

ADDITIONAL AUSTRALIAN HARVESTMEN (ARACHNIDA: OPILIONES)

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Abstract

New species are described in each suborder of Opiliones, including *Rakaia arcticosa* and *Acropsopilio australicus*, the latter being the first record of the genus from Australia. Two additional species of *Austropsopilio* Forster (*A. altus* and *A. inermis*) and four new species of *Bogania* Forster (*B. neogranulata*, *B. distincta*, *B. exigua* and *B. advena*) are also described.

Introduction

Forster (1955) established the presence in Australia of harvestmen of the primitive suborder Cyphophthalmi, describing a species of *Rakaia* Hirst (Sironidae). A second species is described below. The genus *Acropsopilio* Silvestri was previously known only by the type-species, *A. chilensis* Silvestri from Chile, and its distribution has been extended by the description below of *A. australicus* sp.n. from Australia. *Acropsopilionidae* (suborder Palpatores) were first recorded from Australia by Forster (1955) who erected the monotypic genus *Austropsopilio*. Hickman (1957) added a second species and two new species are described below. In the suborder Laniatores, four new species of *Bogania* Forster (Phalangodidae) are described.

Throughout the text, the following abbreviations for depositories are used: AM, Australian Museum, Sydney; ANIC, Australian National Insect Collection, CSIRO, Canberra; QM, Queensland Museum, Brisbane; UQ, University of Queensland Insect Collection, Brisbane. All measurements are in millimetres.

Rakaia Hirst

Rakaia Hirst, 1925: 1272; Forster, 1955: 355. Type-species *Rakaia antipodiana* Hirst.

The genus *Rakaia* is well developed in New Zealand, but only *R. woodwardi* Forster has been described from Australia. Members of the genus are primitive mite-like Opiliones lacking eyes, and restricted to the leaf litter of moist forests. A second species of *Rakaia* from north Queensland is described below.

Rakaia arcticosa sp. n. (Figs 1-10)

Types.— QUEENSLAND: *Holotype* ♂, Cooper Creek ca 13 miles (21 km) N of Daintree River, 14.xi.1969, B. K. Cantrell, in QM (S334). *Paratypes*: one ♂, three ♀♀, including allotype, Noah Creek, 16.07S 145.25E, 21.vi.1971, Taylor and Feehan (ANIC Berlesate No. 321), in QM, ANIC.

Male

Colour (in preserved specimens) entirely reddish-brown; legs yellow. Body evenly granulate, carapace widening posteriorly to be slightly wider than tergal areas; scent glands bluntly conical, wider than high in ratio 5:4, set a distance equal to their diameter from lateral margin of carapace and 3.5 times their diameter apart; scutal groove distinct, strongly curved posteriorly in median part; tergal areas separated by straight transverse grooves; posterior of body with deep median notch; corona analis (Fig. 1) with tergite 9 divided into two lateral halves; anal operculum with median tuft of long hairs; genital aperture (Fig. 7) semicircular, separated from sternum by opposition of hind coxae.

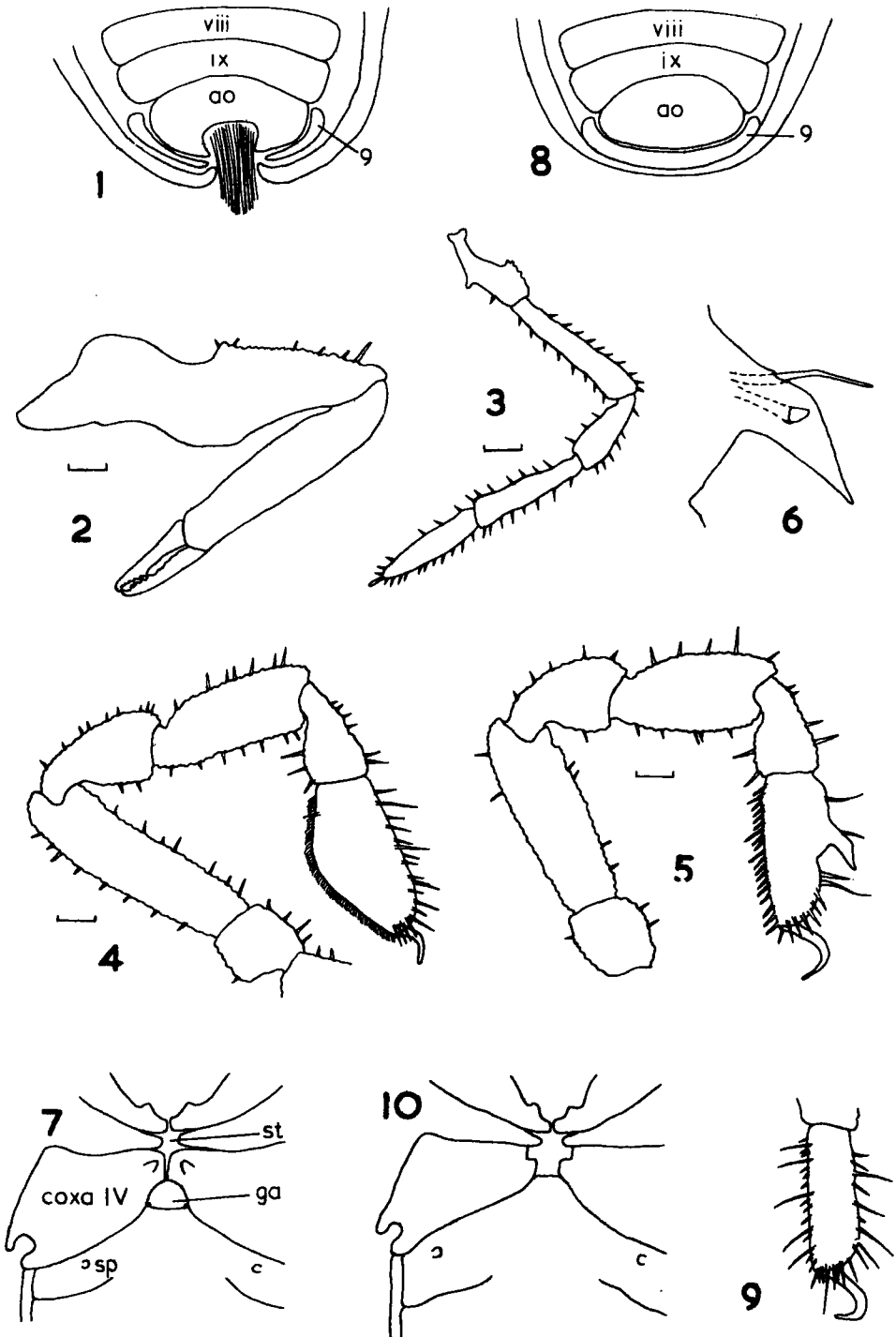
Basal segment of chelicerae strongly granulate with pronounced dorsal ridge, segment 2 smooth, chelate (Fig. 2). Pedipalps (Fig. 3) weak and slender; trochanter with ventral spine and number of distal tubercles dorsally, otherwise smooth; other segments unarmed but with several short setae.

