

MEM. NAT. MUS. VICT., 16, 1949

<https://doi.org/10.24199/j.mmv.1949.16.05>

## AUSTRALIAN OPILIONES

By R. R. Forster,  
Canterbury Museum, Christchurch, N.Z.

Figs. 1-44.

(Received for publication April 7, 1949.)

The Australian Opilionid fauna is but poorly known. Fifty-nine species have now been recorded, including the seven new species described in the present paper. Unfortunately, all the work to date has been done by overseas workers who have relied on preserved material, accompanied by very little field data. Hence it is not surprising to find that a considerable amount of confusion has arisen through the failure to consider numerous significant factors, especially those pertaining to the pronounced sexual dimorphism occurring in a large percentage of the Australian species.

The present paper is based mainly on the collections in the National Museum of Victoria, kindly forwarded to me for examination by the Director, Mr. R. T. M. Pescott, and supplemented by further material collected over the last two years by Mr. R. A. Dunn, of Melbourne. I am indebted to Professor V. V. Hickman, of Hobart, Tasmania, for valuable information on the related Tasmanian fauna, and for supplying the material from which *Paranuncia gigantea* has been re-described.

The present collection is probably more comprehensive than any previously studied, and fortunately a considerable series of both sexes of a number of species are available. Perhaps the most important result embodied in this paper is the establishment of a new subfamily, Megalopsalinae of the Phalangiidae. This subfamily probably includes all the *Palpatores* known from Australia. It is remarkable that the presence of a distinctly pectinate pedipalp tarsal claw should have been overlooked in all previous descriptions, as this character is undoubtedly the most distinctive one used to separate the subfamilies of the Phalangiidae.

In addition to the species described below, I have examined male specimens of *Megalopsalis serritarsus* Sor. from New South Wales, and a number of immature Phalangiidae from Western Australia. In all cases, the pedipalp tarsal claw was strongly pectinate. Professor Hickman informs me that the pedipalp claw of *Pantopsalis tasmanica* Hogg is also pectinate. As it is now

necessary to separate the Australian species previously placed in *Pantopsalis* from the New Zealand species, I have established *Spinicrus* n.gen., into which are placed all the Australian species. It is certain that in at least the two genera *Spinicrus* n.gen. and *Megalopsalis* Roewer, the males are characterized by extremely large spiculate chelicerae, while those of females are small and smooth.

Results obtained from the study of the nunciaeform triaenonychids in the collection demonstrate the need for caution in following the present tendency to use tarsal segmentation as a diagnostic generic character. Three instances are recorded below in which the number of tarsal segments of leg I of the female differs from that of the male of the same species, namely *Paranuncia gigantea* Roewer, *P. ingens* Roewer and *Nunciella tuberculata* n.sp. Hickman (1939) has previously drawn attention to a similar condition with *Nuncia unifalcata* (Enderlein).

## Order OPILIONES

### Suborder PALPATORES Thorell

### Family PHALANGIIDAE Simon

### Subfamily Megalopsalinae nov. subfam.

Thoracic tergites clearly defined by transverse grooves. Abdominal tergites usually clearly defined, occasionally fused. Corona analis absent. Openings of stink-glands clearly visible from above. Coxae I-IV without marginal rows of granules. Maxillary lobes of legs II directed obliquely across the anterior margin of the genital operculum. Basal segment of chelicerae normally with an anteriorly directed spine on the ventral surface; cutting edges of the fingers armed with both large and small teeth. Pedipalps slender, unarmed; terminal claw of tarsus well developed and strongly serrate below. Legs long and slender; femora I-IV without nodules. Secondary sexual characters usually abundant, strongly developed in chelicera, legs and cephalothoracic carapace.

The three genera recorded from Australia may be separated as follows:

1. Patella of pedipalp with a prominent apophysis—*Megalopsalis* Roew.
- Patella of pedipalp without apophysis—2.
2. Chelicera of male strongly spiculate, at least twice the length of the body—*Spinicrus* n.gen.
- Chelicera of male smooth, not exceeding the length of the body—*Nodala* n.gen.

Genus MEGALOPSALIS Roewer, 1923  
*Megalopsalis hoggi* (Pocock) 1902

Figs. 5-8.

- 1902 *Macropsalis hoggi* Pocock, Proc. Zool. Soc. London, II, pp. 398-399.  
1923 *Megalopsalis hoggi* (Pocock) Roewer, Die Weberknechte der Erde, pp. 867-868.

In his original description of *Megalopsalis hoggi*, Pocock appears to have confused two species. The so-called female specimens were probably males of the species described below as *Spinicrus camelus* n.sp. The male specimen is retained as *Megalopsalis hoggi* (Pocock), and a description is now given of the female. *M. hoggi* is relatively widely distributed, records listed below extending the range from Victoria to South Australia.

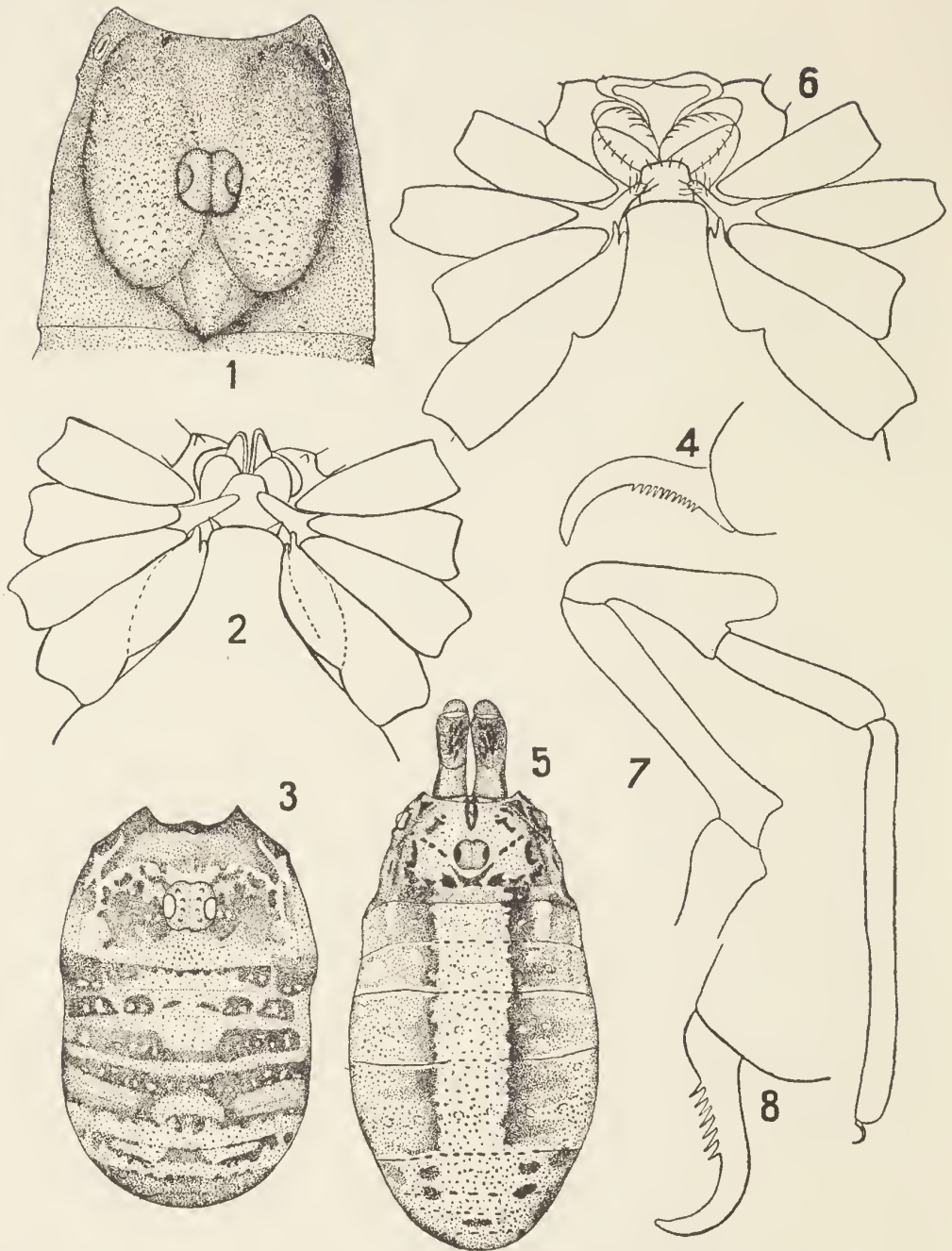
*Female.*

*Colour.* Cephalothoracic carapace greyish-brown marked with dark-brown as in Fig. 5. Dorsal surface of abdomen with a broad grey median band margined with dark-brown fading to greyish-brown along the lateral margins. Body below grading from light yellowish-brown to silvery-white. Legs light yellow with a number of dark-brown areas. Basal segment of the chelicerae with a number of dark-brown spots on the disto-dorsal surface, otherwise chelicerae light-yellow.

*Body.* Eyemound spherical, smooth, slightly canaliculate, set twice its diameter from the anterior margin of the carapace. Carapace smooth, surface anterior to the eyemound level, but the extreme anterior margin sloping steeply down to the chelicerae. Abdominal tergites and sternites clearly defined by shallow transverse grooves. Mouthparts as in Fig. 6. Maxillary lobes of coxae II broad basally, but more slender distally; directed obliquely across the anterior margin of the genital operculum. Genital operculum widening anteriorly, reaching the anterior margin of coxae III.

*Chelicerae.* Small and smooth. Basal segment slender, slightly constricted medially; proximo-ventral process small and rounded. Second segment slightly longer than basal segment. Inner margins of fingers lined with small uneven denticulations.

*Pedipalps.* As in Figs. 7, 8. Slender, slightly longer than body, unarmed. Femur sharply curved up from the proximal region, where the ventral surface is produced down as a sharp elbow. Disto-dorsal patellar process broadly rounded, almost half the



Figs. 1-4. *Spinicrus camelus* n.sp.

- Fig. 1. Dorsal view of cephalothoracic carapace of male.  
 Fig. 2. Antero-ventral portion of body of male.  
 Fig. 3. Dorsal view of body of female.  
 Fig. 4. Pedipalp tarsal claw of male.

