this and the following species rich brown, legs and pedipalp a little lighter.

♀. Body a little less than twice as long as wide. Tubercles of odoriferous glands broader at the base than long, but fairly sharply pointed, projecting well beyond the lateral margins of the carapace. Granulation of dorsal surface

TEXT-FIG. 2.



Tibia and tarsal segments of leg IV in males of *Purcellia*. a. *illustrans*. b. *rumpiana*. c. *fissa*. d. *silvicola*. e. *monticola*.

not very strong, but fairly regular. None or very few setæ on the whole of dorsal surface except for a few weak ones posteriorly. Ventral surface with granulation as on dorsal surface, setæ absent except for a few at the sides. Posterior apex of abdomen slightly truncate, seen from above and below. Corona analis as in *rumpiana*. Tarsus IV less than $1\frac{1}{2}$ times as long as metatarsus.

Dimensions.—Length of body 1.7–1.8, width 0.9 mm.

♂. Granulation of dorsal surface regular and close, no setæ except a few on the posterior tergites. Posterior apex of abdomen seen from above (fig. 1, *c*) much swollen, with a rounded projection at each side, these smooth and shiny. Granulation of the ventral surface slightly weaker than that of the dorsal surface, a few weak scattered setæ on the posterior sternites. Lateral margins of the body posterior to the coxæ with a rim formed by the folding over of the dorsal chitin, this rim including the rounded lateral projections of the posterior margin; the rim covered with minute granules. Corona analis as in fig. 3, *d*. Tarsal and metatarsal segments as in fig. 2, *c*, the process-bearing segment much swollen in a dorso-ventral direction, the distal segment reduced and distinctly shorter than the process-bearing one.

Dimensions.—Length of body 1.6, width .9 mm.

Types, 5 ♂♂, 8 ♀♀, Port St. Johns, Cape Province (Coll. W. G. Rump).

Purcellia silvicola n. sp. Text-figs. 2, *d*; 3, *c*; 4, *a*.

♀. Body slender, a little more than twice as long as wide. Dorsal surface with fairly close, regular granulation, and with small scattered setæ (these also present on the carapace). Odoriferous tubercles projecting distinctly beyond the lateral margins of the carapace. Seen from above posterior apex of abdomen truncate.

Ventral surface with granulation as on dorsal surface, coxæ and sternites with scattered setæ, especially at the sides. Genital opening and corona analis as in *rumpiana*. Leg IV with tarsus $1\frac{3}{4}$ –2 as long as metatarsus, femur $1\frac{3}{4}$ times as long as trochanter.

Dimensions.—Length of body 2.6, width 1.2 mm.

♂. Body less slender than in ♀, distinctly less than twice as long as wide. Dorsal surface with granulation and pilosity as in ♀. Posterior apex of abdomen seen from above (fig. 4, *a*) appearing indented owing to the last and penultimate tergites bearing round swollen protuberances at the sides; these protuberances also very distinct when the animal is viewed from the side. Last three tergites fairly thickly covered with fairly long and comparatively stout setæ. Sternites and coxæ with granulation as on dorsal surface, a number of setæ at the sides, posterior sternites with fewer setæ than the posterior tergites.

Corona analis as in fig. 3, *c*. Tarsal and metatarsal segments of leg IV as in fig. 2, *d*, distal segment of tarsus considerably shorter than the process-bearing segment.

Dimensions.—Length of body 2·2, width 1·4 mm.

Types, 6 ♂♂, 2 ♀♀, Nkandhla Forest, Zululand (Coll. W. G. Rump and R. F. Lawrence).

Purcellia monticola n. sp. Text-figs. 2, *e*; 3, *e*; 4, *b*.

♀. Body fairly long, subparallel, and slender, about twice as long as wide, the sides describing a gentle and regular curve; odoriferous tubercles projecting only slightly beyond the lateral margins of the carapace, two or three rather strong setæ near their apices. Posterior apex of abdomen seen from above, rounded or slightly truncate. Dorsal surface of body and chelicerae regularly covered with fine round granules; fifth abdominal tergite and the tergites posterior to these with numerous setæ, the granulation of these segments less noticeable. Ventral surface with regular minute granulation, coxæ with some longish setæ; posterior sternites and corona analis with numerous, anterior sternites with sparse setæ. Genital opening and corona analis similar to those of *rumpiana*. Leg IV with tarsus $1\frac{1}{2}$ –2 as long as metatarsus.

Dimensions.—Length of body 2·4, width 1·3 mm.

♂. Body less slender than in the ♀, distinctly less than twice as long as wide. Posterior apex of abdomen seen from above (fig. 4, *b*) slightly concave. Granulation of dorsal surface slightly stronger than in the ♀, tergites VI or VII, and the tergites posterior to them with numerous setæ. Granules of the ventral surface less close and regular than those of the dorsal surface, the second sternite (defined by transverse grooves) with a cluster of hairs in the middle, the sternites posterior to it with scattered hairs. Corona analis as in fig. 3, *e*, not differing very markedly from that of the ♀. Tarsal and metatarsal segments of leg IV as in fig. 2, *e*, distal segment of tarsus a little longer than the process-bearing segment.

