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REVISION OF THE GENUS STIGMACROS FOREL.

BY

J. J. MCAREAVEY, S.J.

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WILLIAM L. BROWN

## REVISION OF THE GENUS STIGMACROS FOREL.

J. J. McAreavey, S.J.

This genus, which appears to be confined to Australia, is widely distributed throughout the country. Even in those States where little collecting has been done, many interesting species have been taken.

In general the species resemble very small *Polyrhachis* in appearance. When it became necessary to divide the genus *Stigmacros* into subgenera, the resemblance between these and some of the subgenera of *Polyrhachis* suggested names for the new subgenera. When more species and information about them are available it may be necessary to raise the subgenera to genera.

In the case of the majority of previously described species the types could not be traced, and so specimens identified with the aid of the original descriptions, have been used to make a re-description. No specimens fitting the descriptions of *Stigmacros medioreticulata* Viehmeyer could be found, so Viehmeyer's description in German has been given. It is not easy to determine from this description to which subgenus this species should belong, but since it seems to resemble species of the *Australis* group, it has been placed, in this revision, under the subgenera *Cyrtostigmacros*. All holotypes of new species described in this paper, unless otherwise mentioned, are in the collections of the National Museum of Victoria.

Subfamily FORMICINAE Lepelletier, 1863.

Tribe PLAGIOLEPIDINI Forel, 1893.

Genus STIGMACROS Forel, 1905.

- Acantholepis* subgenus *Stigmacros* Forel, Ann. Soc. Ent. Belg.  
49, p.179, 1905 ♂ ♀ ♂
- Acantholepis* subgenus *Acrostigma* Forel, Rev. Suisse Zool.  
10 p.477, 1902 ♂ ♀ ♂
- Stigmacros* Emery, Genera Insect. Fasc, 183, p.34, 1925 ♂ ♀ ♂

*Worker*. 2 mm.-4 mm. monomorphic. Maxillary palpi six-segmented. Labial palpi four-segmented. Mandibles triangular with four or five small sharp teeth. Clypeus feebly produced, convex, sometimes carinated. Frontal area semi-circular, usually clearly defined. Frontal carinae short, parallel or slightly diverging, flattened above, leaving the insertions of the scapes exposed. There are no ocelli. Eyes moderately large, flat or feebly convex, placed near the centre of the sides. Antennae eleven-segmented, the scapes inserted close to

the clypeal suture, apical segments of funiculus slightly enlarged. The thorax is short with the pronotum much broader than the rest of the thorax, with or without a distinct metanotum. In these species with a raised metanotum there are two raised spiracular tubercles, close to the mesometanotal suture. The suture before the epinotum is very distinct and often very deep. The posterior corners of the epinotum either produced as long spines or as short spines, or again not produced but abrupt and sharp edged. About the upper third of the declivity of the epinotum on each side is a spiracular tooth which in some cases is very long. In profile the dorsum of the thorax is either arched or straight and margined. The node varies with the subgenera, being either scale-like and unarmed, the upper surface entire, or notched, or again moderately stout with long curved spines on the upper surface and smaller spines on the sides. Gaster often truncated in front, oval, moderately large. Legs slender or robust, moderately long, anterior pair with pectinate spurs, middle and posterior pairs with small spurs. Claws simple.

*Female.* Similar to worker and in some subgenera only slightly larger. Antennae eleven-segmented, scape shorter. Eyes larger and more convex, the ocelli clear and distinct. Pronotum short and from above is concealed by the mesonotum which is large and has the parapsidal furrows impressed. All thoracic sutures deeply impressed. Scutellum is large and there is a broad suture between it and the epinotum. Epinotum much broader than long with posterior corners rounded. The stigma-bearing spines on the declivity are short and broader than those of worker. Node similar to that of worker. Gaster very large in some cases. Wings clear with venation brown, rather short with one cubital and one small closed discoidal cell.

*Male.*—Usually about the size of the worker. Head small with sides very convex. Mandibles narrow, eyes very large and hemispherical, occupying most of the side of the head. Ocelli large, hemispherical placed near the occipital border. Antennae twelve segmented, scapes moderately long. Thorax similar to that of female but the epinotum is rarely armed. Node unarmed even in the case of those species whose workers have the node armed with long spines. Genitalia exposed.

*Pupae.* Always enclosed in cocoons.

Key to the subgenera. Plate 1. Figs. 1–18.

1. Upper border of the node unarmed . . . . . 2
- Upper border of the node armed with two rather long, almost horizontal spines directed backwards . . . . .  
*Hagiostigmatros* Subgenus nov.
2. Dorsum of pronotum and mesonotum convex . . . . . 3
- Dorsum of pronotum and mesonotum not convex but straight and horizontal . . . . . *Campostigmatros* Subgenus nov.
3. Declivity of epinotum armed on each side with a small tooth directed backwards . . . . . 4
- Declivity of epinotum unarmed . . . . . *Pseudostigmatros* Subgenus nov.
4. Metanotum present and distinct . . . . . 5
- Metanotum not present . . . . . *Stigmatros* sen. stricto
5. Spiracular tubercles present on each side of metanotum . . . . .  
*Cyrtostigmatros* Subgenus nov.
- Spiracular tubercles not present on metanotum . . . . .  
*Chariostigmatros* Subgenus nov.

STIGMACROS (STIGMACROS) *sensu stricto* Forel.

Species usually smaller than those of other subgenera. The pronotum convex and often forms a single strong convexity with the mesonotum. The suture between mesonotum and epinotum is very distinct but not deep so that from the side view the dorsum of the epinotum seems so close to the mesonotum that it rises abruptly from it. Epinotum armed with small spines; node with or without tiny lateral teeth.

SUBGENOTYPE *Acantholepis* (*Acrostigma*) *froggatti* Forel.

Key to species.

1. Upper border of the node viewed from behind entire . . . . . 2
- Upper border of node not entire but concave . . . . . 7
2. Dorsum of epinotum half as long as the declivity . . . . . 3
- Dorsum of epinotum not as long as half declivity; Yellowish red. Smooth and shining, sides of mesonotum microscopically reticulate. Length 1.9-2.4 mm. . . . . *froggatti* Forel
3. Node in profile is sharp pointed above . . . . . 4
- Node in profile not sharp pointed above but blunted . . . . . 6
4. Scape of antennae extends beyond occiput by quarter of its length; Reddish yellow. Smooth and shining, sides of mesonotum and epinotum striate. Length 3.3-2 mm. . . . . *wilsoni* sp. nov.
- Scape of antennae extends beyond occiput by less than a quarter of its length . . . . . 5
5. Eyes placed at middle of sides of head. Rich yellow. Smooth and shining, sides of head and gaster faintly shagreened. Length 1.5-1.7 mm. . . . . *acuta* sp. nov.
- Eyes not placed at middle but slightly behind middle. Rich brownish red with vague dark bands on gaster. Smooth and shining with sides of mesonotum and epinotum striate transversely. Length 2 mm. . . . . *rufa* sp. nov.
6. Scape of antennae extends beyond occiput by third of its length. Reddish yellow: Smooth and shining. Length 2.2-2 mm. . . . . *brevispina* sp. nov.
- Scape of antennae extends beyond occiput by less than a third of its length. Dark chestnut brown. Smooth and shining, sides of mesonotum and epinotum faintly striate transversely. Length 2.1-2.4 mm. . . . . *impressa* sp. nov.
7. Frontal carinae diverging behind . . . . . 8
- Frontal carinae not diverging but parallel. Brownish yellow, gaster infuscated. Smooth and shining with faint traces of reticulation on head and thorax. Length 2.8-3.2 mm. . . . . *rectangularis* sp. nov.
8. Node with tiny lateral teeth at base . . . . . 9
- Node with no trace of lateral teeth. Reddish yellow with gaster reddish brown. Smooth and shining with faint traces of reticulation on epinotum node and sides of head. Length 3.5-4 mm. . . . . *bosii* Forel
9. Scape extends beyond occiput by a fifth of its length. Yellow. Entirely smooth and shining. Length 1.4-1.7 mm. . . . . *pusilla* sp. nov.
- Scape extends beyond occiput by less than fifth of its length. Yellowish with gaster dark reddish brown. Smooth and shining with gaster feebly shagreened. Length 1.2-1.5 mm. . . . . *minor* sp. nov.

STIGMACROS (*STIGMACROS*) FROGGATTI Forel, figs. 19-24.

- Acantholepis* (*Acrostigma*) *froggatti* Forel, Rev. Suisse Zool. 10,  
p.478, 1902 ♀ ♀ ♂
- Acantholepis* (*Stigmacros*) *froggatti* Forel, Ann. Soc. Ent. Belg. 49,  
p.179, 1905 ♀ ♀ ♂
- Stigmacros* *froggatti* Emery, Gen. Insect. fasc. 183, p.34, 1925 ♀ ♀ ♂
- Acantholepis* (*Stigmacros*) *fossulata* Viehmeyer Ent. Mitt. Berl.  
14, nr.I., p.34, 1925 ♀
- Acantholepis* (*Stigmacros*) *foreli* Viehmeyer, Ent. Mitt. Berl. 14,  
nr.I., p.34, 1925 ♀ ♀ ♂

*Worker.* Length 1.9-2.4 mm. Yellowish red with funiculus brownish red except for the first segment. Some examples are more yellowish, while others have the legs brownish and have also vague brown bands on the segments of the gaster.

Entirely smooth and very shining, the sides of head faintly shagreened and the base of the sides of the mesonotum microscopically reticulate.

Hair yellowish, very sparse and confined to the clypeus and apex of the gaster; pubescence yellowish, fine adpressed, confined to the funiculus.

Head very slightly longer than broad, very slightly broader behind than in front, with convex sides and almost straight occipital border and rounded posterior corners; mandibles sparsely punctate microscopically, furnished with four small teeth; clypeus not carinated, rounded above and with rounded anterior border; frontal area distinct, semicircular; frontal carinae short, diverging slightly behind, flattened above with the insertion of the scapes exposed; scapes extend beyond the occipital border by about one-fifth (Forel, one-quarter) of their length; first segment of the funiculus as long as the three following, second as broad as long, third to fifth broader than long, six and seventh as broad as long, rest longer than broad, apical as long as the two preceding together; eyes flat and placed at the middle of the sides.

Thorax twice as long as broad; pronotum twice as broad as long with convex anterior border and feebly convex sides; promesonotal suture distinct; mesonotum nearly as broad as long, broader in front than behind with feebly convex sides; mesoepinotal suture narrow, rather deep, without metanotum; epinotum twice as broad as long, with sides and posterior border straight and the dorsum feebly concave; the epinotal spines are very small, directed backwards and upwards. In profile the promesonotum is convex with a slight depression at the promesonotal suture; dorsum of the epinotum convex with the posterior angle sharp; the declivity one and a half times as long as the dorsum, and a little above the centre is a small sharp spine directed upwards and backwards.

Node narrow with anterior and posterior borders convex, the upper surface feebly concave in the middle. In profile node scale like with anterior convex face meeting the straight posterior face at a point; on each side about the centre is a small tooth directed outwards. Gaster rather large. Legs short and robust.

*Female.* Length 4.8 mm. Colour darker with the gaster brownish red.

Smooth and shining.

Head similar to that of worker with the eyes comparatively larger, the ocelli distinct and pearl white, the scapes shorter and reaching as far as the occipital border.

Pronotum short with the sides and the occipital border feebly convex; mesonotum large, slightly broader than long with the parapsidal furrows indicated; scutellum broader than long, broader in front than behind; epinotum very short, more than four times as broad as long, broader in front than behind, concave in front and on the posterior border, and with the sides almost straight making sharp posterior corners, the stigma bearing spines on the declivity broad and similar to those of the worker.

Node from above very short, almost reduced to a line, with spines on each side distinct. Gaster very large. Legs robust.

*Male.* Length 2.6 mm. Dark reddish brown with head, except for the dark funiculus, and the legs, lighter.

Smooth and shining.

Hair yellowish, very sparse, confined to the front of the head and the apex of gaster. Pubescence yellowish, adpressed, confined to the funiculus and legs.

Head almost circular, as broad as long; mandibles small triangular hardly denticulate; clypeus oval, rounded above with rounded entire anterior border; frontal carinae short, diverging slightly behind, flattened above and leaving the insertions of the scapes exposed; frontal area distinct semicircular; scape rather long, extending beyond the occipital border by a fifth; antennae twelve segmented; first segment of the funiculus as long as the two following, all segments much longer than broad, apical segment as long as the two preceding together; eyes large, hemispherical, placed at the centre of the sides of the head; ocelli near occiput, clear and distinct.

Thorax large, twice as long as broad; pronotum hardly noticeable from above; mesonotum massive, broader than long, with the parapsidal furrows very indistinct; scutellum as broad as long, broader in front than behind; metanotum small and narrow; epinotum short, broader in front than behind, more than three times as broad as long, the posterior border hardly defined. In profile the pronotum is short, almost vertical; mesonotum very convex overhanging the pronotum in front and rather flat on posterior third; scutellum rather flat; metanotum convex; dorsum of epinotum rounded into the convex declivity; epinotal spines hardly noticeable.

Node more than three times as broad as long, anterior border convex, posterior border almost straight. In profile node rather large twice as high as long with anterior and posterior borders feebly convex, and curving inwards at top to meet at a blunt apex. Gaster large. Legs slender.

*Type locality.* Bong Bong. New South Wales.

Redescribed from co-type worker, co-type male from Bong Bong, N.S.W., and a female from Blundell's Creek, A.C.T. A very large number of specimens from New South Wales were examined, but there is little variation.

Types of Forel's Collection, Museum of Natural History, Geneva.

#### STIGMACROS (STIGMACROS) *WILSONI* sp. nov. figs. 25-27.

*Worker.* Length, 3.3.2 mm. Reddish yellow with darker patches on the head and brownish bands on the gaster; tip of the funiculus reddish brown.

Smooth and shining with the sides of the mesonotum and epinotum striate.

Hair yellowish, very sparse, confined to clypeus and apex of gaster.

Head slightly longer than broad, broader behind than in front, with the sides and the occipital border almost straight, posterior corners rounded; mandibles triangular with four sharp reddish teeth; clypeus arched above, anterior border rounded and entire; frontal area semicircular, large, distinct; frontal carinae diverging behind strongly; scape extends beyond the occipital border by a quarter; first segment of the funiculus as long as the three following, second to ninth as broad as long increasing in size, apical as long as the two preceding; eyes moderately large, rather flat, placed at the middle of the sides.

Pronotum twice as broad as long, sides and anterior border convex, the anterior corners rounded; mesonotum longer than broad, nearly twice as broad in front as behind, sides feebly convex; epinotum with dorsum concave broader than long, sides and posterior border almost straight, the posterior angles blunt and without teeth. In profile the promesonotum evenly convex; dorsum of the epinotum feebly convex, raised behind, and almost half as long as the straight declivity; stigma-bearing spines at the upper third of the declivity long, stout, sharp pointed, directed backwards and upwards.

Node elliptical with anterior border more convex than the posterior border, the upper surface entire, not concave. In profile node scale-like, three times as high as long, with anterior face feebly convex, merging into the dorsum which meets the straight posterior face at a point. Legs robust.

*Female* and *male* unknown.

Collected by F. E. Wilson, Esq.

*Material examined.* Ten workers which vary slightly in colour and size.

*Type locality.* Cobunga, Victoria,

#### STIGMACROS (STIGMACROS) ACUTA sp. nov., figs. 28-30.

*Worker.* Length 1.5-1.7 mm. Bright reddish yellow with the funiculus and the gaster very slightly darker.

Smooth and shining with traces of punctation on the sides of the head and with the gaster very faintly shagreened.

No hair, but pubescence yellowish, adpressed, confined to the funiculus.

Head very slightly longer than broad, broader behind than in front, sides and occipital border feebly convex, posterior angles rounded; mandibles triangular with four small sharp reddish teeth; clypeus rounded above, anterior border rounded and entire; frontal area large, semicircular indicated only in front and on the sides; frontal carinae diverging behind; scapes extend beyond the occipital border by a seventh; first segment of the funiculus as long as the three following, second to fourth broader than long, fifth to seventh as long as broad, eighth and ninth longer than broad, apical as long as two preceding; eyes rather flat, moderately large, placed at middle of sides.

Pronotum twice as broad as long, sides feebly convex, anterior border convex, anterior angles rounded, pro-mesonotal suture distinct; mesonotum longer than broad, broader in front than behind, sides almost straight; meso-epinotal suture broad and moderately deep, epinotum twice as broad as long, sides and posterior border very feebly concave, posterior angles produced as very small teeth, dorsum concave. In profile pro-mesonotum evenly convex, dorsum of epinotum straight, elevated behind, almost half as long as the straight declivity; stigma bearing spines on declivity very sharp, directed backwards and upwards, and a little longer than the teeth on the end of the dorsum.

Node narrow, anterior border convex, posterior border straight, upper border not concave. In profile node scale-like, higher behind than in front, with straight anterior border merging into the convex dorsum which meets the straight posterior border at a point; about the middle on each side is a small tooth. Legs slender.

*Male and female* unknown.

Collected by J. G. O. Tepper, Esq.

*Material examined.* Seven workers.

*Type locality.* Mt. Lofty, South Australia.

STIGMACROS (STIGMACROS) RUFA sp. nov., figs. 31-33.

*Worker.* Length 2 mm. Rich brownish red with funiculus darker, almost black at apex; gaster with vague brown bands.

Smooth and shining with traces of punctation on the sides of the head gaster very slightly shagreened.

Hair yellowish, sparse, confined to clypeus and tip of gaster; pubescence whitish, adpressed, dense on the funiculus.

Head very slightly longer than broad, broader behind than in front, sides convex, posterior border almost straight, posterior angles rounded mandibles triangular with four sharp teeth of which the apical is longest; clypeus convex above, anterior border rounded and entire; frontal area large, semicircular, posterior border not indicated; frontal carinae diverging considerably behind; scape extends beyond the occipital border by a sixth; first segment of funiculus as long as the four following, second to fourth broader than long, fifth to ninth as broad as long, apical as long as two preceding, eyes moderately large, placed just behind the middle of the sides.

Pronotum twice as broad as long, with sides and anterior border feebly convex, anterior angles rounded; mesonotum longer than broad, broader in front than behind; sides almost straight; mesoepinotal suture deep and wide, epinotum twice as broad as long, slightly broader behind than in front, sides and posterior border almost straight, dorsum strongly concave, posterior corners sharp but not produced as teeth or spines. In profile pro-mesonotum strongly convex, epinotal dorsum straight, elevated behind, posterior angle sharp; dorsum half as long as very feebly concave declivity; at upper third of declivity the stigma-bearing spines are sharp, directed backwards and upwards.

Node elliptical, more than three times as broad as long, with convex anterior and posterior borders, dorsum feebly concave. In profile three times as high as long, narrowed at the top, anterior straight border merging into convex dorsum which meets straight posterior border at a point; small blunt teeth at middle of each side. Legs robust.

*Male and female* unknown.

Collected by J. Clark, Esq.

*Material examined.* Six workers.

*Type locality.* Kallista, Victoria.



**STIGMACROS (STIGMACROS) BREVISPIA** sp. nov., figs. 34-36.

*Worker.* Length 2.2-2.2 mm. Reddish yellow with the funiculus darker.

Smooth and shining with a few faint striae on the sides of thorax.

Hair yellowish, sparse, confined to the clypeus and apex of gaster.

Pubescence yellowish, adpressed, confined to funiculus.

Head very slightly longer than broad, slightly broader behind than in front, sides convex, occipital border almost straight, posterior angles rounded; mandibles with four teeth; clypeus not carinated, rounded above, with rounded entire anterior border; frontal area distinct, semicircular; frontal carinae diverging rather strongly behind; scapes extend beyond the occipital border by almost a third of their length; first segment as long as the three following, second to fifth broader than long, sixth to eighth as broad as long, ninth longer than broad, apical as long as the two preceding; eyes at the middle of the sides of the head, rather flat.

Thorax twice as long as broad; pronotum twice as broad as long, with convex sides and anterior border, anterior corners rounded; mesonotum distinctly longer than broad, broader in front than behind with almost straight sides; mesoepinotal suture deep and broad, without stigmata; epinotum twice as broad as long, deeply concave on dorsum, broader behind than in front, sides feebly convex, posterior border almost straight, the posterior corners hardly toothed. In profile pro-mesonotum slightly convex, dorsum of epinotum almost straight, half as long as the almost straight declivity, with which it forms almost a right angle; the stigma bearing spines about the upper third are directed upwards and backwards.

Node oval, three times as broad as long, with almost straight anterior and posterior borders and rounded corners, upper surface not concave. In profile node scale-like with anterior border feebly convex, posterior border almost straight, the short dorsum very feebly rounded. There are tiny spines on the sides of node. Legs slender.