Figs. 5-8. *Megalopsalis hoggi* (Pocock)

- Fig. 5. Dorsal view of body of female.  
 Fig. 6. Antero-ventral portion of body of female.  
 Fig. 7. Pedipalp of female.  
 Fig. 8. Pedipalp tarsal claw of female.

length of the tibia. Tarsus almost twice the length of the tibia. Tarsal claw slender, armed below with a single median row of from 6 to 8 sharp teeth.

*Legs.* All segments, including coxae, smooth, without denticulations or spines, but sparsely covered with short black setae.

*Measurements in mms.—*

Body: length 4·90, width 2·24

	Cox.	Troch.	Fem.	Pat.	Tib.	Met.	Tars.	Total
Leg I . . . . .	1·03	0·29	2·63	0·68	2·42	1·43	5·00	13·48
Leg II . . . . .	0·84	0·28	4·76	0·67	4·03	1·44	14·00	26·03
Leg III . . . . .	0·83	0·24	2·08	0·63	1·78	1·48	4·44	11·48
Leg IV . . . . .	1·04	0·24	3·74	0·73	2·53	3·22	8·00	19·50
Pedipalp . . . . .		0·29	1·33	0·73	1·00	—	1·38	4·73
	Chelicera: basal 1·29, second 1·46							2·75

*Types.* Holotype male, damaged specimen in British Museum; Allotype female, National Museum of Victoria, Melbourne.

*Localities.* The original male specimen was collected by H. R. Hogg at Macedon, Victoria. Further localities are: Golden Square (south of Bendigo), under stone on mullock heap, coll. F. G. Elford, September 16, 1947 (allotype); Ashbourne, S.A., in leaf mould, coll. J. T. Salmon; Myopongs, S.A., under bark, coll. J. T. Salmon; Sandy Creek, S.A., coll. A. N. Burns, August 28, 1947.

Genus SPINICRUS nov.

Eyemound normal, slightly canaliculate, set from two to three times its diameter from the anterior margin of the carapace. Cephalothoracic carapace of male spiculate, of female smooth. Abdomen of both male and female smooth, soft, segmentation defined by shallow transverse grooves. Chelicera of female short and smooth, not as long as body; chelicera of male long and spiculate, at least twice the length of body. Pedipalp of both male and female slender, spicules and apophyses absent; pedipalp tarsal claw strongly pectinate. Legs long and slender, strongly denticulate in male.

Genotype *Pantopsalis tasmanica* Hogg, 1910.

It is highly probable that on re-examination of the type specimen of *P. continentalis* Roewer, this species will also be placed in *Spinicrus*.

*Spinicrus camelus* n.sp.

Figs. 1-4, 9-10.

*Male.*

*Colour.* Cephalothoracic carapace black, but lateral margins pinkish-white. Eyemound black with a reddish area along the median line. Both tergites and sternites with a broad transverse band of dark chocolate-brown. A median dorsal pair of longitudinal dark-brown bands extend from the anterior margin of

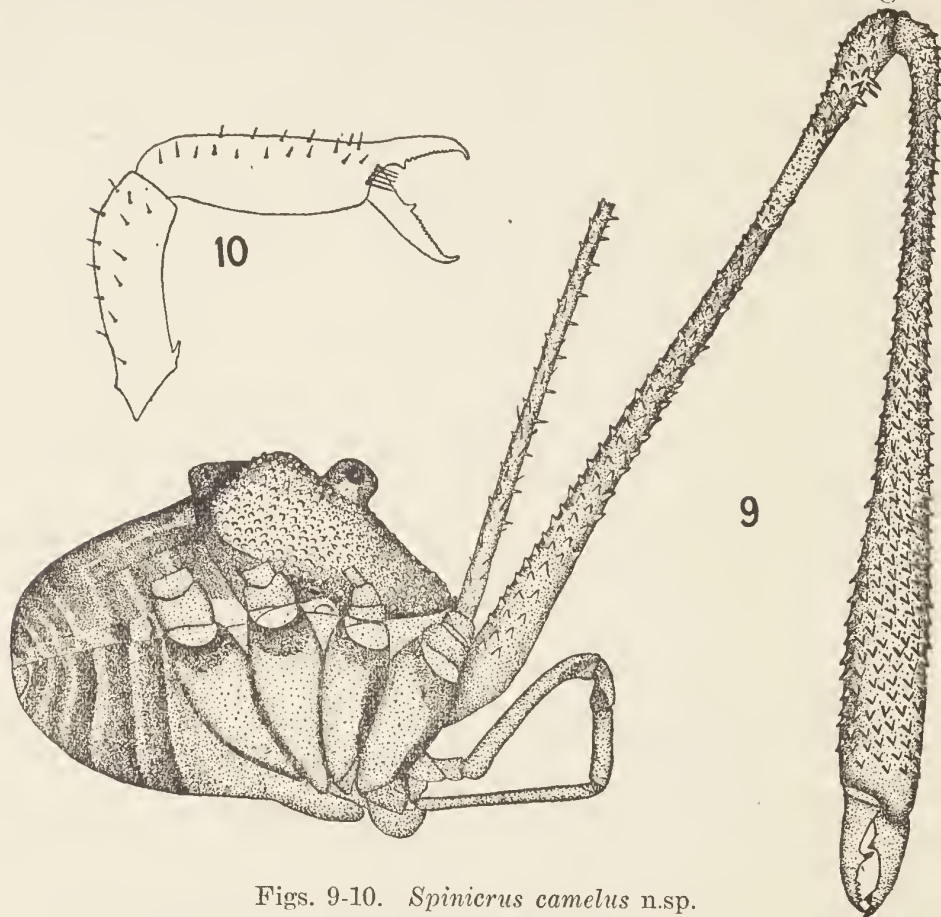
Figs. 9-10. *Spinicrus camelus* n.sp.

Fig. 9. Lateral view of male.

Fig. 10. Inner lateral view of chelicera of female.

(Figs. 9 and 10 drawn to the same scale.)

the abdomen to almost halfway. Genital operculum and anterior sternites yellow. Chelicerae blackish-brown, sub-distal area of the basal segment and fingers pale-yellow. Pedipalp light-yellow but reddish at the base. Coxae of legs pale-yellow except for dark-brown distal surface. Legs mainly dark-brown but with a few yellow bands.

*Body.* Eyemound rounded apically, but rising directly from the carapace, smooth, slightly canaliculate, set three times its diameter from the anterior margin of the carapace. Cephalothoracic carapace sclerotic, uniformly and finely granulate; sloping steeply down in front of the eyemound and extending up behind the eyemound to form a pair of large humps, between which there is a further sharp median ridge (Figs. 1, 9), rising in height but narrowing in width posteriorly to form a sharp peak jutting over the first tergite. Openings of the stink-glands clearly visible on the lateral margins of the carapace above coxae I. Abdomen soft, segmentation distinguished only by means of transverse rows of small setae and bands of dark-brown. Genital operculum squat, extending to posterior margin of coxa II. Mouthparts as in Fig. 2. Maxillary lobes of coxa II relatively broad, sub-triangular, twice as long as width at base.

*Chelicerae.* As in Fig. 9. Three times the length of body, both segments uniformly and strongly denticulate. Basal segment gradually narrowing from the proximal region but becoming stouter at the distal extremity. Second segment slender proximally but becoming uniformly stouter distally until twice as wide as the base of basal segment. Fingers well developed, crossing at tips when closed. Fixed finger with one strong tooth on the inner surface at one third and a further similar tooth at almost three-quarters, followed by a few smaller teeth. Movable finger with a strong tooth at halfway, followed by a number of small teeth on the distal third.

*Pedipalps.* Slender, almost as long as body, without apophyses. Tarsal claw small, pectinate below with a single row of 11-12 small even teeth on the proximal half (Fig. 4).

*Legs.* Coxae smooth, without granules. Femur with a prolateral row of sharp, fine, widely spaced small denticulations and a retro-lateral row of similar but much smaller denticulations. Femora II-IV with four rows of small denticulations. Remaining segments free from denticulations. Tibia III with nine and tibia IV with two false articulations.

*Measurements in mms.—*

	Body: length 7.98, width 3.91							
	Cox.	Troch.	Fem.	Pat.	Tib.	Met.	Tars.	Total
Leg I . . . . .	2.05	0.54	8.00	1.48	5.90	8.48	9.89	36.34
Leg II . . . . .	2.10	0.59	13.56	1.58	14.42	4.90	31.67	68.82
Leg III . . . . .	2.25	0.55	5.89	1.27	6.50	8.75	11.48	36.69
Leg IV . . . . .	2.25	0.56	8.98	1.46	9.75	10.46	20.05	53.51
Pedipalp . . . . .		0.52	1.85	0.68	1.10	—	2.46	6.61
	Chelicera: basal 9.10, second 11.56							20.66

*Female.*

*Colour.* Dorsal surface of body patterned with silvery-white and blackish-brown as in Fig. 3. Ventral surface yellowish-white but brown along the lateral margins of the abdomen and distal surfaces of coxae I-IV. Chelicera yellow but with some brown patches on the dorsal surface. Pedipalps and legs banded with brown and light-yellow.

*Body.* The modifications found on the cephalothoracic carapace of the male absent, carapace smooth and only slightly sclerotic. Eye mound rounded and only slightly canaliculate, with a single row of small granules above each eye and removed from the anterior margin of the carapace by almost twice its diameter. Abdomen soft and smooth, both tergites and sternites faintly demarcated by transverse grooves. Genital operculum extending to the posterior margin of coxa II. Maxillary lobe of coxa II as in male.

*Chelicerae.* As in Fig. 10. Small and smooth, not quite the length of the body. Basal segment with a small, sharp, forwardly directed process on the proximo-ventral surface. A strong black tooth on the inner surface of the fixed finger at one third is followed by a single line of small denticulations. Movable finger with a similar arrangement but the large tooth at almost half-way. Tips sharply bent and cross when closed. A small comb of 5-6 small setae lines the inner proximal margin of the fixed finger.

*Pedipalps.* As in male. Tarsal claw with a single row of from 13-14 sharp, even teeth along the proximal half.

*Legs.* Coxae smooth, without granules. Femora I and II armed with a few small denticulations but legs otherwise smooth.