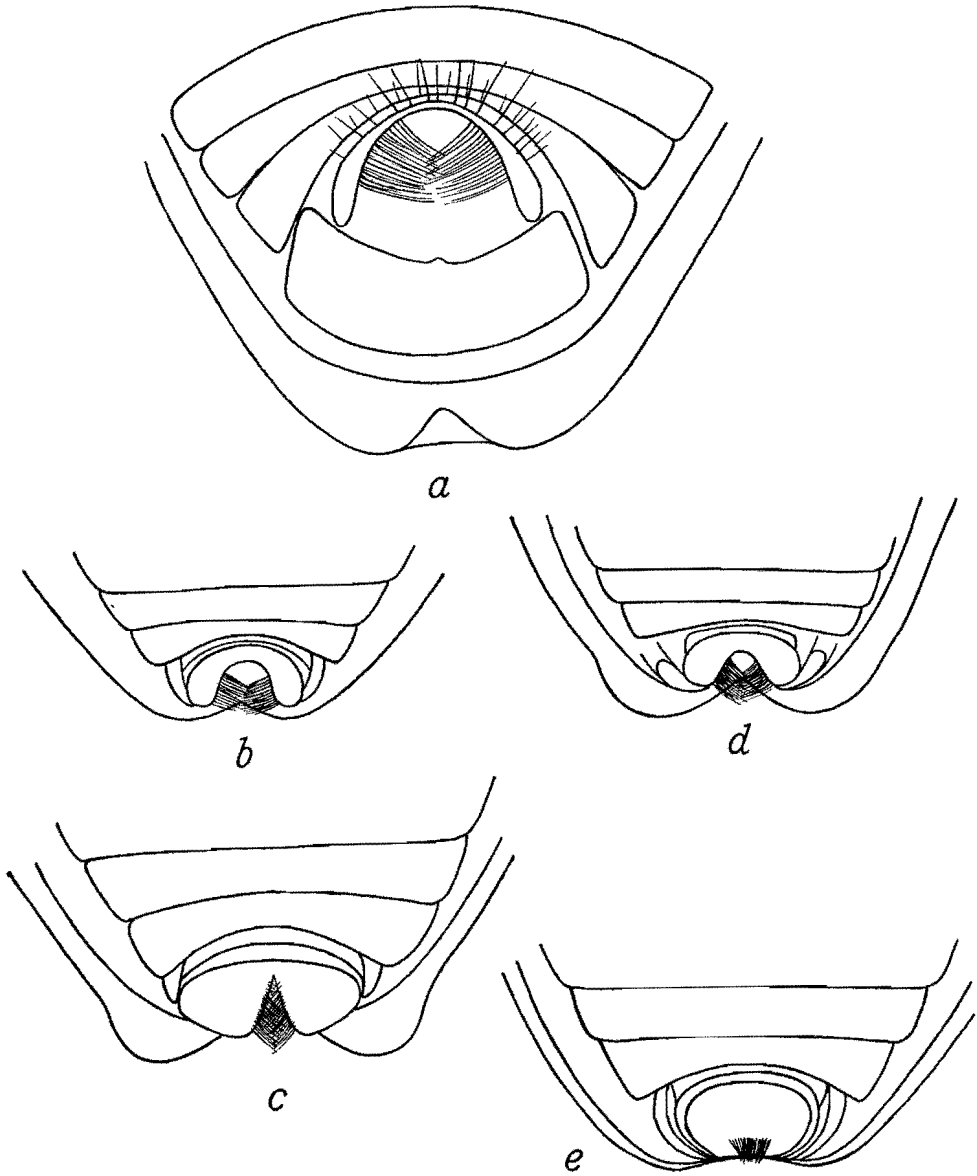
Dimensions.—Length of body 2, width 1·2 mm.

Types, 4 ♂♂, 5 ♀♀, Cathkin Peak Reserve (6000 ft. altitude), Drakensberg Mts.

REMARKS ON THE GENUS PURCELLIA.

The males of all species of this genus are distinctly smaller than the females and less slender, the length of the body of the female being greater in proportion to its width than in the male. This was one of the sexual differences in *Purcellia illustrans* observed by Hansen and Sorensen ('Two Orders of Arachnida,' p. 106, 1904), and remarked upon in their original description of the genotype. It applies to all the species of *Purcellia*.

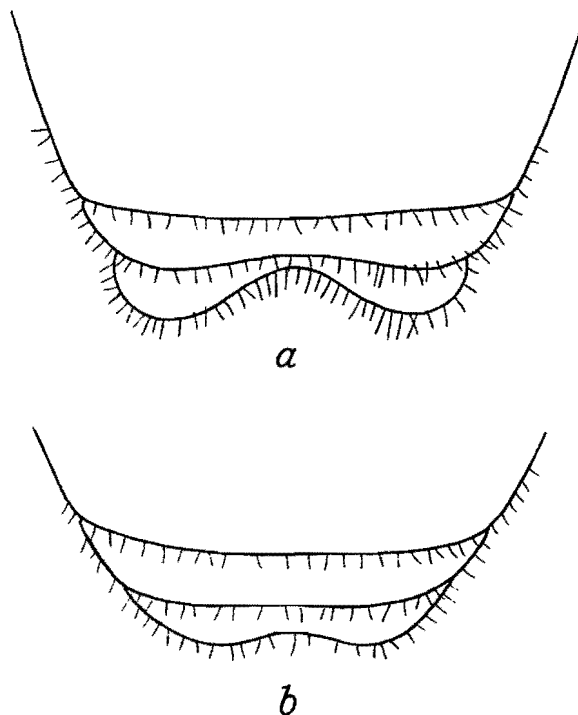
TEXT-FIG. 3.



Corona analis in males of *Purcellia*. *a. illustrans*. *b. rumpiana*. *c. silvicola*.
d. fissa. *e. monticola*.

Purcellia illustrans (fig. 1, a) is easily the largest form of the genus thus far discovered, though an allied cave-living Sironinid, *Speleosiro argasiformis* from Cape Town, greatly exceeds it in body size. *P. fissa* from Port St. Johns and *P. rumpiana* from Pietermaritzburg are small forms, while the remaining two species, *P. monticola* from the Drakensberg Mountains, Natal, and *P. silvicola*

TEXT-FIG. 4.



Dorsal apex of abdomen. a. *Purcellia silvicola* ♂. b. *Purcellia monticola* ♂.

from Zululand, are more or less intermediate to these and the largest species, *P. illustrans*.

Although a species of this genus, *Purcellia dorothea*,¹ has been described from New Zealand, it seems rather improbable that this form belongs to the genus *Purcellia*, and it can at any rate be separated from the group of South African species in the character of the fourth leg of the male, which has only one segment, the South African forms of *Purcellia* having two. The very marked differences in the corona analis of the males are a feature of the five South

¹ Phillips and Grimmett, Proc. Zool. Soc., p. 739, figs. 8, a-c, 1932.