*Male and Female* unknown.

Collected by F. E. Wilson, Esq.

*Material examined.* Sixteen workers.

*Type locality.* Bogong Plains, Victoria.

**STIGMACROS (STIGMACROS) IMPRESSA** sp. nov., figs. 37-39.

*Worker.* Length 2.1-2.4 mm. Dark chestnut brown, front of head slightly lighter, gaster darker, legs antennae more reddish brown.

Smooth and shining with traces of shallow punctures near the posterior corners of the head, sides of mesonotum and epinotum faintly striate transversely.

Hair yellowish, erect, confined to clypeus and apex of gaster, pubescence adpressed, yellowish confined to funiculus and tarsi.

Head slightly longer than broad, slightly broader behind than in front, sides feebly convex, occipital border straight, posterior corners rounded; mandibles with four teeth; clypeus rounded above, anterior border rounded and entire; frontal area large, semicircular, very distinct; frontal carinae short, diverging rather strongly behind; scape extends beyond the occipital border by a fifth of

its length; first segment as long as the three following, second to fifth broader than long, sixth and seventh as broad as long, rest longer than broad, apical as long as the two preceding; eyes moderately large, placed at middle of sides of head.

Pronotum more than twice as broad as long, sides and anterior border convex, anterior angles rounded, mesonotum longer than broad, broader in front than behind, sides feebly convex; meso-epinotal suture deep and wide; epinotum broader than long, very slightly broader behind than in front, sides straight, posterior border convex, the dorsum very concave posterior corners angular but without teeth. In profile pro-mesonotum convex, epinotal dorsum straight, elevated behind, and half as long as the declivity which is straight; stigma bearing spines on declivity long as broad at base sharp, directed upwards and backwards.

Node much broader than long, anterior border feebly convex, posterior border straight, corners sharp. In profile three times as high as long, anterior border feebly convex, dorsum bluntly rounded, meeting the straight posterior border at a point; on each side a tiny tooth; legs slender.

*Male and female unknown.*

Collected by J. Clark, Esq.

*Material examined.* Ten workers.

*Type locality.* Taggerty, Victoria.

STIGMACROS (STIGMACROS) RECTANGULARIS sp. nov., figs. 40-44.

*Worker.* Length 2.8-3.2 mm. Brownish yellow, head more reddish than thorax, gaster infuscated.

Smooth and shining with faint traces of reticulation on head and thorax, sides of epinotum and mesonotum microscopically reticulate.

Hair yellow, confined to mandibles, clypeus and apex of gaster; pubescence fine adpressed, silvery, confined to funiculus.

Head rectangular, one-quarter longer than broad, with sides almost straight, occipital border feebly concave, posterior corners rounded, mandibles with five small irregular teeth; clypeus rounded above, not carinated, anterior border rounded and entire; frontal area semicircular, clearly indicated; frontal carinae, short, almost parallel, flattened above exposing the insertions of scapes; scape extends beyond the occipital border by a fifth; first segment of funiculus almost as long as the three following, second longer than the third, third to fifth as broad as long, rest longer than broad, apical as long as the two preceding; eyes large, flat, placed just behind the middle of the sides.

Pronotum twice as broad as long, anterior border convex, sides almost straight; mesonotum longer than broad, broader in front than behind, sides almost straight, posterior border produced back over the meso-epinotal suture as rather blunt corners directed backwards; epinotum slightly broader than long, slightly concave on dorsum, sides almost straight, posterior border feebly concave, posterior corners rounded not toothed. In profile pro-mesonotum forms an even convexity with a marked depression at the pro-mesonotal suture; dorsum of the epinotum almost straight, raised behind, forming a sharp angle with the almost straight declivity which is more than twice as long as the dorsum; epinotal spines are placed at the upper third, are very sharp, directed backwards and slightly upwards.

Node very narrow, almost reduced to a line, feebly convex in front with posterior border straight. In profile scale like, four times as high as long with anterior border convex meeting the straight posterior border at a point. Legs rather slender.

*Male.* Length 1.7 mm. Yellowish brown, mottled with small irregular lighter patches; there is a very small dark patch around the ocelli.

Smooth or very faintly shagreened.

Whole body is covered with short adpressed yellowish pubescence which in no way hides the sculpture, and is denser on the funiculus legs and last segment of gaster.

Head slightly longer than broad, sides very convex, occipital border short and straight; mandibles narrow and appear to be toothless; clypeus rounded in front, frontal area small, semicircular but distinct frontal carinae very short, very slightly diverging behind, insertions of scapes exposed; scapes fail to reach the occipital border by their thickness first segment of funiculus as long as the three following, second slightly longer than the third, third to eighth as broad as long, rest longer than broad, apical as long as two preceding together; eyes hemispherical, placed just behind the middle of the sides and occupying the greater part of the sides; ocelli prominent, large and distinct, the posterior forming strong angles on occipital border.

Thorax large and robust, about a third longer than broad; pronotum from above is completely hidden by the overhanging mesonotum; mesonotum large, a quarter broader than long, parapsidal furrows not impressed; scutellum large rounded above, broader behind than in front; epinotum more than twice as broad as long, narrowed behind with straight sides and anterior and posterior borders slightly concave; there are no spines on the spinotum. In profile pronotum is short and almost vertical; mesonotum vertical in front and rounded into the almost straight dorsum of the thorax.

Node small, almost reduced to a straight line, the posterior border slightly convex, and anterior border almost straight. In profile node is scale-like, low, three times as high as long, with anterior border straight meeting the posterior feebly convex border at a sharp point. Gaster longer than broad with a rather pointed apex. Genitalia exposed. Legs slender.

*Female* unknown.

*Collected* by J. Clark, Esq.

*Material examined.* A very large number of workers and males.

*Type locality.* Mundaring, Western Australia.

#### STIGMACROS (STIGMACROS) PUSILLA sp. nov., figs. 45-47.

*Worker.* Length 1.4-1.7 mm. Yellow with legs paler and apical half of funiculus dull brown.

Entirely smooth and shining.

No hair but pubescence yellowish, adpressed and confined to the funiculus and mandibles.

Head slightly longer than broad, slightly broader behind than in front, sides and occipital border very feebly convex, posterior corners rounded; mandibles triangular with four or five small reddish teeth; clypeus rather large, arched above, not carinated, anterior border rounded and entire; frontal area semicircular, indicated only in front and on the sides; frontal carinae diverging very

slightly behind, almost straight; scape extends beyond the occipital border by a fifth of its length; first segment of funiculus as long as three following, second longer than third, second to eighth broader than long, ninth longer than broad, apical almost as long as three preceding together; eyes moderately large, placed at the middle of the sides.

Pronotum twice as broad as long, with sides and anterior border feebly convex, anterior corners rounded; mesonotum longer than broad, broader in front than behind, sides almost straight; meso-epinotal suture deep and wide; epinotum twice as broad as long, broader in front than behind, sides straight, posterior border very slightly concave, dorsum concave, posterior angles bluntly toothed. In profile pro-mesonotum evenly and feebly convex with meso-epinotal suture deep; dorsum of epinotum almost straight, elevated behind, the posterior corner sharp; dorsum of epinotum less than a third of the feebly concave declivity; at upper third are the sharp stigma bearing spines, triangular and a little longer than broad at the base, directed backwards and upwards.

Node reduced almost to a transverse line, slight concave in the middle. In profile very slender, the almost straight anterior and posterior borders meeting at a sharp point, small teeth on the sides at middle of node. Gaster large. Legs robust.

*Female and male unknown.*

Collected by Dr. W. M. Wheeler.

*Material examined.* Twenty-one workers.

*Type locality.* Canberra, Australian Capital Territory.

#### STIGMACROS (STIGMACROS) MINOR sp. nov., figs. 48-50.

*Worker.* Length 1.2-1.5 mm. Rich light-reddish yellow, thorax, node, legs and antennae yellow, apex of funiculus reddish brown, gaster dark-reddish brown.

Smooth and shining with gaster feebly shagreened.

Hair yellow confined to clypeus and apex of gaster; pubescence yellowish, adpressed, confined to funiculus.

Head slightly longer than broad, very slightly broader behind than in front, sides feebly convex, occipital border almost straight; mandibles triangular with four small teeth; clypeus rounded above, not carinated, anterior border rounded and entire; frontal area large, semicircular, indistinctly marked; frontal carinae short, diverging behind; scape extends beyond occipital border by its thickness; first segment of funiculus as long as the three following, second longer than third, second to fifth broader than long, sixth to ninth broad as long, apical as long as two preceding together, all segments increase in size towards apex; eyes moderately large, convex, placed at the centre of the sides.

Pronotum almost three times as broad as long, broader in front than behind, anterior border feebly convex, sides almost straight, anterior angles rather abrupt; mesonotum longer than broad, broader in front than behind, sides almost straight; meso-epinotal suture deep; epinotum almost three times as broad as long, very slightly broader behind than in front, sides straight, posterior border very feebly concave, posterior angles blunt, dorsum deeply concave in middle. In profile pronotum convex in front but rather flattened behind; mesonotum feebly convex; epinotal dorsum straight, elevated behind and produced to a rather sharp spine, almost half the length of the straight declivity; epinotal spines sharp, directed upwards and backwards.

Node narrow, elliptical, with anterior border deeply convex, posterior border straight, angles blunt, dorsum deeply concave in middle. In profile thorn-like with anterior border feebly convex meeting the feebly concave posterior border at a sharp point, the curved anterior face can be seen from the side; small spines at middle of each side. Legs slender.

*Male and female unknown.*

Collected by H. Hacker, Esq.

*Material examined.* Three workers which vary slightly in colour.

*Type locality.* Brisbane, Queensland.

STIGMACROS (STIGMACROS) BOSII Forel, figs. 51-54.

*Acantholepis (Acrostigma) bosii* Forel, Rev. Suisse Zool. 10, p.477, 1902 ♂ ♀

*Acantholepis (Stigmacros) bosii* Forel, Ann. Soc. Ent. Belg. 49, p.179, 1905

*Stigmacros bosii* Emery, Genera Insect. fasc. 183, p.34, 1905

♂ ♀  
♂ ♀

*Worker.* Length 3.5-4 mm. Rich yellow with antennae yellowish brown, the funiculus being slightly darker, tibiae and tarsi darker yellow than body but femora lighter, gaster more reddish brown with margins of gastric segments yellowish.

Smooth and shining with faint traces of microscopic reticulation, which is more noticeable on epinotum, node and sides of head.

Hair yellowish confined to mandibles, anterior border of cypeus and apex of gaster; pubescence silvery, very fine, adpressed, confined to funiculus and tarsi.

Head almost one-quarter longer than broad, slightly broader behind than in front, sides convex, occipital border almost straight, posterior corners rounded; mandibles narrow with four small teeth of which the apical is twice as long as the others; clypeus rather large convex above, not carinated, anterior border rounded and entire; frontal area semicircular, clearly indicated, frontal carinae short, diverging behind; scape extends beyond the occipital border by a sixth of its length. First segment of funiculus as long as three following, second slightly longer than third, third to sixth as broad as long, rest longer than broad, apical as long as two preceding; eyes moderately large, flat, placed just behind the middle of sides.

Pronotum twice as broad as long, anterior border and sides strongly convex, mesonotum slightly longer than broad, slightly broader in front than behind, sides straight; mesoepinotal suture wide and deep; epinotum nearly twice as broad as long, with sides and posterior border almost straight. In profile the promesonotum evenly convex with a slight depression at the pro-mesonotal suture; dorsum of epinotum feebly convex, and half as long as the straight declivity; the epinotal spines very short directed backwards, and slightly outwards.

Node elliptical, three times as broad as long, slightly concave on dorsum. In profile node three times as high as long, anterior border feebly convex, rounded into the dorsum, the posterior border almost straight. There is no trace of lateral teeth. Legs short and robust.

*Female.* Length 5 mm. Colour darker, more reddish brown, but sculpture and pilosity as in worker.

Head as in worker but relatively shorter; the teeth of the mandibles of equal length; frontal area not so clearly outlined; the ocelli are yellowish, small but distinct.

Thorax one and a fifth times longer than broad; pronotum hardly noticeable from above, is very much broader than long; mesonotum slightly broader than long, the parapsidal furrows distinct; scutellum twice as broad as long, broader in front than behind, convex in front, sides and posterior border almost straight; between scutellum and epinotum is a very wide deep suture; epinotum short, three times as broad as long, with sides and posterior border straight; spines on the declivity sharper than those of worker. In profile pronotum almost vertical; mesonotum strongly convex on anterior third; rest of dorsum of thorax almost straight; epinotal dorsum almost a third as long as the feebly concave declivity; rest as in worker.

Node in profile has the anterior face very feebly convex, the posterior face straight on lower three-quarters but the upper quarter is abruptly turned inwards to meet the anterior border in a sharp point.

*Male* unknown.

*Material examined.* A very large number of workers and females collected by Dr. W. M. Wheeler at Creel Mt. near Mt. Koscuisko, New South Wales.

*Type locality.* Queanbeyan, New South Wales.

Types in Forel's Collection, Museum of Natural History, Geneva.

Redescription from specimens from the type locality.

#### STIGMACROS (HAGIOSTIGMACROS) Subgenus novum.

The suture between the mesonotum and epinotum is broad and deep, but there is no raised metanotum nor spiracular tubercles. The posterior angles of the epinotum are produced backwards in two long sharp spines. About the middle of the declivity of the epinotum on each side is a long sharp horizontal spine. The upper border of the node carries on each side a rather long horizontal tooth directed backwards. About the middle of each side of the node is a rather long spine directed outwards.

#### Subgenotype *Stigmacros barratti* Santschi.

Key to species.

1. Spines on dorsum of epinotum as long as those on the declivity . . . . . *spinosa* sp. nov.
- Spines on dorsum of epinotum not as long as those on declivity . . . . . 2
2. Sculpture of head and thorax striate . . . . . *barratti* Santschi
- Sculpture of head and thorax not striate but reticulate punctate . . . . . *punctatissima* sp. nov.

#### STIGMACROS (HAGIOSTIGMACROS) SPINOSA, sp. nov., figs. 55-59.

*Worker.* Length 2·8-3·1 mm. Rich reddish yellow, head, antennae and legs paler, eyes black.

Head finely longitudinally striate with a few fine circular striae around the insertions of scapes, back of head finely and densely reticulate, mandibles and clypeus smooth; pronotum and mesonotum very finely longitudinally striate; epinotum and node transversely and more strongly striate-rugose, declivity transversely striate, sides of thorax finely transversely striate; gaster smooth and shining.

Hair yellow, long, erect confined to clypeus and gaster; pubescence yellowish, adpressed, fine, confined to funiculus.

Head one-sixth longer than broad, sides almost straight, occipital border straight, corners rounded; mandibles with four small sharp teeth; clypeus not carinated, anterior border rounded; frontal area distinct semicircular; frontal carinae short, almost straight; scapes extend beyond the occipital border by a quarter, first segment as long as two following, second to fifth almost equal, slightly longer than broad, rest nearly twice as long as broad, apical as long as the preceding two; eyes very large, convex, placed just behind the middle of the sides.

Pronotum slightly more than twice as broad as long, sides and front convex, corners rounded; pro-mesonotal suture deep; mesonotum slightly broader than long, sides margined, slightly convex, metanotum not defined but at the posterior border of mesonotum on each side is a small tooth, directed upwards and slightly outwards; meso-epinotal suture very deep; epinotum semicircular, broader than long, broader behind than in front, sides straight and produced behind in two very long narrow straight spines which are three-quarters as long as their interval, posterior border between the spines feebly concave; these spines conceal the spines on the declivity. In profile pronotum convex; mesonotum almost straight and horizontal, the stigma-bearing spines as long as broad at base, and directed backwards so that they overhang the meta-epinotal suture which is as deep as wide; dorsum of epinotum flat and horizontal, half as long as the straight declivity; spines on posterior border of dorsum very straight, sharp and slender; at middle of declivity is a slightly shorter spine on each side, broader but parallel to the upper spines.

Node about three times as broad as long, the corners produced backwards and slightly outwards as long sharp spines. In profile three times as high as long, sides parallel and straight, the upper spines are almost as long as the width of the node, directed backwards and slightly upwards. On each side about the middle is a smaller spine directed outwards and upwards. Gaster large elliptical. Legs long and slender.

*Female.* Length 4-4.2 mm. Thorax dark-reddish brown, legs, antennae, and gaster lighter-reddish yellow.

Pronotum finely shagreened, mesonotum and scutellum finely longitudinally striate, epinotum finely transversely striate, node shagreened, gaster smooth.

Head as in worker, but with distinct small black ocelli.

Pronotum short, with feebly convex sides and front, angles rounded; mesonotum broader than long, parapsidal furrows hardly impressed; scutellum one and a half times as broad as long, slightly broader in front than behind, it is separated from the spinotum by a broad suture; epinotum three times as broad as long, as broad behind as in front, sides straight, posterior border slightly concave, the posterior corners produced back as two long slender sharp spines; below these about the middle of the declivity are similar spines, which extend back to the same distance.

Node as in worker though the sharp spines on dorsum are smaller. Legs slender.

*Male.* Unknown.

Collected by J. W. T. Armstrong, Esq.

*Type locality.* Nyngan, New South Wales.

## STIGMACROS (HAGIOSTIGMACROS) BARRATTI Santschi, figs. 60-67.

*Stigmacros barratti*, Santschi. Bull. Soc. Vaud. Sc. Nat. 56, 221, p.477, 1923 ♀

*Worker*. Length 3.3-4 mm. Ochraceous to reddish yellow with gaster clearer yellow and often the node is brownish; apical half of funiculus, sometimes whole funiculus black; legs and scapes brownish yellow. There is a black or dark brown band, interrupted in middle, on second segment of gaster and similar smaller bands or patches on the following segments.

Mandibles smooth with a few scattered microscopic punctures; head densely finely rugulose longitudinally, the back of head more reticulate punctate, pronotum very finely, densely rugulose; mesonotum microscopically striate; epinotum finely shagreened; declivity of epinotum very finely transversely striate; node very finely reticulate punctate; sides of pronotum finely transversely striate, sides of meso-epinotum more reticulate punctate with a few fine transverse striae; base of sides of node finely reticulate punctate.

Head a little longer than broad, slightly broader behind than in front, sides and occipital border feebly convex, corners rounded; mandibles narrow with four strong teeth; clypeus feebly carinated, anterior border rounded and produced forwards. Frontal area triangular, as broad as long; frontal carinae diverging behind; scapes extend beyond the occiput by a quarter; first segment as long as the two following, second to fifth equal slightly longer than broad, sixth to eighth longer than broad, ninth as broad as long, apical as long as two preceding; eyes large placed just behind the middle of the sides.

Pronotum twice as broad as long, very slightly impressed in middle, sides and front feebly convex, angles broadly rounded; mesonotum slightly longer than broad, broader in front than behind, sides very feebly convex; meso-epinotal suture deep and wide; epinotum broader in front than behind, dorsum deeply concave, posterior corners produced as two rather long spines, posterior border concave; stigma-bearing spines on declivity are very long, sharp, directed backwards and slightly outwards. In profile pronotum convex in front, more flattened behind; mesonotum higher than pronotum, more convex; epinotum rises abruptly from meso-epinotal suture and is flat, horizontal and half as long as almost straight epinotal declivity; just above middle are the long stigma-bearing spines, four times as long as spines on dorsum.

Node large, elliptical, four times as broad as long, the corners produced backwards to form sharp spines. In profile three times as high as long at base, borders almost straight. On each side about the centre is a moderately large spine directed outwards and slightly upwards. Gaster tapers to a point. Legs robust.

*Female*. Length 3.8-4 mm. Head and gaster of same colour as that of worker; thorax darker red.

Sculpture and pilosity of worker.

Head similar to that of worker but posterior corners of head more abruptly rounded, giving a more squarish appearance, ocelli distinct.

Pronotum short, partly concealed by mesonotum, sides and front convex; mesonotum very large, almost as long as broad, the parapsidal furrows not indicated; scutellum large, as broad as long, broader in front than behind; there is a deep, broad suture between it and the epinotum; epinotum twice as broad in front as long, nearly twice as broad in front as behind, sides straight and posterior border concave; centre of dorsum deeply concave and sloping into



the declivity, posterior corners with small teeth, declivity visible from above with two long sharp spines placed about the middle of each side, directed outwards and backwards.

Node proportionately smaller than that of worker but of similar shape. Legs robust.

*Male.* Length 4mm. Head reddish brown, occipital region almost black; thorax except for pronotum very dark reddish brown; pronotum and legs yellowish brown, node dark brown, gaster dark brown with apex yellowish.

