On some new South African Proctotrupoidea (Hymenoptera)

BY

G. E. J. NIXON

The present paper is a further attempt 1 to work out some of the material collected by Mr. R. E. Turner in South Africa, and presented by him to the British Museum, in which the types of all new species described in the following pages are contained.

The writer takes this opportunity to express his sincere thanks to Prof. S. Maulik for many valuable suggestions and especially for his assistance in publication.

The species under discussion form a fairly natural group and are linked together by the following characters:

Antennae 12-segmented in both sexes. Mandibles with 2 or 3 teeth; the 2 outer teeth are never very unlike each other in size or shape.

Postscutellum simple or medially with a lamelliform, semicircular process or with 2 subtriangular lamelliform processes. Propodeum in the \subsetneq without a visible dorsal surface in normal attitude of the insect, being deeply hollowed out, the resulting cavity more or less filled by a prolongation of the 1st tergite (this prolongation is the so called horn). Wings with a distinct postmarginalis, which is at least as long as the stigmalis. Abdomen considerably longer than wide in both sexes.

The family Scelionidae comprises a host of genera, far too many of which have been founded on secondary sexual characters, with the lamentable result that the male and female of one species must often find themselves separated generically. Rather than add to the confusion, it has been thought it advisable to place the species herewith introduced, with one exception, into existing genera, even at the risk of extending the limits which earlier authors have prescribed for them.

¹ The Ethiopian Representatives of the genus Galesus. Ann. Mag. Nat. Hist., Ser. 10, vol. vi, p. 399, 1930.

Gen. Ceratoteleia Kieffer.

1908. Ceratoteleia Kieffer, Ann. Soc. Sci. Bruxelles, vol. 32, p. 121. 1893. Caloteleia Ashmead, Bull. U. S. N. Mus., vol. 45, p. 212. 1926. Ceratoteleia Kieffer, Das Tierreich (Scelionidae), part 48, p. 500.

Kieffer's description of his genus, the type of which he made Caloteleia grenadensis Ash., from the West Indies, is not quite as careful as one could wish, and might even be somewhat misleading. Ashmead's type has been examined and this oportunity is taken in order to draw attention to certain points which the author considers to be important for the correct establishment of the generic status of Ceratoteleia Kieffer.

The frons, according to Kieffer, has an impression above the antennal insertions. This might lead to the assumption that the genotype possess a highly specialised frontal area such as is found, for example, in the genus *Hoploteleia*. Actually the frons in *Caloteleia grenadensis* Ash., has no impression whatever. Further, Kieffer says of the metanotum (postscutellum), «unbewehrt», but he omits to add that the posterior margin of the postscutellum, in the genotype, is produced medially in the form of a weak lamella.

Key to the African species of Ceratoteleia.

Males.

- 2. 3rd tergite hardly longer than the 2nd; segments 5-9 of the funicle much longer than wide...... lencosia sp. n.
- 3rd tergite nearly twice as long as the 2nd; segments 5-9 of the funicle only a little longer than wide..... erana sp. n

Females.

1. Ist tergite conspicuously longer than its apical width 2
- Ist tergite shorter than its apical width; postscutellum with its posterior
margin produced medially, in the form of a semicircular lamella 3
2. Apex of abdominal horn more or less smooth; frons dull and finely
rugose mellicolor sp. n.
- Apex of abdominal horn coarsely reticulate; frons strongly shining and
with scattered punctures gracilis sp. n.
3. 3rd tergite not more than 1,25 times as long as the 2nd; vertex behind
strongly shining and with moderately large, rather coarse punctures
leucosia sp. n.
- 3rd tergite nearly twice as long as the 2nd; vertex behind somewhat dull
and with only a fine, indistinct puncturation erana sp. n.

Ceratoteleia mellicolor sp. n.

Q. Antennae except club, the legs and the ventral surface and sides of the head and of the thorax concolorous, honey yellow.

Abdomen in greater part honey brown; Ist tergite (except horn, which, is black), a large patch at the base of the 2nd and 3rd, paler, of the same colour as the legs. Upper surface of the head and the scutellum often darker than the mesonotum.

Head slightly wider than the thorax, transverse; seen from above, not quite twice as broad as long. Face above the antennal insertions and almost up to the anterior ocellus, smooth and shining. Vertex and region immediately before the ocelli, dull and finely rugose, the surface almost chagrined. Posterior ocelli touching the eye-margins. Eyes large, oval, bare. Antennae: scape as long as the 4 following segments together; pedicel narrowed basally, about 2.5 times as long as its apical width; Ist segment of the funicle slightly longer than the pedicel, as long as the following 2 segments together; 4th equal in size to the 3rd but coloured as is the club; segments 5-9 transverse, together with the 10th forming a close-set club. Mandibles 3-dentate; the middle tooth smaller than the other two, which are of equal length.