Legs (Figs 4, 5) with all segments except tarsi granulate, claws simple; tarsus I swollen ventrally; tarsus IV with dorsal spur (Fig. 6) carrying a strong seta and opening of tarsal gland.

Female

Similar to male in general appearance but differing as follows: posterior of body evenly rounded (Fig. 8), hind tarsus normal (Fig. 9) and genital aperture larger, not separated from sternum (Fig. 10).

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FIGS 1-10—*Rakaia arctica* sp.n.: (1-7) ♂: (1) corona analis; (2) chelicera; (3) pedipalp; (4) fore leg; (5) hind leg; (6) dorsal spur on hind tarsus; (7) genital aperture. (8-10) ♀: (8) anal region; (9) hind tarsus; (10) genital aperture. Scale 0.1 mm. ao, anal operculum; ga, genital aperture; sp, spiracle; st, sternum; viii, ix, abdominal sternites 8, 9; 9, abdominal tergite 9.

Measurements (holotype)

	Troch.	Body length 1.95, width 1.10					Tars.	Total
		Fem.	Pat.	Tib.	Met.	Chelicera:		
Leg 1	0.20	0.56	0.26	0.36	0.23	0.40	2.01	
Leg 2	0.15	0.42	0.20	0.27	0.17	0.32	1.53	
Leg 3	0.14	0.32	0.18	0.25	0.15	0.30	1.34	
Leg 4	0.18	0.50	0.23	0.34	0.21	0.36	1.82	
Pedipalp	0.23	0.36	0.18	0.30	—	0.26	1.33	
						Chelicera: basal 0.73, second 0.83	1.56	

Measurements (allotype)

	Troch.	Body length 2.04, width 1.04					Tars.	Total
		Fem.	Pat.	Tib.	Met.	Chelicera:		
Leg 1	0.20	0.54	0.24	0.38	0.21	0.41	1.98	
Leg 2	0.16	0.40	0.22	0.26	0.18	0.32	1.54	
Leg 3	0.18	0.42	0.20	0.28	0.20	0.30	1.58	
Leg 4	0.22	0.54	0.23	0.37	0.22	0.36	1.94	
Pedipalp	0.23	0.38	0.22	0.28	—	0.23	1.31	
						Chelicera: basal 0.64, second 0.84	1.48	

Measurements (paratypes)

♂ Body length 2.08, width 1.07

♀ Body length 2.01 (2.00-2.02), width 1.06 (1.05-1.07)

(Figures are mean of both specimens with range in brackets)

Note

This species can be distinguished from *R. woodwardi* by the tarsal spur on leg IV of the ♂, the form of the corona analis and the absence of tubercles distal to the ventral process of the pedipalpal trochanter.

Acropsopilio Silvestri*Acropsopilio* Silvestri, 1905: 254. Type-species *Acropsopilio chilensis* Silvestri.

The Acropsopilionidae contain only nine described species in five genera: *Acropsopilio* Silvestri from Chile, *Cadella* Hirst from South Africa (three species), *Zeopsopilio* Forster from New Zealand (monotypic), and *Austropsopilio* Forster and *Tasmanopilio* Hickman each with two species from Australia. Hickman (1957) provided a key to genera.

A new species of *Acropsopilio* brings to three the genera of the family known from Australia.

***Acropsopilio australicus* sp. n. (Figs 11-17)**

Types.—QUEENSLAND: *Holotype* ♀, Bald Mtn area via Emu Vale, 3-4,000' (915-1,220 m), 17-22.v.1969, B. K. Cantrell, in QM (S335). *Paratype* ♀, same data as holotype, G. B. Monteith, in UQ.

Female

Colour (in preserved specimens) of carapace light brown with wide black ring around each eye; eyemound pale between ocular lobes; tergal areas with median and lateral dark patches; posterior tergites dark brown, intersegmental areas pale; ventral surface light brown; legs yellowish.

Body (Figs 11, 12) without tubercles or spines; eyemound large, occupying full width of carapace and only slightly projecting over anterior margin, divided by a deep median furrow into two ocular lobes; carapace separated from tergal area by deep scutal groove strongly recurved laterally, and anterior and parallel to groove a low but distinct ridge; tergal area without transverse grooves; anterior tergites fused, posterior ones separated by shallow weakly defined grooves; genital operculum (Fig. 13) large, rounded anteriorly, reaching level of coxae II, surface with scattered small setae.

Ovipositor* (Figs 14, 15) distally cleft into two unsegmented finger-like lobes each clothed in many simple setae and one forked seta, and with two pointed processes between bases of lobes.

Chelicerae small, unarmed. Pedipalps (Figs 16, 17) elongate; trochanter with three ventral tubercles each bearing a single seta; femur with three basal, one distal unisetose tubercles ventrally, dorsal surface with a group of short stout setae in median area; patella with three pro-, three retrolateral ventral unisetose tubercles; tibia with six to seven similarly arranged; tarsus with dense stout setae laterally and ventrally and a simple claw. Legs unarmed, with scattered small setae only; tarsal formula 8, 10, 8, 8.