Head very finely longitudinally striate, more reticulate towards back; pronotum transversely striate; mesonotum and scutellum longitudinally striate; epinotum irregularly regulose, node smooth except for shallow microscopic punctures on anterior face; sides of meso-epinotum reticulate punctate; gaster smooth.

Head slightly longer than broad, broader behind than in front; sides convex, posterior border almost straight, angles rounded; mandibles with four teeth, apical longest; clypeus feebly carinated, produced to a point in front; frontal area distinct, triangular; frontal carinae short, diverging very slightly; scape extends beyond occiput by a third; antennae of twelve segments, first segment as long as two following, apical as long as two preceding, all segments nearly twice as long as broad; eyes large at middle of sides; ocelli yellowish, small but distinct.

Pronotum short partly concealed by mesonotum, in profile almost vertical; mesonotum slightly broader than long, broader behind than in front, parapsidal furrows indicated; scutellum large broader than long, broader in front than behind, between it and epinotum is deep broad suture; epinotum twice as broad as long, broader in front than behind, sides almost straight posterior border feebly concave, posterior angles hardly toothed; the stigmata on sides of declivity distinct but no teeth or spines.

Node oval, twice as broad as long, anterior and posterior borders feebly convex. In profile dome-shaped, anterior and posterior borders almost straight, dorsum convex. Legs long and slender. Described from a very large number of workers and several males and females taken by J. Clark at Mount William, Victoria.

*Type locality.* Ringwood, Victoria.

*Type.* Type worker in Santschi Collection, Basle Museum, Switzerland.

#### STIGMACROS (HAGIOSTIGMACROS) PUNCTATISSIMA sp. nov., figs. 68-71.

*Worker.* Length 3.3-3.3 mm. Uniformly yellowish red, epinotum brownish red, legs and antennae yellow.

Mandibles smooth, clypeus, frontal area and area between the frontal carinae finely longitudinally striate, rest of head, thorax and node densely microscopically reticulate punctate, declivity of epinotum reticulate, gaster very finely longitudinally striate.

Hair yellow confined to front of head and apex of gaster.

Head almost a quarter longer than broad, sides and occipital border straight, posterior corners abruptly rounded; mandibles with two large and three small teeth; clypeus arched above, carinated on anterior half, produced to a blunt point in front, frontal area semicircular, distinct; frontal carinae straight and parallel scapes extend beyond occiput by a fifth; first segment not quite as long as the two following, all segments longer than broad, apical as long as preceding two; eyes large, black, placed just behind the middle of the sides.

Pronotum twice as broad as long, sides and front feebly convex, corners rounded; mesonotum slightly longer than broad, broader in front than behind, sides almost straight, posterior angles slightly elevated; meso-epinotal suture deep; epinotum broad as long, sides straight, posterior corners produced behind as sharp spines directed backwards, the tips curved slightly outwards, dorsum of epinotum concave; on the spinotal declivity are long slender spines extending backwards and slightly upwards. In profile pronotum convex in front, rather flat behind; mesonotum very feebly convex; meso-epinotal suture deep; dorsum of epinotum straight and horizontal, almost as long as the straight declivity; posterior corner overhangs the declivity giving the appearance of a slightly concave declivity; spines at middle sharp and slender, directed backwards.

Node large dorsum deeply concave in centre with upper angles produced slightly backwards as blunt teeth, spines on sides clearly visible from above, slender and sharp. In profile twice as high as long at base, anterior border including teeth on upper border is evenly convex, posterior border almost straight as far as the teeth on upper border. On each side just below the middle is a long slender spine directed outwards and very slightly backwards. Legs rather long and slender.

*Male and female unknown.*

Collected by W. M. Mann, Esq.

*Type locality.* Leura, New South Wales.

#### STIGMACROS (CHARIOSTIGMACROS) Subgenus novum.

Pronotum and mesonotum convex. Between the mesonotum and the epinotum is large flat area which is lower than the mesonotum and the epinotum. In the centre of this area is a very narrow raised transverse ridge. The epinotum is armed with small spines directed outwards and slightly backwards. On each side of the node is a rather long spine directed outwards.

Subgenotype *S. Chariostigmaticros hirsuta* sp. nov.

#### STIGMACROS (CHARIOSTIGMACROS) *hirsuta* sp. nov. figs. 72-75.

*Worker.* Length 2.5-3 mm. Head dark reddish brown, lighter in front, funiculus brownish, mandibles yellowish; thorax and legs dark brown almost black.

Head smooth; pronotum and mesonotum reticulate punctate, epinotum more striate transversely, sides of thorax densely reticulate punctate.

Hair dark scattered on front of head and gaster; pubescence greyish confined to antennae and legs.

Head longer than broad, broader behind than in front, sides feebly convex, occipital border straight, corners rounded; mandibles with very small blunted teeth; clypeus produced to a point in front, carinated; frontal area semicircular, indicated only in front; scapes extend beyond occiput by third; first segment as long as two following, second to fifth as broad as long, rest longer than broad, apical as long as two preceding; eyes large, convex, placed just behind the middle of sides.

Pronotum short, about three times as broad as long, sides convex, anterior border almost straight, corners abrupt; mesonotum longer than broad, not much smaller behind than in front; between the mesonotum and epinotum is a large flat area lower than mesonotum and epinotum, in the centre of this area is a very narrow raised transverse ridge, stigmata not apparent; epinotum

one-quarter broader than long, sides margined, almost straight, posterior border very feebly concave, corners sharp; spines on declivity slightly longer than broad at base, directed outwards and slightly backwards. In profile pronotum convex, anterior half of mesonotum flat, posterior half depressed and lower than epinotum; in place of metanotum is a narrow ridge rising abruptly from this flat area; spinotum raised, straight and at right angles to straight declivity which is twice as long as dorsum, posterior corner produced as a small tooth; spines on upper third of declivity stout, directed backwards and upwards.

Node almost reduced to margined line, anterior border convex, posterior border concave, roughly convex on top, spines on sides long and stout. In profile stout, anterior feebly convex border meeting straight posterior border at a point. Legs robust.

*Male and female unknown.*

Collected by Dr. W. M. Wheeler.

*Material examined.* Nineteen workers.

*Type locality.* Kuranda, Queensland.

STIGMACROS (PSEUDOSTIGMACROS) Subgenus novum.

Pronotum and mesonotum convex. Between the mesonotum and epinotum is a narrow raised metanotum separated from the other segments by broad sutures. On each side of this metanotum is a small tubercle. The stigmata on the spinotal declivity are very distinct but there are no spines or teeth on the epinotum. The node also is quite unarmed.

Subgenotype *S. Pseudostigmacros inermis* sp. nov.

STIGMACROS (PSEUDOSTIGMACROS) *inermis* sp. nov., figs. 76-78.

*Worker.* Length 3.4-8 mm. Head and gaster deep black; thorax, node, legs antennae and mandibles reddish brown.

Head smooth shining; thorax smooth with epinotum very feebly shagreened, sides of mesoechinotum densely longitudinally striate; gaster smooth.

Hair whitish, long erect, scattered plentifully over whole body, legs and antennae; pubescence yellowish, adpressed, confined to funiculus and tarsi.

Head one sixth longer than broad, slightly broader behind than in front, sides feebly convex, occipital border almost straight, corners rounded; mandibles triangular with five teeth; clypeus carinated, rounded in front and entire; frontal area semi-circular, indistinct; frontal carinae, short, almost straight; there is a short frontal groove; scape extends beyond the occiput by half its length; first segment as long as two following, second shorter than third, long as broad, rest twice as long as broad, apical as long as two preceding; eyes placed just behind the middle.

Pronotum twice as broad as long, convex sides and front, corners rounded; mesonotum very slightly broader than long, broader in front than behind, sides feebly convex; meso-metanotal suture indicated by a transverse depression; metanotum elevated, more than twice as broad as long with a moderately distinct tubercle on each side; metaepinotal suture deep and broad; epinotum nearly square, sides straight, posterior border feebly concave; dorsum feebly concave, posterior corners blunt; stigmata on the declivity noticeable but there are no spines. In profile pronotum and mesonotum moderately convex; metanotum humped; dorsum of epinotum almost straight, one-third shorter than the almost straight declivity; no epinotal spines.

Node from above elliptical, about four times as broad as long, borders feebly convex, dorsum feebly convex. In profile large, three times as high as long, feebly convex anterior border, straight posterior border, dorsum rounded; near base on each side an extremely tiny sharp point in place of lateral teeth.

*Male and female* unknown.

Collected by J. W. T. Armstrong, Esq.

*Material examined.* Eighteen workers of slightly varying sizes.

*Type locality.* Nyngan, New South Wales.

STIGMACROS (CAMPOSTIGMACROS) Subgenus novum.

The dorsum of the thorax in profile is straight and horizontal, with the pronotum and mesonotum often strongly margined. The suture between the mesonotum and epinotum is deep and wide so that the epinotum forms a very distinct segment of the thorax. There is no raised metanotum and no trace of spiracular tubercles. On each side about the middle of the declivity of the epinotum is a small tooth. Sometimes there are lateral small teeth on the node.

Subgenotype *Acantholepis (Stigmacros) aemula* Forel.

Key to species.

- 1. Dorsum of node not concave .. .. . 2
- Dorsum of node concave .. .. . 4
- 2. Scape extends beyond occiput by more than its thickness .. 3
- Scape extends beyond occiput by not more than its thickness.  
Head, thorax, gaster, anterior coxae black, rest yellow. Length 2-2.3mm. . . . . *flavinodis* Clark
- 3. Eyes placed behind the middle of sides of head. Head reddish brown, pronotum, mesonotum, node, legs, antennae yellowish brown; epinotum and gaster black. Length 2 mm. . . . . *pilosella* Viehmeyer.
- Eyes placed at centre of side of head. Brown, narrow black margins on meso. and epinotum; legs yellowish brown, mandibles yellow. Length 2 mm. . . . . *marginata* sp. nov.
- 4. Scape extends beyond the occiput by quarter of its length .. 5
- Scape extends beyond occiput by less than a quarter .. 7
- 5. Dorsum of thorax noticeably sculptured .. .. . 6
- Dorsum of thorax not sculptured. Head and gaster black; epinotum dark brown; rest yellow. Length 2-3 mm. . . . . *epinotalis* sp. nov.
- 6. Eyes placed behind middle of sides of head. Black, mandibles, antennae except apical segments, tibiae and tarsi testaceous: Length 2.2-2.6 mm. . . . . *reticulata* Clark.
- Eyes placed at middle of sides of head. Black, mandibles, legs, antennae yellowish brown. Length 2-3 mm. . . . . *anthracina* sp. nov.
- 7. Dorsum of thorax noticeably sculptured. .. .. . 8
- Dorsum of thorax not noticeably sculptured .. .. . 9
- 8. Occipital border feebly concave. Head and gaster dark brown, thorax and node reddish brown, rest reddish yellow. Length 1.7-2 mm. . . . . *aemula* Forel
- Occipital border feebly convex. Head, thorax, node, reddish brown gaster dark brown, rest yellowish brown. Length 2 mm. . . . . *stanleyi* sp. nov.

9. Eyes placed at centre of sides of head . . . . . 10  
 —. Eyes placed not at centre but slightly behind centre. Very dark reddish brown, mandibles, antennae dull brown. Length 2 mm. . . . .  
*nitida* sp. nov.
- Node with small lateral teeth . . . . . N 11  
 —. Node without small lateral teeth. Head and thorax black, node brownish, gaster amber, rest yellowish. Length 1.8-2 mm. . . . .  
*elgans* McAreavey
11. Head and thorax shining black, antennae and legs brownish yellow, coxae black. Length 2.2 mm. . . . . *brachytera* sp. nov.  
 —. Head dark brown, thorax and node reddish brown, rest reddish yellow. Length 2.2-2 mm. . . . . *intacta* Viehmeyer.

STIGMACROS (CAMPOSTIGMACROS) FLAVINODIS Clark, figs. 79-81.

*Stigmacros flavinodis* Clark Proc. Roy. Soc. Vict. 50, pt.2, p.375, 1938 ♀

*Worker.* Length 2.2-3 mm. Head, thorax, gaster and anterior coxae black, mandibles, antennae node and legs yellow.

Shining head, mandibles and gaster very finely punctate. Thorax very finely and densely reticulate, anterior face of node finely reticulate.

Hair yellow, long, very sparse, confined to clypeus and apical segments of gaster; pubescence yellow, very short, fine and adpressed throughout.

Head as long as broad, occipital border feebly, sides strongly convex, angles rounded. Mandibles furnished with six large sharp teeth. Clypeus convex above, short, anterior border straight at middle. Frontal area feebly defined, triangular. Frontal carinae short and parallel, antennal insertions exposed. Scapes extend beyond the occipital border by their thickness. First segment of funiculus as long as the two following combined, apical as long as or longer than the two following combined. Eyes large and convex, placed at the middle of the sides. Thorax one-third longer than broad, suture sharply impressed. Pronotum fully twice as broad as long, sides and front feebly convex, angles broadly rounded. Mesonotum one-quarter broader than long, almost twice as broad in front as behind, sides and front convex, posterior border straight, meso-epinotal suture wide and very deep. Epinotum twice as broad as long, broadest behind, sides feebly convex, posterior border feebly concave. In profile dorsum feebly convex, superior border margined, pro-mesonotal suture sharply impressed, meso-epinotal suture very deep and wide, twice as deep as wide, wedge-shaped. Pronotum dropping abruptly in front, concave, dorsum convex. Mesonotum feebly convex, truncated behind, three times longer than the truncate face behind, posterior angle sharply rounded. Epinotum straight, one-third shorter than the declivity, the spine as long as broad at base, posterior border of dorsum bluntly rounded, anterior face dropping at an acute angle, straight. Node scale-like, broad, convex in front, concave behind, angles feebly produced backwards, dorsum entire, in profile slender, anterior face convex, posterior face concave, dorsum sharp, midway between base and apex at each side is a small blunt spine. Gaster one-third longer than broad strongly convex. Legs short and robust.

*Male and Female* unknown.

Collected by J. Clark, Esq.

*Material examined.* Several specimens from among dead leaves.

*Type locality.* Reevesby Island, South Australia.

*Type.* Holotype worker in National Museum, Victoria.

## STIGMACROS (CAMPOSTIGMACROS) MARGINATA sp. nov., figs. 82-84.

*Worker.* Length 2 mm. Brown with narrow black margins on mesonotum and epinotum, legs yellowish brown, mandibles yellow.

Head smooth with occiput faintly reticulate; thorax very finely reticulate.

Head slightly longer than broad, not broader behind than in front, sides deeply convex, occipital border straight, corners rounded; mandibles with four small teeth; clypeus rounded in front not carinated; frontal area semicircular, not distinct; frontal carinae short and parallel; scape extends beyond the occiput by a fifth; first segment as long as two following, second and third as broad as long, rest longer than broad; eyes flat, rather small, placed at middle of sides.

Pronotum twice as broad as long, sides and front almost straight, angles rounded; mesonotum broad as long, not much narrower behind than in front; meso-epinotal suture deep, epinotum one-quarter broader than long, slightly broader behind than in front, sides and posterior borders straight, corners sharp.

In profile pro-mesonotum straight and horizontal; suture deep; epinotum straight, not much shorter than the straight declivity, corner sharp; at upper third a short sharp spine as long as broad at base, directed backwards.

Node very broad, anterior border feebly convex, posterior border straight, corners sharp, dorsum entire. In profile as high as the dorsum of epinotum, anterior slightly convex border meeting the straight posterior border at a point. Legs slender.

*Male and Female* unknown.

Collected by Dr. W. M. Wheeler.

*Type locality.* Gosford, New South Wales.

## STIGMACROS (CAMPOSTIGMACROS) BRACHYTERA sp. nov., figs. 85-88.

*Worker.* Length 2.2 mm. Black, mandibles, antennae and legs except for black coxae, yellow.

Smooth and shining except for a few scattered microscopic punctures.

Hair yellow on front of head, pubescence whitish, very short, scattered throughout.

Head slightly longer than broad, slightly broader behind than in front, sides strongly convex, occipital border straight, corners rounded; mandibles with four or five small sharp teeth; clypeus not carinated, rather narrow, anterior border rounded, a little flattened at centre; frontal area large, semicircular, indistinct; frontal carinae short; scape extends beyond the occiput by twice thickness; first segment as long as three following, second and third equal, as broad as long, fourth and fifth equal, slightly longer than broad, rest longer than broad, apical as long as two preceding; eyes rather small, convex, placed at centre of sides.

Pronotum more than three times as broad as long, sides and front feebly convex, angles rather abrupt; mesonotum longer than broad, broader in front than behind, sides very feebly convex; meso-epinotal suture very deep and wide; epinotum slightly broader behind than in front, sides and posterior border almost straight, dorsum concave, stigma-bearing spines straight, stout, slightly longer than broad at base, directed backwards and slightly upwards. In profile anterior half of pronotum almost vertical, posterior half feebly convex; mesonotum feebly convex; meso-epinotal suture deep; anterior third of dorsum of epinotum vertical, rest flat and horizontal, and half as long as feebly concave declivity.

Node rather thick, three times as broad as long, anterior border convex, posterior border straight, angles sharp, dorsum concave in middle. In profile thick, as high as epinotum, nearly three times as high as long at base, feebly convex anterior border meeting the straight posterior border at a point; lateral spines small.

*Female.* Length 3.2 mm. Colour and sculpture of worker.

Head as in worker; eyes placed a little further back; ocelli very indistinct, they appear to be missing in some examples; or represented by merely a deep pit for the anterior ocellus.

Pronotum three as broad as long, sides and anterior border feebly convex, corners rounded; mesonotum short, one and a half times as broad as long, parapsidal furrows short and feebly impressed; scutellum broader than long, broader in front than behind; epinotum broader than long, sides and posterior border almost straight; the wings are short and extend only as far as the first segment of the gaster. Rest as in worker.

*Male* unknown.

Collected by Dr. W. M. Wheeler.

*Material examined.* A large number of both workers and females.

*Type locality.* Margaret River, Western Australia.

STIGMACROS (COMPOSTIGMACROS) EPINOTALIS sp. nov., figs. 89-91.

*Worker.* Length 2-3 mm. Head and gaster black, epinotum very dark brown, rest of thorax, node, legs, antennae and mandibles reddish yellow, funiculus darker.

Smooth and shining.

Head slightly longer than broad, as broad in front as behind, sides almost straight, occipital border feebly convex, angles rounded; mandibles with four teeth; clypeus rounded in front and above not carinated; frontal area semi-circular, posterior border indistinct; frontal carinae moderately long, parallel; scape extends beyond the occiput by a quarter; first segment as long as the two following, second shorter than third, broad as long, rest longer than broad, apical segment as long as two preceding; eyes flat, placed at the middle of the sides.

Pronotum twice as broad as long, sides and front convex, angles rounded; mesonotum longer than broad, broader in front than behind; meso-epinotal suture deep; epinotum broader than long, much broader behind than in front, sides feebly convex, and appear to merge into the spines which are very near the top of the declivity, posterior border concave. In profile pro-mesonotum flat, horizontal, meso-epinotal suture deep; epinotum flat, almost as long as the straight declivity; the spines on declivity very near the top, longer than broad at base, sharp.

Node reduced to a line, anterior border convex, posterior border convex, dorsum concave. In profile as high as the epinotum anterior border convex meeting the concave posterior border at a point, lateral teeth present. Legs slender.

*Male and female* unknown.

Collected by J. Clark, Esq.

*Material examined.* Twenty-six workers.

*Type locality.* Boong, Western Australia.

*probably Boanya*

## STIGMACROS (CAMPOSTIGMACROS) RETICULATA Clark, figs. 92-94.

*Stigmacros reticulata* Clark. Proc. Roy. Soc. Vict. 42, pt.2, p.127, 1929 ♂ ♀

*Worker.* Length 2.2-2.6 mm. Black, mandibles, antennae, except for the apical segments, tibiae and tarsi testaceous. Apical segments of the antennae and the femora brown.

Subopaque. Gaster smooth and shining. Head, thorax and node finely and densely reticulate.

Hair yellow, very short and sparse throughout. Pubescence very fine and adpressed, confined to the antennae and legs.

Head slightly longer than broad, the occipital border straight, the sides convex. Frontal carinae short, flattened parallel. Clypeus convex above, the anterior border convex and feebly emarginate in the middle. Eyes large, rather flat, placed at the posterior third of the sides. Scapes extending beyond the occipital border by barely one-quarter of their length; first segment of funiculus one-third longer than the second; mandibles armed with five sharp irregular teeth. Thorax one and three-quarter time longer than broad. Pronotum twice as broad as long, strongly convex in front and on the sides. Mesonotum longer than broad, broader in front than behind, convex above. Epinotum one-third broader than long, the posterior border concave, the angles bluntly produced; in profile the declivity abrupt, feebly concave, longer than the dorsum, the top angles produced, there is a long, sharp spine on each side at the superior third, longer than broad at the base, directed backward and outward. Node scale-like, four times broader than long, convex in front, straight behind, dorsum bluntly pointed, feebly concave in middle; in profile four times higher than long, the anterior face convex, the posterior feebly concave. Gaster longer than broad, concave in front below. Legs long and slender.