African species, this structure having a very characteristic and individual appearance in each species; the same is true of the shape and proportions of the tarsal segments of the fourth leg in the male. These two structures afford the most useful characters on which to separate the various forms. The females do not provide such distinguishing characters to anything like the same extent.

KEY TO THE MALES OF PURCELLIA.

- | | |
|---|-------------------|
| 1. Posterior apex of abdomen, seen from above, rounded or truncate | <i>illustrans</i> |
| Posterior apex of abdomen, seen from above, incised | 2 |
| 2. Basal segment of tarsus IV shorter than apical segment | <i>monticola</i> |
| Basal segment of tarsus IV longer than apical segment | 3 |
| 3. Process on basal segment of tarsus IV curved | <i>rumpiana</i> |
| Process on basal segment of tarsus IV straight | 4 |
| 4. Basal segment of tarsus IV deeper than metatarsus, seen from the side; body length less than 2 mm. | <i>fissa</i> |
| Basal segment of tarsus IV less deep than metatarsus, seen from the side; body length more than 2 mm. | <i>silvicola</i> |

Suborder LANIATORES.

Fam. TRIÆNONYCHIDÆ Sorensen.

Subfam. TRIÆNONYCHINÆ Pocock.

Gen. *Monomontia* Lawrence.

Monomontia aspera n. sp. Text-fig. 5, a-e.

Types, 4 ♂♂, 3 ♀♀, Cathkin Peak Reserve, Drakensberg Mts., Natal.

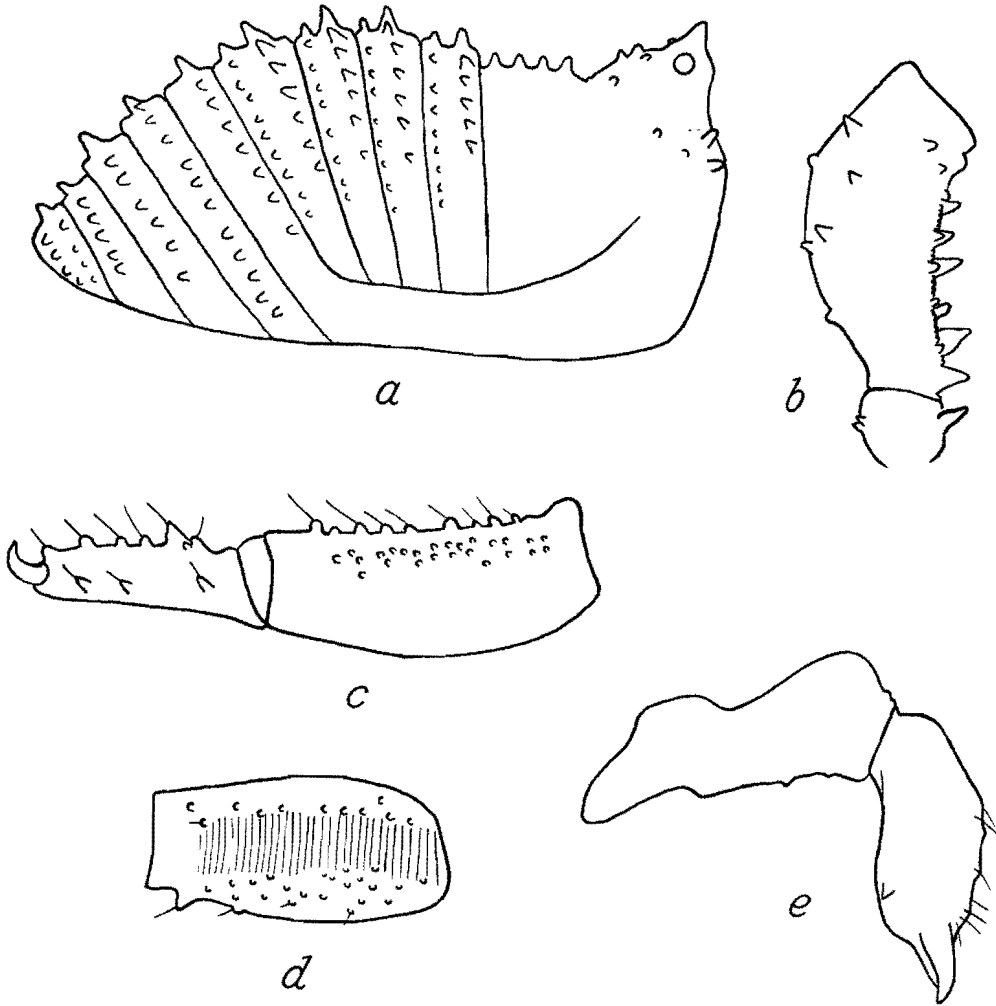
♂. *Colour*.—Body and appendages yellow without blackish markings.

Dorsal Surface.—Anterior margin of carapace with 2-3 low and indistinct granules on each side of ocular tubercle; ocular tubercle as in fig. 5, a, seen from the side; area behind the ocular tubercle with a double row of 4 granules in the middle, otherwise smooth; areas I-IV of dorsal scute each with 2 rows of granules, the anterior row composed of large conical granules, area V and free tergites each with a single row of large conical granules.

Ventral Surface.—Coxa I with a large bifid tubercle distally on its anterior margin, a much smaller granule proximal to this, remaining coxæ smooth; sternites with 2 irregular rows of granules.

Pedipalp.—Femur and trochanter as in fig. 5. *b*, seen from inner side ; tibia and tarsus as in fig. 5. *c*, seen from inner side, tibia seen from below as in fig. 5. *d*, the area between the lateral rows of granules transversely striated, but not strongly so.

TEXT-FIG. 5.



Monomontia aspera n. sp. ♂. *a*. Body seen in profile. *b*. Trochanter and femur of pedipalp from inner side. *c*. Tibia and tarsus of pedipalp. *d*. Tibia of pedipalp, ventral surface. *e*. Chelicera.

Chelicerae as in fig. 5, *e*, seen from the side.

Legs.—Femur I with 4–5 weak round granules below ; tarsal segments 3 : 4 : 4 : 4.