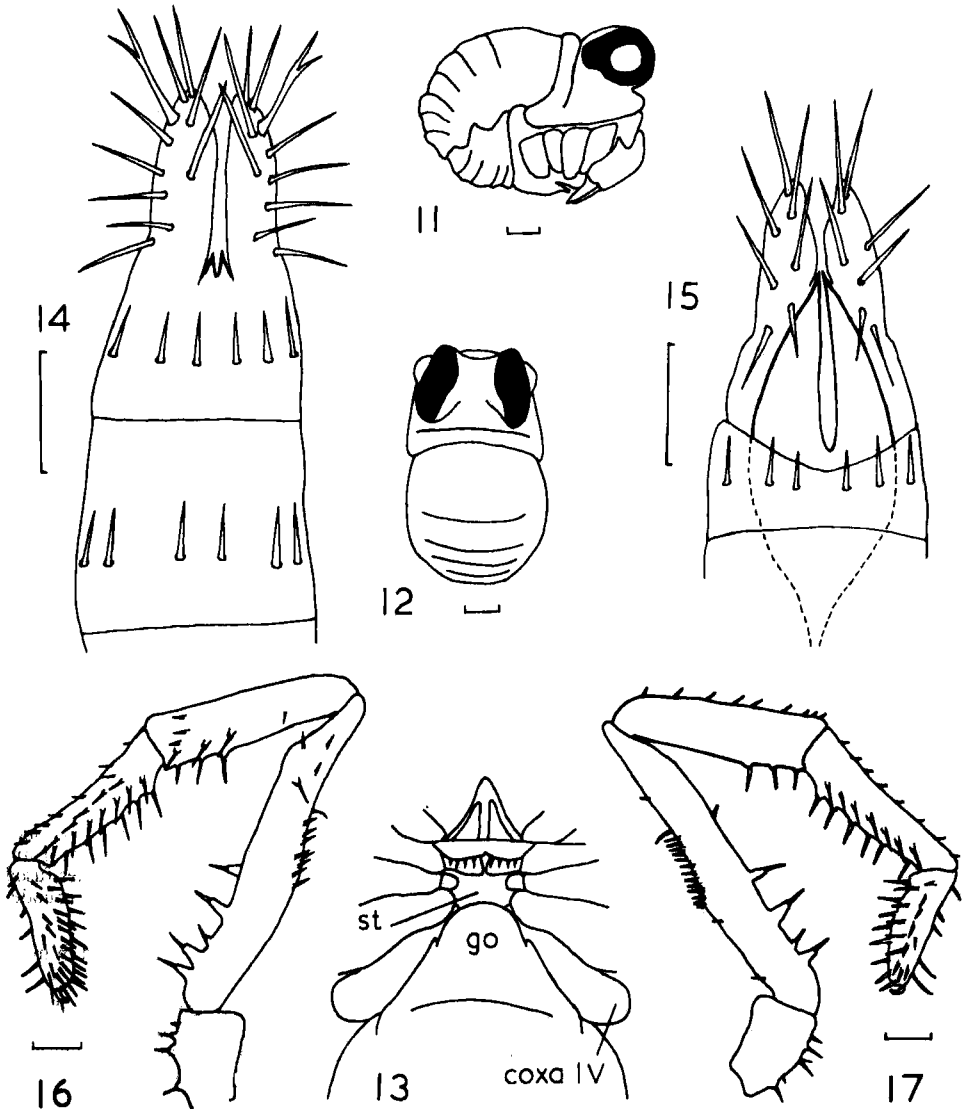
* Silvestri (1905) did not state the sex of the holotype of *A. chilensis* but referred to the genital organ as a penis, though his drawing (Fig. 46) shows an ovipositor.

Measurements (holotype)

	Troch.	Body length 1.25, width 0.75					Total
		Fem.	Pat.	Tib.	Met.	Tars.	
Leg 1	0.12	0.43	0.21	0.30	0.50	0.60	2.16
Leg 2	0.12	0.60	0.23	0.42	0.70	0.81	2.88
Leg 3	0.10	0.52	0.22	0.37	0.67	0.62	2.50
Leg 4	0.14	0.82	0.21	0.56	1.10	0.80	3.63
Pedipalp	0.20	0.65	0.40	0.36		0.26	1.87
Chelicera: basal 0.21, second 0.50							0.71

Measurements (paratype)

	Troch.	Body length 1.12, width 0.62					Total
		Fem.	Pat.	Tib.	Met.	Tars.	
Leg 1	0.11	0.37	0.17	0.22	0.42	0.63	1.92
Leg 2	0.12	0.61	0.22	0.41	0.71	0.82	2.89
Leg 3				Missing			
Leg 4	0.13	0.47	0.21	0.51	1.07	0.82	3.21
Pedipalp	0.17	0.54	0.37	0.35		0.25	1.68
Chelicera: basal 0.19, second 0.48							0.67



FIGS 11-17. *Acropsopilio australiensis* sp. n., ♀: (11) body, lateral view; (12) body, dorsal view; (13) genital operculum; (14) ovipositor, dorsal view; (15) ovipositor, ventral view; (16) pedipalp, prolateral view; (17) pedipalp, retrolateral view. Scale 0.2 mm for 11, 12; 0.1 mm for 14-17. go, genital operculum; st, sternum.

Note

This species closely resembles *A. chilensis* in general body shape, the form of the pedipalps and the presence of a pair of characteristic forked setae on the ovipositor, but can be distinguished by the shape of the genital operculum, the spination of the pedipalpal femur and the shape of the pointed processes of the ovipositor.

Austropsopilio Forster

Austropsopilio Forster, 1955: 357; Hickman, 1957: 68. Type-species *Austropsopilio novahollandiae* Forster.

***Austropsopilio altus* sp.n.** (Figs 18-21)

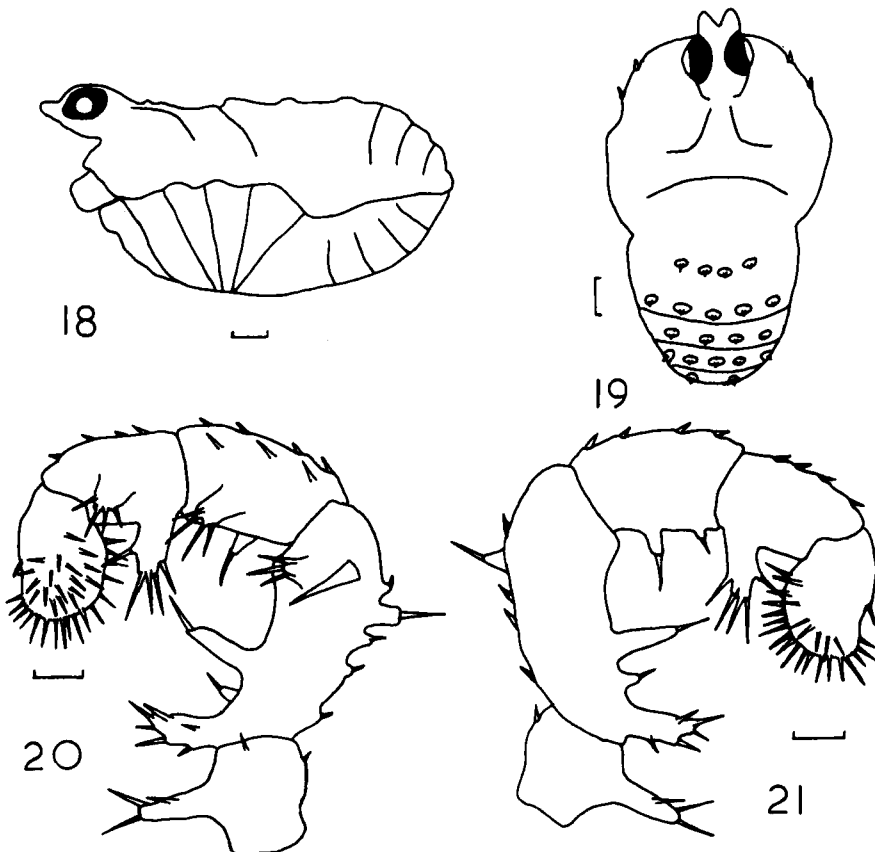
Types.—NEW SOUTH WALES: *Holotype* ♀, Point Lookout via Ebor (New England National Park), 17.xii.1965, B. K. Cantrell, in QM (S336). *Paratypes*: four ♀♀, collected with holotype, in UQ (poorly preserved).