*Female.* Length 3.3 mm.

Closely resembles the worker, but differs in the following particulars:—The whole of the legs and the coxae testaceous, mandibles, antennae and node darker. Eyes larger, more convex. Ocelli large. Mesonotum large, with a distinct longitudinal carinae in the middle, parapsidal furrows distinct. Scutellum large, broader in front than behind. Epinotum fully twice as broad as long, the spines much stronger. Node more distinctly notched on top. Wings missing.

*Male.* Unknown.

Collected by J. Clark, Esq.

*Type locality.* Perth, Western Australia.

*Type.* Type in the National Museum, Victoria.

## STIGMACROS (CAMPOSTIGMACROS) ANTHRACINA sp. nov., figs. 95-97.

*Worker.* Length 2.3 mm. Black, gaster very dark brown, legs and mandibles and antennae yellowish brown.

Pronotum and mesonotum densely finely longitudinally striate, epinotum more transverse but not so densely striate, head and gaster smooth.

Hair yellowish confined to front of head, pubescence greyish, confined to funiculus.

Head slightly longer than broad, about as broad in front as behind, sides very feebly convex, posterior border almost straight, corners rounded; mandibles with four sharp teeth; clypeus rounded above and in front, not carinated; frontal area semicircular, distinct; frontal carinae short, parallel; scape extends beyond



the occipital border by a quarter; first segment of funiculus as long as the two following, second as long as broad, slightly smaller than third, rest longer than broad; eyes moderately large, convex, placed at middle of sides.

Pronotum three times as broad as long, sides and front almost straight; mesonotum as broad as long, broader in front than behind, sides margined and very feebly convex; epinotum one and a half times as broad as long, broader behind than in front, sides straight posterior corners produced, posterior border almost straight. In profile pronotum and mesonotum straight and horizontal; epinotum straight half as long as the straight declivity; the spines on dorsum long, directed backwards, at upper third of declivity the spines are long and sharp, about twice as long as those at end or dorsum.

Node about four times as broad as long, borders feebly convex, concave dorsum. In profile anterior feebly convex border is rounded into the short dorsum which meets the straight posterior border at a point, lateral spines distinct. Legs robust.

*Male and female unknown.*

Collected by A. M. Lea, Esq.

*Type locality.* Mt. Lofty, South Australia.

STIGMACROS (CAMPOSTIGMACROS) NITIDA sp. nov., figs. 98-100.

*Worker.* Length 2 mm. Head very dark reddish brown, thorax very slightly lighter, mandibles, antennae and legs dull brown.

Smooth and shining, sides of epinotum very densely microscopically punctate.

Head one-fifth longer than broad, as broad in front as behind, sides and occipital border almost straight, corners rounded; mandibles with four small sharp teeth; clypeus rounded in front and above, not carinated; frontal area semicircular indistinct; frontal carinae straight and parallel; scape extends beyond the occiput by a sixth; second and third segments of funiculus equal broad as long, rest longer than broad, eyes flat, placed just behind the middle of the sides.

Pronotum twice as broad as long, sides and front convex, corners rounded; mesonotum longer than broad, broader in front than behind, sides almost straight; epinotum a little broader behind than long, broader behind than in front, sides and posterior border almost straight, corners sharp. In profile promesonotum almost straight and horizontal; epinotum very feebly convex, as long as very feebly concave declivity, angle sharp; at upper third spines sharp and slender directed backwards.

Node reduced to a transverse line, concave on top. In profile narrow, anterior feebly convex border meeting the feebly concave border at a point. Legs robust.

*Male and female unknown.*

Collected by F. P. Spry, Esq.

*Material examined.* Ten workers.

*Type locality.* Fern Tree Gully, Victoria.

STIGMACROS (CAMPOSTIGMACROS) PILOSELLA Viehmeyer, figs. 101-103.

*Acantholepis (Stigmacos) pilosella* Viehmeyer, Ent. Mitt. Berl. 14, p.33, 1925 ♀

*Worker.* Length 2 mm. Head reddish brown, pronotum and mesonotum, node, legs, antennae more yellowish brown, epinotum, except for the yellowish spines, and also the gaster black or brownish black.

Smooth and shining, sides of meso-epinotum feebly shagreened.

Hair hardly noticeable; pubescence yellowish, adpressed, fine, confined to the funiculus.

Head one-third longer than broad, sides convex, occipital border convex, posterior angles rounded; mandibles triangular with four small sharp teeth; clypeus rounded above, not carinated, anterior border rather straight in middle; frontal area indistinct; frontal carinae short and straight; scapes extend beyond the occiput by about a fifth; first segment of funiculus as long as the two following, second to fifth almost equal, little longer than broad, rest nearly twice as long as broad, apical as long as the preceding two; eyes moderately large, placed just behind the middle of the sides.

Pronotum twice as broad as long, sides and anterior border feebly convex; promesonotal suture deep; mesonotum as broad as long, sides straight and posterior corners produced backwards as very small teeth; no metanotum but a deep wide suture before the epinotum; epinotum twice as broad behind as in front, sides feebly convex and produced behind as small teeth which curve inwards slightly at the tips, posterior border feebly concave though the spines give the appearance of a stronger curve. In profile pronotum is convex in front, the posterior half of pronotum, and the mesonotum almost horizontal and flat; meso-epinotal suture deep; dorsum of epinotum rises abruptly from this suture, convex one-third as long as the declivity; epinotal spines long, slender, directed backwards and slightly upwards.

Node elliptical, five times as broad as long, anterior border feebly convex, posterior border almost straight, upper surface entire. In profile very slender with borders almost straight, bluntly pointed at top, the spines on the sides hardly noticeable. Legs robust.

*Male and Female* unknown.

Collected by J. W. T. Armstrong, Esq.

Redescribed from specimens taken at Nyngan, New South Wales.

*Type locality.* Liverpool, New South Wales.

*Type in* Viehmeyers collection, Museum Anthropol., Dresden.

#### STIGMACROS (CAMPOSTIGMACROS) ELEGANS McAreavey, figs. 104-106.

*Stigmacros elegans* McAreavey Proc. Linn. Soc. N.S.W., 74, pts. 1-2,  
p.24, 1949 ♂ ♀

*Worker.* Length 1.8-2 mm. Head and thorax shining black; node very dark brown on top but light brown towards the base; gaster clear brown or amber; legs, mandibles and antennae brownish yellow with funiculus slightly darker.

Head shining, shagreened and almost punctate; thorax, node and gaster smooth and shining except for some very scattered elongated scratches.

Pilosity hardly noticeable on any part of body.

Head, excluding mandibles, slightly longer than broad; sides feebly convex, occipital border straight, corners rounded; mandibles triangular with at least four strong teeth; clypeus convex above, anterior border rounded; frontal area indistinct; frontal carinae short, almost parallel; scape extends beyond occiput very slightly, by a thickness; first segment of funiculus as long as two following, second to eighth as broad as long, ninth twice as long as broad; apical nearly three times as long as broad, and longer than two preceding; eyes large, convex, placed at middle of sides.

Pronotum twice as broad as long, strongly convex in all directions; promesonotal suture deeply impressed; mesonotum slightly broader than long, broader in front than behind, sides convex; meso-epinotal suture deep and wide; epinotum nearly twice as broad as long, broader behind than in front, anterior corners rounded, sides almost straight, posterior border concave. In profile the pronotum and mesonotum are flat, rounded in front and truncated behind. The dorsum of epinotum is flat and shorter than the slightly concave declivity, which is almost at right angles to the dorsum. Very near the top of the declivity is a short broad tooth directed backwards.

Node transverse, three times as broad as long, feebly notched on top. In profile it is thorn-like, twice as high as long, the anterior face feebly convex and rounded into the short dorsum, while the posterior face is almost straight and vertical. Legs short and robust.

*Female.* Length 2.2-2.8 mm. Colour as in worker, but the gaster is much darker.

Sculpture as in worker but the thorax is more shagreened, especially on the epinotum.

Head as in worker, except there are three very small and indistinct ocelli. Pronotum is almost three times as broad as long, with anterior border and sides almost straight, anterior corners abrupt, almost right-angles, though not sharp; mesonotum broader than long with distinct parapsidal furrows; scutellum large, broader than long, slightly broader in front than behind; rest as in worker.

*Male* unknown.

Collected by J. W. T. Armstrong, Esq.

*Type locality.* Nyngan, New South Wales.

*Type.* Holotype worker in Collection at Commonwealth Scientific and Industrial Research Organization, Canberra.

#### STIGMACROS (CAMPOSTIGMACROS) AEMULA Forel, figs. 107-111.

*Stigmacros aemula* Forel, Fauna S-W. Aust. 1, p.298, 1907 ♀

*Stigmacros aemula* Emery, Gen. Insect. fasc. 183, p.34, 1925 ♀

*Stigmacros aemula* Wheeler, Journ. Roy. Soc. W.A. p.159, 1934 ♀

*Worker.* Length 1.7-2 mm. Colour varies slightly; some examples almost uniformly brown, often head and gaster dark reddish brown or brownish black; thorax and node reddish brown with mesonotum lighter; funiculus brown; legs, scapes and mandibles reddish yellow. In examples with thorax lighter red the epinotum has a black margin on the sides.

Shining head smooth with very faint rugae around the insertions of scapes and on occiput; thorax microscopically rugulose longitudinally, more transversely so on epinotum, anterior face of node microscopically punctate.

Almost hairless, pubescence yellowish, fine adpressed, confined to funiculus and legs.

Head rectangular, one-fifth longer than broad, sides almost straight, occipital border feebly concave, posterior angles rounded, mandibles with five small sharp teeth; clypeus not extending to the corners of head, rounded above, not carinated, anterior border rounded and very slightly impressed at the centre; frontal area semicircular, rather indistinct; frontal carinae short, almost parallel; scapes

extend beyond the occiput by sixth; first segment of funiculus almost as long as three following, second to seventh broad as long, rest longer than broad, apical as long as the two preceding; eyes placed at middle of sides.

Pronotum twice as broad as long, front convex, sides almost straight, broader in front than behind; mesonotum as long as broad narrowed behind, sides very feebly convex; epinotum nearly twice as broad behind as long, anterior border three-quarters the length of posterior border, anterior border and sides straight, posterior border concave; epinotal spines long, sharp and slender, directed backwards, and slightly outwards. In profile whole dorsum is flat with anterior border rounded and epinotal declivity which is slightly longer than dorsum of epinotum, almost straight and vertical; epinotal spines at upper third.

Node very short, anterior border convex, posterior border concave, dorsum slightly concave. In profile narrow, though the curved anterior face gives the appearance of a broad node, anterior border convex meeting the almost straight posterior border at a point; lateral teeth small. Legs robust.

*Female.* Length 2.5 mm. Dark brown, legs, node, scape, mandibles more yellowish brown.

Sculpture of worker but head and thorax has also microscopic punctation.

Head similar to that of worker but sides more convex, occipital border almost straight; mandibles with stout teeth the apical one being very long; frontal groove reaches anterior ocellus; eyes large placed slightly behind middle of sides; ocelli small but distinct.

Pronotum from above sort, anterior border convex, sides almost straight, corners rounded; mesonotum broader than long, parapsidal furrows impressed, scutellum large, broader than long, broader in front than behind; epinotum three times as broad as long, broader behind than in front, sides almost straight, anterior and posterior borders concave. In profile pronotum convex feebly, mesonotum higher than pronotum and scutellum, feebly convex; scutellum straight, epinotum feebly convex and half as long as the almost straight declivity.

Node larger than that of worker, anterior border convex, posterior border straight. In profile similar to that of worker. Gaster moderately large. Legs relatively more slender, but nevertheless robust.

*Male.*—Unknown. Redescribed from large numbers of specimens taken by Miss A. Baesjou, of Boonya, Western Australia.

*Type locality.* Fremantle, Western Australia.

*Type.* In Forel's collection, Museum of Natural History, Geneva.

#### STIGMACROS (CAMPOSTIGMACROS) INTACTA Viehmeyer, figs. 112-114.

*Stigmacros aemula* var. *intacta*. Viehmeyer, Ent. Mitt. Berl. 14, p.34, 1925 ♀

*Worker.* Length 2-2.2 mm. Head and gaster brownish black; pronotum and mesonotum reddish brown; epinotum and node darker brown; legs, scape and mandibles reddish yellow.

Smooth and shining; epinotum feebly shagreened.

Head slightly longer than broad, as broad in front as behind, sides very feebly convex, occipital border straight, posterior angles rounded; mandibles with four small teeth; clypeus not carinated, extending to corners of head, anterior border entire and rounded; frontal area semi-circular, rather indistinct; frontal carinae short, almost parallel; scape extends beyond occiput by fifth; first

segment as long as two following, second slightly longer than third, fourth to seventh as broad as long, rest longer than broad; eyes moderately large, flat, placed at middle of sides.

Pronotum one and three-quarter times as broad as long, front convex, sides almost straight; mesonotum as long as broad in front, narrowed behind, sides almost straight; epinotum broader than long, broader behind than in front, sides straight, posterior border feebly concave, dorsum slightly concave. In profile pro-mesonotum forms a very feeble convexity, almost flat; dorsum of epinotum feebly convex and as long as the almost straight declivity; epinotal spines long, sharp and slender.

Node very short with convex anterior border and concave posterior border, dorsum concave. In profile narrow, feebly convex, anterior border meeting almost straight posterior border at a sharp point. On each side about the middle is a small triangular tooth directed outwards. Legs robust.

*Male and Female* unknown.

Redescribed from specimens taken by E. Sutton, at Stanthorpe, Queensland.

*Type Locality.* Trial Bay, New South Wales.

*Type.* In Viehmeyer's collection, Museum Anthropol. Zool., Dresden.

#### STIGMACROS (CAMPOSTIGMACROS) STANLEYI sp. nov., figs. 115-117.

*Worker.* Length 2 mm. Head, thorax and node reddish brown, mandibles, antennae and legs yellowish brown, gaster dark brown.

Head smooth with sparse microscopic punctures; thorax microscopically densely reticulate punctate; node and gaster smooth.

Hair very sparse, silvery, confined to clypeus and apex of gaster; pubescence silvery, adpressed, confined to funiculus.

Head one-fifth longer than broad, sides and occipital border feebly convex, angles rounded; mandibles with five sharp irregular teeth; clypeus not carinated, rounded above and in front; frontal area semicircular, indistinct; frontal carinae very short, almost parallel; scape extends beyond the occipital border by almost a sixth; first segment longer than the two following, second to fourth almost equal, as broad as long, rest longer than broad, apical as long as two preceding; eyes flat, placed about the middle of sides.

Pronotum twice as broad as long, front and sides feebly convex, corners rounded; mesonotum longer than broad in front, broader in front than behind, sides very feebly convex; epinotum broader than long, broader behind than in front with sides and posterior border almost straight, posterior corners sharp; spines on declivity long, robust, directed backwards and slightly outwards. In profile thorax flat, almost straight with a deep impression at the meso-epinotal suture; dorsum of epinotum flat and shorter than the almost straight declivity.

Node almost reduced to a margined line, anterior border convex, posterior border concave, dorsum slightly concave. In profile scale-like, anterior convex border meeting the straight posterior border at point; lateral teeth small. Legs short, robust.

*Male and Female* unknown.

Collected by J. McAreavey.

*Material examined.* Seventeen workers.

*Type locality.* Greensborough, Victoria.

STIGMACROS (CYRTOSTIGMACROS) Subgenus novum.

Pronotum and mesonotum convex with the suture between very faint. The metanotum is distinct and in profile it appears as small cone or hump. On each side is a distinct spiracular tubercle. Between the metanotum and epinotum is a marked depression. The epinotum is armed with small spines placed about the middle on each side of the declivity. In many species the node is armed with tiny lateral teeth.

Subgenotype *Acantholepis* (*Stigmacros*) *australis* Forel.

Key to species.

1. Dorsum of epinotum broader than long. . . . . 8
- Dorsum of epinotum not distinctly broader than long. . . . . 2
2. Scape extends beyond occiput by more than third of its length. . . . . 3
- Scape not extending beyond occiput by more than third. . . . . 4
3. Head and dorsum of thorax entirely smooth. Black or deep reddish brown. Length 3.3 mm. . . . . *australis* Forel.
- Head and dorsum of thorax not entirely smooth. Castaneous with back of head darker. Length 2.7-3.4 mm. . . . . *termitoxenus* Wheeler.
4. Clypeus carinated . . . . . 5
- Clypeus not carinated. Dark brown with antennae, legs and mandibles yellowish brown. Length 2.3-2.5 mm. . . . . *striata* sp. nov.
5. Clypeus produced to a point in front. Black, antennae, mandibles, legs reddish brown. Length 3.8 mm. . . . . *major* sp. nov.
- Clypeus not produced to a point in front. . . . . 6
6. Dorsum of epinotum more than a third of declivity. . . . . 7
- Dorsum of epinotum not more than third of declivity. Reddish brown, legs, antennae and mandibles lighter. Length 2.1-2.3 mm. . . . . *ferruginea* sp. nov.
7. Scape extends beyond occiput by third. Brownish black, legs, and antennae lighter. Length 2.2-5 mm. . . . . *lanaris* sp. nov.
- Scape extends beyond occiput by quarter. Yellowish brown, head and posterior two-thirds of gaster darker, legs, mandibles, antennae paler brown. Length 1.9-2.5 mm. . . . . *occidentalis* Clark.
8. Clypeus carinated . . . . . 9
- Clypeus not carinated . . . . . 14
9. Dorsum of epinotum at least one and a half times as broad as long . . . . . 10
- Dorsum less than one and a half times as broad as long. . . . . 11
10. Scape extends beyond occiput by a third. Deep reddish brown, mandibles, antennae, legs lighter. Length 2.7-3.2 mm. . . . . *clivispina* Forel.
- Scape extends beyond occiput by quarter. Dull yellow, posterior half of gaster darker. Length 2.2 mm. . . . . *flava* sp. nov.
11. Scape extends beyond occiput by third. . . . . 12
- Scape extends beyond occiput by less than third. . . . . 13
12. Colour uniform; reddish brown. Length 2.3-2.6 mm. . . . . *castanea* sp. nov.
- Colour not uniform; head and gaster almost black, rest brownish. Length 2.2-2 mm. . . . . *extreminigra* sp. nov.



margined, posterior border feebly concave, the dorsum feebly concave and distinctly angulate behind. In profile pronotum convex; mesonotum evenly convex and slightly higher than the pronotum; metanotum raised as a small very distinct hump; anterior border of epinotum sloping, rest of dorsum flat and horizontal and half as long as the very feebly concave sloping declivity; sharp small stigma-bearing spines at the upper third of the declivity, directed backwards and upwards.

Node transverse with anterior border convex, posterior border straight, corners sharp, dorsum concave in middle. In profile node thin, as high as epinotum with feebly convex anterior face meeting straight posterior border at a sharp point; about middle of each side is a small tooth directed outwards. Legs rather long and slender.

*Male and Female* unknown.

*Material examined.* Fourteen workers collected by Dr. W. M. Wheeler, at Heathcote, New South Wales.

*Type locality.* Richmond, New South Wales.

*Type.* In Forel's collection, Museum Natural History, Geneva.

#### STIGMACROS (CRYPTOSTIGMACROS) TERMITOXENUS Wheeler, figs. 122-124.

*Stigmacros termitoxenus* Wheeler, Proc. Amer. Acad. Arts and Science, 71, No.3, p.215, 1936 ♂ ♀

*Worker.* Length 2.7-3.4 mm. Castaneous, posterior portion of head darker, sometimes gaster also darker; mandibles, antennae, legs and petiole pale yellowish brown.

Reticulate especially on back of head and the thorax; mandibles smooth and shining with a few small punctures.

Hair whitish, sparse, confined to front of head and gaster; pubescence white, adpressed, confined to antennae and legs.

Head slightly longer than broad, broader behind than in front, sides feebly convex, occipital border straight, posterior corners rounded; mandibles narrow with four teeth of which apical is longest; clypeus convex, sharply carinated, anterior border broadly rounded; frontal area semicircular, posterior margin faint; frontal carinae straight, diverging slightly behind; scapes extend beyond the occipital border by slightly more than two-fifths of their length; first segment of funiculus as long as two following, second segment one and a half times as long as broad, rest twice as long as broad, apical almost as long as two preceding together; eyes rather large, and convex, placed just behind the middle of the sides.