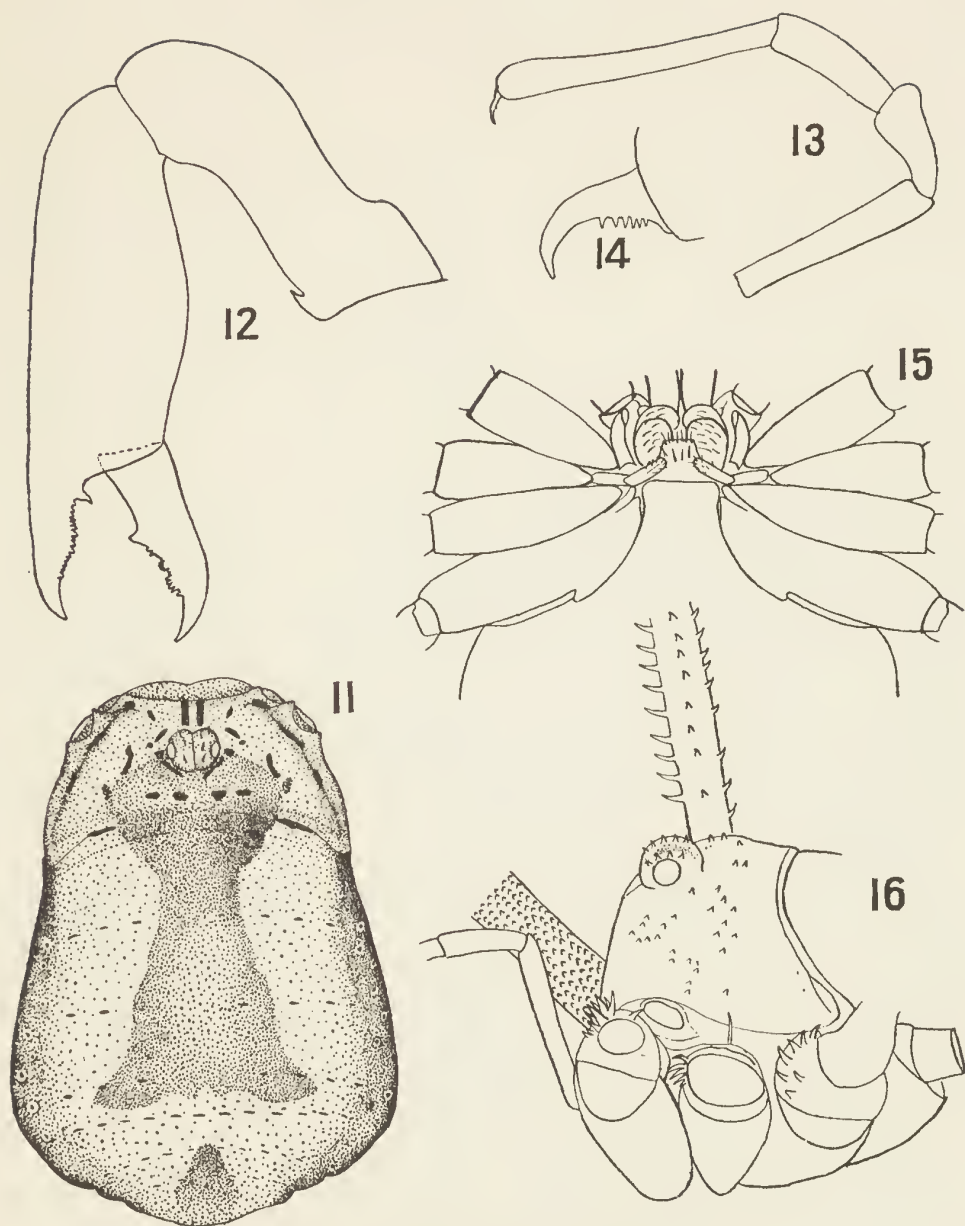
*Measurements in mms.—*

	Body: length 4.28, width, 2.80							
	Cox.	Troch.	Fem.	Pat.	Tib.	Met.	Tars.	Total
Leg I . . . . .	1.16	0.51	3.00	0.89	3.06	2.83	6.43	17.88
Leg II . . . . .	1.42	0.53	7.92	1.25	7.10	3.69	22.43	44.34
Leg III . . . . .	1.53	0.51	4.10	1.05	3.76	4.45	8.49	23.89
Leg IV . . . . .	1.82	0.56	4.20	0.83	4.22	2.73	10.48	24.84
Pedipalp . . . . .		0.48	1.20	0.53	0.72	—	1.64	4.57
								Chelicera: basal 1.34, second 1.69
								2.03

*Types.* Male holotype, female allotype, and paratypes in the collection of National Museum of Victoria.

*Locality.* Numerous specimens collected at Tubrabucca, N.S.W. Coll. R. T. M. Pescott and A. N. Burns, January, 1948.





Figs. 11-16. *Spinicrus stewarti* n.sp.

- Fig. 11. Dorsal view of body of female.
- Fig. 12. Outer lateral view of chelicera of female.
- Fig. 13. Pedipalp of female.
- Fig. 14. Tarsal claw of pedipalp of female.
- Fig. 15. Antero-ventral portion of body of female.
- Fig. 16. Latero-dorsal view of anterior portion of the body of male.

*Spinicrus stewarti* n.sp.

Figs. 11-16.

*Male.*

*Colour.* Cephalothoracic carapace dark-brown but pale-brown at the bases of the spicules and infused with white at each posterior corner. Abdomen above with a broad median dark-brown band extending to about two thirds, where the surface is silvery-white. Ventral surface of the abdomen and coxae dull-white, relieved by scattered patches of yellow-brown. Basal segment of the chelicera with a dark-brown patch on the distodorsal surface but otherwise yellow-brown. Second segment a darker brown but with a small white patch on the distal surface. Pedipalp banded with white and brown. Legs dark-brown but with several light-brown patches.

*Body.* Eyemound spherical and with a row of from three to five strong spicules along each side of the median groove; set its own diameter from the anterior margin of the carapace. Cephalothoracic carapace armed with numerous spicules as in Fig. 16; sloping steeply down in front of the eyemound to the chelicera, where the anterior margin is entire. Abdomen smooth and soft; segmentation indicated by faint transverse grooves. Genital operculum widening distally and extending to the posterior margin of coxa I. Maxillary lobes of coxae II longer than wide in the ratio of 4:1, directed obliquely forward anterior to the genital operculum.

*Chelicerae.* Finely spiculate (Fig. 16), basal segment not quite as long as second segment, the length of both segments being two and a half times that of the body. The inner surface of the fixed finger is armed with a strong triangular tooth at one third and a further similar tooth at two thirds; between these a strong median tooth on the inner surface of the movable finger fits when the fingers are closed. A comb of small black setae is present along the inner distal margin of the second segment.

*Pedipalps.* Slender, apophyses absent, slightly longer than the length of the body; covered on all segments with short black setae, but otherwise smooth. Tarsal claw below with a single row of six sharp teeth restricted to the proximal half.

*Legs.* Coxae smooth but for a sparse covering of short black setae. Trochanters I-IV with a bunch of sharp spines on the anterior surface. Femora I-IV strongly and evenly spined. Patella I covered with spines, those on the anterior surface being strongest. Remaining segments without spines.

*Measurements in mms.—*

Body: length 5·52, width 3·24

	Cox.	Troch.	Fem.	Pat.	Tib.	Met.	Tars.	Total
Leg I . . . . .	1·80	0·48	6·75	1·48	6·48	7·44	8·50	32·93
Leg II . . . . .	1·74	0·48	10·50	1·25	10·73	4·32	28·00	57·02
Leg III . . . . .	1·90	0·47	4·84	1·00	4·22	4·21	14·90	31·54
Leg IV . . . . .	2·38	0·48	8·73	1·26	7·04	5·52	16·46	41·87
Pedipalp . . . . .		0·52	0·49	1·44	0·76	—	2·13	5·34
	Chelicera: basal 5·94, second 7·25							13·19

*Female.*

*Colour.* Dorsal surface of body as in Fig. 11. Ground colour creamy-white with two black lines in front of the eyemound and other scattered black patches as in figure. Median hourglass-shaped band and lateral margins of the abdomen blackish-brown. Ventral surface of abdomen silvery-white with dark-black intersternal lines. Coxae and trochantera of legs with numerous small brown patches, remaining segments of legs and pedipalps banded with yellow and brown. Chelicerae mainly yellow but overlaid with black reticulations.

*Body.* Eyemound spherical, slightly canaliculate, smooth, set almost twice its diameter from the anterior margin of the carapace. Cephalothoracic carapace poorly sclerotised, smooth, sloping sharply down to the chelicerae in front of the eyemound. Abdomen soft, tergites defined by transverse lines of small black indentations. Genital operculum extending to the posterior margin of coxae II, widening distally. Mouthparts and maxillary lobes of coxae II as in Fig. 15.

*Chelicerae.* As in Fig. 12. Short, as long as body. Basal segment with a dorsal notch and a short spinous process on the proximo-ventral surface. Second segment relatively stout; fixed finger with a strong tooth on the proximal surface followed by a row of small even denticulations; movable finger similar, but the proximal large tooth fits beyond that of the fixed finger when closed.

*Pedipalps.* As in Figs. 13, 14; tarsal claw armed below with a row of from 6 to 8 small sharp teeth.

*Legs.* All coxae smooth. Trochantera I-III with each a number of small sharp spines on the prodistal surface. Legs otherwise smooth.

*Measurements in mms.—*

	Body: length 7·0, width 3·75							
	Cox.	Troch.	Fem.	Pat.	Tib.	Met.	Tars.	Total
Leg I . . . . .	1·48	0·49	4·15	0·95	4·48	3·55	9·00	24·10
Leg II . . . . .	1·45	0·48	8·00	1·25	7·75	3·02	23·00	44·95
Leg III . . . . .	1·75	0·47	3·98	1·23	4·00	3·99	10·00	25·42
Leg IV . . . . .	2·45	0·49	7·00	1·48	6·09	4·35	14·50	36·36
Pedipalp . . . . .		0·55	1·50	0·59	0·78	—	1·95	5·37
	Chelicera: basal 1·2, second 2·0							3·20

*Types.* Holotype male and allotype female in National Museum of Victoria; paratypes in Canterbury Museum, Christchurch, N.Z.

*Locality.* Mount Buffalo, Victoria, where large numbers have been collected by Mr. H. C. E. Stewart, of Melbourne, after whom I have the pleasure of naming this species. The largest series was collected from the bole of a Snow Gum (*Eucalyptus paucifolia*) during December, 1947.

Genus **NODALA** nov.

Eyemound normal, canaliculate, set its own diameter from the anterior margin of the carapace. Cephalothoracic carapace smooth. Body smooth, tergites I-V of male fused into a scute, otherwise clearly demarcated by transverse grooves. Chelicerae of both male and female smooth, short, not as long as body. Pedipalps relatively stout, but without apophyses, spiculate in male. Legs slender, long and smooth.