Thorax: Mesonotum rather dull, closely and somewhat indistinctly punctured, the punctures small, not always clearly defined, especially anteriorly, and the spaces between them microscopically

scratched. Parapsidal furrows entire, represented by smooth narrow grooves. Scutellum transverse, much more shining than the mesonotum, especially posteriorly, where the surface is in greater part impunctate. Postscutellum medially produced so as to appear lamelliform; the length of this lamella is two-thirds that of the scutellum;

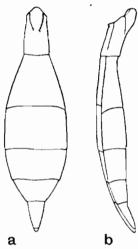


Fig. 1. — Abdomen of Ceratoteleia mellicolor sp. n. Q: a, dorsal; b, lateral.

its posterior edge is straight. Propodeum deeply excavated dorsally to receive the horn of the Ist tergite.

Wings brownish, hardly extending beyond the apex of the 5th tergite; venation: the subcostalis runs so close to the margin of the wing as to be almost confused with it; marginalis 1,5 times as long as wide; postmarginalis, viewed best from beneath the wing, slightly longer than the stigmalis; this moderately long. Legs slender; Ist segment of the hind tarsi hardly 1,5 times as long as the remaining segments together.

Abdomen spindle-shaped, strongly narrowed at its base, almost petiolate, in greater part smooth and shining. Ist tergite basally strongly elevated and produced backwards over the

dorsal surface of the propodeum to as far as the postscutellum; the peak of this horn is slightly overlapped, in normal attitude of the insect, by the lamelliform postscutellum; further, the extreme apex of this horn is smooth and shining; the surface immediately around this shining area is somewhat rugose; the tergite otherwise is strongly striated and is about 1,5 times as long as its apical width; 2nd more than twice as wide apically as basally, finely and evenly striated on its basal third, the striae longest medially; 3rd with some delicate striae at its sides; 4th and 5th transverse, together as long as the 3rd; 6th narrow, rather sharply pointed, nearly 1,5 times as long as ist basal width; owing to the length and narrowness of this tergite, the abdomen appears weakly, but quite distinctly, angulate between the 5th and 6th tergite.

Length: 2,6 mm.

This species is abundantly distinct from that which follows, from

which it may be readily separated by the entirely different sculpture of the head and thorax, as well as by the colour.

Three specimens of Prototrupoids taken from the stomach of 2 species of frogs, *Megalixus fornasinii* and *Phrynobatrachus acridoides* (Lower Zambesi Valley, Marromen), and submitted by the collector, Mr. H. B. Cott for determination, have proved to be females of this species.

Ceratoteleia gracilis sp. n.

Q. Dark brown. Abdomen showing a tendency to become paler medially. Legs and antennae (except the apical 5 segments which are blackish) dirty yellow.

Head transverse, about twice as wide as long. Face immediately above the antennal insertions, smooth and shining. Frons and vertex (up to as far as the posterior ocelli), shining and punctured; the punctures are moderately large and by no means contiguous, the spaces between them being often considerably greater than their own diameter. Posterior declivous part of the vertex, the temples and the cheeks, much more strongly punctured than the frons, the punctures larger, coarser, and more or less contiguous. Antennae: scape not quite as long as the following 4 segments together; pedicel twice as long as its apical width; funicle with its Ist segment nearly 1,5 times as long as the pedicel, slightly shorter than the following 2 segments together; 2nd 1,5 times as long as wide; 3rd distinctly longer than wide; 5th, on its basal half, pale like the preceding segment; club 6-segmented, not very thick, the 8th funicular segment being not more than twice as wide as the Ist. Mandibles 3-dentate.

Thorax: Mesonotum shining, strongly and clearly punctured; the punctures are almost contiguous anteriorly, posteriorly they become more widely separated, the spaces between them being often much greater than their own diameter. Parapsidal furrows crenate, somewhat indistinct. Postscutellum very much shorter than the scutellum, shining and coarsely sculptured; its posterior margin is straight and shows only a trace of being lamellately produced Propodeum dorsally obscured by the horn of the Ist tergite.

Wings brownish, not extending much beyond the apex of the.

5th tergite; the subcostalis takes a slight downward curve before reaching the marginalis; marginalis about 2,5 times as long as wide; post-marginalis as long as the stigmalis.

Legs slender; Ist segment of hind tarsi nearly twice as long as the following segments together.

Abdomen shining, narrowly spindle-shaped; Ist tergite about 1,5 times as long as its apical width, elevated basally and produced

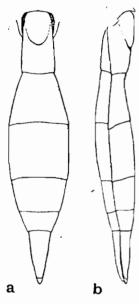


Fig. 2. — Abdomen of Ceratoteleia gracilis sp. n. φ: a, dorsal; b, lateral.

over the propodeum to as far as the postscutellum; the apical part of this projection is strongly reticulated all over and is more or less limited as a raised, shield-like area; this area is somewhat longer than broad; the apical twothirds of the tergite are closely, longitudinally, striated; 2nd tergite equal in length to the 1st, with rather weak longitudinal striations on a finely sculptured surface; 3rd slightly transverse, with delicate, often confluent striations or flutings, which medially fade out, leaving a smoother surface; 4th and 5th together as long as the 3rd; 6th sharply pointed, rather more than twice as long as its basal width, smooth and shining except for fine aciculations basally; the abdomen is quite distinctly angulate between the 5th and 6th tergite.

Length: 3,2 mm.