Female

Colour (in preserved specimens) mottled brown; eyemound pale with black ring around each eye; femur and metatarsus of legs banded but other segments unicolorous pale.

Body (Figs 18, 19) with two small spines on anterior margin of carapace, otherwise unarmed although small spicules visible at high magnification; eyemound large, projecting angularly forwards with distal V-shaped notch; scutal groove weak; tergal area without segmentation; tergites with low rounded tubercles each with a recumbent spine; genital operculum large, rounded anteriorly, surface with scattered setae.

Basal segment of chelicerae with dorsal tubercle and spine, segment 2 smooth. Pedipalps (Figs 20, 21) with elongate tubercle on ventral surface of trochanter bearing four strong setae near apex; femur with simi-



FIGS 18-21—*Austropsopilio altus* sp. n., ♀: (18) body, lateral view; (19) body, dorsal view; (20) pedipalp, prolateral view; (21) pedipalp, retrolateral view. Scale 0.2 mm for 18, 19; 0.1 mm for 20, 21.

lar tubercle basally and strong unisetose tubercle on midventral surface, smaller unisetose tubercle between and dorsally a row of low rounded tubercles, fourth largest, each bearing a single seta; femur also with strong spine on distal prolateral surface orientated to overlie chelicerae at rest and small tubercle with three setae distal to spine; patella with multisetose tubercle on prolateral surface, one large, one small unisetose tubercles on retrolateral surface; tibia with multisetose tubercles on both pro- and retrolateral surfaces, latter much stronger; tarsus rounded, distal half with dense setae, claw absent.

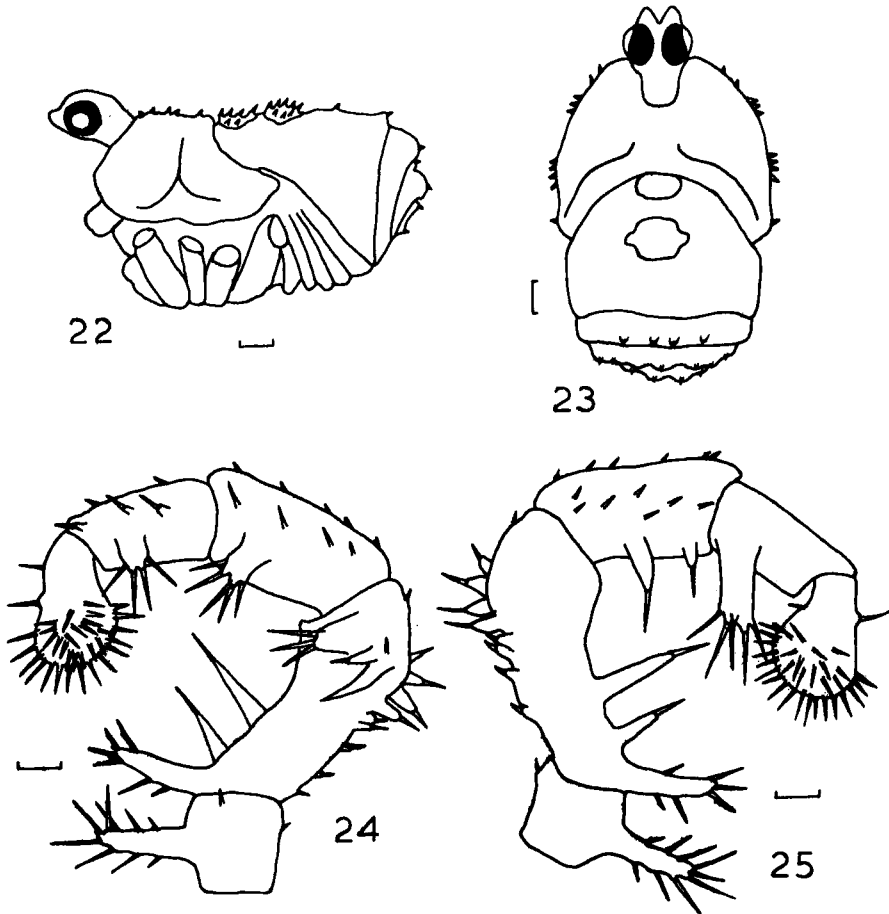
Leg I with tubercles on ventral surface of coxa, trochanter and femur; all legs with dorsal, pro- and retrolateral rows of six to seven short blunt spines on patella and tibia, other segments with finer setae; metatarsus of all legs with strong tubercle and spine basally; tarsal formula 7, 11, 8, 8.

Measurements (holotype)

	Body length 1.75, width 1.12						
	Troch.	Fem.	Pat.	Tib.	Met.	Tars.	Total
Leg 1	0.17	0.35	0.24	0.27	0.34	0.42	1.79
Leg 2	0.16	0.72	0.37	0.52	0.62	0.87	3.26
Leg 3	0.14	0.52	0.32	0.44	0.61	0.84	2.75
Leg 4	0.17	0.52	0.31	0.46	0.67	0.84	2.97
Pedipalp	0.18	0.54	0.30	0.27	—	0.22	1.51
					Chelicera: basal 0.29, second 0.52		0.81

Measurements (paratypes)

Body length 1.65 (1.40-1.80), width 1.07 (0.95-1.15)
(Figures are mean of all specimens with range in brackets)



FIGS 22-25—*Austropsopilio inermis* sp. n., ♀: (22) body, lateral view; (23) body, dorsal view; (24) pedipalp, prolateral view; (25) pedipalp, retrolateral view. Scale 0.2 mm for 22, 23; 0.1 mm for 24, 25.

Note

This species can be separated from *A. novaehollandiae* by the spination of the pedipalps, the absence of a scutal ridge and the presence of spines on the legs.

***Austropsopilio inermis* sp. n.** (Figs 22-25)

Types.—NEW SOUTH WALES: *Holotype* ♂, Clyde Mtn. 24.x.1968, G. B. Monteith, in QM (S337). *Paratype* ♀, collected with holotype, in UQ.

Non-type specimens examined. Three nymphs, collected with holotype, in UQ.

Female

Colour (in preserved specimens) uniform light brown; eyemound pale with black ring around each eye; legs pale without any traces of banding.

Body (Figs 22, 23). Eyemound without spines or tubercles, rising anteriorly forward over anterior margin of carapace, divided distally by V-shaped notch and surrounded by narrow groove at base dividing it from carapace; anterior margin of carapace smooth except for two pairs of setose tubercles; lateral margins with two sets of setose tubercles, one of three, other of four; scutal groove distinct, strongly recurved laterally, and with low ridge bearing setose tubercles anterior to groove, but area on each side of eyemound bare, without tubercles; tergal area with two raised median plates, posterior one larger, both densely covered with setose tubercles, rest of area with scattered tubercles; anterior five tergites fused, others free, each with a row of setose tubercles; genital operculum large, pointed anteriorly, extending to level of coxae II, surface with scattered setose tubercles.