Genotype *Nelima dunni* Forster, 1948.

This species was provisionally placed in the subfamily *Lio-*  
*buninae* until a more extensive survey of the Australian Palpa-  
tores could be made. It is now evident that it should be placed in  
the *Megalopsalinae*.

Suborder **LANIATORES** Thorell  
Family **TRIAENONYCHIDAE** Sørensen  
Subfamily **Triaenonychinae** (Pocock)

## KEY TO THE AUSTRALIAN GENERA

- |  |     |
|--|-----|
| 1. Eyemound smooth and rounded.                              | 2.  |
| – Eyemound conical.  | 4.  |
| – Eyemound with a median spine.                              | 5.  |
| – Eyemound with a hook on the anterior margin.               | 11. |
| 2. Eyemound rising from the anterior margin of the carapace. |     |

*Nunciella* Roewer.

- Eyemound removed from the anterior margin of the carapace. 3.
- 3. Scutal segmentation clearly defined by transverse grooves.  
Pedipalp weakly spined; distal region of femur swollen.  
*Lomanella* Pocock.
- Scutal segmentation not defined by transverse grooves.  
Pedipalp strongly spined; femur normal. *Nconuncia* Roewer.
- 4. Eyemound removed from the anterior margin of the carapace. Scutal areas faintly defined by transverse grooves; areas I-V each with a median pair of spines. *Paranuncia* Roewer.
- Eyemound rising from the anterior margin of the carapace. Scutal areas not defined by transverse grooves but closely covered with granules. *Conoculus* n. gen.
- 5. Eyemound rising from the anterior margin of the carapace. 6.
- Eyemound removed from the anterior margin of the carapace. 8.
- 6. Spines present on scutum. 7.
- Spines absent from scutum; scutal areas clearly defined by transverse grooves. Median spine on eyemound directed anteriorly. *Perthacantha* Roewer.
- 7. Areas II and III each with a median pair of spines. Median spine of eyemound directed forward. Anterior margin of carapace smooth. *Monocanthobunus* Roewer.
- Only area III with a median pair of spines. Median spine of eyemound erect. Anterior margin of carapace armed with strong spines. *Heteronuncia* Roewer.
- 8. Scutal areas defined by transverse grooves and spined. 9.
- Scutal areas not defined by transverse grooves and smooth. *Parattahia* Roewer.
- 9. Scutal spines limited to area III. 10.
- Scutal areas I-IV each with a median pair of spines; those of area III largest. *Jenolanicus* Roewer.
- 10. Tarsus I with five segments. *Equitius* Simon.
- Tarsus I with six to seven segments. *Monoxyomma* Pocock.
- 11. Tarsus II with five segments. *Callihamus* Roewer.
- Tarsus II with six or more segments. *Calliuncus* Roewer.

Genus NUNCIELLA Roewer, 1928

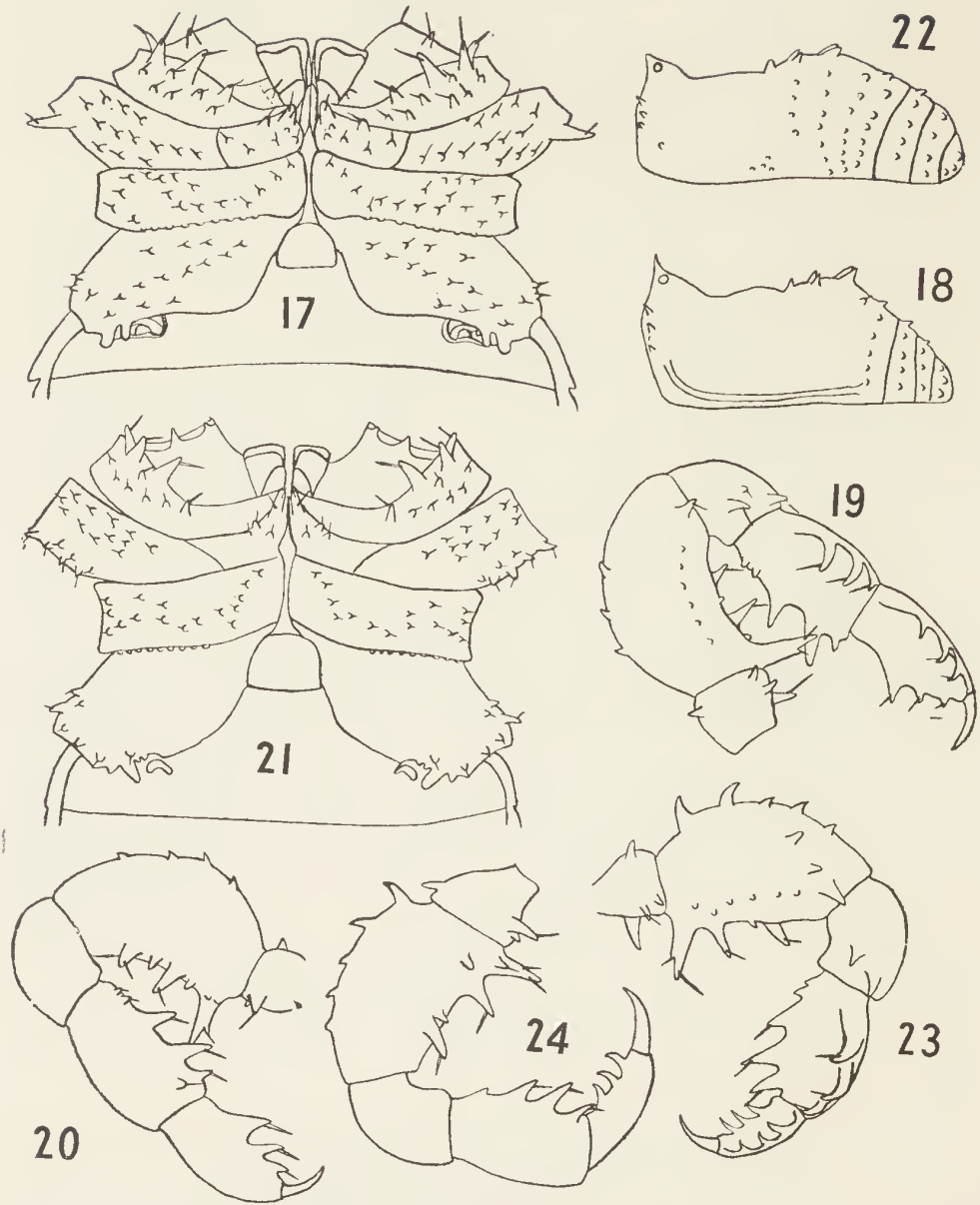
*Nunciella tuberculata* n.sp.

Figs. 25-32

*Male.*

*Colour.* Mainly dark-brown; black reticulations extend from the anterior margin of the carapace to behind the eyemound. A median black band extends from immediately behind the eyemound back to the posterior margin of the abdomen, broad anteriorly but narrowing posteriorly. Coxae to tibiae of legs, chelicerae and pedipalps reticulate.

*Body.* Eyemound set almost half its length from the anterior margin of the carapace, low and smoothly rounded. A pair of small sub-marginal spines are placed in line with, and anterior to, the lateral margins of the eyemound, while the anterior margin of the carapace is armed with a small median spine and a curved



Figs. 17-20. *Paranuncia gigantea* Roewer

Fig. 17. Antero-ventral portion of body of male.

Fig. 18. Lateral view of tergum of male.

Fig. 19. Inner view of pedipalp of male.

Fig. 20. Outer view of pedipalp of male.

Figs. 21-24. *Paranuncia ingens* Roewer

Fig. 21. Antero-ventral portion of the body of male.

Fig. 22. Lateral view of tergum of male.

Fig. 23. Inner view of pedipalp of male.

Fig. 24. Outer view of pedipalp of male.

spinous projection at each outer margin of the chelicerae where they articulate with a round process on the outer proximal surface of each chelicerae (Fig. 25). Areas I-IV not distinguished by transverse grooves but each with a transverse row of small granules, restricted to the median surface on areas I-III, but extending to the lateral margins of areas IV-V. Free tergites and the sternites also with a single transverse row of small granules. Genital operculum smooth. Sternum as in Fig. 28.

*Chelicerae.* Relatively long, equal to the length of the body. Basal segment with a rounded boss on the outer proximal surface (Fig. 25), otherwise smooth. Second segment with a setose tubercle on the inner proximo-dorsal surface, followed by several smaller setose tubercles.

*Pedipalps.* Inner proximo-ventral surface of coxae produced anteriorly as a pair of long digitate processes (Fig. 28). Remaining segments of pedipalp as in Figs. 29, 30. Trochanter with a strong medio-dorsal spine, otherwise smooth. Femur with a ventral row of six spines, the third and fifth being small, the proximal spine expanded distally and broadly clavate where it fits into the enlarged spine on the inner proximo-lateral margin of coxa I. Patella smooth except for a small sub-distal spine on the inner surface. Tibia rounded, not concave, below; armed with one small and three strong spines along the outer ventro-lateral margin and two small proximal and a large distal spine on the inner ventro-lateral margin. Tarsus rounded below, with three outer and three inner ventro-lateral spines. Tarsal claw strong.

*Legs.* Coxae below as in Fig. 28. Coxae I with a large cup-shaped process on the prodistal margin in which the proximo-ventral process of the femur of the pedipalp rests; coxa II with a large, blunt, curved spine on the retrodistal surface, and coxa IV with a smaller unevenly bifurcate spine on the prodistal surface. Trochanter to metatarsus of all legs sparsely granulate. Calcaneus small but distinct, not notched. Tarsal formula 4, 10-11, 4, 4. Distotarsus of leg I two-segmented, leg II four-segmented. Tarsal claw of legs III and IV with small sideclaws.

*Measurements in mms.—*

	Body: length 5·80, width 3·95							
	Cox.	Troch.	Fem.	Pat.	Tib.	Met.	Tars.	Total
Leg I . . . . .	1·54	0·58	2·35	1·04	1·98	2·03	1·41	10·93
Leg II . . . . .	1·78	0·63	2·79	1·03	2·42	3·48	2·73	14·86
Leg III . . . . .	1·45	0·59	2·44	1·04	1·58	2·53	1·33	10·96
Leg IV . . . . .	2·03	0·59	3·02	1·23	2·45	3·44	1·23	13·99
Pedipalp . . . . .		0·48	2·55	1·26	1·68	—	1·71	7·68
	Chelicera: basal 2·95, second 2·96							5·91

*Female.*

*Colour.* As in male.