♂. Differs from the female only in the following respects:

Head: Antennae: pedicel conical, much less hairy than the funicle, its length equal to about half that of the Ist funicular segment; funicle dark brownish yellow, moderately shining, clothed with short semi-erect hairs which are equal in length to about half the width of the segments; the funicular segments are about 3 times as long as wide, but as they approach the 10th, tend to become shorter.

Thorax: Propodeum coarsely reticulately rugose and showing medially a deep triangular depression.

Abdomen: Ist tergite simple, not very much widened apically, about 1,5 times as long as ist apical width, with even, longitudinal

striations all over; the surface between the striations is strongly sculptured; 3rd with fine longitudinal wrinkles; 4th and 5th with many small sharp punctures; 5th with much fine sculpture in addition to punctures; 7th half as long as the 6th, smooth and shining; 8th somewhat dull, broadly rounded apically.

Length: 2,8 mm.

Cape Province (Port St. John). $3 \circ \circ$, $1 \circ$.

Ceratoteleia erana sp. n.

Q. Head and thorax black; the mesonotum appears somewhat greyish owing to its clothing of extremely fine, barely visible, whitish hairs. Legs reddish-yellow to reddish-brown. Scape and pedicel of the antennae and the mandibles darker than the legs.

Head transverse, strongly emarginate behind, fully twice as wide as its medial length. Face immediately above the antennal insertions without a trace of an impression and with a small, smooth, shining area. Frons above and to the sides of this area and up to the anterior ocellus, with small, well separated punctures, the spaces between the punctures more or less longitudinally aciculate; in one of the 2 females examined, the punctures predominate, the spaces between them being very smooth and hardly aciculate, while in the other female the aciculations predominate and are strongly developed, the punctures being visible only along the eye-margins. Vertex somewhat dull and not clearly punctured. Antennae: scape as long as the following 5 segments together; Ist segment of the funicle 1,5 times as long as wide and about as long as the following 2 segments together; 2nd square in outline; 3rd an 4th small, transverse; segments 5-10 forming a thick club. Mandibles with 2 sharp, rather long teeth. Eves bare.

Thorax: Mesonotum dull when viewed from behind, somewhat shining if seen from in front, with a finely rugose-punctate sculpture. Parapsidal furrows indistinct, especially anteriorly. Scutellum sculptured as is the mesonotum. Postscutellum produced medially in the form of a large semicircular lamella, which is two-thirds as long as the scutellum and is rugosely sculptured. Wings brownish, very narrow, considerably less wide than the abdomen, extending to as far as the

apex of the 4th tergite; the subcostalis runs close to the wing-edge for rather more than half its own length and then takes a deep downward curve before reaching the marginalis, so that the greatest width of the wing-membrane above the subcostalis is about twice as wide as the wing-membrane nearer the thorax; marginalis short, less than twice as long as wide; postmarginalis I,25 times as long as the stigmalis. Legs with the basal segment of the hind tarsi as long as the following segments together.

Abdomen spindle-shaped, twice as long as the thorax and a little wider; Ist tergite strongly transverse, basally with a small stumpy horn which, in normal attitude of the insect, is more or less overlapped by the lamella of the postscutellum; further, this Ist tergite, except for the smooth apex of the horn, is longitudinally striated, the striae delicate, not close, the grooves between them flat and with faint transverse rugosities; 2nd strongly transverse, all over with longitudinal ridges on a flat surface as in the case of the Ist; 3rd a little wider than long, nearly twice as long as the 2nd, and with delicate, often confluent striations; 4th and 5th together as long as the 3rd; 6th transverse.

Length: 2,1 mm.

 \mathcal{O} . Differs from the Q only in the following respects:

Head: Antennae: blackish; scape a little shorter than the following 4 segments together; pedicel short, narrower than the 1st segment of the funicle and less hairy; funicle clothed with extremely short, dense stiff hairs; 1st segment about 1,5 times as long as wide; following segments, except the last, hardly longer than wide.

Thorax: When viewed directly from above, the lamelliform post-scutellum reaches the base of the 1st tergite, thus completely hiding the dorsal surface of the propodeum.

Abdomen: Ist tergite, as in the Q, strongly transverse, its basal margin quite strongly raised.

Length: 2,2 mm.

Cape Province (Cape Town, Lion's Head; Mossel Bay). 2 QQ, I 3.

This species, by the shape of the abdomen and by the form of the postscutellum, has much more affinity with the following species than with either gracilis sp. n. or mellicolor sp. n. It can, however, be easily distinguished from leucosia sp. n., by the different sculpture of the head, the length of the 3rd tergite in proportion to the 2nd and by the possession of 2 teeth to the mandibles.

Ceratoteleia leucosia sp. n.

Q. Head black, body dark brown. Legs entirely honey-yellow; hind coxae sometimes darker. Scape of the antennae, pedicel and first 4 segments of the funicle of the same colour as the legs or even brighter.