Dimensions.—Length of body 2·3, pedipalp 2·7 mm.

♀ as in ♂, but differing in the following characters : Ocular tubercle with a shorter terminal spine ; tubercles on the anterior margin of coxa I smaller, sternites with two clearly visible rows of granules. Pedipalp shorter, the teeth of the femur shorter, tibia armed much as in the ♂, fig. 5, *d*, tarsus however with smaller teeth than in the ♂. *Chelicerae* as in ♂, but smaller. Ovipositor with a circle of about 18 setæ near its apex.

Dimensions.—Length of body 2·1, pedipalp 2 mm.

Micromontia n. gen.

Dorsal scute unarmed, without transverse grooves dividing it into areas. Ocular tubercle low, without a spine. Stigmata not exposed. Coxa I without large prominent teeth along its anterior margin. Pedipalp femur armed with exceptionally large teeth in the ♂, ventral surface with fine granulation, pedipalp patella with 2 prominent teeth on its dorsal surface in the ♂. *Chelicerae* normal. Legs short, femur I and to a lesser extent femur II armed ventrally with tubercles ; calcaneus of all legs much shorter than the astragalus in both sexes ; median prong of claws of legs III and IV unusually thickset, longer and much stouter than the lateral prongs. Tarsal segments I, 3 ; II, 5 ; III, 4 ; IV, 4.

Micromontia resembles the genus *Amatola* from the Eastern Province in the number of its tarsal segments ; it differs from it in its much smaller size and a number of other particulars, such as the absence of a row of club-shaped granules along the anterior margin of the carapace.

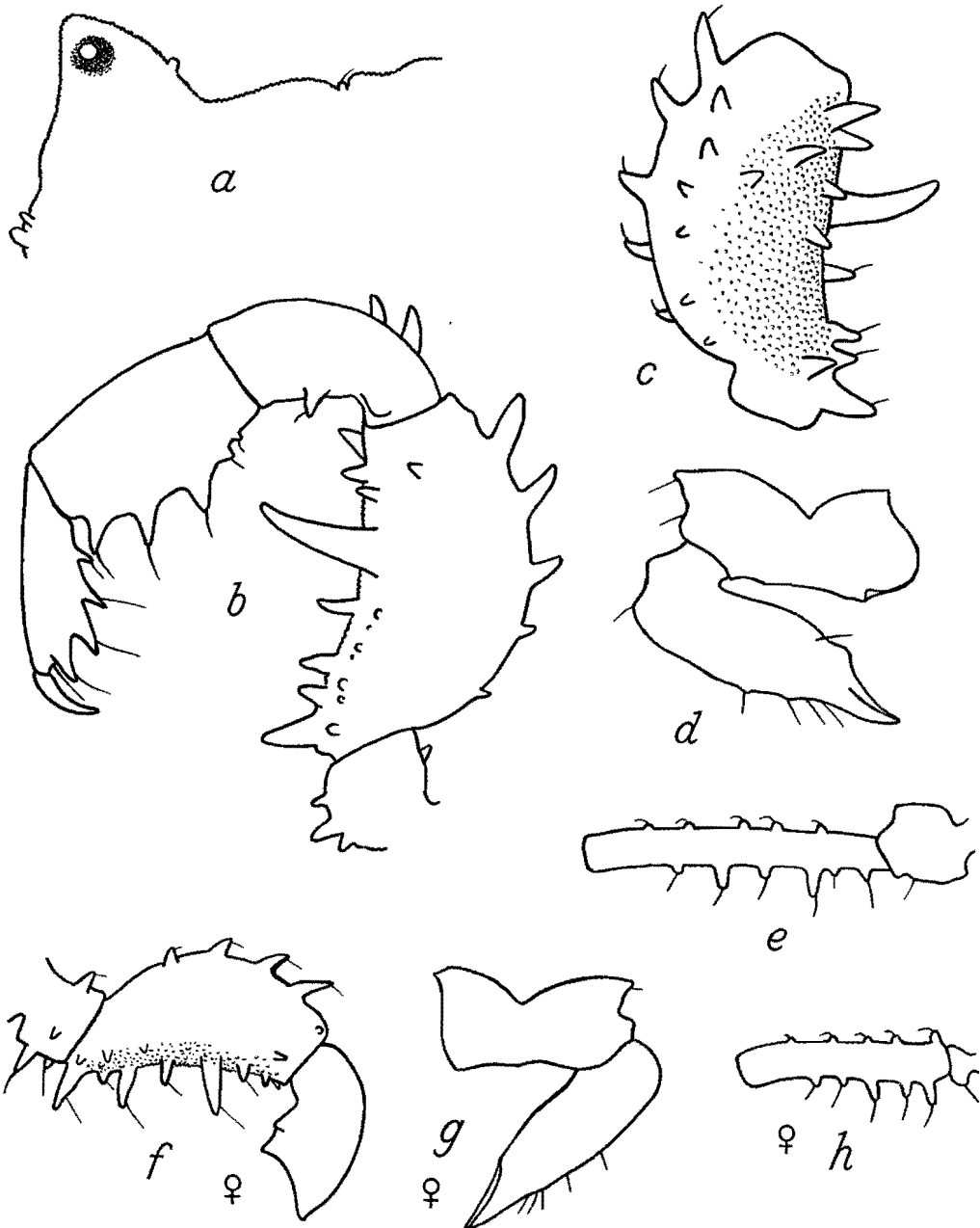
Micromontia flava n. sp. Text-fig. 6, *a–h*.

Types, 30 ♂♂ and ♀♀, Cathkin Peak Reserve, Drakensberg Mts., Natal.

♂. *Colour*.—Body and appendages in general yellow, without blackish markings.

Dorsal Surface.—General background of dorsum matt, consisting of numerous minute close-set granules ; anterior margin of carapace without enlarged granules of any kind except for 1 or 2 small indistinct ones near the antero-lateral angles of the carapace. Ocular tubercle as in fig. 6, *a*, smooth except for an indistinct granule on its posterior slope ; dorsal scute not divided transversely by grooves, without or with a few small indistinct granules.