*Body.* Eyemound as in male, but set no more than one-third of its length from the anterior margin of the carapace. Anterior margin of the carapace with five spines placed as in male but much smaller. The antero-lateral pair not modified (Fig. 26). Remaining body characters as in male.

*Chelicerae.* Shorter than male (Fig. 26), two-thirds the length of body. Basal segment strongly bent, disto-dorsal surface swollen. Rounded boss on outer proximal surface wanting. Second segment with a sharp spine on the inner dorsal surface.

*Pedipalps.* Much weaker than male (Figs. 31, 32). Spination differing as follows: Proximo-ventral spine of femur unevenly bifurcate, third ventral spine of male reduced to a small tubercle; tibia with one proximal and three distal spines on the inner ventro-lateral margin, while those on the outer ventro-lateral margin are greatly reduced in size; tarsus with two median-placed tubercles on the inner ventro-lateral surface.

*Legs.* Coxae as in Fig. 27. Only moderate-sized spines present on the prodistal surface of coxa, retrodistal surface of coxa II and prodistal surface of coxa IV. Tarsal formula 3, 10-11, 4, 4. Disto-tarsus of leg I two-segmented, leg II four-segmented.

*Measurements in mms.—*

	Body: length 5.55, width 3.90							
	Cox.	Troch.	Fem.	Pat.	Tib.	Met.	Tars.	Total
Leg I . . . . .	1.52	0.48	1.94	0.89	1.44	1.93	1.23	9.43
Leg II . . . . .	1.68	0.53	2.43	0.88	2.04	2.38	2.49	12.43
Leg III . . . . .	1.42	0.53	1.53	0.83	1.48	2.28	1.23	9.30
Leg IV . . . . .	1.96	0.65	2.74	1.23	2.03	3.24	1.29	13.14
Pedipalp . . . . .		0.43	1.74	0.78	1.38	—	1.04	5.37
	Chelicera: basal 1.54, second 1.93							3.47

*Types.* Holotype male, allotype female and paratypes in the National Museum collection.

*Localities.* Diamond Creek, Victoria, coll. J. E. Dixon, August, 1925 (Type locality); Warburton, Victoria, coll. J. A. Kershaw, April 11, 1905; Kallista, Victoria, under logs, coll. A. N. Burns, September 18, 1946.

The spination of the pedipalps of this species differs considerably from both of the previously described Victorian species, *N. cheliplus* Roewer and *N. parvula* Roewer. The numerous structural characters which show sexual dimorphism in the above



described species, some of which have been used for specific criteria, indicate the need for a revision of previously described species.

### Genus *PARANUNCIA* Roewer, 1914

1914. Roewer, C. Fr., Arch. Naturg., 80A (12), p. 108.  
 1923. Roewer, Die Weberknechte der Erde, pp. 605-606.  
 1931. Roewer, Zeitschr. f. wiss. Zool., 138 (1), p. 155.

Cephalothoracic carapace shorter than scutum. Eyemound conical, removed from the anterior margin of the carapace by not more than one-third of its width. Areas I-III of the scutum each with a median pair of spines. Scutal areas not distinguished by transverse grooves. Small spines present on the anterior margin of the carapace. Free tergites I-III each with a single transverse row of small even tubercles. Legs unarmed except for granulations. Calcaneus much shorter than astralagus. Calcaneus of leg IV of male notched below. Distitarsi of leg I two-segmented, leg II three-segmented. Tarsal formula of male 4, 9-12, 4, 4; female, 3, 9-12, 4, 4. Median prong of tarsal claws III and IV much stronger than lateral branches.

Genotype *P. gigantea* Roewer.

This genus was established by Roewer (1914) for *P. gigantea* from Tasmania. Roewer (1931) added a further species, *P. ingens* from Victoria. Numerous specimens of *P. ingens* were available for study in the present collection, and it is evident that a number of important characters had not been noted in the original description, the most important of these being the possession of four segments to tarsus I of the male, but only three in the female. Professor V. V. Hickman informed me that this is also the case with the Tasmanian *P. gigantea*, and most generously supplied me material from which the redescription of the species is given below.

### *Paranuncia gigantea* Roewer, 1914

Figs. 17-20.

1914. *P. gigantea* Roewer, Arch. Naturg., 80A (12), p. 108.  
 1923. *P. gigantea* Roewer, Zeits. wiss. Zool., 138 (1), pp. 155-156.

#### *Male.*

*Colour.* Body and legs light chocolate-brown. Chelicerae and pedipalps yellow-brown, but covered with dark-brown reticulations.

*Body.* Eyemound removed a short distance from the anterior margin of the carapace, sloping evenly up to form an erect spine almost immediately above the eyes (Fig. 18). Anterior margin

of the carapace produced medially and at each outer margin of the chelicera to form three spines. The anterior margin of the carapace at each side of the eyemound is armed with a row of four erect spines. A well-defined ridge extends from each anterior corner of the cephalothoracic carapace along the lateral margins to area V. Areas I and II each with a median pair of small erect spines, area III with a median pair of larger spines, area IV with a median pair of small widely-spaced tubercles. Areas I-IV otherwise smooth. Area V and free tergites I-III with each a single transverse row of small tubercles. Sternites smooth except for a single transverse row of minute setose tubercles. Genital operculum smooth, wider at base than length in ratio of 3:2. Sternum as in Fig. 17. Maxillary lobes of coxae II produced anteriorly by a strong tubercle.

*Chelicerae.* Small. Basal segment constricted proximally, distal portion rounded; with a strong spine on the inner and a small spine on the median disto-dorsal surfaces. Dorsal surface of the second segment with a large proximal tubercle and numerous scattered small tubercles.

*Pedipalps.* As in Figs. 19, 20. Robust. Coxa below with a strong spine on the distal surface. Trochanter below with a strong median spine and two smaller spines on the inner surface, and a stout spine on the mid-dorsal surface. Femur armed below with a stout medio-proximal bifid spine, four spines along the lateral margin, the first and third being short, and a row of small granules along the inner margin extending to a strong spine rising from the latero-distal margin; dorsal surface with a line of four rather small spines. Patella with two large and one small spine on the inner surface, but otherwise smooth. Femur strongly concave below and armed along the outer margin with three spines, two strong and one small; these are preceded by two tubercles on the proximal surface; inner lateral margin with three strong spines. Tarsus concave below, armed along the outer margin with three spines of which the most proximal one is very broad at the base, inner margin with three uniform strong spines. Tarsal claw strong.

*Legs.* Coxae below as in Fig. 17. Coxa I with a strong bifid spine on the distal region of the proventral surface, followed by a large single spine at mid-way and smaller spine at three-quarters, remainder of the ventral surface with scattered tubercles. Coxa II with a strong spine on the retroventral surface and three lines of small tubercles on the ventral surface, and a transverse ridge on the dorsal surface which extends over the lateral margin of the

carapace. Coxae III and IV without spines but with numerous scattered tubercles on the ventral surface. Two flattened lobes extend from the sub-distal region of the retroventral margin of coxae IV to overlie the lateral portion of each spiracle. Trochantera, femora, patellae and tibiae granulate. Calcaneus distinct but much smaller than the astralagus. Calcaneus of leg IV deeply notched on the ventral surface. Distitarsi of leg I two-segmented, leg II three-segmented. Tarsal formula 4, 9-11, 4, 4.

*Measurements in mms.—*

Body: length 7.00, width 6.05

	Cox.	Troch.	Fem.	Pat.	Tib.	Met.	Tars.	Total
Leg I . . . . .	1.76	0.68	4.08	1.32	2.73	3.18	2.54	15.29
Leg II . . . . .	2.52	0.83	4.51	1.43	3.22	4.26	3.94	20.71
Leg III . . . . .	2.06	0.62	2.51	1.43	2.36	3.52	2.16	15.66
Leg IV . . . . .	2.42	0.93	3.52	1.52	3.14	5.51	2.22	19.26
Pedipalp . . . . .		1.31	3.18	1.74	2.32	—	2.00	10.55
		Chelicera: basal 2.10, second 2.60						4.70

*Female.*

Characters as in male except as follows.

Pedipalp less robust, spines smaller but with similar distribution. Maxillary lobes of coxae II without a large tubercle on anterior surface. Calcaneus of leg I not notched below; tarsal formula 3, 9-12, 4, 4.