Head transverse, nearly twice as wide as long. Face above the antennal insertions without an impression, smooth and shining. Frons and vertex with moderately large, scattered punctures; sometimes the surface between the punctures is faintly coriaceous. Cheeks strongly striated and without conspicuous punctures between the striae. Antennae: pedicel slightly narrower than the Ist segment of the funicle and about 1,5 times as long as its apical width; Ist segment of the funicle hardly longer than the pedicel; 2nd as long as wide; 3rd and 4th small and bead-like; segments 5-10 forming a short thick club. Clypeus with its anterior margin straight, slightly raised and with acute lateral angles. Mandibles with 3 teeth, the middle one very small.

Thorax dull in comparison with the head and differently sculptured. Mesonotum strongly punctured, the punctures larger than those on the head and almost contiguous, the surface between them finely sculptured. Parapsidal furrows only weakly indicated, anteriorly tending to fade out. Scutellum more shining than the mesonotum, with smaller, more scattered punctures. Postscutellum produced medially to form a conspicuous semicircular lamella; this lamella is strongly, reticulately rugose all over and is about two-thirds as long as the scutellum. Propodeum deeply excavated to receive the abdominal horn. The deep, longitudinal impression on the mesopleurae is crossed, throughout its entire length, by contiguous narrow grooves. Wings yellowish brown, extending to the middle of the 3rd tergite, narrow, hardly more than 0,75 as wide as the width of the 3rd tergite; venation pale; marginalis about twice as long as wide; stigmalis twice as long as the marginalis; postmarginalis 1,25 times as long as the stig-

malis. Legs with the Ist segment of the hind tarsi a little longer than the remaining segments together.

Abdomen a little more than twice as long as the thorax and slightly wider; Ist tergite, seen from the side, not much elevated basally but certainly produced backwards over the propodeum; the length of the tergite, inclusive of the horn, is about as long as its apical width; this horn is stout; its apex is smooth and shining and is considerably overlapped by the lamelliform postscutellum; the rest of the Ist ter-

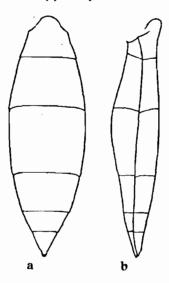


Fig. 3.—Abdomen of Ceratoteleia leucosia sp. n. \mathfrak{P} : a, dorsal; b, lateral.

gite is strongly striated; 2nd tergite about 1,5 times as wide apically as basaly, longitudinally striated over its entire surface; 4th and 5th together as long as the 3rd; 6th about as long as wide, constricted immediately before its apex; the small part beyond the constriction is smoother than the rest of the tergite and lying lower than the rest of the tergite, has the appearance of another segment projecting beyond it.

Length: 3 mm.

O. Head: Antennae: scape and pedicel more or less yellow; funicle yellowish brown; scape as long as the following 2 segments plus half the next segment; pedicel hardly longer than wide; funicle long, somewhat thick, the segments quite

conspicuously spindle-shaped, especially the apical ones; further, the funicle is clothed with short, semierect hairs which tend to curl at their apex; Ist segment thicker than and more than twice as long as, the pedicel; following segments as long as the Ist, but becoming slightly thinner towards the apex of the funicle.

Thorax: Propodeum reticulately rugose, with indications of 2 carinae which extend from its posterior corners and meet at the middle point of its anterior edge. Wings wider than the abdomen and stretching a little beyond its apex; the postmarginalis is about 1,5 times as long as the stigmalis.

Abdomen strongly shining, hardly more than 1,25 times as long

as the head and thorax together; Ist tergite not quite as long as its apical width, strongly striated; on each side, at its base, there is a deep depression; 2nd tergite about one and two thirds as wide apically as basally, strongly striated all over; 3rd a little shorter than the 2nd, transverse, striated all over, but not so strongly and evenly as the 2nd; 4th and 5th together as long as the 3rd, both without strong striations and medially becoming quite smooth.

Length: 2,5 mm.

In all other respects, like the Q.

Gen. Procacus Kieffer.

1909. Procacus Kieffer, Ann. Soc. Ent. France, v, 78, p. 319.

Procacus dubius sp. n.

Q. Head and thorax dark blackish brown. Mandibles and legs light honey brown, almost yellowish. Scape and the basal segments of the antennae paler than the apical club, but not so pale as the legs. Abdomen dark reddish brown.

Head transverse. Occiput indistinctly margined. Face above the antennal insertions without a trace of an impression, gently convex, smooth and shining; sometimes the shining area extends as a narrow shining band up to the anterior ocellus. Frons and vertex dull, very finely rugose-punctate, the vertex more finely sculptured than the frons. Antennae: scape a little longer than the following 3 segments together; pedicel 2,25 times as long as its apical width; Ist segment of the funicle cylindrical, as long as the pedicel and nearly as long as the following 2 segments together; 2nd hardly longer than wide; 3rd moniliform; segments 5-10 forming a thick club. Eyes with short scattered hairs. Cheeks striate-punctate. Mandibles with 2 apical teeth.