Chelicerae small, both segments smooth. Trochanter of pedipalps (Figs 24, 25) with large multisetose tubercle on ventral surface; femur with similar one basally, large unisetose tubercle midventrally with smaller unisetose tubercle between and dorsally a row of eight stout unisetose tubercles, fifth to seventh largest; prolateral surface of femur with strong distal spine directed to overlie chelicerae, close to spine medium-sized unisetose tubercle and more distally short multisetose tubercle; patella with large multisetose tubercle prolaterally and two unisetose tubercles retrolaterally, basal one larger; tibia with multisetose tubercle on both pro- and retrolateral surfaces; tarsus rounded, distally covered with dense setae, claw absent.

Legs slender, femur with dorsal row of tubercles increasing in size distally; patella and tibia with rows of strong setose tubercles dorsally and prolaterally while retrolaterally weaker row of similar tubercles; metatarsus with strong setose tubercle proximodorsally; leg I with setose tubercles on ventral surface of coxa, trochanter and femur; tarsal formula 8-9, 11, 11, 11.

Measurements (holotype)

	Body length 1.75, width 1.25						
	Troch.	Fem.	Pat.	Tib.	Met.	Tars.	Total
Leg 1	0.17	0.47	0.32	0.35	0.52	0.51	2.40
Leg 2	0.22	0.85	0.40	0.62	1.05	0.94	4.08
Leg 3	0.17	0.52	0.37	0.40	0.75	0.70	2.91
Leg 4	0.23	0.70	0.47	0.54	1.05	0.95	3.94
Pedipalp	0.18	0.54	0.38	0.31		0.23	1.64
							0.79
					Chelicera: basal 0.27, second 0.52		

Measurements (paratype)

	Body length 1.80, width 1.25						
	Troch.	Fem.	Pat.	Tib.	Met.	Tars.	Total
Leg 1	0.17	0.45	0.30	0.31	0.52	0.61	2.36
Leg 2	0.20	0.85	0.42	0.62	1.01	0.95	4.05
Leg 3	0.17	0.52	0.35	0.36	0.70	0.65	2.75
Leg 4	0.22	0.67	0.51	0.47	1.05	0.90	3.82
Pedipalp	0.23	0.54	0.40	0.32	—	0.22	1.71
							0.86
					Chelicera: basal 0.29, second 0.57		

Note

This species closely resembles *A. cygneus* Hickman from which it can be distinguished by the unarmed eyemound and the spination of the legs.

***Bogania* Forster**

Bogania Forster, 1955: 375. Type-species *Bogania granulata* Forster.

Redescription.—Carapace shorter than tergal region, scute and eyemound granulate but without tubercles or spines. Eyemound removed from anterior margin of carapace by distance equal to one-quarter its width. Genital operculum of male extremely large, subtriangular and extending anteriorly to level of coxae II, that of female normal, as long as wide. Male genitalia long and slender, distally heavily spined and with two processes, one membranous and tubular, other sclerotised and needle-like. Legs unarmed, tarsal formula 3, 5-6, 5, 6.

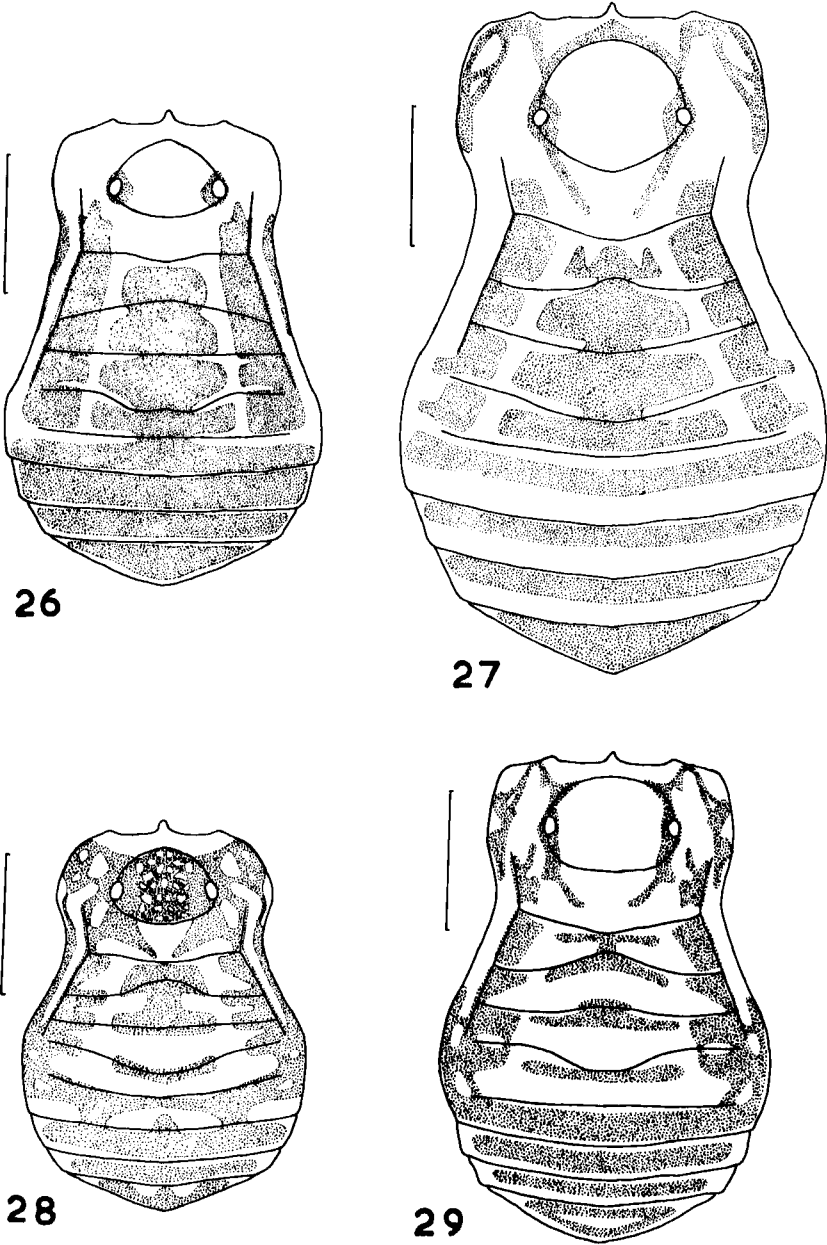
Bogania granulata Forster

Specimens examined.—Holotype ♂ (K67739) and allotype ♀ (K67740), both in AM.