*Measurements in mms.—*

Body: length 8.03, width 6.76

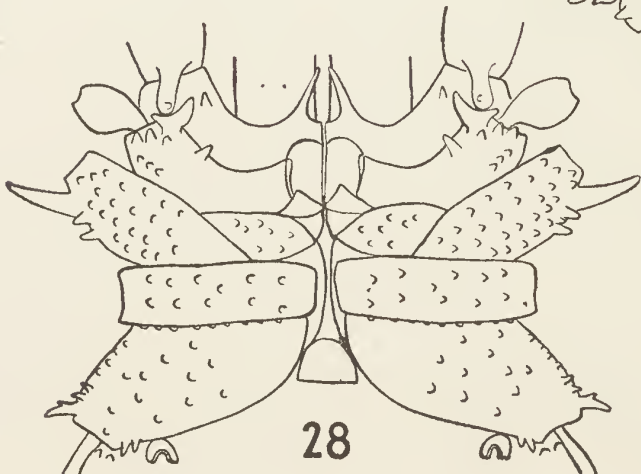
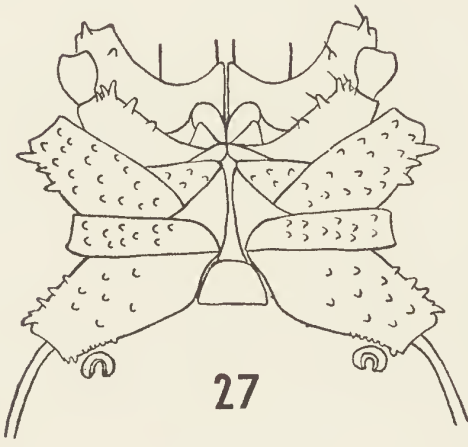
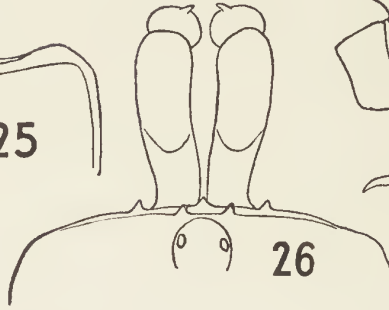
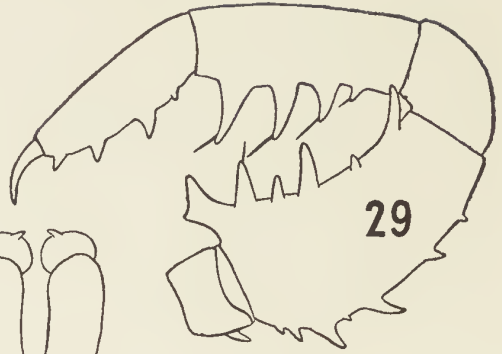
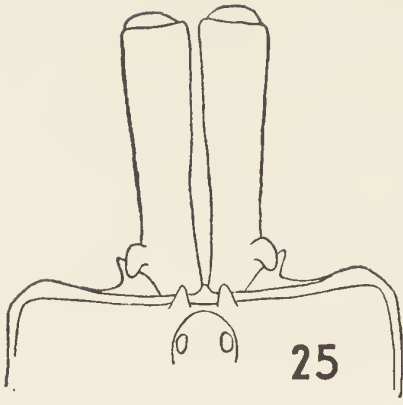
	Cox.	Troch.	Fem.	Pat.	Tib.	Met.	Tars.	Total
Leg I . . . . .	1.70	0.78	3.02	1.27	2.63	3.32	1.63	14.35
Leg II . . . . .	2.31	0.94	3.92	1.76	3.73	5.42	4.52	22.60
Leg III . . . . .	1.96	0.93	3.23	1.52	2.68	4.29	2.33	16.94
Leg IV . . . . .	2.34	1.23	4.06	1.63	3.76	6.03	2.58	21.63
Pedipalp . . . . .		0.63	2.76	1.38	1.93	—	1.61	8.31
		Chelicera: basal 1.80, second 1.96						3.76

*Types.* Coll. Roewer, Senckenberg Museum, Frankfurt a Main.

*Locality.* Tasmania.

Figs. 25-32. *Nunciella tuberculata* n.sp.

- Fig. 25. Antero-dorsal portion of cephalothoracic carapace and chelicerae of male.
- Fig. 26. Antero-dorsal portion of cephalothoracic carapace and chelicerae of female.
- Fig. 27. Antero-ventral portion of the body of female.
- Fig. 28. Antero-ventral portion of the body of male.
- Fig. 29. Outer view of pedipalp of male.
- Fig. 30. Inner view of pedipalp of male.
- Fig. 31. Outer view of pedipalp of female.
- Fig. 32. Inner view of pedipalp of female.



*Paranuncia ingens* Roewer, 1931

Figs. 21-24

1931. *P. ingens* Roewer, Zeitschr. f. wiss. Zool., 138 (1), p. 155.*Male.*

*Colour.* Body chocolate-brown, but with a light-brown patch outside the median paired spines of areas I-III. Legs dark-brown. Pedipalps and chelicerae light-brown but closely covered with blackish-brown reticulations.

*Body.* Eyemound set back only slightly from the anterior margin of the carapace, sloping steeply, almost vertically, up from immediately just behind the anterior margin of the carapace and sloping gently back along the posterior surface so that the apex is slightly anterior to the eyes (Fig. 21). Anterior margin of the cephalothoracic carapace produced forward between the chelicerae to form a median spine and at each outer margin to form a further pair. Three sharp erect spines are present along the anterior margin of the carapace each side of the eyemound, while a further rather blunt small spine is placed in from the lateral margin above leg II. Cephalothoracic carapace separated from the scutum by a shallow groove, but scutum itself not divided by grooves. Areas I-III each with a median pair of relatively large recumbent spines, those of area III being strongest. Area I with a cluster of four small tubercles at each lateral margin; area II with a transverse row of tubercles which do not extend to the lateral margins as is found on areas III-V. Free tergites I-III each with a single transverse row of similar tubercles. Sternites each with a single transverse row of granulations. Genital operculum sparsely granulate, evenly rounded, wider than long in the proportion of 4:3. Maxillary lobe of coxa II produced anteriorly by an elongate blunt tubercle.

*Chelicerae.* Relatively weak. Basal segment with a strong setose spine on the inner disto-dorsal surface, and several smaller setose tubercles on the dorsal surface. Second segment with a row of three setose spines on the proximal half of the dorsal surface and a few small setose tubercles scattered on the disto-distal surface.

*Pedipalps.* As in Figs. 23, 24. Robust; coxa below with two spines on the distal margin, one lateral and the other median in position; trochanter with a large medio-ventral spine, followed by two smaller spines on the inner ventral margin; the dorsal surface unarmed except for a strong spine at two-thirds. Femur armed below with a strong spine on the proximal surface, followed by a

further slightly smaller spine on the outer ventral surface; a small spine at one-fifth with a further pair, one small and one large, at five-sevenths; on the inner ventral surface a row of small granules extends to a strong distal spine which is preceded by two smaller spines on the inner surface; a line of five spines extends along the dorsal surface, the proximal two being larger than the remaining three. Patella smooth except for a pair of strong spines on the distal half of the inner surface. Tibia strongly concave below; three strong spines along the inner and one weak and three strong spines along the outer ventro-lateral margins. Tarsus concave below, both inner and outer ventro-lateral margins with three strong spines. Tarsal claw strong.

*Legs.* Coxa I with a strong bifid spine on the pro-distal surface and a further strong single spine at almost midway, while a number of smaller tubercles are arranged as in Fig. 21. Coxa II with a row of small spines along the distal half of the retrolateral margin in addition to numerous small tubercles on the ventral surface. Coxa III without spines but covered below with numerous tubercles, and with a row of granules along the retrolateral margin. Coxa IV smooth except for a small spine near the prodistal surface and a few distoventral tubercles; retrodistal surface produced posteriorly into one small and a further large lobe which overhang the outer margin of the spiracle. Trochanter, femur, patella and tibia of all legs coarsely granulate. Calcaneus small but distinct; calcaneus of leg I deeply notched on the ventral surface. Distitarsal segments of leg I, two; leg II, three. Tarsal formula 4, 9-13, 4, 4.

*Measurements in mms.—*

	Body: length 8·10, width 6·68							
	Cox.	Troch.	Fem.	Pat.	Tib.	Met.	Tars.	Total
Leg I . . . . .	1·65	1·00	3·05	1·53	2·68	3·62	1·53	15·06
Leg II . . . . .	2·45	1·03	4·31	1·84	3·98	5·53	4·08	23·22
Leg III . . . . .	2·51	1·00	3·12	1·53	2·58	3·96	1·94	16·64
Leg IV . . . . .	2·74	1·26	4·51	1·64	3·41	5·52	2·53	21·61
Pedipalp . . . . .		0·73	3·24	1·58	2·22	—	1·68	9·45
		Chelicera: basal 2·08, second 3·12						5·20

*Female.*

As in male except as follows. Pedipalp not as robust as that of the male but spination similar. Granules absent from the retrolateral margin of coxa III. Maxillary lobe of coxa II not as well developed as male and distal tubercle absent. Genital operculum

smooth, wider than long in proportion of 5:3. Calcaneus of leg IV not notched below; distotarsal segments of leg I two-segmented and leg II three-segmented; tarsal formula 3, 10-12, 4, 4.

*Measurements in mms.—*

	Body: length 8.23, width 6.08							
	Cox.	Troch.	Fem.	Pat.	Tib.	Met.	Tars.	Total
Leg I . . . . .	1.52	0.88	2.66	1.42	2.53	3.21	1.52	13.74
Leg II . . . . .	2.08	0.92	4.06	1.68	3.92	5.38	4.42	22.46
Leg III . . . . .	2.43	0.98	3.42	1.52	2.41	3.94	1.80	16.50
Leg IV . . . . .	2.83	1.02	3.92	1.71	3.42	5.51	1.68	20.09
Pedipalp . . . . .		0.61	2.52	1.26	1.72	—	1.50	7.61
	Chelicera: basal 2.10, second 2.76							4.86

*Type locality.* Cockatoo, Victoria. Type in British Museum (Natural History), London.

*Further localities.* Dandenong Ranges (Roewer, 1931); Warburton, Vic., coll. J. A. Kershaw, April 11, 1905; Gippsland, Vic., coll. S. Butler; Diamond Creek, Vic., coll. J. E. Dixon, August, 1925; Ferntree Gully, Vic., coll. G. F. Hill, March 22, 1924; Kallista, Vic., coll. A. N. Burns, September 18, 1946.