Thorax clothed with short brownish hairs. Mesonotum with a more distinct sculpture than the head, strongly and closely punctate, but the punctures are not clearly defined, their edges and the surface between them being covered with minute cracks. There is no trace of parapsidal furrows. Scutellum smoother than the mesonotum and shining. Postscutellum simple, showing as an extremely narrow strip

basally bordered by a shining ridge similar to that along the posterior margin of the scutellum. Propodeum deeply excavated to receive the abdominal horn; its apical corners, just behind the postscutellum, are produced into a sharp, triangular, tooth-like process; these 2 processes, viewed from in front (from the direction of the head of the insect), appear whitish owing to their dense clothing of extremely short, fine, hairs. Wings slightly yellowish, extending of the middle of the 5th abdominal tergite and with a long fringe; venation pale, marginalis much shorter than the stigmalis and twice as long as wide; postmarginalis nearly 1,5 times as long as the stigmalis. Legs with the 1st segment of the hind tarsi as long as the following segments together.

Abdomen strongly narrowed basally, almost petiolate, widest beyond the middle where it is wider than the thorax; Ist tergite very narrow, including the horn, nearly twice as long as its apical width; the apical part of the horn is smooth and shining; the sides of the horn and the medial part of the tergite are longitudinally wrinkled, the spaces between the wrinkles reticulate; the sides of the tergite, apart from the horn, are entirely smooth and shining; 2nd slightly more than twice as wide apically as basally, smooth and shining except for some fine striae at its base; 3rd entirely smooth and shining; 6th sharply pointed, about 1,25 times as long as its basal width, weakly constricted beyond its middle; owing to the comparative shortness of this tergite, there is only a very slight angulation between it and the preceding segment.

Length: 2,4 mm.

7. Differs from the female only in the following respects:

Abdomen blackish brown; 2 basal tergites paler; base of the 3rd with a large, transparent, honey-brown patch. Legs dark yellowish brown.

Head: Antennae: scape a little shorter than the first 2 funicular segments together; pedicel hardly longer than wide; funicle long, the segments subequal in length, clothed with short adpressed hairs; these hairs have some longer ones among them and they tend to obscure the sculpture of the funicle, rendering it somewhat pale in colour; Ist segment slightly the longest, nearly 3 times as long as wide; following segments all more or less equal in length; slightly thinner than the Ist nearly 3 times as long as wide.

Thorax: Propodeum with 2 hairy teeth apically as in the female, but they are not so long as, and are closer together than, in that sex; these 2 projections form the apical corners of 2 strong carinae which extend downwards to the posterior angles of the propodeum.

Abdomen: Ist tergite narrow, 1,5 times as long as its apical width, strongly and evenly striated all over; 2nd more than twice as wide apically as basally.

Length: 2,2 mm.

Cape Province (Mossel Bay; Aliwal North); Orange Free State (Harrismith), II Q Q, I8 Q Q.

Gen. Macroteleia Westwood.

1835. Macroteleia Westwood, Proc. Zool. Soc. London, part 3, p. 70.

Key to the African species.

Males.

t.	Basal segment of the hind tarsus at least 1,5 times as long as the remaining
	segments together
_	Basal segment of the hind tarsus shorter than the remaining segments to-
	gether 3
2.	Apex of 1st tergite distinctly less wide than the base of the 6th; body uni-
	form dark brown; legs of a dirty greenish-yellow colour unicolor sp. n.
_	Apex of 1st tergite distinctly wider than the base of the 6th; body deep
	black; legs reddish brown aethiops sp. n.
3.	7th tergite more or less rectangular, its apical margin straight or near-
	ly so stabilis sp. n.
	7th tergite triangular, its apex sharply pointed 4
4.	Length 3,1 mm.; 7th tergite distinctly longer than its basal width
_	Length 4,1 mm., or longer; 7th tergite hardly longer than its basal
	width versicolor Kieffer.
	Females.
1.	Basal segment of the hind tarsus at least 1,5 times as long as the remaining
	segments together
_	Basal segment of the hind tarsus shorter than the remaining segments to-
	gether 4
z,	5th tergite with its apical margin deeply emarginate, so that its apical
	corners are acute-angled unicolor sp. n.
	•

- 5th tergite with its apical margin straight or nearly so, its apical corners
more or less right-angled 3
3. Postscutellum medially wanting; horn of the 1st tergite, in lateral aspect,
very strongly elevated aethiops sp. n.
- Postscutellum medially entire; horn of the 1st tergite, in lateral aspect, but
little elevated caelebs sp. n
4. Apex of horn of the 1st tergite partly obscured by lateral lamelliform
processes of the propodeum
- Apex of horn of the 1st tergite entirely free orithyla sp. n.
5. 5th tergite nearly 6 times as long as its basal width nebrija sp. n.
— 5th tergite not more than 1,75 times as long as its basal width 6
6. 5th tergite 1,5 to 1,75 times as long as its basal width
versicolor Kieffer.
- 5th tergite not quite as long as its basal width flavigena Kieffer.

Although they could be separated generically from the African representatives of *Macroteleia*, sensu strictu, by the unusual length of the basal segment of the hind tarsus, it has been thought preferable to place the following 3 species within this genus provisionally, since the author has not had the opportunity of examining large numbers of species from all parts of the world, to see to what degree of variation the relative lengths of the segments of the hind tarsus are subject.

Macroteleia aethiops sp. n.