TEXT-FIG. 6.



Micromontia flava n. gen et sp. ♂. *a.* Ocular tubercle. *b.* Pedipalp from outer side. *c.* Pedipalp femur from inner side. *d.* Chelicera. *e.* Femur of leg I. ♀. *f.* Trochanter, femur, and patella of pedipalp. *g.* Chelicera. *h.* Femur of leg I.

Ventral Surface.—Surfaces of coxæ with a number of unusually strong setæ, but in general with few and weak granules; coxa I at its anterior distal margin with a fairly distinct though not large conical granule, III with 2 fairly large granules at its anterior distal apex, the more distal of the two the larger, IV with a row of 6 distinct granules along its anterior margin; sternites smooth, with fine matt granulation and no granules standing out from the general background.

Pedipalp as in fig. 6, *b*, seen from the outer side; outer surface of femur smooth, inner and ventral surfaces, fig. 6, *c*, covered with minute, rather faint granules, disappearing towards the dorsal surface of the segment; teeth on the ventral surface of femur unusually large in proportion to the size of the segment, especially the tooth on the outer side just distal to the middle, which, when the tibia and tarsus are closed against the femur, passes right across the patella; patella differing from most species of *Triænonychina* in having 2–3 teeth *dorsally* near its base (fig. 6, *b*), ventrally with a stout conical inner tooth and a smaller outer denticle; outer side of tibia and tarsus armed with large triangular teeth, fig. 6, *b*, inner side of tibia with 3 smaller teeth, only the apical one as large as the apical tooth of the outer side; in addition 3 small tooth-like granules at the base of the inner side situated more dorsally than the others; inner side of tarsus with 3 fairly small teeth; ventral surface of tibia and tarsus smooth, without granules or transverse grooves.

Chelicera as in fig. 6, *d*, segment II with some low seta-tipped granules along its anterior surface, segment I with a fairly large tubercle dorsally at its apex.

Legs.—Femur I with a row of granules above and below as in fig. 6, *e*, II with similar but smaller granules, III and IV without or with very indistinct granules. Median prong of claws of legs III and IV very stout and tooth-like, 3 or 4 times as stout as the claw of leg I. Tarsal segments 3 : 5 : 4 : 4.

Dimensions.—Length of body 1.6–1.8 mm.

♀. Differing from the ♂ in the following characters: Areas of dorsal scute with some transverse rows of fairly distinct granules, the minute granules of its background a little stronger; coxæ with less distinct granules, the setæ numerous, some of them with expanded tips, genital operculum comparatively broader; ovipositor with 16–18 setæ arranged in a circle near its distal apex.

Pedipalp femur as in fig. 6, *f*, the large tooth on the outer ventral surface considerably shorter than in the ♂, the pedipalp itself much shorter and less robust than in the ♂; patella without dorsal teeth or these obsolete, the tooth on its inner side comparatively larger than in the ♂; tibia and tarsus with comparatively larger teeth than those of the ♂; femur I with comparatively larger tubercles on its ventral surface than those of the ♂.

Tarsal segments, 3 : 5 : 4 : 4; claws of legs III and IV as in the ♂.

Dimensions.—Length of body 1.4–1.5 mm.

Gen. *Acumontia* Loman.*Acumontia draconensis* n. sp. Text-fig. 7, *a-f*.

Types, 14 ♂♂, 27 ♀♀, Cathkin Peak Reserve, Drakensberg Mts., Natal.

♂. *Colour*.—Dorsal surface with anterior margin of carapace light brown, variegated with blackish reticulation; ocular tubercle black; remainder of dorsal scute light brown with three elongate cuneiform black markings, pointed posteriorly, one at each side, and one in the middle from behind the ocular tubercle to the posterior margin of dorsal scute; free tergites blackish; pedipalps and chelicerae brown, a little lighter than the light parts of the dorsal scute; legs blackish brown.

Dorsal Surface.—Ocular tubercle and dorsum as far as the posterior margin of dorsal scute as in fig. 7, *a*, seen from the side; dorsal scute with a pair of enlarged teeth in the middle, those just anterior to them not as large as the same teeth in *A. natalensis* ('Ann. S. Afr. Mus.', vol. xxix, p. 420, text-fig. 41*a*, 1931).

Ventral Surface.—Coxa I armed as in fig. 7, *e*, II and III with a single transverse row of granules, IV without granules; sternites with a single transverse row of round granules.

Pedipalp as in fig. 7, *c*, seen from inner side, ventral surface of femur and trochanter as in fig. 7, *b*; teeth on the inferior surface of femur large, the inner basal and outer apical one the largest; teeth of the femur larger than those of the tibia (the reverse of *A. natalensis*); patella with a large ventral tooth on the inner side at apex, and some denticles; tibia with 4 teeth on each side, the apical one on each side the smallest; tarsus with 4 outer and 3 inner teeth. Chelicera as in fig. 7, *d*, seen from the side.