Genus LOMANELLA Pocock, 1903

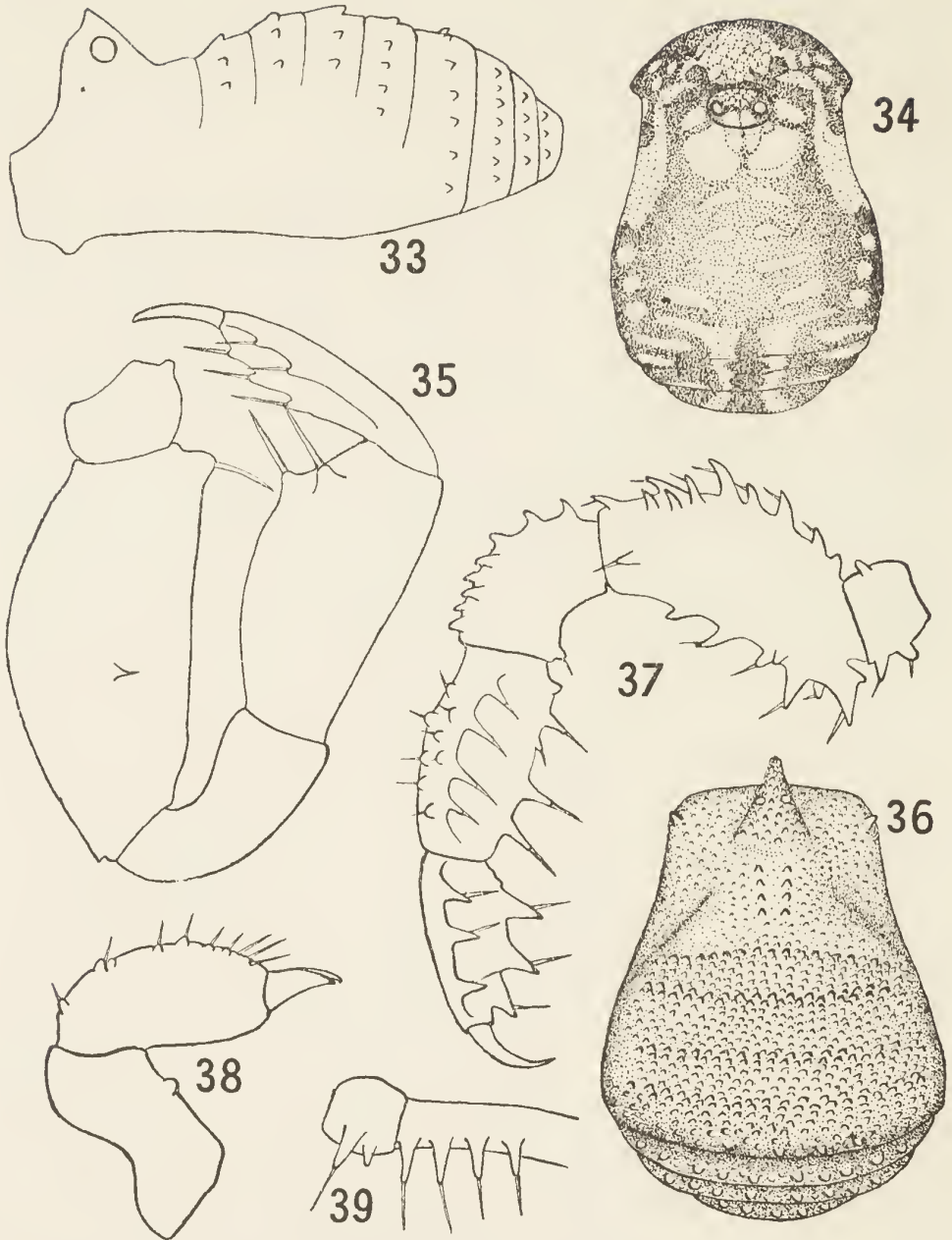
*Lomanella kallista* n.sp.

Figs. 33-35.

*Male.*

*Colour.* Dorsal surface of the body blackish-brown with a symmetrical pattern marked out in orange as in Fig. 34. Anterior surface of the eyemound and the antero-median area of the carapace covered by blackish-brown reticulations. Body below mainly orange-yellow but the posterior margins of the sternites and the distal surface of coxae I-IV blackish-brown. Pedipalp, chelicerae and legs dark-yellow, but covered with dark-brown reticulations.

*Body.* Eyemound bluntly conical, with a slight sub-apical concavity on the anterior surface; higher than wide in the ratio of 10:7; set its own width from the anterior margin of the carapace (Fig. 33). Cephalothoracic carapace smooth, anterior margin evenly rounded and produced out at each anterior corner to form a small lobe. Areas I-IV defined by broad transverse grooves, which do not reach the lateral margin. All areas with a single line of small setose granules which, except in area V, are restricted to the medial surface. Free tergites I-III as area V with a single transverse row of similar setose granules which extend to the



Figs. 33-35. *Lomanella kallista* n.sp.

- Fig. 33. Lateral view of tergum of male.  
 Fig. 34. Dorsal view of the body of male.  
 Fig. 35. Outer view of pedipalp of male.

Figs. 36-39. *Conoculus asperus* n.gen., n.sp.

- Fig. 36. Dorsal view of body of male.  
 Fig. 37. Inner view of pedipalp of male.  
 Fig. 38. Outer view of chelicera of male.  
 Fig. 39. Retrolateral view of trochanter and part of the femur of leg I of male.



lateral margins. Sternites smooth except for a single transverse row of minute setose granules. Genital operculum of triangular shape, wider at base than length in proportion of 7:9. Sternum very narrow.

*Chelicerae.* Small. Basal segment constricted proximally, disto-dorsal surface smooth but for a few small granules. Second segment with a line of small setose granules on the dorsal surface but otherwise smooth.

*Pedipalps.* As in Fig. 35. Trochanter small, almost twice as wide as long, with a small setose tubercle on the ventral surface. Femur swollen and smooth except for a small setose tubercle on the proximo-ventral surface and a small median spine on the inner surface. Patella smooth, relatively slender, slightly more than twice as long as the width at the widest portion. Tibia evenly ovoid, not concave on the ventral surface; armed with a pair of setose tubercles on the ventral surface at five-sixths of the distance from the proximal margin. Tarsus slender, concave below, and armed along the outer margin with three and along the inner margin with two setose tubercles. Tarsal claw strong.

*Legs.* All segments except metatarsi and tarsi granulate, ventral surface of femur IV strongly so. Calcaneus of all legs very small, much shorter than astralagus. Calcaneus of leg IV not notched below. Distitarsi of leg I of two segments, leg II of three segments. Tarsal formula 3, 5, 4, 4. Median prong of claws III and IV much stronger than side branches.

*Measurements in mms.—*

	Body: length 4.59, width 2.29							
	Cox.	Troch.	Fem.	Pat.	Tib.	Met.	Tars.	Total
Leg I . . . . .	0.51	0.31	1.07	0.56	0.97	1.17	0.76	5.35
Leg II . . . . .	1.02	0.31	1.78	0.76	1.53	1.94	1.37	8.71
Leg III . . . . .	0.86	0.36	1.22	0.56	1.02	1.47	0.82	6.31
Leg IV . . . . .	1.22	0.41	1.58	0.76	1.58	1.53	0.97	8.05
Pedipalp . . . . .		0.26	1.27	0.61	1.07	—	0.97	4.18
	Chelicera: basal 0.51, second 0.61							1.12

*Type.* Male holotype in the collection of the National Museum of Victoria, Melbourne.

*Locality.* A single specimen, collected by Mr. A. N. Burns at Kallista, Vic.

*Remarks.* This species is closely related to *L. raniceps* Roewer from Tasmania, but can be separated from the Tasmanian species by its much higher eyemound and the presence of strong granulations on the femur of leg IV.

## Genus CONOCULUS nov.

Dorsal scute coarsely granulate, but without spines; areas I-V not defined by transverse grooves. Eyemound only slightly removed from the anterior margin of the carapace, evenly conical and directed slightly forward. Pedipalps robust, strongly spined. Coxae I and II strongly granulate, III and IV with both pro- and retrolateral rows of granules. Trochanter and femur of leg I with a prolateral row of strong setose tubercles. Calcaneus much smaller than astralagus. Tarsal formula 3, 6-7, 4, 4. Distotarsus of leg I two-segmented, leg II three-segmented. Side claws much smaller than median claw. Spiracles hidden. Sexual dimorphism only slight.

Genotype *C. asperus* n.sp.

*Conoculus asperus* n.sp.

Figs. 36-39.

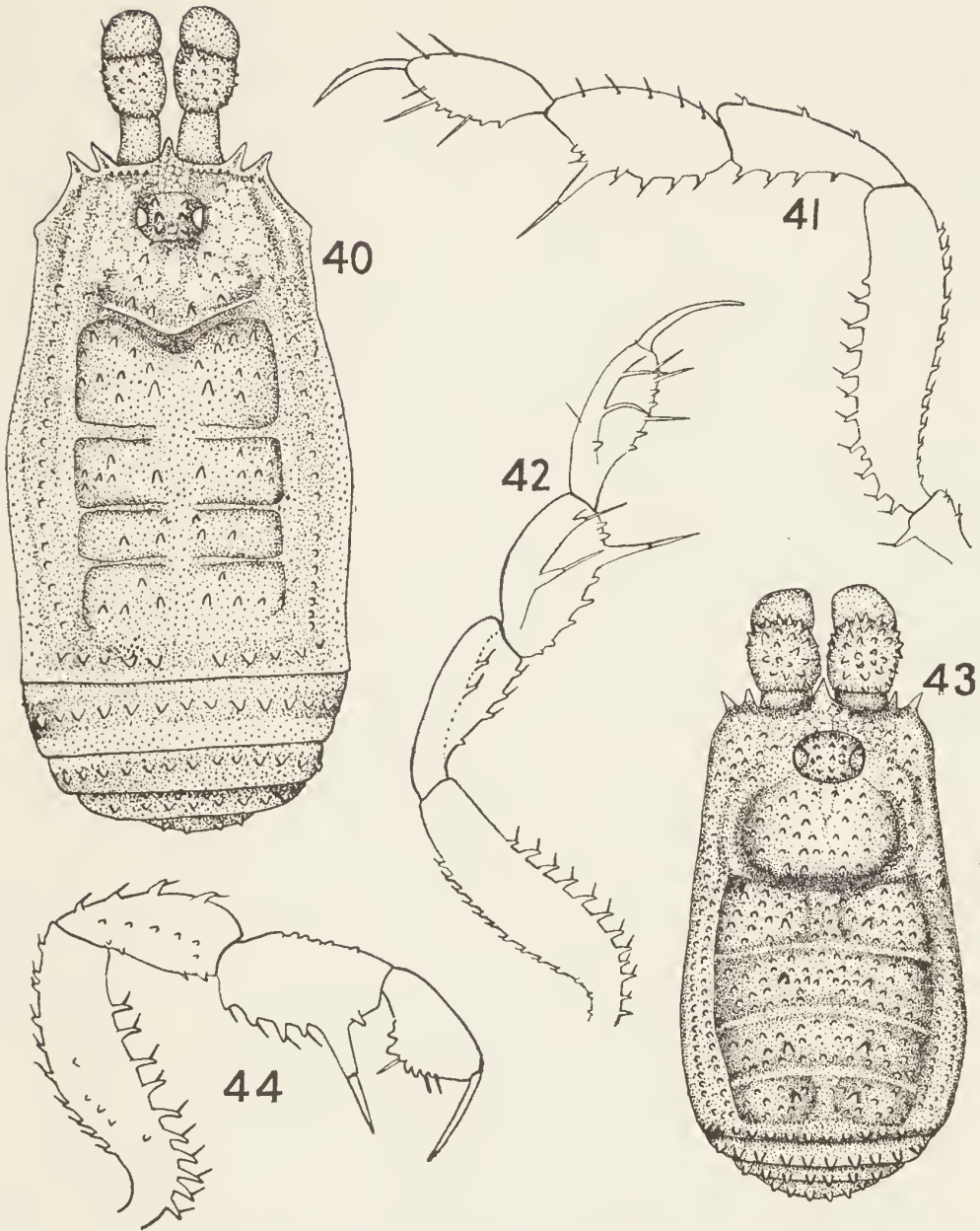
*Male.*

*Colour.* Body and appendages dark blackish-green.