Q. Head, thorax and abdomen deep black. Antennae entirely black. Legs pitchy brown, the femora tending to become darker, especially the hind pair, which are nearly black.

Head transverse, strongly shining; seen from above, widest behind the eyes. Frons with large deep punctures; surface in the region of the ocelli less strongly punctured than the frons, tending to become irregular and uneven, but still very shining. Declivous part of the vertex and the temples coarsely and deeply punctate and showing a tendency to become striate-punctate. Cheeks strongly shining, their sculpture consisting of uneven, partially indistinct, longitudinal striations with large, scattered, irregularly shaped punctures among them. Face above the antennal insertions with a large, virtually smooth impression; this impression is shallow and is by no means highly specialised, being not bordered by a distinct ridge. Eyes bare, very large;

the shortest distance between the eyes (on the frons) is only about twothirds as long as their shortest width. Antennae: scape smooth and shining, not much longer than the following 2 segments together; pedicel slender, about 4 times as long as its apical with; funicle very slender, without a conspicuous club, the 7th segment being not twice as thick as the apex of the Ist; Ist segment of the funicle longer than the pedicel, about 5 times as long as its apical width; 2nd and 3rd together

slightly longer than the Ist; segments 5-9 as long as, or slightly longer than, wide. Mandibles short, more or less rectangular in outline, with 3 teeth, the lowest tooth the longest.

Thorax: Mesonotum nearly flat, with large deep punctures, which anteriorly are almost contiguous, but posteriorly become much more widely separated so that the middle area of the mesonotum shows conspicuous smooth shining spaces on its posterior half. Parapsidal furrows very distinct, widening slightly posteriorly, and having the appearance of being formed by a row of clearly defined, transverse punctures. Scutellum with a few scattered punctures on its shining central part. Postscutellum short, medially wanting, the abdominal horn extending right up to the edge of the scutellum in normal attitude of the insect; in one of the two females examined, the postscutellum on

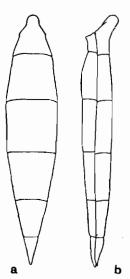


Fig. 4. — Abdomen of Macroteleia aethiops sp. n. Q: a, dorsal; b, lateral.

each side of the emargination is produced to form a short, subtriangular lamella. Wings extending to as far as the apex of the 4th tergite, pubescent, strongly infuscated in one female but only slightly so in the other; fringe extremely short; venation very distinct; subcostalis well separated from the edge of the wing, extending to about its midpoint; marginalis about 6 times as long as its medial width; stigmalis a little shorter than the marginalis; postmarginalis more than twice as long as the marginalis. Legs very long and slender; basal segment of the hind tarsi 1,5 times as long as the following segments together.

Abdomen nearly twice as long as the head and thorax together,

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by no means parallel-sided, becoming gradually and evenly pointed towards its apex; Ist tergite basally strongly elevated and produced backwards over the propodeum to as far as the edge of the scutellum; this horn is shining and narrow, its width, at the point where its sides appear parallel, being only about 0,25 as great as the apical width of the tergite; the tergite, considered apart from the horn, is transverse and very strongly and evenly striated; tergites 2-5 distinctly longer than broad; 2nd striate-reticulate; 3rd evenly reticulated all over; 6th narrowly pointed, about 1,5 times as long as its basa width, not laterally compressed. There is no trace of an angulation between the 5th and the 6th tergite.

Length: 5 mm.

 \vec{O} differs from the Q only in the following respects:

Head: Eyes relatively not so large, the shortest distance between them (on the frons) but little less than their shortest width. Antennae: black; scape slightly less long than the following 3 segments together, shining; pedicel as long as its apical width, above, smooth and shining; funicle thickly clothed with short, pale, bristling hairs, its basal segments somewhat rugose; Ist segment about 3 times as long as its apical width; 2nd twice as long as wide; 3rd as long as the 2nd, with a sexual modification beneath; this modification consists of a fine shining longitudinal keel which extends from its base for about two-thirds of its length; following segments shorter than those preceding and becoming slightly narrower towards the apex of the funicle, the 9th segment being from 1,25 to 1,5 times as long as wide.

Thorax: Mesonotum rather more coarsely and deeply punctured than in the Q, the punctures on the median lobe becoming less widely separated posteriorly. Postscutellum entire, without any flat surface; at its middle, longitudinally crossed by strongly raised costae; the spaces between these costae are deeply excavated. When viewed from behind, the medial part of the postscutellum appears truncate and resembles a transverse projection, whose apical margin is weakly but widely emarginate. Propodeum shining, very coarsely reticulate-rugose, medially with a somewhat deep excavation which is bounded by 2 irregular, often broken, carinae which originate at the posterior corners of the propodeum and converge towards its apical

margin; this area is divided by a more or less clearly defined transverse ridge, situated above its middle, into two parts, the lower one of which is semicircular. Further, the propodeum is virtually glabrous, the tufts of short hair at its sides being quite inconspicuous. Wings strongly brownish, extending a little beyond the apex of the 4th abdominal tergite.