Bogania neogranulata sp. n. (Figs 26, 30, 34)

Types.—QUEENSLAND: Holotype ♂, The Knoll, Mt Tamborine, 11.viii.1969, B. K. Cantrell, in QM (S338). Paratypes: eight ♂♂, 13 ♀♀, including allotype, collected with holotype, in AM, QM, UQ.

Non-type specimens examined.—QUEENSLAND: Mt Tamborine, one ♀, 12.v.1960, E. A. Bernays; one ♂, 15.vii.1969, B. K. Cantrell. Both in UQ.



FIGS 26-29 — *Bogania* spp. n., ♂, body, dorsal view showing colour pattern and segmentation: (26) *B. neogranulata*; (27) *B. distincta*; (28) *B. exigua*; (29) *B. advena*. Scale 1.0 mm.

Male

Colour (in preserved specimens) of carapace yellow-brown with dark ring around each eye; tergal areas similar ground colour with median and lateral dark patches (Fig. 26); ventral surface uniformly brown.

Body (Figs 26, 30). Eyemound dorsally flattened; scutal groove distinct; tergal areas separated by transverse grooves as shown in Fig. 26; aedeagus (Fig. 30) with spines limited to distal portion.

Basal segment of chelicerae smooth with small lobe on outer surface below margin of carapace, segment 2 with number of short tubercles on dorsal surface. Pedipalps (Fig. 34) with one long, one shorter tubercle on trochanter; femur rising sharply, dorsal surface with small scattered spines, row of four conical tubercles along ventral margin, proximal strongest, and two smaller tubercles on distal prolateral surface; patella with two prolateral tubercles; tibia with two pro-, three retrolateral tubercles; tarsus with two tubercles on both margins and strong terminal claw. Legs finely granulate, unarmed; tarsal formula 3, 6, 5, 6.

Female

Differing from male as follows: colour of tergal areas uniformly dark; pedipalps smaller but essentially similar in structure.

Measurements (holotype)

	Troch.	Scute length 2.45, width 2.18				Tars.	Total
		Fem.	Pat.	Tib.	Met.		
Leg 1	0.36	1.50	0.54	1.32	1.45	0.90	6.07
Leg 2	0.40	2.36	0.73	3.21	2.36	2.18	10.34
Leg 3	0.40	1.68	0.59	1.40	1.95	1.09	7.11
Leg 4	0.50	2.27	0.63	2.00	2.58	1.63	9.61
Pedipalp	0.63	1.63	1.00	1.09	—	0.86	5.21
						Chelicera: basal 0.90, second 1.09	1.99

Measurements (allotype)

	Troch.	Scute length 2.36, width 2.09				Tars.	Total
		Fem.	Pat.	Tib.	Met.		
Leg 1	0.31	1.18	0.50	1.13	1.27	0.68	5.07
Leg 2	0.36	2.04	0.68	1.90	2.04	1.86	8.88
Leg 3	0.36	1.68	0.54	1.22	1.81	1.04	6.65
Leg 4	0.45	1.72	0.63	1.63	2.27	1.54	6.24
Pedipalp	0.40	1.13	0.77	0.73	—	0.90	3.93
						Chelicera: basal 0.86, second 0.90	1.76

Measurements (paratypes)

♂♂ Scute length 2.39 (2.27-2.45), width 2.17 (2.13-2.27)

♀♀ Scute length 2.06 (1.90-2.36), width 1.96 (1.81-2.09)

(Figures are mean of all specimens with range in brackets)

Note

This species resembles *B. granulata* in the dorsally flattened eyemound, but is easily distinguished by the six-segmented tarsus 2 and the distally rounded aedeagus.

Bogania distincta sp. n. (Figs 27, 31, 35)

Types.—QUEENSLAND: *Holotype* ♂, Bunya Mts, 11-12.ii.1967, B. K. Cantrell, in QM (S339). *Paratypes*: 10 ♂♂, eight ♀♀, including allotype, collected with holotype, in AM, QM, UQ.

Non-type specimens examined.—QUEENSLAND: Bunya Mts, one ♀, 3.vi.1959, F. J. D. McDonald; two ♂♂, two ♀♀, 18-19.xi.1967, G. B. Monteith; one ♂, one ♀, 8.x.1968, T. F. Houston; five ♂♂, six ♀♀, 4.i.1972, B. K. Cantrell. Ravensbourne, six ♂♂, three ♀♀, 15.ix.1971, B. K. Cantrell; four ♂♂, one ♀, 3.xii.1972, B. K. Cantrell. All in UQ.

Male

Colour (in preserved specimens) of carapace yellow-brown, often with darker markings; tergal areas similar ground colour with median and lateral dark patches (Fig. 27); ventral surface uniform light brown with dark line along posterior margin of free sternites. However, in some specimens, tergal areas uniformly dark, and intermediate forms also noted.

Body (Figs 27, 31). Eyemound granulate, dorsally rounded; scutal groove distinct; tergal areas separated by transverse grooves as shown in Fig. 27; aedeagus (Fig. 31) extensively spined distally.

Basal segment of chelicerae smooth with small lobe on outer margin below carapace, segment 2 with number of short spines dorsally. Pedipalps (Fig. 35) with one long, one short tubercle on trochanter; femur rising sharply, dorsal surface with numerous small spines, row of four conical tubercles ventrally, proximal