Pronotum twice as broad as long, sides and anterior border feebly convex, anterior angles rounded, dorsum impressed slightly in middle; pro-sonotal suture impressed; mesonotum one-quarter longer than broad, broader in front than behind, sides straight; meso-metanotal suture merely indicated by transverse impression; metanotum distinct, twice as broad as long, with raised stigmata; meta-epinotal suture deep; epinotum longer than broad with sides and posterior border almost straight, posterior angles sharp. In profile anterior half of pronotum sloping, posterior half rather flat; mesonotum feebly convex; metanotum raised at a small hump; dorsum of epinotum feebly convex, and half as long as the feebly concave posterior border; stigma-bearing spines on each side of the declivity small, sharp, not longer than wide at base.



Node transverse, very feebly concave in centre. In profile thin, as high as epinotum with distinctly convex anterior border meeting the straight posterior border at a point; on each side is a small tooth, directed outwards and upwards. Legs rather long.

Redescribed from co-type workers.

*Female.* As described by Dr. W. M. Wheeler (page 217). (Apterous and ergatomormorphic). Length 4.6 mm. Closely resembling the worker, but the head is broader, as broad as long, with somewhat less convex sides, slightly larger eyes but without ocelli. Thorax stouter, its pronotum broader in proportion to its length and with more prominent humeri; mesonotum as broad as long and more convex than in worker. Petiole slightly higher than epinotum and even thinner than in worker, with the apical border narrower and distinctly emarginate in the middle. Gaster very large, physogastric, decidedly longer than the head and thorax together.

Sculpture, pilosity and colour as in the worker except that the legs are paler yellow and the gaster is brown like the thorax.

*Male.* Unknown.

*Material examined.* Originally described by Professor Wheeler from ten workers and a single female, taken from a small termitary of *Nasutitermes (Tumulitermes) peracutus* Hill.

*Type locality.* Mullewa, Western Australia.

*Type.* In Collection at Harvard University, Washington, U.S.A.

STIGMACROS (CRYPTOSTIGMACROS) STRIATA sp. nov., figs. 125-127.

*Worker.* Length 2.3-2.5 mm. Dark brown, antennae, legs, mandibles yellowish brown.

Head smooth, pronotum transversely striate, mesonotum longitudinally striate, epinotum transversely striate.

Head slightly longer than broad, sides feebly convex, occipital border almost straight, posterior corners rounded; mandibles triangular, with four reddish sharp teeth; clypeus rounded above, not carinated, anterior border rounded; frontal area semicircular, distinct; frontal carinae short and straight; scape extends beyond the occipital border by a third, first segment of funiculus as long as the two following, third longer than broad, rest twice as long as broad, apical as long as two preceding; eyes rather flat, placed just behind the middle of sides.

Pronotum twice as broad as long, sides and anterior border feebly convex, anterior corners abrupt; mesonotum about as broad as long, with sides almost straight; metanotum raised with two stigmata, epinotum slightly broader than long, slightly broader in front than behind, sides and posterior border almost straight, posterior corners rounded, dorsum concave. In profile pronotum and mesonotum form an even low convexity; metanotum raised as a hump; epinotum straight about half as long as the straight declivity; at upper third the stigma-bearing spines are long, sharp and slender, directed backwards and upwards.

Node almost reduced to a transverse line, anterior border feebly convex, posterior border straight, dorsum concave in centre. In profile node thin, the feebly convex anterior border meets the feebly concave border at a point. On each side is a small spine. Legs robust.

*Female.* Length 3.1 mm.

*Colour* and pilosity of worker.

Head similar to that of worker but slightly broader; eyes very large and very convex; ocelli small but distinct; scapes extend beyond the occipital border by a fifth.

Thorax smooth except for traces of reticulation on epinotum. Pronotum hardly noticeable from above; mesonotum broad as long with parapsidal furrows impressed; scutellum broader than long, triangular, broader in front than behind; mesoepinotal suture wide; epinotum three times as broad as long, broader in front than behind, sides and posterior border almost straight, posterior corners rounded. In profile pronotum vertical; mesonotum with anterior third convex, rest of mesonotum and scutellum straight and horizontal; epinotum straight and rounded into the declivity which is twice as long as the dorsum; on each side about the middle is a small tooth.

Node about five times as broad as long, not concave in middle. In profile node as high as the epinotum, three times as high as long, anterior and posterior borders almost straight, upper border convex. Legs slender.

*Male.* Length 2.5 mm. Uniformly brown with mandibles yellowish.

Smooth except for traces of reticulation on sides of epinotum.

Head as broad as long, sides convex, occipital border feebly convex, posterior corners rounded; mandibles small, denticulate; clypeus rounded above and in front, not carinated; frontal area triangular, distinct; frontal carinae short, diverging slightly behind; scapes extend beyond occipital border by almost a third, all segments longer than broad; eyes large, hemispherical; ocelli whitish, distinct.

Pronotum narrow, hardly noticeable from above; mesonotum slightly broader than long, parapsidal furrows distinct; scutellum broader in front than behind, broader than long; epinotum almost three times as broad as long, merging into the declivity so that the posterior border is difficult to see, the stigma-bearing spines are very small. In profile pronotum vertical; mesonotum scutellum and postscutellum feebly convex; epinotum short, convex, rounded into the feebly convex declivity.

Node four times as broad as long, anterior border feebly convex, posterior border feebly concave, sides convex. In profile node as high as the epinotum, about two and a half times as high as long, with anterior and posterior borders feebly convex. Legs slender.

Collected by Dr. W. M. Wheeler.

*Material examined.* Thirty workers, four females and five males.

*Type locality.* Hornsby, New South Wales.

STIGMACROS (CYRTOSTIGMACROS) MAJOR sp. nov., figs, 128-130.

*Worker.* Length 3.8 mm. Shining black, antennae reddish brown, mandibles and legs reddish brown.

Smooth and shining.

Hair brown confined to clypeus and apex of gaster; pubescence greyish, adpressed confined to funiculus.

Head slightly longer than broad, broader behind than in front, sides feebly convex, occipital border almost straight, posterior corners rounded; mandibles triangular with four moderately large, sharp teeth; clypeus strongly carinated, produced to a point in front; frontal area semicircular, distinct; frontal carinae as long as distance apart, diverging slightly behind; scape extends beyond occipital border by a third; first segment of funiculus as long as the two following, second slightly shorter than third; rest longer than broad, apical as long as the two preceding; eyes rather small, rather flat, placed just behind the middle of the sides.

Pronotum nearly three times as broad as long, sides and anterior borders feebly convex, dorsum depressed in middle; meso-metanotal suture impressed; mesonotum as broad as long, broader in front than behind, sides almost straight; metanotum raised, stigmata distinct; meta-epinotal suture deep and broad; epinotum very slightly broader than long, very slightly broader in front than behind, sides and posterior border almost straight, posterior corners sharp, dorsum concave. In profile pronotum with anterior half convex, posterior half rather flat; mesonotum feebly convex; metanotum raised as a small hump; epinotum almost straight, about one-quarter shorter than the feebly concave declivity, posterior corners produced as sharp short teeth; at upper third on each side a sharp, slender spine, directed backwards and upwards.

Node large, elliptical, three times broader than long with anterior and posterior borders convex, dorsum concave in middle. In profile node three times as high as long, anterior border convex meeting the almost straight posterior border at a point. There are no spines on the sides of node. Legs robust.

*Male and Female unknown.*

Collected by H. Hacker, Esq.

*Type locality.* National Park, Queensland.

**STIGMACROS (CRYPTOSTIGMACROS) FLAVA** sp. nov., figs. 131-133.

*Worker.* Length 2.2 mm. Very dull yellow with posterior half of gaster darker.

Head very finely shagreened, thorax shagreened, sides of thorax densely microscopically reticulate; gaster smooth.

Head slightly longer than broad, broader behind than in front, sides convex, occipital border straight, posterior angles rounded; mandibles with four sharp, dark teeth; clypeus carinated rounded in front; frontal area small semicircular; frontal carinae straight and as long as distance apart; scapes extend beyond the occipital border by a quarter; first segment as long as the two following, second shorter than the third, third to fifth equal, a little longer than broad, rest twice as long as broad, apical as long as the two preceding; eyes moderately large, convex, placed just behind the middle of the sides.

Pronotum three times as broad as long, sides and anterior border feebly convex, anterior angles rounded; mesonotum broad as long, broader in front than behind, sides almost straight; meso-metanotal suture faint; metanotum raised with distinct stigmata; meta-epinotal suture broad; epinotum almost twice as broad as long, slightly broader in front than behind; sides feebly convex, posterior border straight, posterior angles sharp dorsum concave. In profile anterior half of pronotum vertical, posterior half flat; mesonotum convex; metanotum hump-shaped; epinotum straight, long as the feebly concave declivity, posterior corners sharp; at upper third the spines on the declivity are stout and sharp, directed backwards and upwards.

Node reduced to a transverse line, anterior border feebly convex, posterior border straight. In profile thin, anterior border feebly convex meeting the straight posterior border at a point. No spines on the sides. Legs slender.

*Male and Female* unknown.

Collected by J. Clark, Esq.

*Material examined.* Twenty-eight workers.

*Type locality.* Mundaring, Western Australia.

STIGMACROS (CYRTOSTIGMACROS) GLAUERTI sp. nov., figs. 134-136.

*Worker.* Length 2 mm. Head and gaster dark reddish brown, thorax, node, legs, antennae dark brown.

Head smooth and shining; thorax densely, very finely microscopically punctate, sides more transversely striate.

Head longer than broad, as broad in front as behind, sides feebly convex, posterior border straight, posterior corners rounded; mandibles with four teeth; clypeus not carinated, rounded in front; frontal area small but distinct; semi-circular; frontal carinae short and straight; scapes extend beyond the occipital border by a quarter; first segment of funiculus as long as the two following, second a little shorter than the third, both as broad as long, remaining segments longer than broad, apical segment as long as two preceding; eyes moderately large, convex, placed at centre.

Pronotum three times as broad as long, sides and anterior border feebly convex; mesonotum as broad as long, broader in front than behind, sides very feebly convex; meso-metanotal suture indistinct; metanotum raised with distinct stigmata; meta-epinotal suture broad; epinotum one and a quarter times as broad as long, as broad in front as behind, sides straight, posterior border very feebly concave. In profile pronotum convex, mesonotum convex; metanotum hump-shaped; epinotum straight, elevated behind, almost half as long as straight declivity, posterior corners sharp; spines on declivity sharp and slender.

Node reduced to a transverse, concave in centre. In profile slender, anterior feebly convex meeting straight posterior border at point. Legs robust.

*Male and Female* unknown.

Collected by L. Glauert, Esq.

*Type locality.* Darlington, Western Australia.

STIGMACROS (CYRTOSTIGMACROS) CLARKI sp. nov., figs. 137-139.

*Worker.* Length 2 mm. Dull yellow with head and gaster slightly darker, mandibles yellow.

Head smooth, thorax faintly shagreened, epinotum more reticulate punctate, declivity rather transversely striate.

Head slightly longer than broad, broader behind than in front, sides feebly convex, posterior border almost straight; mandibles with four sharp teeth; clypeus carinated rounded in front; frontal area distinct; frontal carinae almost straight, as long as distance apart; scape extends beyond the occipital border by a quarter; second segment shorter than third, third to fifth equal slightly longer than broad, rest increasing in length; eyes moderately large, convex, placed just behind middle.

Pronotum about four times as broad as long, sides and anterior border almost straight, angles abrupt; mesonotum as broad as long, sides feebly convex; metanotum raised stigmata distinct; epinotum margined, one and a quarter times as broad as long, slightly broader in front than behind, with sides straight, posterior border very feebly concave, corners sharp, dorsum concave. In profile pronotum convex; mesonotum convex, rather flat, metanotum humped; epinotum straight and half as long as the feebly concave declivity, posterior corner sharp almost toothed; spines on declivity small and blunt.

Node reduced to a transverse line, very slightly concave in middle. In profile thin, anterior feebly convex border meeting almost straight posterior border at a point. Legs slender.

*Male and Female* unknown.

Collected by J. Clark, Esq.

*Material examined.* Twenty-one workers.

*Type locality.* Ludlow, Western Australia.

#### STIGMACROS (CYRTOSTIGMACROS) BROOKSI sp. nov., figs. 140-144.

*Worker.* Length 2.5 mm. Head yellowish brown with the mandibles lighter yellow; thorax, node and legs yellow; gaster dull brownish yellow.

Head smooth and shining, thorax shagreened, sides of mesonotum and epinotum densely microscopically punctate; gaster smooth.

Head one-fifth longer than broad, broader behind than in front, sides feebly convex, occipital border almost straight; mandibles with four small sharp teeth; clypeus not carinated, rounded in front; frontal area semicircular, not very distinct; frontal carinae short, diverging very slightly; scape extends beyond the occipital border by a quarter; second slightly shorter than third, third to ninth about twice as long as broad; eyes large, convex, placed just behind the middle of the sides.

Pronotum about four times as broad as long, sides and anterior border very feebly convex, corners abruptly rounded; mesonotum slightly longer than broad, broader in front than behind, sides very feebly convex; metanotum raised, stigmata distinct; epinotum one and a quarter times as broad as long, slightly broader in front than behind, sides feebly convex, posterior border almost straight, posterior corners rounded, dorsum concave. In profile pronotum convex; mesonotum convex; metanotum humped; epinotum convex in front, the posterior two-thirds straight, elevated behind, about a third as long as the feebly concave declivity, posterior angle sharp; spines on declivity rather slender.

Node reduced to a transverse line, concave in middle. In profile slender, anterior convex border meeting the slightly concave posterior border at a point. Legs slender.

*Female.* Length 3.1 mm. Head, thorax, node, antennae and legs brownish yellow; gaster very dark brown.

Head similar to that of worker but as broad as long; clypeus very faintly carinate on anterior half; frontal carinae more diverging; eyes large; ocelli white very distinct; scape extends beyond the occipital border by a sixth.

Pronotum short, almost concealed by mesonotum, sides straight, anterior border feebly convex, angles rather abrupt; mesonotum, broader than long, parapsidal furrows very distinct; scutellum triangular, broader in front than

behind, almost triangular; epinotum short about four times as broad as long, merging into the declivity so that the posterior border is indistinct; spines on declivity short and blunt. In profile pronotum vertical; rest of thorax forms a low even convexity; dorsum of epinotum about a third as long as the sloping declivity; the spines on the declivity are hardly noticeable.

Node three and a half times as broad as long, elliptical, dorsum slightly concave. In profile low, twice as high as long, rather thick, anterior and posterior borders almost straight, dorsum rounded. Legs slender.

*Male.* Length 2.1 mm. Entirely yellowish brown.

Head and thorax smooth with a few scattered striae on thorax.

Head slightly broader than long, sides strongly convex, posterior border feebly convex; mandibles narrow, denticulate; clypeus large, rounded in front not carinate; frontal area triangular, very distinct; frontal carinae diverging behind, short; scapes extend beyond occiput by about half their length; second to fourth segments of funiculus as broad as long, equal, rest longer than broad, apical as long as two preceding; eyes large, hemispherical; ocelli white, very distinct.

Pronotum hardly seen from above; mesonotum large, broader than long, parapsidal furrows very distinct; scutellum triangular, broader in front than behind, broader than long; epinotum short merging into the declivity so it is difficult to judge its size. In profile pronotum vertical; mesonotum convex in front, flattened behind; scutellum feebly convex, dorsum and declivity of epinotum form an even convexity.

Node about three times as broad as long, elliptical, dorsum concave slightly. In profile low, two and a half times as high as long, anterior and posterior borders almost straight dorsum rounded. Legs slender.

Collected by W. S. Brooks, Esq.

*Material examined.* Twelve workers, three males and two females.

*Type locality.* Manjimup, Western Australia.

#### STIGMACROS (CYRTOSTIGMACROS) LANARIS sp. nov., figs., 145-148

*Worker.* Length 2-2.5 mm. Black or brownish black with antennae, neck, knees, tibiae, tarsi and mandibles reddish brown.

Head smooth and shining, thorax and node feebly shagreened, more so on epinotum, sides of mesonotum and epinotum reticulate punctate, gaster smooth.

Hair yellowish, long, confined to clypeus and apex of gaster, there are also whitish short hairs throughout; pubescence yellowish, confined to funiculus.

Head slightly longer than broad, sides convex, occipital border straight, posterior corners rounded; mandibles triangular, with five small teeth; clypeus rounded above, very feebly carinated on anterior half, anterior border rounded; frontal area semicircular, large frontal carinae straight and almost parallel; scape extends beyond the occipital border by a third; first segment of funiculus as long as two following, second to fifth of equal length, all segments about one and a half times as long as broad, apical as long as the two preceding; eyes rather small, rather flat, placed behind the middle of sides.

Pronotum twice as broad as long, sides and anterior border convex, anterior corners rounded; mesonotum as broad as long, and slightly broader in front than behind; meso-metanotal suture indistinct; metanotum raised, stigmata distinct;

meta-epinotal suture very deep and wide; epinotum slightly broader than long, sides straight, posterior border very feebly concave, dorsum concave. In profile pronotum feebly concave on anterior half, posterior half and mesonotum rather flat; metanotum elevated as a small hump; meta-epinotal suture deep; anterior third of epinotum straight and almost vertical, rest of dorsum straight and horizontal, less than half as long as straight declivity; at upper third are slender stigma-bearing spines, directed backwards and upwards.

Node reduced to a transverse line, the dorsum concave in middle. In profile very slender, as high as epinotal spines, anterior feebly convex border meets straight posterior border in a sharp point. On each side near the base is a small tooth directed outwards. Legs slender.

*Female.* Length 4.5 mm. Colour, sculpture and pilosity of worker.

Head similar to that of worker, but mandibles with five rather even small teeth; clypeus distinctly carinated; eyes comparatively larger and more convex; scape extends beyond occipital border by a quarter; ocelli present but being dark are not very distinct.

Pronotum from above almost concealed by mesonotum; mesonotum massive, as broad as long, parapsidal furrows marked; scutellum broader than long, broader in front than behind; before the epinotum is a broad suture; epinotum three times as broad as long, broader in front than behind, anterior and posterior borders feebly concave, posterior corners rounded, dorsum slightly concave. In profile pronotum vertical, anterior quarter of mesonotum convex rest of thorax almost horizontal; dorsum of epinotum straight and about a third as long as the sloping declivity; at upper third on each side is a short stout spine, directed backwards and upwards.

Node reduced to a transverse line, feebly concave in middle. In profile node scale-like, anterior border feebly convex, posterior border straight. There are no teeth on the sides of node. Legs short and slender.

*Male* unknown.

Collected by J. J. McAreavey, for Dr. Claire Burke.

*Material examined.* Sixteen workers and one female.

*Type locality.* Pymble, New South Wales.

#### STIGMACROS (CYRTOSTIGMACROS) OCCIDENTALIS Crawley, figs. 149-151.

*Stigmacros occidentalis* Crawley, Ann. Mag. Nat. Hist., 9, 10, p.30, 1922 ♂

*Worker.* Length 1.9-2.5 mm. Yellowish brown, sometimes entirely brown, head and posterior two-thirds of gaster darker, mandibles, antennae and legs paler brown.

Head smooth and shining, thorax rugulose longitudinally, epinotum rather transversely so, and declivity of epinotum shining, gaster smooth and shining.

Hair yellowish, confined to the mandibles and apical segment of gaster; pubescence very fine, adpressed, dense on funiculus but elsewhere very short and scattered.

Head as broad as long, slightly broader behind than in front, sides feebly convex, occipital border almost straight, posterior corners rounded; mandibles triangular with five small sharp teeth, apical teeth longer; clypeus convex, sharply

carinated with entire broadly rounded and projecting anterior border, which is very slightly flattened at centre; frontal area large, semicircular with posterior border indistinct; frontal carinae short and diverging slightly; scapes extend beyond the occipital border by almost a quarter of their length; first segment as long as two following, second about as broad as long, third to ninth twice as long as broad, apical as long as two preceding. Eyes slightly convex, placed just behind the middle of the sides of head.

Thorax twice as long as broad, more than twice as broad across the pronotum as across the epinotum; pronotum twice as broad as long with prominent humeri, anterior border and sides almost straight; pro-mesonotal suture distinct; mesonotum longer than broad, broader in front than behind with sides almost straight; meso-metanotal suture obsolete, replaced by a transverse impression; metanotum twice as broad as long with raised stigmata; meta-epinotal suture deep; epinotum almost square with straight, margined sides and straight posterior border, posterior corners sharp, dorsum concave in middle. In profile pronotum has anterior half sloping, and the posterior half horizontal; mesonotum evenly convex and slightly higher than the pronotum; metanotum sharply convex; epinotum almost straight and half as long as the evenly and feebly concave declivity; the stigma-bearing tooth one each side, placed about the centre of the declivity, is small and sharp, not longer than broad at base, directed backwards and slightly upwards.