Abdomen: Ist tergite wider apically than long, without a horn, but its basal margin raised and sharply edged; the sculpture of the segment consists of strong, often broken, longitudinal striations; 4th as long as its basal width; 5th transverse but not conspicuously so; 6th half as long as the 5th; 7th extremely short. The abdomen of this species is clearly narrower at its apex than at its base, the base of the 6th tergite being only about two-thirds as long as the apex of the 1st.

Length: 4,3-4,5 mm.

Cape Province (Port St. John). 2 $\mathcal{Q} \mathcal{Q}$, 3 $\mathcal{O} \mathcal{O}$.

Macroteleia unicolor sp. n.

Q. Head, thorax and abdomen uniform dark brown. Scape of the antennae and usually the following segments to as far as the club, and the legs, dirty greenish-yellow; the colour of the legs is variable, the coxae and the tarsi being often darker.

Head shining, punctate, transverse; viewed from above, distinctly wider behind the eyes than across them. Face above the antennal insertions with a shallow, smooth impression. Frons clearly and sharply punctured, the punctures small and not very close; the surface along the inner margin of the eyes appears often quite dull by reason of the fine sculpture between the punctures. Space between the ocelli slightly more shining and less punctured than the frons. Declivous part of the vertex and the temples much more strongly and closely punctured than the frons. Cheeks striate-punctate. Antennae: scape slightly longer than the following 2 segments together; pedicel about 3,5 times as long as its apical width; funicle long and slender, its basal 3 segments almost as long as the following 7 segments together; Ist segment longer than the pedicel, about 5 times as

long as its apical width; 2nd hardly shorter than the Ist; 4th about twice as long as its apical width; the apical 6 segments form a very weak club. Eyes large, bare. Mandibles 3-dentate.

Thorax: Mesonotum shining, often quite flat and sometimes even depressed, sharply punctate; the punctures are not unusually large, often but little larger than those on the frons; further, these punctures are not always equally numerous on all specimens, sometimes becom-

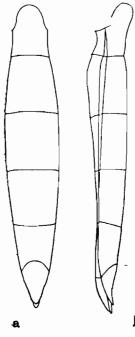


Fig. 5. — Abdomen of *Macroteleia unicolor* sp. n. Q: a, dorsal; b, lateral.

ing more remote posteriorly and medially, and leaving smooth spaces many times greater than their own diameter. Parapsidal furrows narrow, sharply defined, the surface along each side of them somewhat dull by reason of the fine sculpture among the punctures. tellum punctured more or less like the mesonotum. Postscutellum medially lamelliform, entire, about one-third the length of the scutellum, its posterior margin more or less straight. Propodeum with a tuft of whitish hairs at its sides, and medially very deeply excavated to receive the abdominal horn. Wings brownish, with a very short fringe, and extending to nearly the base of the 6th tergite; venation similar to that of aethiops sp. n. Legs long and very slender, the basal segment of the hind tarsi being about twice as long as the following segments together.

Abdomen about 2,5 times as long as the head and thorax together, the tergites strongly convex; Ist tergite only slightly elevated basally

but nevertheless produced backwards over the dorsal surface of the propodeum and having its apex overlapped by the postscutellar lamella; this horn is wide and blunt, apically more or less smooth, and, measured at the point where its sides appear nearly parallel, is about two-thirds as wide as the apex of the tergite; further the apical half of the tergite is longitudinally striated; tergites 2-5 subequal in length; 2nd and 3rd shallowly and closely punctate; 5th with its entire apical margin deeply emarginate so that the apical lateral cor-

ners of the tergite are acute-angled; 6th longer than the medial length of the 5th and with its apical half slightly constricted.

Length: 5,6-6 mm.

of. Head: Antennae: scape coloured as in the Q; pedicel sometimes pale like the scape or showing the same coloration as the funicle, twice to 2,5 times as long as its apical width; funicle blackish, brown, clothed with pale, extremely short bristling hairs; Ist segment 3 times as long as its apical with; 2nd and 3rd cylindrical, subequal in length, only a little shorter than the Ist; 3rd with a sexual modification as in aethiops sp. n.; segments 4-9 about 1,75 times as long as wide, sometimes becoming slightly narrower towards the apex of the funicle.

Thorax: Scutellum medially with its posterior edge sharp, and, although not produced forwards, lamelliform in the sense that there is a free space beneath it. Propodeum normal, rugose, as long as the scutellum and divided by 2 longitudinal carinae into 3 areas; the 2 lateral areas are quite conspicuously clothed with white hairs; the inner area is shallowly excavated and is often subdivided by a more or less distinct and usually forked carina; each of the 2 longitudinal carinae bounding this large median area bears a long, conspicuous fringe of fine white hairs which slope inwards. Legs with the Ist segment of the hind tarsi not so conspicuously long as in the \mathcal{Q} , being only about 1,75 times as long as the following segments together. Wings extending to as far as the apex of the 5th tergite.