*Body.* Eyemound set back from the anterior margin of the cephalothoracic carapace by no more than one-third of its width at the base, narrowing evenly to the apex and slightly directed forward; covered with strong granules (Fig. 36). Cephalothoracic carapace and areas I-V not separable by transverse grooves, but scutal area more coarsely granulated than cephalic area and position of the fused tergites defined by transverse rows of more large granulations. Four median pairs of large granules extend back immediately behind the eyemound, while a further large granule is present on the antero-lateral margin of the cephalothoracic carapace. Free tergites I-III each with a single transverse row of large granules. Sternites smooth except for a single row of small granules. Genital operculum covered with minute granules. Sternum narrow, rodlike.

*Chelicerae.* As in Fig. 38. Small; basal segment indented dorsally; smooth except for a small tubercle on the mid-ventral surface. Second segment squat, with a row of from three to four small tubercles along the dorsal surface.

*Pedipalps.* As in Figs. 37, 38. Trochanter with two ventral and one dorsal tubercles. Femur with a large obliquely clavate spine on the proximo-ventral surface followed by a further row of five spines, of which the second and fourth are large; inner surface smooth except for a single spine on the distal surface; median dorsal surface armed with a row of seven strong spines; inner



Figs. 40-42. *Euwintonius continentalis* Roewer

Fig. 40. Dorsal view of body.

Fig. 41. Outer view of pedipalp.

Fig. 42. Inner view of chelicera.

Figs. 43-44. *Dampetrus gracilis* n.sp.

Fig. 43. Dorsal view of body.

Fig. 44. Outer view of pedipalp.

dorsal surface with a row of three small spines at three-quarters. Patella with numerous tubercles on the dorsal surface and a single tubercle on the ventro-distal surface. Tibia deeply concave below and strongly tuberculate on the dorsal surface, with a row of four spines along both the inner and outer ventro-lateral surfaces. Tarsus concave below; smooth except for three strong spines along each of the ventrolateral margins. Tarsal claw strong.

*Legs.* Coxae I and II covered with small pustulate granules, but coxae III and IV with a row of similar granules at both the anterior and posterior margins, otherwise smooth. Ventral surface of trochanter of leg I with one large conical setose tubercle; femur with a proximal ventral row of four similar tubercles; tibia with a ventral row of three more slender tubercles (Fig. 39); legs otherwise sparsely granulate. Tarsal formula 3, 6-7, 4, 4. Distotarsus of leg I two-segmented, leg II three-segmented. Calcaneus minute.

*Measurements in mms.—*

	Body: length 2.33, width 2.13							
	Cox.	Troch.	Fem.	Pat.	Tib.	Met.	Tars.	Total
Leg I . . . . .	0.40	0.19	0.68	0.33	0.54	0.53	0.38	3.05
Leg II . . . . .	0.83	0.22	0.96	0.53	0.96	0.89	0.78	5.17
Leg III . . . . .	0.68	0.23	0.73	0.43	0.70	0.78	0.43	3.98
Leg IV . . . . .	0.74	0.24	1.04	0.43	0.88	1.18	0.64	5.15
Pedipalp . . . . .		0.14	0.76	0.39	0.53	—	0.43	2.63
	Chelicera: basal 0.53, second 0.68							1.21

*Types.* Holotype male and paratypes, Dominion Museum, Wellington, New Zealand.

*Locality.* Glen Osmond, South Australia, under stones, coll. J. T. Salmon.

Family **ASSAMIIDAE** Sørensen

Subfamily **Dampetrinae** Roewer

Genus **DAMPETRUS** Karsch, 1880

*Dampetrus gracilis*, n.sp.

Figs. 43-44.

*Colour.* Entire body and appendages of a uniform yellow-brown, but the bases of granules on the dorsal surface of body blackish-brown.

*Body.* Dorsal scute longer than wide in ratio of 3:2. Eyemound strongly granulate, wider than long in proportion of 11:7, set almost its longitudinal depth from the anterior margin of the carapace (Fig. 43). Cephalothoracic carapace strongly granulate, with a strong ridge running across immediately before the anterior

margin and separated behind the eyemound from area I by a deep curved transverse groove. Areas I-IV clearly distinguished by straight transverse grooves which only extend to a pronounced lateral longitudinal ridge which merges posteriorly with area V. Lateral ridge with a double row of granules. Areas I-IV closely and coarsely granulate, but each with a well separated median pair of small spines. Area V and free tergites I-III each with a single transverse row of small spines. Posterior sternites with a single transverse row of small granules; anterior sternites fused with coxae IV. Spiracle concealed beneath the postero-distal margin of coxa IV. Genital operculum very small, provided with a small emarginate lip. Sternum narrowly triangular.

*Pedipalps.* Slender, spination as in Fig. 44.

*Chelicerae.* Small. Disto-dorsal surface of basal segment swollen and strongly granulate. Second segment smooth.

*Legs.* Coxa IV large, more than twice the size of coxae I-III. Coxa I with a smooth oblique notch on the antero-lateral margin, lined at each side with a row of granules, into which the trochanter of the pedipalp fits when at rest. Coxae II-IV closely granulate below and with a row of granules along the antero-lateral margin. Legs faintly granulate. Calcaneus very small. Tarsal formula 6, 6, 6, 7. Distotarsi of legs I and II both three-segmented. Tarsal claws smooth, apophyses absent.

*Measurements in mms.—*

	Body: length 4.23, width 2.11							
	Cox.	Troch.	Fem.	Pat.	Tib.	Met.	Tars.	Total
Leg I . . . . .	1.05	0.29	2.06	0.64	1.34	2.30	1.06	8.74
Leg II . . . . .	1.19	0.28	3.14	0.79	2.55	3.29	1.24	12.48
Leg III . . . . .	1.10	0.31	2.54	0.58	1.75	2.70	1.39	10.37
Leg IV . . . . .	2.45	0.49	3.44	0.93	2.50	3.94	1.70	15.45
Pedipalp . . . . .		0.44	1.07	0.74	0.60	—	0.62	3.47
	Chelicera: basal 0.55, second 0.65							1.20

*Type.* Holotype male and paratypes in collection of National Museum of Victoria, Melbourne.

*Locality.* Redcliffs, Victoria, collected by A. S. Cudmore, April 18, 1925.

Genus EUWINTONIUS Roewer, 1923

*Euwintonius continentalis* Roewer

Figs. 40-42.

1923. *E. continentalis* Roewer, Die Weberknechte der Erde, pp. 234-235.

*Colour.* General body colour yellow-brown, but dorsal surface lightly overlaid with blackish brown, which forms a reticulate pattern on the cephalothoracic carapace. Chelicerae yellow but the

granulations on the dorsal surface of the basal segment dark-brown. Pedipalps yellow but with dark-brown reticulations above. Coxae IV with black reticulations on the dorsal surface, legs otherwise pale-yellow.

*Body.* Dorsal scute longer than wide in the ratio of 9:7. Eyemound low, wider than long in proportion of 12:7, with a line of three small spines above each eye; set slightly less than its length from the anterior margin of the carapace (Fig. 40). Cephalothoracic carapace sparsely covered with large granules behind the eyemound where it is separated from area I by a deep, curved, transverse groove. Areas I-V separated by wide, shallow, transverse grooves which are terminated at each side by the strong lateral ridge which extends forward almost to the anterior margin of the cephalothoracic carapace and divided medially by a shallow longitudinal groove. A single row of small granules is present on the lateral ridges, while areas I-IV are sparsely covered with small spines, but with a median larger pair on each area. Free tergites I and II fused laterally with the dorsal scute and each armed with a single transverse row of small spines. Free tergite III with an anterior row of similar spines and also a more posterior row of small granules. Sternites each with a single transverse row of very small granules. Spiracle hidden beneath the postero-distal margin of coxa IV. Genital operculum smooth, anterior margin smoothly rounded. Sternum small, rodlike.

*Pedipalp.* Slender, spined as in Figs. 41, 42.

*Chelicerae.* Small. Basal segment with a strongly granulate disto-dorsal swelling, chelicerae otherwise smooth.

*Legs.* All coxae closely granulate, with a row of granules along the anterior margin. Remaining segments faintly granulate. Calcanes small; tarsal formula 6-8, 12-16, 6, 7. Distotarsi of leg I with three segments, leg II with four segments.

*Measurements in mms.—*

	Body: length 4.59, width 2.45							
	Cox.	Troch.	Fem.	Pat.	Tib.	Met.	Tars.	Total
Leg I . . . . .	1.04	0.33	2.03	0.63	1.52	2.76	1.25	9.56
Leg II . . . . .	1.23	0.44	3.74	0.94	3.03	3.14	2.75	15.27
Leg III . . . . .	1.32	0.49	2.59	0.82	1.98	3.42	1.44	12.06
Leg IV . . . . .	2.45	0.53	4.04	1.03	2.93	4.83	1.48	17.29
Pedipalp . . . . .		0.32	0.83	0.83	0.48	—	0.45	2.91
		Chelicera: basal 0.73, second 0.78						1.51

This species was originally established by Roewer for a single male specimen collected at Winton, Queensland. A large col-

lection of both males and females was examined in the present collection from King River, Northern Territory, collected by W. McLennan about 1916. As Roewer's original description was brief and not accompanied by figures, I have amplified the description and added figures, which will assist in future identification.

## REFERENCES

- Forster, R. R., 1947. A New Harvestman of the Subfamily Liobuninae from Australia. *Mem. Nat. Mus., Viet.*, 15, pp. 174-177.
- Hickman, V. V., 1939. Opiliones and Araneae. *B.A.N.Z.A.R.E. Reports, Series B*, 4 (5), pp. 157-188.
- Hogg, H. R. Some New Zealand and Tasmanian Arachnidae. *Trans. N.Z. Inst.*, 42, pp. 273-283.
- Pocock, R. I., 1902. On Some New Harvest-Spiders of the Order Opiliones from the Southern Continents. *Proc. Zool. Soc. Lond.*, 1902, pp. 392-413.
- Roewer, C. Fr., 1914. Funfzehn neue Opilioniden. *Arch. Naturg.*, 80 (9), pp. 106-132.
- , 1923. *Die Weberknechte der Erde*, Jena.
- , 1931. *Zeits. f. wiss. Zool.*, 138 (1), pp. 137-185.