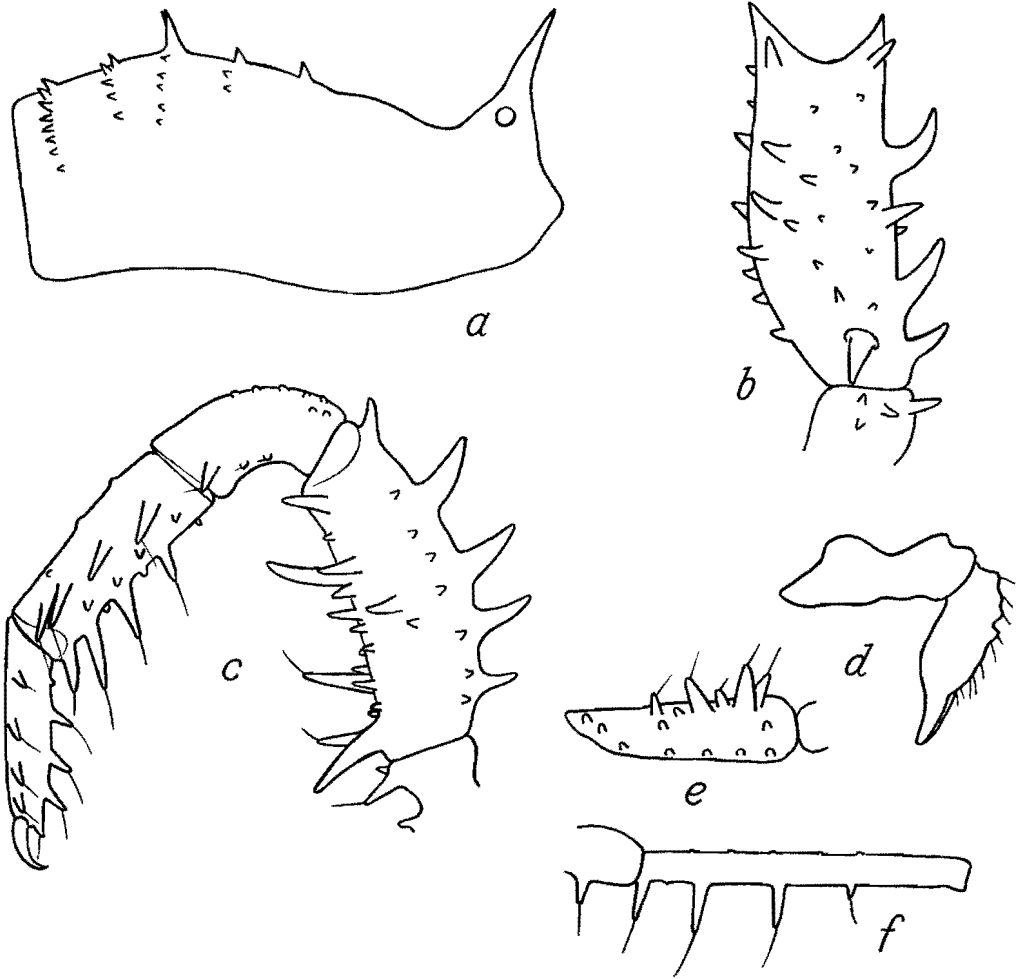
Legs.—Femur I armed as in fig. 7, *f*; tarsal segments 6 : 11–16 : 4 : 4. Tarsus I with 5 segments in four specimens, 7 segments in one specimen, but usually 6. Tarsus II with 11 segments in one specimen, 16 segments in one specimen, but usually 12, 13 or 14.

Dimensions.—Length of body 3·7, pedipalp 5·7 mm.

♀. Colour differing from the ♂, the dorsal surface being a uniform blackish brown without the specific pattern found in the ♂. The enlarged teeth in the middle of the dorsal surface much smaller than those of the ♂, hardly larger than the remaining teeth of the dorsum. Coxa I with about 8 conical teeth of varying length, the second from the distal apex the largest. Pedipalp much shorter than in the ♂, the individual segments much less robust, the largest teeth of the femur a little shorter than the largest teeth of the tibia; tibia with 4 long conical teeth on each side, the apical one on each side less than half the length of the preceding one; patella with 2 conical teeth on inner side, the distal one large (a little shorter than those of the tibia), the proximal one considerably shorter; outer side of patella with a minute conical tooth;

tarsus with 4 teeth on each side, the apical one on the inner side minute. Chelicerae as in the ♂, the tubercles on the anterior surface of segment II smaller.

TEXT-FIG. 7.



Acumontia draconensis n. sp. ♂. a. Ocular tubercle and dorsal scute. b. Trochanter and femur of pedipalp from below. c. Pedipalp from inner side. d. Chelicera. e. Coxa I from below. f. Femur of leg I.

Femur of leg I armed as in the ♂; tarsal segments of legs, 5 : 9-14 : 4 : 4. Tarsus I with 6 segments in three specimens, the remaining ones with 5; tarsus II with 9 or 10 segments in one specimen, 14 segments in one specimen, but usually with 11, 12 or 13 segments.

Dimensions.—Length of body 3.8, pedipalp 4.1 mm.

The males of the two South African species of *Acumontia* can be distinguished thus :

| <i>natalensis.</i> | <i>draconensis.</i> |
|--|---|
| Pedipalp more than twice as long as body. | Pedipalp considerably less than twice as long as body. |
| Pedipalp slender, largest teeth of the femur shorter than largest teeth of the tibia. | Pedipalp robust, largest teeth of femur longer than largest teeth of the tibia. |
| Two pairs of enlarged teeth on the dorsum, the smaller pair larger than the remaining teeth on the dorsum. | One pair of enlarged teeth on the dorsum. |

Gen. *Ræwerania* Lawrence.

Ræwerania spinosa Lawrence.

Ræwerania spinosa Lawrence, Ann. Natal Mus., vol. viii, Pt. 3, p. 360, text-fig. 9, *a-f*, 1938.

7 ♂♂, 2 ♀♀, Cathkin Peak Reserve, 5000–7000 ft. altitude, Drakensberg Mts., Natal. These specimens do not differ in any important respects from the types which were collected at van Reenen, Natal, by Mr. W. G. Rump.

The species described as *Ræwerania natalensis* by myself in "Harvest Spiders from Natal and Zululand", 'Ann. Natal Mus.', vol. viii, Pt. 2, p. 143, figs. 8, *a-f*, 1937, can definitely not be included in the genus *Ræwerania*. An examination of fresh material consisting of 9 full-grown specimens from the Cathkin Peak Reserve, Drakensberg Mountains, Natal, makes it necessary to separate these forms from *Ræwerania* in a new genus, for which I propose the name *Yulella*. This genus differs from *Ræwerania* in three very distinct characters, (1) the enormously developed tooth on the coxa of the first leg (*loc. cit.*, fig. 8, *b*), (2) a normally short pedipalp trochanter, not a greatly elongated one, (3) the tarsus of first leg with four segments (three in *Ræwerania*).

Yulella n. gen. Text-fig. 8.