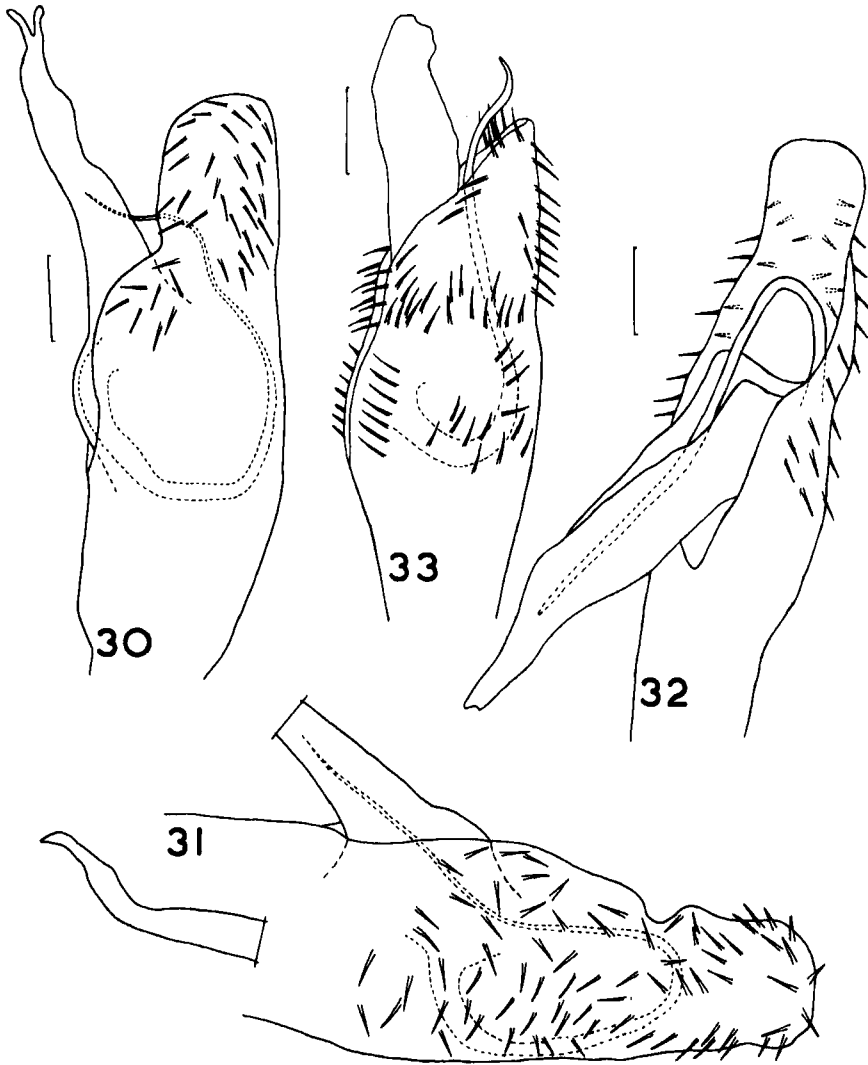
two strongest, and three smaller distal tubercles; patella with three prolateral tubercles; tibia with three pro-, four retrolateral tubercles; tarsus with two tubercles on both margins and strong terminal claw. Legs finely granulate; tarsal formula 3, 6, 5, 6.

Female

Differing from male as follows: colour of tergal areas uniformly dark; pedipalp smaller, but essentially similar in structure.

Measurements (holotype)

	Troch.	Scute length 3.22, width 3.04				Met.	Tars.	Total
		Fem.	Pat.	Tib.				
Leg 1	0.45	1.82	0.62	1.26	1.88	1.01	7.04	
Leg 2	0.42	2.67	0.87	2.36	2.75	2.33	11.40	
Leg 3	0.50	2.13	0.59	1.57	2.36	1.57	8.72	
Leg 4	0.65	2.72	0.79	2.13	3.18	2.02	11.49	
Pedipalp	0.42	1.97	1.29	1.49	—	1.12	6.29	
					Chelicera: basal 1.04, second 1.26		2.30	



FIGS 30-33—*Bogania* spp. n., aedeagus: (30) *B. neogranulata*; (31) *B. distincta*; (32) *B. exigua*; (33) *B. advena*. Scale 0.1 mm.

Measurements (allotype)

	Scute length 2.90, width 2.81						
	Troch.	Fem.	Pat.	Tib.	Met.	Tars.	Total
Leg 1	0.36	1.45	0.68	1.36	1.59	1.00	6.44
Leg 2	0.45	2.36	0.86	2.27	2.45	2.36	10.75
Leg 3	0.45	1.86	0.73	1.54	2.04	1.59	8.21
Leg 4	0.59	2.31	0.86	1.95	2.95	1.86	10.52
Pedipalp	0.54	1.63	1.04	1.00		0.86	5.07
					Chelicera: basal 1.00, second 1.40		2.40

Measurements (paratypes)

♂♂ Scute length 3.05 (2.72-3.36), width 2.91 (2.54-3.09)

♀♀ Scute length 2.82 (2.63-3.00), width 2.73 (2.58-2.90)

(Figures are mean of all specimens with range in brackets)

Note

This species is easily distinguished from its congeners by its much larger size.

***Bogania exigua* sp. n.** (Figs 28, 32, 36)

Types.— QUEENSLAND: *Holotype* ♂, Kenilworth State Forest, 1.iv.1969, B. K. Cantrell, in QM (S340). *Paratypes*: six ♂♂, 11 ♀♀, including allotype, collected with holotype, in AM, QM, UQ; also two ♂♂, nine ♀♀, Jimna State Forest, 5.iv.1969, B. K. Cantrell, in UQ.

Non-type specimens examined.— QUEENSLAND: Kenilworth State Forest, five ♂♂, five ♀♀, 17.viii.1970, B. K. Cantrell; one ♂, one ♀, 17.viii.1970, G. B. Monteith; one ♂, one ♀, 17.iii.1973, G. B. Monteith, Borumba Dam via Imbil, one ♀, 17.viii.1970, G. B. Monteith. All in UQ.

Male

Colour (in preserved specimens) of eyemound dark brown around eyes with reticulate markings between; carapace similar ground colour with irregular dark patches; tergal areas with median and lateral dark patches (Fig. 28); ventral surface mottled. Some specimens show light bands separating tergal areas giving a mottled appearance. Femur of pedipalp with dark reticulate markings lacking on distal third; legs banded.

Body (Figs 28, 32). Eyemound granulate, dorsally strongly arched; scutal groove distinct; tergal areas separated by transverse grooves as shown in Fig. 28; aedeagus (Fig. 32) without spines on extreme distal portion.

Chelicerae with basal segment smooth, small lobe on outer surface below carapace, segment 2 with small scattered spines dorsally. Pedipalps (Fig. 36) with scattered small spines on trochanter; femur rising sharply, dorsal surface with sparse spines, ventral strong basal bifid tubercle and two small distal prolateral tubercles, retrolateral surface with three tubercles, proximal strongest; patella with three prolateral tubercles; tibia with three pro-, three retrolateral tubercles; tarsus with two tubercles on both margins and strong terminal claw. Legs finely granulate, unarmed; tarsal formula 3, 6, 5, 6.

Female

Differing from male as follows: pale areas separating tergal areas wider; pedipalp smaller but essentially similar in structure.