Node reduced to a transverse line which is deeply concave in middle. In profile thin, as high as the epinotum, with convex anterior border meeting the posterior border at a point. On each side just below the middle is a small broad tooth, directed outwards. Legs robust.

*Female.* Length 3.5 mm. Head and thorax dark reddish brown, antennae, mandibles, node and pronotum lighter yellowish brown, gaster dark brown.

Smooth with epinotum microscopically densely reticulate punctate.

Head as in worker but the scapes extend beyond the occipital border by a fifth; eyes comparatively larger, ocelli white, clear and distinct.

Pronotum from above short, concealed by the mesonotum, anterior border convex, sides straight, anterior corners abrupt and hardly rounded; mesonotum large, broader than long, the parapsidal furrows distinct; scutellum large, broader than long, broader in front than behind; epinotum short, broader in front than behind, sides feebly convex, posterior border concave, the dorsum concave. In profile pronotum vertical; mesonotum convex and rest of thorax rather flat or feebly convex; epinotum straight and a third of the feebly concave declivity; at the upper third of declivity are small slender spines directed upwards and backwards.

Node reduced to a transverse line, concave in middle. In profile scale like, as high as the dorsum of epinotum with anterior border feebly convex meeting the almost straight posterior face at a point. Gaster large. Legs slender.

*Male.* Too damaged for description.

Collected by J. Clark, Esq.

*Material examined.* Thirty workers, one female, and a number of damaged males, taken at Hovea, Western Australia.

*Type locality.* Murray River, Western Australia.

*Type.* In Mr. Crawley's collection, British Museum.



## STIGMACROS (CYRTOSTIGMACROS) FERRUGINEA sp. nov., figs. 152-154.

*Worker.* Length 2.1-2.3 mm. Reddish brown, legs yellowish brown, joints of legs, antennae and mandibles yellowish.

Head smooth but the back of the head faintly reticulate; thorax very finely shagreened, sides of mesonotum and epinotum reticulate.

Hair yellowish, confined to the clypeus and apex of gaster.

Head slightly longer than broad, sides feebly convex, occipital border almost straight, posterior corners rounded; mandibles with four small sharp teeth; clypeus rounded in front, carinated; frontal area semicircular, indistinct; frontal carinae short, diverging very slightly; scapes extend beyond the occipital border by a quarter; first segment of funiculus as long as the two following; second to fifth equal, very slightly longer than broad, sixth to ninth longer than broad, apical as long as two preceding; eyes moderately convex, placed just behind the middle of the sides.

Pronotum three times as broad as long, sides and anterior border almost straight, anterior angles abrupt; mesonotum as broad as long, meso-metanotal suture very indistinct; metanotum raised with two distinct stigmata; meta-epinotal suture broad; epinotum slightly broader than long, about as broad behind as in front, sides convex, posterior border feebly concave, posterior angles sharp. In profile pronotum vertical in front, posterior two-thirds rather flat; mesonotum very feebly convex; metanotum hump-shaped; epinotum straight, one-third of the almost straight declivity, posterior angle sharp; at upper third on each side is a sharp spine as long as broad at base, directed backwards.

Node reduced to a transverse line with dorsum concave. In profile slender, anterior feebly convex border meeting the feebly concave posterior border at a point, spines on side not noticeable. Legs slender.

*Male and female* not known.

Collected by A. Elston, Esq.

*Material examined.* Fifteen workers and a damaged female.

*Type locality.* Mt. Lofty, South Australia.

## STIGMACROS (CYRTOSTIGMACROS) CLIVISPINA Forel, figs. 155-161.

*Acantholepis (Acrostigma) clivispina* Forel, Rev. Suisse Zool., 10, p.482, 1902 ♀

*Acantholepis (stigmacos) clivispina* Forel, Ann. Soc. Ent. Belg., 49, p.179,  
1905 ♂

*Stigmacos clivispina* Emery, Gen. Insect. fasc., 183, p.34, 1925 ♂

*Worker.* Length 2.7-3.2 mm. Deep reddish brown with mandibles, antennae and legs lighter; some examples vary to the very dark brown of Forel's description.

Head smooth, except for occipital region, which is very faintly and densely reticulate; scapes and thorax subopaque, irregularly and microscopically reticulate, epinotal declivity transversely striate finely, gaster smooth and shining.

Hair yellowish, very sparse, confined to front of head and apex of gaster; pubescence yellow, dense, fine, adpressed on funiculus but on rest of body very sparse short and suberect.

Head one-fifth longer than broad, slightly broader behind than in front, sides feebly convex, occipital border almost straight, posterior corners rounded; mandibles with five small sharp teeth; clypeus rounded above, carinated, anterior

border rounded and entire; frontal area semicircular, distinct, posterior border faint; frontal carinae straight, diverging very slightly behind; scapes extend beyond occipital border by a third; first segment of funiculus as long as the two following; second to fourth equal, very slightly longer than broad, rest twice as long as broad, apical longer than two preceding; eyes moderately large, slightly convex, placed just behind the middle of the sides.

Pronotum more than twice as broad as long with anterior border and sides feebly convex, dorsum feebly depressed in the middle, anterior angles rather abrupt; mesonotum slightly longer than broad, broader in front than behind; meso-metanotal suture indicated merely by a transverse depression; metanotum slightly elevated with faint stigmata; meta-epinotal suture deep; epinotum rectangular nearly twice as broad as long, marginate, the posterior corners sharp, the dorsum concave. In profile pro-mesonotum flatly and evenly convex with a slight depression at the pro-mesonotal suture; metanotum elevated as a small hump; the anterior third of dorsum of epinotum is sloping, the remaining two-thirds flat and horizontal and half as long as the feebly concave declivity; stigma-bearing spines on upper third of declivity small, sharp, directed backwards and slightly upwards.

Node reduced to a straight line with upper surface deeply concave in centre. In profile thin, almost as high as the dorsum of epinotum, anterior border feebly convex meeting the straight posterior border at a sharp point; on each side near the base a very small hardly noticeable tooth, directed outwards. Legs rather slender.

*Female.* Length 4.4-5 mm. Colour and pilosity as in worker.

Head smooth, pronotum feebly reticulate, mesonotum and scutellum smooth, epinotum finely reticulate.

Head as broad as long, broader behind than in front, sides feebly convex, posterior border straight; clypeus not carinate; frontal carinae short; scape extends beyond the occipital border by a quarter; eyes large, convex, placed at middle of the sides; ocelli distinct.

Pronotum short, hardly noticeable from above, sides almost straight, anterior angles abrupt; mesonotum large, broader than long with parapsidal furrows deeply impressed; scutellum large, broader than long, between it and the epinotum is a very broad suture. Epinotum almost four times as broad as long, a little broader in front than behind, anterior border feebly concave, sides and posterior border feebly convex, dorsum depressed slightly in the middle. In profile pronotum almost vertical, rest of thorax flat and almost horizontal; dorsum of epinotum feebly convex, rounded into the sloping declivity, which is four times as long as the dorsum; upper third on each side is a stout sharp stigma-bearing spine directed backwards and upwards.

Node reduced to a transverse line, concave in middle. In profile thin as high as dorsum of epinotum without teeth on the sides. Legs short and robust.

*Male.* Length 1.8-2 mm. Head, thorax, antennae and legs brownish yellow; node and gaster dark brown.

Sculpture of worker but somewhat finer.

Head broader than long with sides and posterior border feebly convex; mandibles small with three reddish small sharp teeth; clypeus not carinated, rounded above and in front; frontal area semicircular, distinct, frontal carinae short, diverging slightly; scape extends beyond the occipital border by a quarter; first segment of funiculus as long as the two following, second to fourth slightly

longer than broad, fifth a little shorter, sixth to tenth equal and slightly longer than broad, apical as long as the two preceding; eyes large, hemispherical, placed just behind the middle of the sides; ocelli clear and distinct.

Pronotum not noticeable from above; mesonotum large, slightly broader than long, parapsidal furrows impressed; scutellum broader than long, broader in front than behind, between it and the epinotum is a broad suture; epinotum from above sloping so that it is difficult to distinguish dorsum and declivity; the epinotal declivity appears to have no spines. In profile pronotum vertical meso-notum convex in front; posterior half of scutellum rather flat; epinotum convex.

Node almost three times broader than long with anterior border and sides convex; posterior border almost straight. In profile rather stout, anterior border and dorsum convex, posterior border straight. Legs slender.

*Material examined.* Large number of workers and a few males and females.

Collected by Dr. Wheeler at Darra, Queensland, and Canberra, Australian Capital Territory.

*Type locality.* Cooma, New South Wales.

*Type.* Worker in Forel's collection, Museum Natural History, Geneva.

#### STIGMACROS (CYRTOSTIGMACROS) EXTREMINIGRA sp. nov., figs. 162-164.

*Worker.* Length 2-2.2 mm. Head and gaster black, thorax, legs and antennae dark brown; mandibles yellowish.

Head and gaster smooth with traces of reticulation on back of head. Thorax shagreened.

Hair greyish, confined to front of head and apex of gaster.

Head slightly longer than broad, broader behind than in front, sides feebly convex, occipital border almost straight, posterior corners rounded; mandibles with four small sharp teeth; clypeus rounded in front, faintly carinated on anterior half; frontal area semicircular, distinct; frontal carinae straight as long as distance apart; scape extends beyond the occipital border by a third; first segment of funiculus as long as two following, second to fifth as long as broad, rest longer than broad, apical as long as two preceding; eyes convex, placed just behind the middle of the sides.

Pronotum three times as broad as long, with anterior border and sides feebly convex, anterior corners rounded; mesonotum as broad as long, broader in front than behind, sides almost straight; meso-metanotal suture very faint; metanotum raised with two distinct stigmata; meta-epinotal suture broad; epinotum one and a quarter time as broad as long, sides and posterior border straight, posterior corners rounded. In profile pronotum convex; mesonotum feebly convex; metanotum hump-shaped; epinotum sloping on anterior third with rest of dorsum straight and half as long as the straight declivity.

Node reduced to a transverse line with anterior border feebly convex, the posterior border straight, the dorsum concave in middle. In profile thin, the anterior feebly convex border meeting the straight posterior border at a point. There are no spines on the sides. Legs slender.

*Male and female unknown.*

Collected by J. Clark, Esq.

*Material examined.* Fourteen workers that show little variation.

*Type locality.* Wyperfeld, Victoria.

## STIGMACROS (CYRTOSTIGMACROS) CASTANEA sp. nov., figs. 165-170.

*Worker.* Length 2.3-2.6 mm. Head shining dark reddish brown, with mandibles and scapes yellow, funiculus brown; thorax and legs yellowish brown with epinotum and node slightly darker; gaster dark reddish brown.

Head smooth and shining; thorax and node very finely shagreened, rather transverse on epinotum, lower parts of sides of mesonotum and epinotum microscopically reticulate.

Hair yellowish, vary sparse, confined to clypeus and apex of gaster; pubescence whitish, short, fine, adpressed, confined to the funiculus.

Head slightly longer than broad, sides convex, occipital border straight, posterior angles rounded; mandibles with five small sharp teeth; clypeus carinated, anterior border rounded; frontal area semicircular, distinct; frontal carinae straight, diverging slightly behind; scape extends beyond the occipital border by a third; first segment as long as the two following, second shorter than the third, third and fourth sub-equal, slightly longer than broad, remaining segments longer than broad, apical as long as the two preceding; eyes large, convex, placed slightly behind the middle of the sides.

Pronotum about two and a quarter times as broad as long, sides convex, anterior border feebly convex, anterior corners rounded, middle of dorsum not depressed, mesonotum slightly longer than broad, broader in front than behind, sides almost straight; mesometanotal suture obsolete, indicated by a slight transverse depression; metanotum very short, elevated with two distinct stigmata; meta-epinotal suture deep and broad; epinotum one and a quarter times as broad as long, broader in front than behind, with sides and posterior border almost straight; stigma bearing spines on the declivity as long as broad at base, sharp, directed backwards and slightly upwards and outwards. In profile anterior half of pronotum vertical and slightly concave, posterior half rather flat; mesonotum evenly and feebly convex; metanotum raised as a small hump; anterior third of dorsum of epinotum almost vertical, rest of dorsum flat and horizontal, posterior corners rounded, dorsum slightly less than half the feebly concave declivity; spines at upper third sharp, directed backwards and slightly upwards.

Node short and transverse, with dorsum deeply concave. In profile node thin, anterior feebly convex border meeting the straight posterior border at a sharp point. Legs rather slender.

*Female.* Length 4.3 mm. Rich, reddish brown with legs, pronotum and front of head lighter, antennae darker brown, gaster very dark reddish brown.

Pronotum shagreened, mesonotum and scutellum smooth, epinotum very densely microscopically reticulate-punctate, sides of epinotum very finely transversely striate.

Head similar to that of worker but proportionately broader, as broad as long; clypeus more distinctly carinate; scapes extend beyond the occipital border by about a fifth; eyes larger; ocelli clear distinct, whitish.

Pronotum from above short and concealed by the mesonotum; mesonotum large, as broad as long, with parapsidal furrows impressed; scutellum large; broader than long, broader in front than behind, between it and the epinotum is a broad suture; epinotum at least four times as broad as long, broader in front than behind, anterior border concave, sides almost straight, posterior border straight, posterior angles blunt, the dorsum concave. In profile pronotum almost vertical, anterior quarter of mesonotum convex, rest of thorax flattened

and almost horizontal; dorsum of epinotum straight, about a quarter as long as sloping declivity; at the upper quarter of declivity the stigma bearing spines are small, stout directed backwards and slightly upwards.

Node reduced almost to a transverse line, with dorsum feebly concave. In profile almost as high as the dorsum of epinotum, thin, anterior very feebly convex border meeting the straight posterior border at a sharp point; near the base on each side there is a trace of a small tooth. Legs slender.

*Male.* Length 1.8 mm. Uniformly dull yellowish brown.

Head smooth with faint traces of reticulation on occipital border, thorax very faintly reticulate, sides finely reticulate with base of mesonotum and epinotum more striate transversely; node reticulate.

Hair yellowish, confined to clypeus and apex of gaster; pubescence yellowish, short, confined to funiculus.

Head as broad as long, with convex sides and almost straight occipital border; clypeus rounded in front, not carinated; frontal area semicircular, distinct; frontal carinae long and almost straight; scapes extend beyond the occipital border by a third; first segment as long as the two following, second shorter than third, rest longer than broad, apical almost as long as the two preceding together; eyes large, hemispherical, placed at centre of sides; ocelli distinct.

Pronotum short, almost concealed by the mesonotum; mesonotum large, broader than long, parapsidal furrows impressed; scutellum large, broader than long, broader in front than behind; metanotum transverse, raised slightly; epinotum broader than long, broader in front than behind, posterior border almost straight. In profile pronotum vertical; mesonotum vertical in front, posterior three-quarters convex; scutellum and metanotum feebly convex; epinotum feebly convex, rounded into the sloping declivity which is about three times as long as the dorsum.

Node three times as broad as long, anterior border and sides feebly convex, posterior border almost straight. In profile as high as epinotum, three times as high as long with borders feebly convex. Legs long and slender.

Collected by Dr. W. M. Wheeler.

*Material examined.* Thirty workers, five males and one female.

*Type locality.* Canberra, Australian Capital Territory.

#### STIGMACROS (CYRTOSTIGMACROS) ACICULATA sp. nov., figs. 171-173.

*Worker.* Length 2.5 mm. Rich reddish brown with legs lighter and antennae dull yellow.

Head smooth except for the occipital border which is faintly shagreened; thorax densely reticulate punctate; gaster smooth. Hair yellowish, confined to front of head and apex of gaster.

Head very slightly longer than broad, hardly broader behind than in front, sides and occipital border almost straight, posterior corners rounded; mandibles with four small sharp teeth; clypeus not carinated, rounded above and in front, frontal area semicircular, distinct; frontal carinae straight as long as their distance apart; scape extends beyond the occipital border by two-fifths; first segment of funiculus as long as the two following, second to fourth equal, as broad as long, rest longer than broad, apical as long as preceding two; eyes convex, placed behind the middle of sides.

Pronotum three times as broad as long, sides and anterior border feebly convex, anterior corners abruptly rounded; mesonotum as broad as long, broader in front than behind, sides almost straight; meso-metanotal suture very faint;

metanotum raised; stigmata distinct; meta-epinotal suture broad; epinotum one and a quarter times as broad as long, very slightly broader in front than behind, sides feebly convex, posterior border feebly concave, posterior corners blunt, dorsum concave. In profile pronotum convex in front, posterior half rather flat; mesonotum feebly convex; metanotum raised as a small hump; epinotum sloping in front, posterior two-thirds straight and one-third as long as the feebly concave declivity, posterior corners sharp; at upper third the spines are sharp and directed upwards and backwards.

Node reduced to a transverse line, anterior border feebly convex, posterior border straight, dorsum concave in middle. In profile scale-like, anterior feebly convex border meeting the feebly concave posterior face at a point. Legs robust.

*Male and female unknown.*

Collected by H. Hacker, Esq.

*Material examined.* Seventeen workers.

*Type locality.* Brisbane, Queensland.

#### STIGMACROS (CYRTOSTIGMACROS) PROXIMA sp. nov., figs. 174-176.

*Worker.* Length 2.2-2.7 mm. Yellowish brown, antennae and legs yellowish.

Head smooth and shining; thorax finely shagreened with sides densely microscopically reticulate punctate; gaster smooth. Hair yellowish, short, very scattered; pubescence yellowish, confined to funiculus.

Head slightly longer than broad, sides feebly convex, occipital border almost straight, posterior angles rounded; mandibles yellowish, with five small sharp teeth; clypeus not carinated, rounded above and in front; frontal area semi-circular, posterior border not indicated; frontal carinae straight, diverging very slightly behind; scapes extend beyond the occipital border by almost a quarter; first segment as long as the two following, second shorter than the third, third to ninth almost equal in length, longer than broad and increasing slightly in width, apical segment not quite as long as the two preceding; eyes convex, moderately large, placed just behind the middle of the sides.

Pronotum twice as broad as long, sides and anterior border feebly convex, anterior angles abruptly rounded; mesonotum broad as long; meso-metanotal suture faint; metanotum elevated, with distinct stigmata; meta-epinotal suture deep; epinotum one and a fifth times as broad as long, slightly broader in front than behind, sides margined and straight, posterior border almost straight, dorsum concave. In profile anterior half of pronotum concave, posterior half rather flatly convex; mesonotum convex; metanotum raised as a small hump; epinotum convex about one-third as long as the feebly concave declivity; spines on declivity sharp, slender, longer than broad at the base, placed just above the centre.

Node reduced to a transverse line, anterior border feebly convex, posterior border straight, dorsum concave in middle. In profile very thin, anterior feebly convex border meeting the straight posterior border at a sharp point. Near the base on each side is a sharp tooth directed outwards. Legs long, robust.

*Male and female unknown.*

Collected by W. M. Mann, Esq.

*Material examined.* Four workers.

*Type locality.* Athol, New South Wales.

## STIGMACROS (CYRTOSTIGMACROS) SORDIDA sp. nov., figs. 177-179.

*Worker.* Length 2 mm. Dull yellowish brown with antennae, thorax and legs slightly lighter, mandibles yellowish.

Head and gaster smooth, thorax very finely shagreened.

Hair yellowish confined to front of head and apex of gaster.

Head slightly longer than broad, sides and occipital border feebly convex, posterior corners rounded; mandibles with four small teeth; clypeus large, not carinated, rounded in front; frontal area semicircular, faint; frontal carinae almost straight; scape extends beyond occipital border by a third; first segment as long as the following two, second to sixth as broad as long, seventh to ninth longer than broad, apical as long as preceding two; eyes moderately large, convex, placed just behind middle of sides of head.

Pronotum three times as broad as long, sides almost straight, anterior border feebly convex, anterior angles rather abrupt, mesonotum as broad as long, broader in front than behind, sides almost straight; meso-metanotal suture feebly indicated; metanotum raised, distinct stigmata; epinotum one and a quarter times as broad as long, almost as broad behind as in front, sides straight, posterior border feebly concave, corners blunt, dorsum concave. In profile pronotum feebly convex; mesonotum rather flat, metanotum hump-shaped; anterior third of epinotum straight and sloping, posterior two-thirds straight, elevated behind, one-third of feebly concave declivity; at upper third are sharp broad spines directed backwards and upwards.

Node reduced to a transverse line, concave in middle. In profile thin, anterior convex border meeting the slightly concave posterior border at a point; very tiny teeth at base on each side. Legs slender.

*Male and female unknown.*

Collected by W. Penniford, Esq.

*Material examined.* Fourteen workers.

*Type locality.* Adelaide, South Australia.