Dorsal scute unarmed and without grooves dividing it into areas ; ocular tubercle low, without a terminal spine ; stigmata not exposed ; coxa I near its distal apex with a greatly elongated tooth visible when the animal is viewed from above, fig. 8 ; pedipalp normal, armed with long conical seta-tipped teeth, ventral surface of femur without a strip of fine granulation ; chelicerae with both segments long, rather resembling those of *Ræwerania* ; femur of leg I armed below with a row of small blunt granules ; calcaneus of all legs much shorter than the astragalus ; median prong of claws of tarsi III and IV longer and stouter than the lateral prongs ; tarsal segments I, 4 ; II, 8–11 ; III, 4 ; IV, 4.

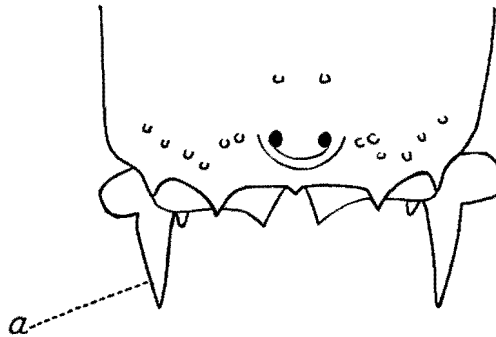
Yulella natalensis (Lawrence). Text-fig. 8.

Ræwerania natalensis Lawrence, Ann. Natal Mus., vol. viii, Pt. 2, p. 143, figs. 8, a-f, 1937.

The specimens from Cathkin Peak (9 adults) are considerably larger than those from Bulwer, Natal, on which the description of (*Ræwerania*) *natalensis* was based. The number of segments of the first tarsus is undoubtedly *four*, not three, as of these nine specimens seven have 4 segments, and only two of the smaller specimens have 3. The type of *Ræwerania natalensis* was probably not altogether mature. A description of the Cathkin Peak specimens is as follows :

Colour.—Orange yellow, usually without blackish markings.

TEXT-FIG. 8.



Yulella natalensis (Lawrence). ♂. Anterior margin of carapace with the mouthparts removed. a. Tooth on the distal margin of coxa of leg I.

Dorsal Surface.—Ocular tubercle as in fig. 8, a, *loc. cit.*, 2 granules on its sides, 2 on its posterior slopes, and a well separated row of about 4 granules near the antero-lateral angles of the carapace. Areas I–V each with a fairly well developed row of minute granules not extending to the sides.

Ventral Surface.—Coxa I as in fig. 8, b (*loc. cit.*), the main tooth, however, even longer, II with 3 ill-defined rows of minute granules, III with a regular row of granules along its anterior and posterior margins, IV without granules.

Pedipalp armed as in Figs. 8, c, d (*loc. cit.*), the individual segments, however, much larger and longer.

Chelicerae as in fig. 8, e (*loc. cit.*), but larger, the anterior surface of segment II with smaller and fewer granules.

Femur of leg I with shorter and smaller granules than in fig. 8, f (*loc. cit.*), tarsal segments, 4 : 9–11 : 4 : 4 ; tarsus I in one specimen with 5 segments, in two specimens with 3 segments (subadults or females), tarsus II usually with 11, occasionally with 9 segments.

Dimensions.—Length of body 3.5, length of pedipalp 4.2 mm.

Subfam. ADÆINÆ Pocock.

Gen. *Adæulum* Roewer.

Adæulum monticolum n. sp. Text-fig. 9, *a-d*.

Types, 8 ♂♂, 25 ♀♀, Cathkin Peak Reserve, Drakensberg Mts., Natal.

Colour blackish-brown.

♂. *Dorsal Surface*.—Anterior margin of carapace without a row of enlarged conical granules, a cluster of 3–5 granules directly in front of ocular tubercle a little larger than the remaining granules of the carapace. Ocular tubercle as in fig. 9, *a*, seen from the side, covered with close, fine granules, areas I–IV with a pair of large clusters of granules in the middle, the anterior ones rounded, the posterior ones more pointed and triangular; those of I and II the same distance apart, those of III much nearer to each other, those of IV a little wider apart than in I and II; all these areas with a transverse strip of small granules reaching from the outer margins of the median clusters to the sides of the body; area between the clusters smooth; posterior margin of carapace with a large triangular tubercle in the middle and some smaller granules at the sides; free tergites with a transverse row of triangular granules or tubercles, the middle one much larger than the others.

Ventral Surface.—All coxæ uniformly and densely covered with minute bead-like granules, I with some larger granules in addition, the largest being a bifid conical granule (or two conical granules) at the anterior distal apex; genital operculum without enlarged conical granules; sternites with a single transverse row of round granules, in front of this row some smaller bead-like granules similar to those on the coxæ.

Pedilap.—Femur and trochanter as in fig. 9, *b*, seen from the inner side, and fig. 9, *c*, seen from directly below; ventral surfaces of femur, tibia, and to a less extent tarsus, uniformly and densely covered with minute granules; patella quite unarmed, tibia with 2 small teeth at its inner apex, tarsus with 3 small, rather ill-defined teeth on each side.

Chelicerae as in fig. 9, *d*, seen from the inner side; segment I dorsally with 2 conical teeth at its inner apex, segment II with its anterior surface roughly granular in its proximal half, a row of large tooth-like granules along its inner side.