Measurements (holotype)

	Scute length 2.13, width 2.04						
	Troch.	Fem.	Pat.	Tib.	Met.	Tars.	Total
Leg 1	0.27	0.95	0.36	0.82	0.90	0.40	3.70
Leg 2	0.36	1.50	0.50	1.40	1.54	1.32	6.62
Leg 3	0.33	1.22	0.45	0.95	1.32	0.63	4.88
Leg 4	0.31	1.22	0.45	1.32	1.68	0.77	5.75
Pedipalp	0.36	1.36	0.86	0.82	-	0.86	4.26
					Chelicera: basal 0.90, second 0.95		1.85

Measurements (allotype)

	Scute length 1.95, width 1.90						
	Troch.	Fem.	Pat.	Tib.	Met.	Tars.	Total
Leg 1	0.27	0.82	0.40	0.77	0.86	0.59	3.71
Leg 2	0.31	1.40	0.54	1.40	1.45	1.12	6.23
Leg 3	0.31	1.09	0.54	0.95	0.86	0.82	4.57
Leg 4	0.36	1.27	0.45	1.18	1.72	0.82	5.80
Pedipalp	0.36	1.00	0.68	0.77		0.54	3.35
					Chelicera: basal 0.90, second 0.90		1.80

Measurements (paratypes)

♂♂ Scute length 2.09 (1.95-2.18), width 2.02 (1.86-2.13)

♀♀ Scute length 1.99 (1.86-2.13), width 1.97 (1.86-2.09)

(Figures are mean of all specimens with range in brackets)

Note

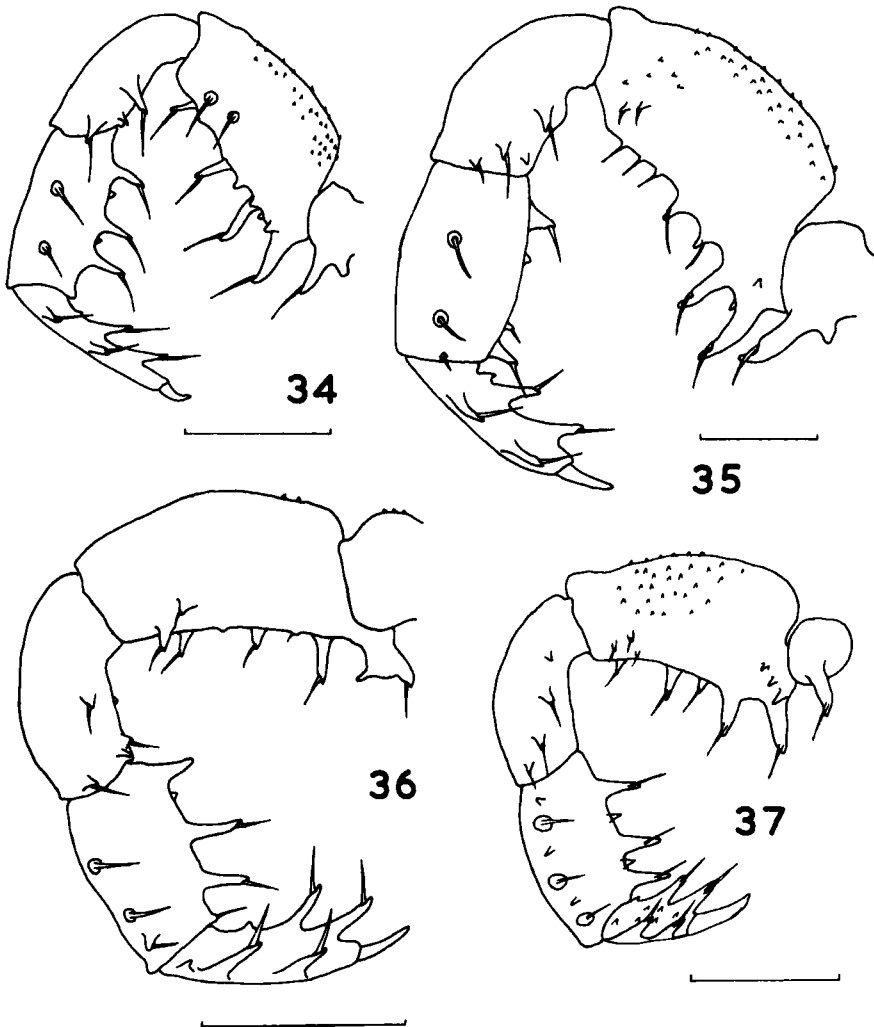
This is the smallest species of the genus and recognisable by the distinctive markings on the pedipalpal femur and the banded legs.

***Bogania advena* sp. n.** (Figs 29, 33, 37)

Types.—QUEENSLAND: *Holotype* ♂, Bulburin State Forest, 1-3.iv.1972, G. B. Monteith, in QM (S341). *Allotype* ♀, collected with holotype, in QM.

Male

Colour (in preserved specimen) of carapace yellow-brown with irregular dark patches; tergal areas with similar ground colour, dark areas laterally and less defined median dark patch (Fig. 29); ventral surface uniform light brown except for dark posterior border of free sternites.



FIGS 34-37—*Bogania* spp. n., ♂, pedipalp, prolateral view: (34) *B. neogramulata*; (35) *B. distincta*; (36) *B. exigua*; (37) *B. advena*. Scale 1.0 mm.

Body (Figs 29, 33). Eyemound dorsally rounded; scutal groove distinct; tergal areas separated by transverse grooves as shown in Fig. 29; aedeagus (Fig. 33) with characteristic spine bands on margins of distal cleft.

Basal segment of chelicerae smooth, segment 2 with dorsal row of short spines. Pedipalps (Fig. 37) with one long, one short tubercle on trochanter; femur rising sharply, dorsal surface with small scattered spines, ventral row of four conical tubercles with three smaller ones between their bases, prolateral surface with basal stout tubercle and two slender distal tubercles; patella with two strong, one weak prolateral tubercles; tibia with two strong, one weak pro- and three strong retrolateral tubercles; tarsus with two tubercles on both margins and strong terminal claw. Legs unarmed; tarsal formula 3, 6, 5, 6.

Female

Differing from male as follows: tergal areas with more extensive dark markings; pedipalp smaller but essentially similar in structure.

Measurements (holotype)

	Troch.	Scute length 2.70, width 2.21					Total
		Fem.	Pat.	Tib.	Met.	Tars.	
Leg 1	0.30	1.68	0.61	1.24	1.40	1.32	6.55
Leg 2	0.32	1.86	0.72	2.21	2.14	2.10	9.35
Leg 3	0.27	1.52	0.60	1.38	1.82	1.34	6.63
Leg 4	0.37	2.11	0.71	1.57	2.52	1.56	8.84
Pedipalp	0.35	1.32	1.10	1.03	—	0.62	4.42
Chelicera: basal 0.72, second 1.12							1.84

Measurements (allotype)

	Troch.	Scute length 2.24, width 1.83					Total
		Fem.	Pat.	Tib.	Met.	Tars.	
Leg 1	0.25	1.42	0.51	1.02	1.22	1.40	5.82
Leg 2	0.30	1.81	0.52	1.90	2.00	1.82	8.35
Leg 3	0.26	1.56	0.54	1.24	1.71	1.61	6.92
Leg 4	0.28	2.04	0.61	1.56	2.10	1.74	8.33
Pedipalp	0.32	1.12	0.92	0.76	—	0.62	3.74
Chelicera: basal 0.74, second 0.96							1.70

Note

This species could only be confused with *B. granulata* or *B. neogranulata* from which it can be separated by the shape of the eyemound which, viewed laterally, is strongly rounded. The distinctive marginal spine bands on the aedeagal cleft also serve to distinguish this species.

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