## STIGMACROS (CYRTOSTIGMACROS) ARMSTRONGI sp. nov., figs. 180-183.

*Worker.* Length 2.5-2.8 mm. Dull brownish yellow with head darker and gaster more or less infuscated; antennae yellow. Some have the head and gaster dark reddish brown and the thorax yellowish.

Head smooth with faint reticulation on the occiput; thorax smooth in centre, elsewhere very faintly shagreened; gaster smooth.

Hair yellowish, very sparse, confined to mandibles, clypeus and apex of gaster; pubescence yellowish, fine, adpressed, confined to funiculus.

Head one-sixth longer than broad, sides feebly convex, occipital border almost straight, posterior angles rounded; mandibles with five small sharp teeth; clypeus not carinated, anterior border rounded; frontal area semicircular, defined clearly; frontal carinae short, straight, diverging slightly behind; scapes extend beyond occipital border by a quarter; first segment as long as the two following, second to fourth equal, fifth to eighth distinctly longer than broad, ninth as long as broad, apical as long as the two preceding; eyes moderately large, convex, placed slightly behind the middle of the sides.

Pronotum twice as broad as long, slightly flattened above, anterior border and sides feebly convex, anterior angles rounded; mesonotum as long as broad, broader in front than behind, sides almost straight; meso-metanotal suture not indicated; metanotum raised with distinct stigmata; meta-epinotal suture broad; epinotum one and a quarter time as broad as long, very slightly broader in front than behind, sides and posterior border feebly concave, posterior angles rather sharp. In profile promesonotum rather flat, very slightly convex, metanotum indicated by a small hump; dorsum of epinotum flat and horizontal, elevated very slightly at posterior angle, half as long as very feebly concave declivity, posterior angle almost a right angle; spines just above middle of declivity sharp, directed backwards and upwards.

Node almost reduced to a transverse line, anterior border feebly convex, posterior border straight, dorsum deeply concave. In profile thin with feebly convex anterior border meeting the straight posterior border at a sharp point. On each side near the base is a very small tooth directed outwards. Legs slender.

*Female.* Length 5.2 mm. Dark brown or black, antennae, mandibles and legs lighter more reddish brown.

Head very faintly shagreened, thorax and node finely shagreened, gaster smooth.

Head as broad as long, sides and posterior border almost straight, posterior corners rounded; mandibles with four teeth; clypeus strongly carinated; scape extends beyond occipital border by a fifth; eyes large, convex, placed at middle of sides; ocelli small but distinct, whitish.

Pronotum from above short, almost concealed by mesonotum, anterior border feebly convex, sides almost straight, anterior corners abrupt; mesonotum large, as broad as long, parapsidal furrows impressed; scutellum large, broader than long, broader in front than behind; epinotum almost four times as broad as long, broader in front than behind, anterior border concave, sides feebly convex, posterior border feebly concave. In profile pronotum vertical; mesonotum and scutellum form one even rather low convexity; dorsum of epinotum feebly convex; almost one-quarter as long as the straight declivity; at upper quarter on each side is a moderately long, stout, blunt spine.

Node reduced to a transverse line. In profile thin, anterior and posterior borders feebly convex, meeting at a point. Gaster large. Legs short and robust.

*Male* unknown.

Collected by J. W. T. Armstrong, Esq.

*Material examined.* Eighteen workers and one female.

*Type locality.* Nyngan, New South Wales.

#### STIGMACROS MEDIORETICULATA Viehmeyer.

*Acantholepis (Stigmacros) medioreticulata* Viehmeyer, Ent. Mitteil., 14, nr.I., p.32, 1925 ♀

*Worker.*

Kopf kurz eiförmig, wenig länger als breit, hinter deutlich breiter als vorn, Hinterrand gerade. Clypeus schwach gekielt, sein Vorderrand sehr flach ausgerandet, von oben gesehen durch den Kiel aber dreieckig erscheinend. Augen ein wenig hinter der mitte der Kopfseiten, Stirnfeld undeutlich. Der Fühlerschaft überragt den Hinterrand des Kopfes um ein gutes Drittel seiner Länge; die mittleren Fühlerglieder fast doppelt so lang wie breit. Thorax etwas flach



gedruckt, aber bei weitem nicht so wie bei *aemula* und *pilosella*, auch nicht so breit. Pronotum wesentlich schmaler als der Koft, trapezformig, weit über doppelt so breit als lang, vorn etwas steil abfallend, mit aufgedeuteten Schultern, in der mitte mit einem breiten Laugseindruck. Mesonotum langer als breit. Stiel nicht gerandet, beiderseits hinten mit schwach aufgebogenen, zahnformigen Echen. Kein abgegrenztes Metanotum, an seiner Stelle ein breiter Einschnitt zwischen Meso und Epinotum; Basalfache des Epinotums im Profil querrechteckig mit erhabenen, scharfen Seitenrandern, jederseits langs derselben leicht vertieft, im Profil schrag ansteigend. Epinotumwinkel fast ein rechter. Abschussige Fläche fast dreimal so lang als die Basal flache, sehr schrag und etwas konkav, in 2/3 ihrer Höhe mit den beiden stigmatragenden, spitzen Zahnen. Schuppe mit scharfem, in der mitte tief dreieckig ausgeschnittenem Rande; Basalzahne des Seitenrandes rudimentar. Thorax scharf genetztkaum schimmernd, glieder sehr seicht genetzt, Kopf und gaster spiegelnd glatt. Pubeszenz sehr kurz und sehr zerstreut, an den Gliedern reichlicher, keine abstehende Behaarung. Kopf und Gaster tief schwarz, Thorax und Beine schwarzbraun, Mandibeln, Fuhler, Trochanteren, Knie und Tarsen rotlich braun. L. 2.5 mm. Trial Bay.

I Stuck aus Brennholz. Anscheinend mit *clivispina* zunachst verwandt, aber mit viel langeren Geisselgliedern und ohne Metanotum.

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Subfamily FORMICINAE Lepeletier, 1863.

Tribe LASIINI Ashmead, 1905.

Genus TERATOMYRMEX gen. nov.

*Worker.* Monomorphic.

Head almost square with broad triangular mandibles furnished with five small sharp teeth. Maxillary palpi with four slender, equal segments. Labial palpi with two slender, equal segments. Clypeus rather large, anterior border entire, posterior border rounded and not extending back between the frontal carinae. Frontal area subtriangular, distinct. Frontal carinae, short and straight. Antennal and clypeal fossae not confluent, but antennae placed close to the clypeus. Antennae twelve segmented, funiculus filiform, with first segment as long as two following, remaining segments longer than broad, apical longer than preceding segment. Eyes moderately large, convex. Ocelli distinct.

Thorax of most unusual shape. Dorsum of pronotum very flattened, margined. This flattened surface is about three times as broad as long, the anterior and posterior borders deeply concave, the sides strongly convex, the corners rounded. The sides of the pronotum slope inwards and can be seen only in the profile view. The mesonotum resembles a cylinder which fits under the posterior raised lip of the pronotum, and is about a third as broad as the pronotum. Metanotum slightly broader than mesonotum and surmounted by two distinct spiracular tubercles. The dorsum of epinotum resembles a wide-necked flask, the anterior half circular, the posterior half is narrowed, with parallel sides, the posterior corners produced as broad sharp teeth. The posterior border, between these teeth deeply concave. Petiole surmounted by an erect scale-like node which is greatly narrowed at the top. It bears no spines. Gaster not overhanging petiole, ovate, with the cloacal orifice surrounded by a fringe of hairs. Legs moderately long, middle and hind tibiae with pectinate spurs, tarsal claws simple.

*Female* and *male* unknown.

Genotype *Teratomyrmex greavesi* sp. nov.

## TERATOMYRMEK GREAVESI sp. nov., figs. 1-3.

*Worker.* Length 3-3.5 mm. Very dark brown to shining black, antennae and legs dull yellowish brown, coxae and insertions of scapes yellowish.

Mandibles smooth and shining with faint traces of striae; clypeus smooth; head shining with scattered microscopic shallow, piligerous punctures which are denser on occiput and sides of head; pronotum with scattered microscopic piligerous punctures denser than on the head; mesonotum smooth; epinotum with scattered piligerous punctures, the sides and declivity with faint transverse striae; rest smooth.

Hair greyish, scattered and long on mandibles, clypeus, scapes, thorax, node and gaster. Pubescence greyish, adpressed, rather dense especially on the gaster but not hiding the sculpture.

Head excluding the mandibles square with the sides almost straight, the posterior border slightly convex, posterior angles rounded; mandibles triangular furnished with five sharp teeth, the apical and following tooth twice as large as the three following; clypeus rounded above, anterior border entire; frontal area subtriangular, distinct; frontal carinae short, straight, slightly diverging behind; antennal scape extending beyond the occiput by almost half its length; first segment of funiculus as long as two following together, fourth and fifth equal, longer than broad, sixth to tenth longer than broad, apical longer than tenth but not longer than two preceding together.

Dorsum of pronotum very flattened, slightly depressed in the middle, almost as broad as the head, slightly more than three times as broad as long, sides margined, anterior and posterior borders deeply concave, sides strongly convex, posterior corners more sharply rounded than anterior ones, posterior margin slightly raised. Mesonotum cylindrical, one-quarter longer than broad, about one-third narrower than pronotum, sides parallel. Metanotum slightly broader than the mesonotum, surmounted by two spiracular tubercles, metaepinotal suture distinct. Epinotum twice as long as broadest part, anterior half almost circular, but instead of completing the circle the sides extend back as parallel lines which diverge slightly behind and terminate in a short raised broad spine; the posterior border of the epinotum between these spines is strongly concave; the sloping sides of the epinotum allow much of the metathoracic sternites to be seen. In profile anterior border of the pronotum straight, sloping outwards to meet the flattened dorsum at a point; dorsum of pronotum and mesonotum almost flat, the former slightly higher, the sides of the pronotum horizontally concave below the flattened disc of the dorsum. Metanotum raised with the spiracular tubercles very distinct. Dorsum of epinotum straight, raised behind, and terminating in broad sharp spines directed backwards and slightly upwards; under each spine is a clear stigma.

Petiole from above, thin, about three times as broad as long; upper border reduced to a short transverse line deeply concave in the centre. In profile scale-like, three times as high as long, narrowed towards the top, erect, the anterior and posterior faces feebly convex, and meeting at a sharp point. Gaster longer than broad. Legs moderately long.

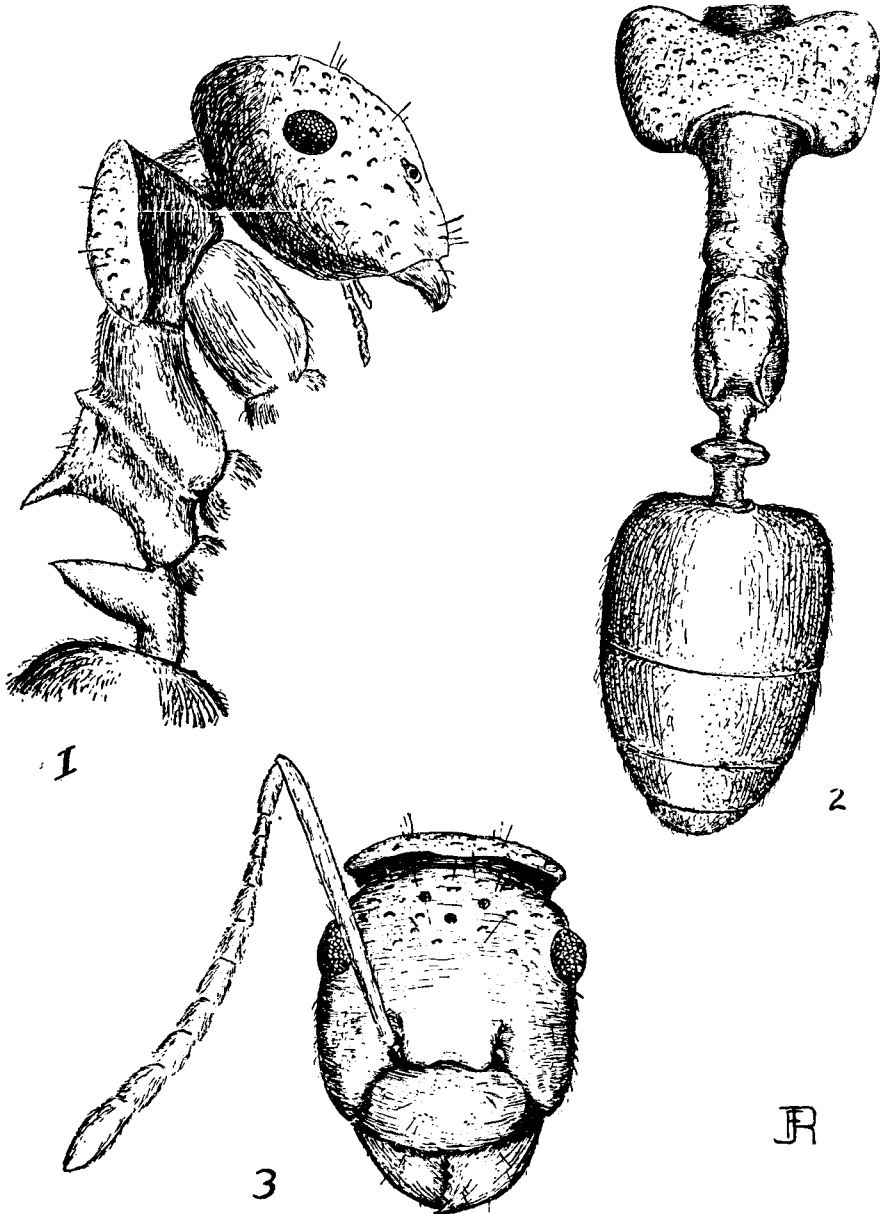
Collected by T. Greaves, Esq.

*Type locality.* Blackall Range, Queensland.

*Material examined.* Seven workers which exhibit very little variation.

*Type.* Holotype worker in collection of National Museum, Victoria.

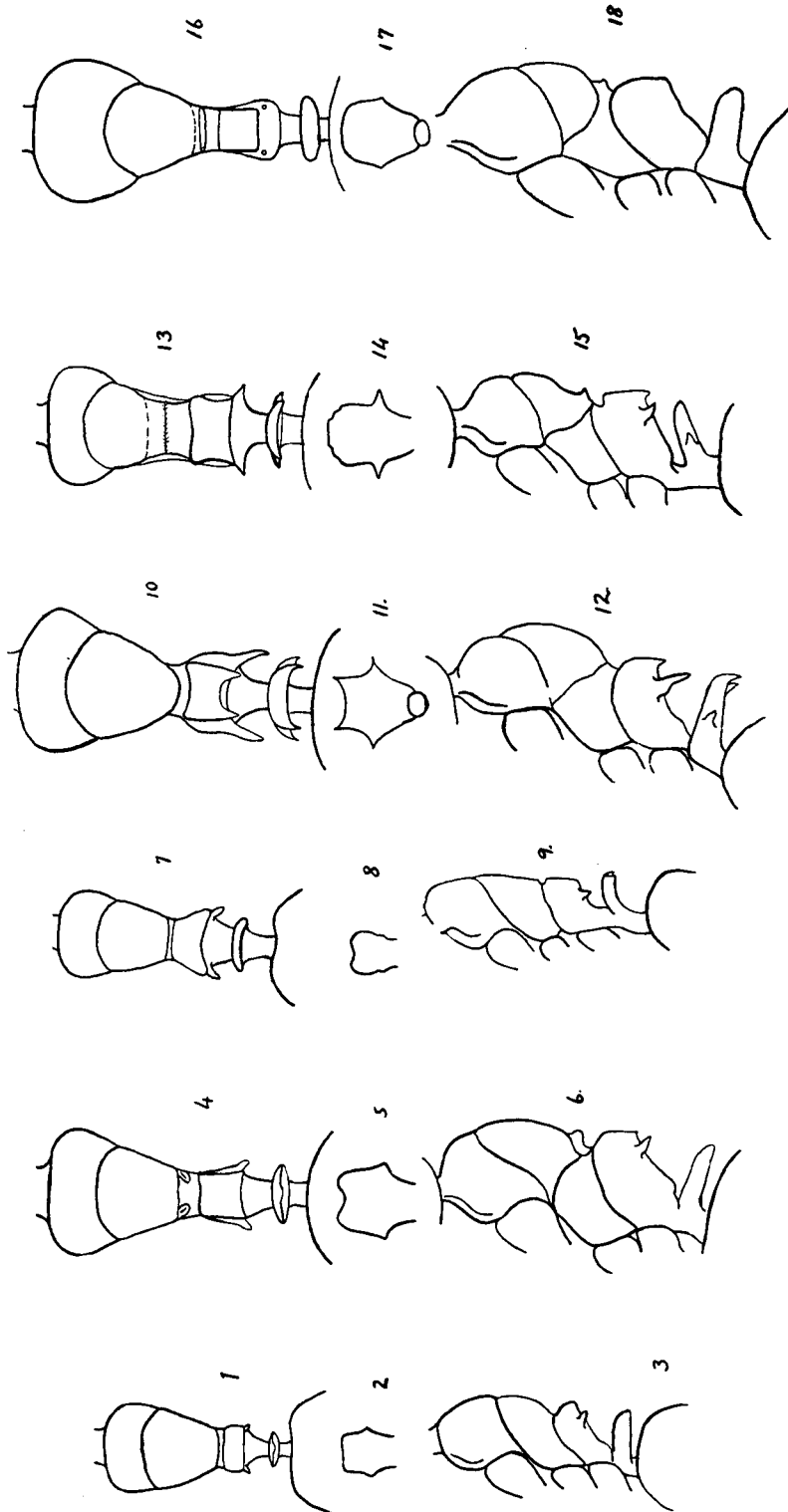
Paratypes in collection of Commonwealth Scientific and Industrial Research Organization, Canberra, and in collection of author.



*Teratomyrmex greavesi* sp. nov.

1. Profile view of worker.
2. Dorsal view of thorax and gaster of worker.
3. Head and humeri of worker.

PLATE 1.



*Stigmacros* (*Stigmacros*) *froggatti* (Forel) figs. 1-3.  
*Stigmacros* (*Cyrtostigmacros*) *australis* (Forel) figs. 4-6.  
*Stigmacros* (*Campostigmacros*) *aemula* (Forel) figs. 7-9.  
*Stigmacros* (*Haglostigmacros*) *barretti* (Santschi) figs. 10-12.  
*Stigmacros* (*Charlostigmacros*) *hirsuta* sp. nov. figs. 13-15.  
*Stigmacros* (*Pseudostigmacros*) *inermis* sp. nov. figs. 16-18.

PLATE 2.

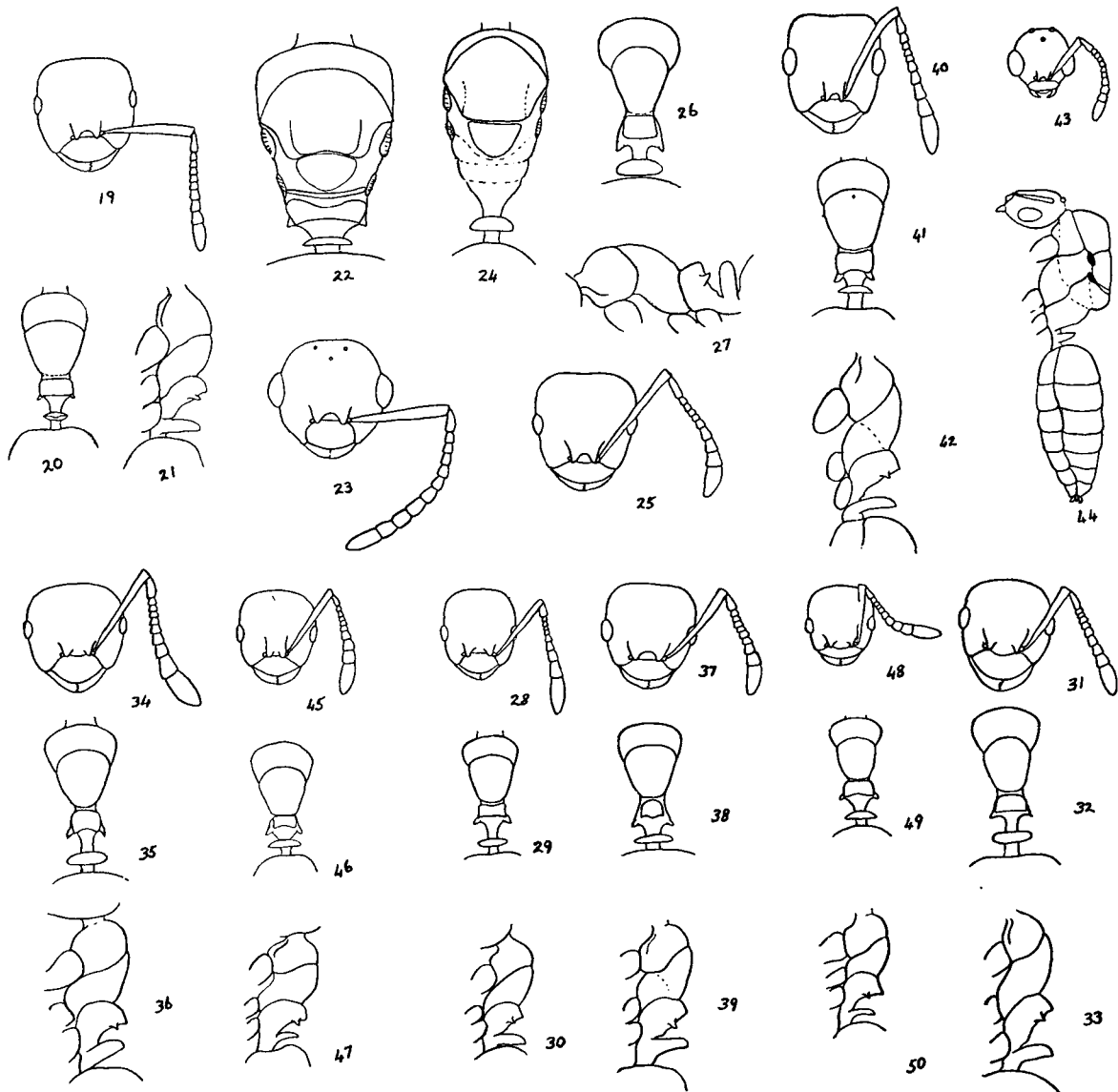


PLATE 3.