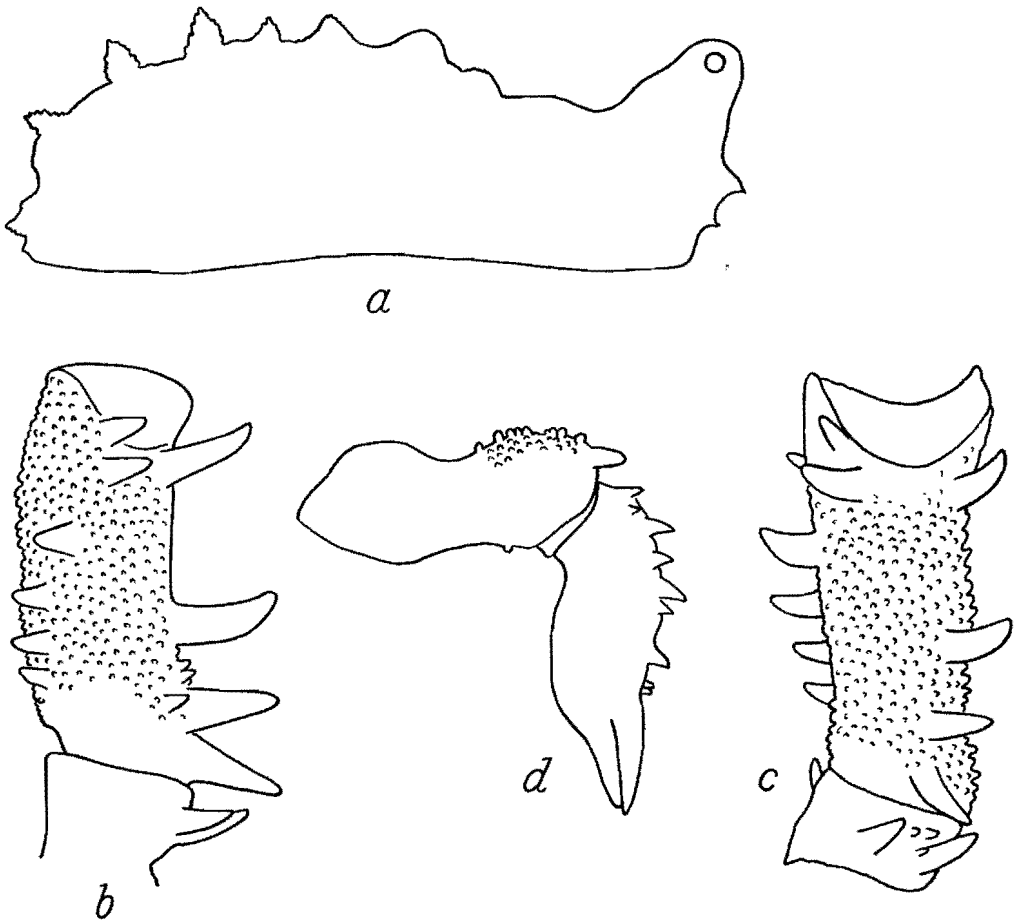
Legs.—Tarsal segments, 5 : 17–21 : 4 : 4. Tarsus I sometimes with 6 segments but never with 4 in the eight full grown males, tarsus II usually with 17 or 18 segments.

Dimensions.—Length of body 7, length of pedipalp 7·7 mm. The body length of the largest ♂ 7·7, the smallest 6·9, the average in the eight specimens 7·3 mm.

♀. Differing from the ♂ as follows: Colour darker; ocular tubercle lower; pedipalp much shorter and weaker, the femur with weaker teeth; patella

with 2 weak teeth on its inner side; tibia and tarsus with 3 weak teeth on each side, their ventral surfaces only weakly granular; chelicerae with weaker granulation than in the ♂. Tarsal segments, 5 : 14-17 : 4 : 4, tarsus II usually with 15 segments, tarsus I never with 4 segments.

TEXT-FIG. 9.



Adæulum monticolum n. sp. ♂. a. Body seen in profile. b. Femur and trochanter of pedipalp from inner side. c. Femur and trochanter of pedipalp, from below. d. Chelicera.

Dimensions.—Length of body 7.2, length of pedipalp 4.7 mm.

This species resembles *A. moruliferum* Lawrence, 'Ann. Natal Mus.', vol. viii, p. 364, figs. 11, *a-e*, 1938, in having no enlarged granules along the anterior margin of the carapace, and in the chelicerae. It differs from it in the armature of the pedipalp, in the lower ocular tubercle and in the larger number of tarsal

segments of leg II. Although this species differs from all others of the genus in having 5 instead of the usual 4 tarsal segments for leg I, it agrees in all the remaining characters with members of the genus *Adæulum*. The type of *Adæulum robustum* Lawrence, was recorded as having 5 tarsal segments for leg I, but the examination of 20 male specimens captured at Pietermaritzburg subsequently to the description of the type, shows that all these have the normal number of 4.

Adæulum warreni Lawrence.

Adæulum warreni Lawrence, Ann. Natal Mus., vol. vii, Pt. 2, p. 234, text-fig. 8, a-d, 1933.

The Museum has a large number of both sexes of this species from Pietermaritzburg and the following localities in the neighbourhood of Pietermaritzburg: Karkloof, Shooters Hill, Nottingham Rd., Swartkops, Sweetwaters, Drummond. It also has specimens from Bulwer, Cathkin Peak Reserve, and Impotweni. This is definitely a smaller species than the average of the genus. The body length of the type measured 5.8 mm., but of 23 male specimens with the armature of the pedipalp fully developed, the average length was 5.2, the smallest specimens (from Bulwer and Cathkin Peak) being 4.4, the largest (from Pietermaritzburg) being 6.3; *Adæulum supervidens* Lawrence is also a species below the average size of the genus.

The sizes¹ of the remaining species of *Adæulum* are as follows, averages being given only in the case of the six last-named species, the measurements of the first two being based on the types.

| | | | | | | |
|----------------------|---|------|--|----|----|----|
| <i>moruliferum</i> | . | 5.7. | | | | |
| <i>brevidentatum</i> | . | 6. | | | | |
| <i>coxidens</i> | . | 7 | (average of 13 full-grown male specimens). | | | |
| <i>areolatum</i> | . | 7.1 | 7 | 7 | 7 | 7 |
| <i>monticolum</i> | . | 7.3 | 8 | 8 | 8 | 8 |
| <i>bicolor</i> | . | 6.7 | 24 | 24 | 24 | 24 |
| <i>godfreyi</i> | . | 6.9 | 6 | 6 | 6 | 6 |
| <i>robustum</i> | . | 7.7 | 18 | 18 | 18 | 18 |

¹ The length was taken as from the anterior margin of the carapace to the posterior apex of abdomen, measured in the middle line.