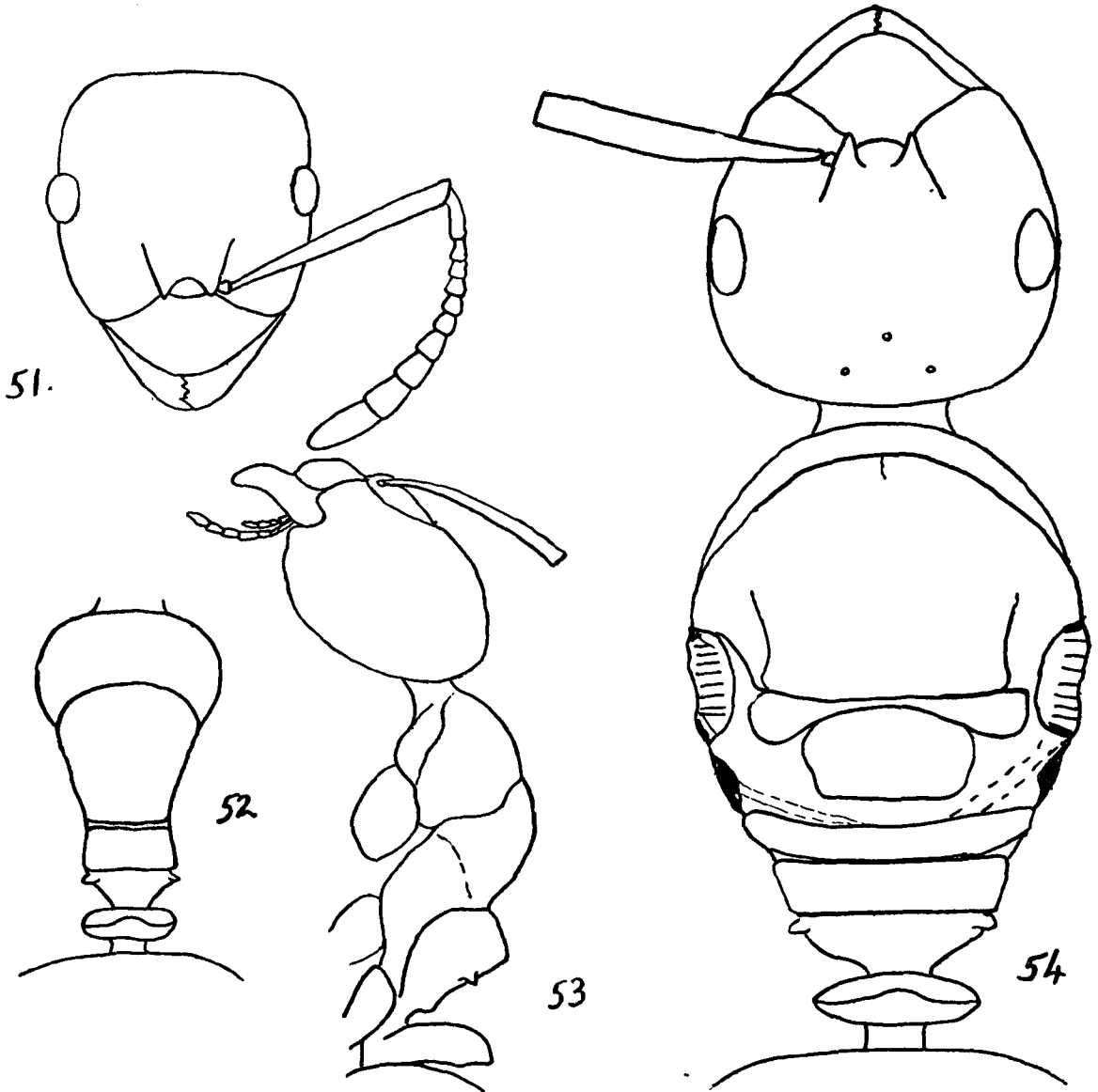


PLATE 4.

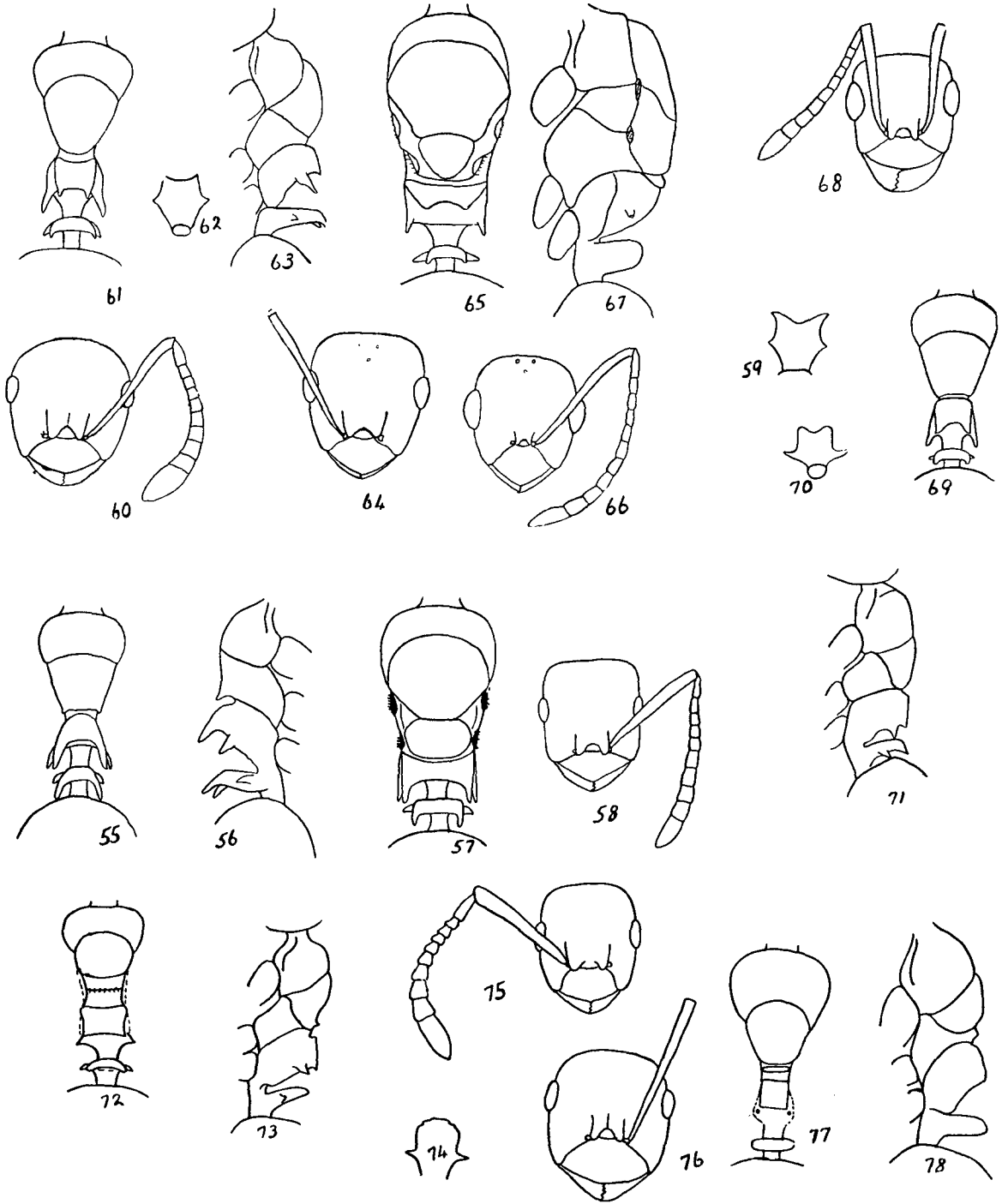


PLATE 5.

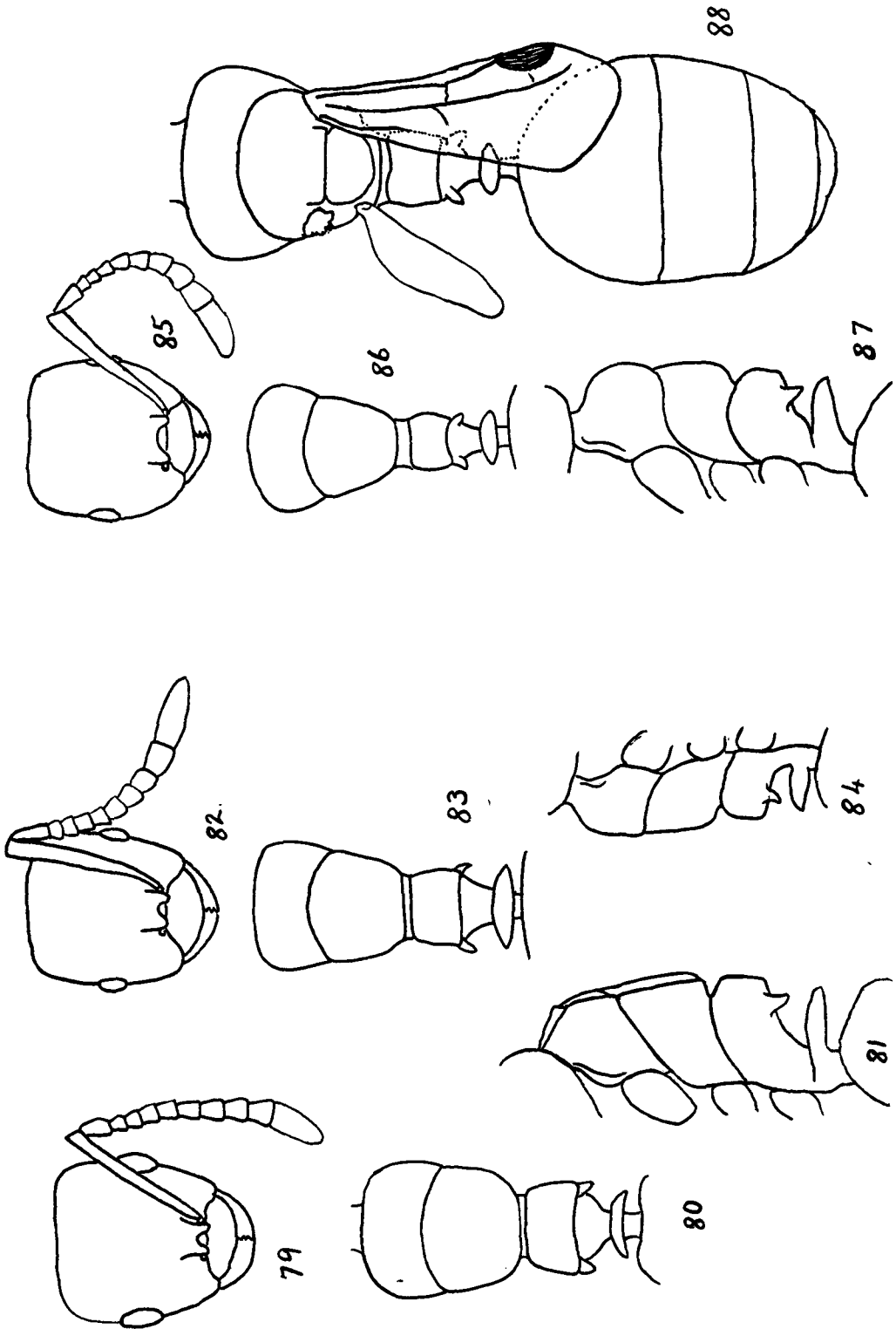




PLATE 6.

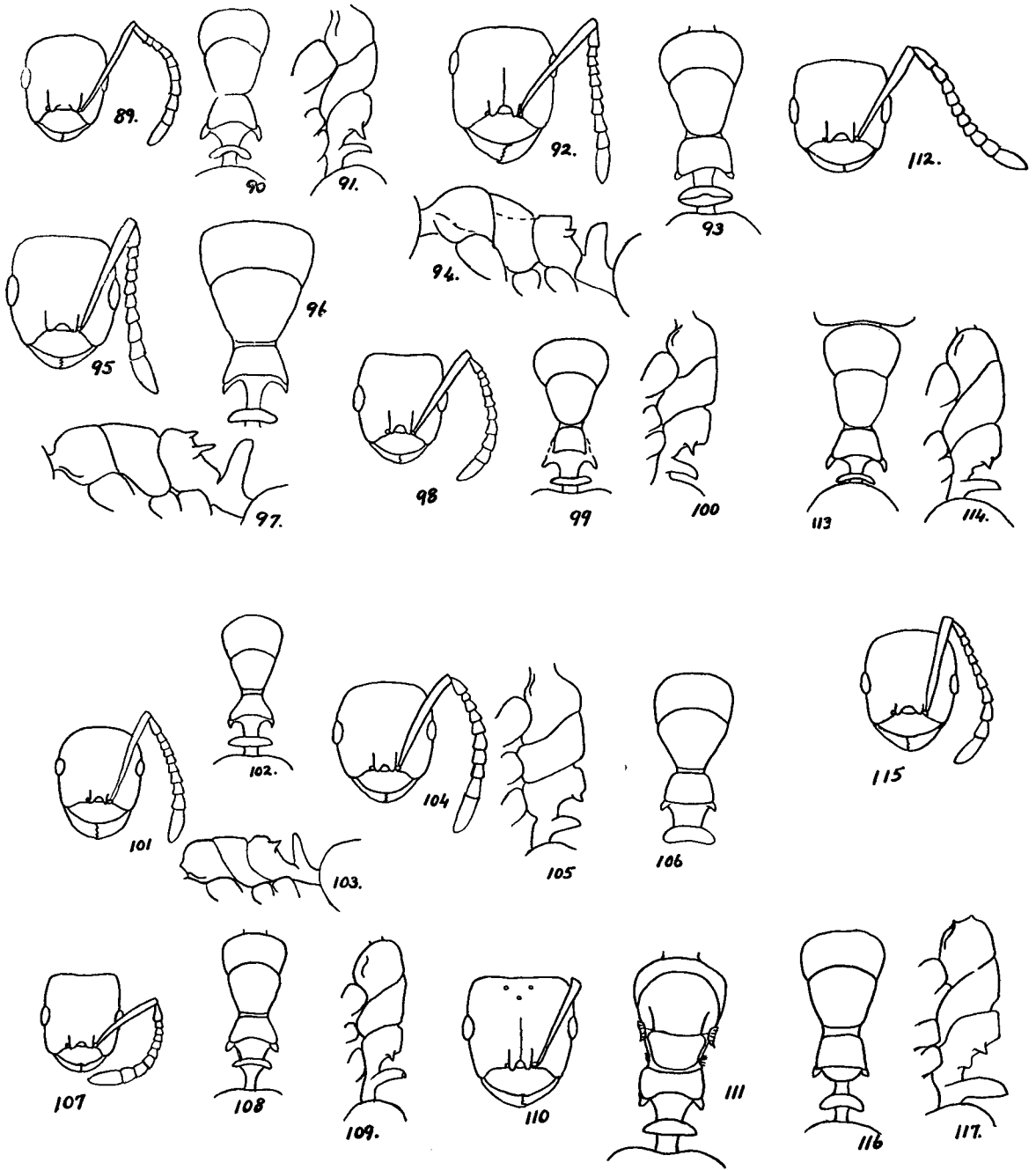


PLATE 7.

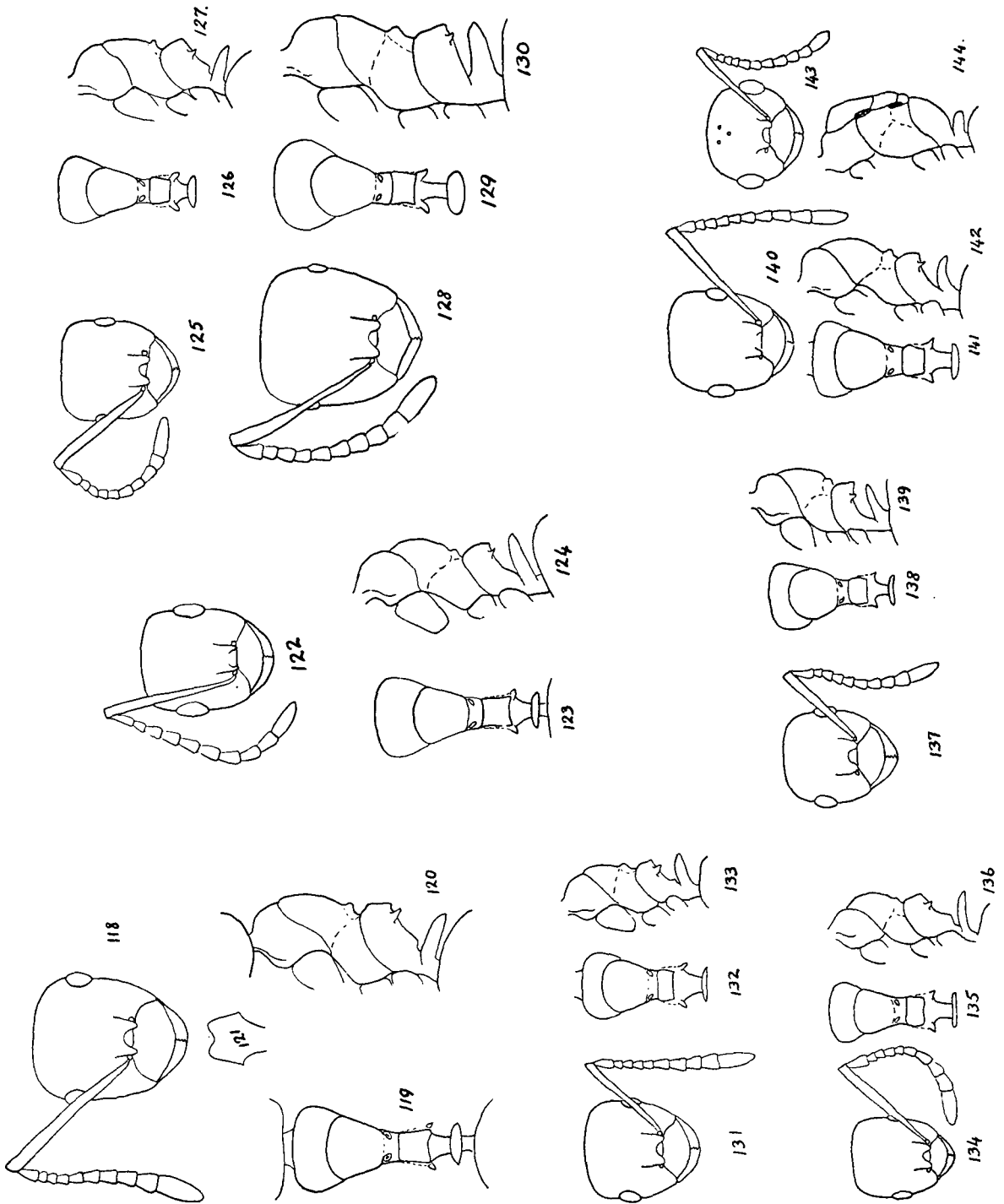


PLATE 8.