Abdomen much flattened, about 1,5 times as long as the head and thorax together; Ist tergite a little longer than wide apically, with strong longitudinal striations; 2nd and 3rd a little longer than wide, without a trace of a lateral ridge, sloping naturally and gently towards the sharp sides of the abdomen; 4th slightly transverse, its surface shallowly punctate rather than reticulate; 5th and 6th together, a little longer than the 3rd; 7th broadly rounded at its apex. The abdomen is clearly wider at its apex than at its base, the base of the 6th tergite being distinctly longer than the apex of the Ist.

Length: 4,5-5,1 mm.

In all other points, the \circ resembles the \circ .

Cape Province (Port St. John). II ♀♀, 44 ♂♂.

This fine species is very distinct in the female sex on account of the remarkable shape of the 5th tergite and both male and female are easily recognisable by the peculiar colour of the legs combined with the unrelieved brown colour of the body.

Macroteleia caelebs sp. n.

Q. Very dark brownish black. Antennae, except the apical 6 segments, reddish brown. Legs reddish brown (except the two hind pairs of coxae which tend to become black and the hind femora which are somewhat suffused with darker colour).

Head shaped as in aethiops sp. n. Frons strongly punctured, the punctures extending along the eye-margins to as far as the genal sulcus. Vertex in the region of the ocelli more evenly punctured than in aethiops; declivous part of the vertex hardly striate-punctate. Frons and vertex distinctly hairy. Antennae: slender, but not so slender as in aethiops; scape a little longer than the following 2 segments together; pedicel about 4 times as long as its apical width; Ist segment of the funicle slightly longer than the pedicel; 3rd nearly 2,5 times as long as wide; 4th 1,25 times as long as wide; the apical 6 segments form a weak club similar to that of unicolor sp. n., but thicker than that of aethiops. Eyes bare.

Thorax: Mesonotum shining, more finely punctured than in aethiops, but more coarsely so than in unicolor; the punctures are distributed over the whole of the median lobe, but are often separated by a distance greater than their own diameter, especially medially and posteriorly. Scutellum smooth, with only a few scattered punctures. Postscutellum very short, medially lamelliform and coarsely rugose, its posterior edge entire. Wings slightly infuscated, extending to nearly the apex of the 3th tergite; venation as in aethiops. Legs with the 1st segment of the hind tarsi about 1,5 times as long as the following segments together.

Abdomen shaped as in aethiops; Ist tergite, in lateral aspect, not strongly elevated posteriorly but nevertheless produced backwards and covering the whole dorsal length of the propodeum; this horn is short and wide, and the length of the tergite, measured inclusive of

the horn, is as long as the tergite's apical width; apical part of the horn smooth and shining; rest of the tergite longitudinally striated but the striae not so strongly raised and ridge-like, nor so regular as in aethiops. Abdomen otherwise as in aethiops but the reticulations of the 3rd tergite are less raised than in that species, the surface of the tergite appearing, in consequence, shallowing punctate rather than reticulate.

Length: 5,1 mm.

Cape Province (Port St. John). I Q.

This species could only be confused with aethiops sp. n., from which it is readily distinguished, however, by the entirely different form of the postscutellum and of the abdominal horn.

Macroteleia orithyla sp. n.

Q. Deep black. The legs blackish brown; the tarsi paler.

Head transverse, weakly shining, clothed with very fine semidecumbent brownish hairs; if the head be viewed from above by looking down directly on to the ocelli, it is 1,5 times as wide as long." Face above the antennal insertions with a shallow impression in which the antennal scapes lie; face to the side of this impression coarsely Frons before the anterior ocellus with scattered punctures on a sculptured surface. Vertex between the ocelli with somewhat coarse longitudinal aciculations and with scattered punctures among these aciculations. Vertex between the posterior ocelli and the occipital margin showing a peculiar sculpture; coarse, very irregular aciculations extend from the temples to the ocelli, leaving a transverse, subtriangular area medially against the occipital margin; this area tends to become smoother and more shining and has large, scattered, irregularly shaped punctures. The occiput is sharply ridged. Antennae: pedicel 2,5 times as long as its apical width; funicle with its Ist segment as long as the pedicel but narrower, 3 times as long as wide; 2nd and 3rd together as long as the Ist; there is no clear separation between the sharply pointed club and the basal segments, the 4th funicular segment being intermediate in size between the 3rd and the 5th. Eyes large, bare. Mandibles very short, with 3 teeth.

Thorax: Mesonotum somewhat impressed along its middle, faintly shining; the median lobe has large scattered punctures, which are more numerous anteriorly; the large unpunctured spaces are not entirely smooth, owing to an indefinite sculpture. The parapsidal furrows are not sharply defined, being represented by a row of strong-

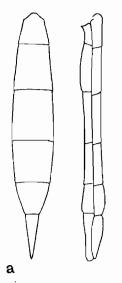


Fig. 6. — Abdomen of Macroteleia orithyla sp. n. \mathfrak{P} : a, dorsal; b, lateral.

ly transverse punctures, which, as they approach the posterior edge of the mesonotum, become confused with the irregularly shaped punctures of the median lobe of the mesonotum. Postscutellum very short, with a faint medial projection. Propodeum with the usual excavation but without lateral lamellae covering the base of the Ist abdominal tergite. Wings almost hyaline, extending to the apex of the 4th tergite; stigmalis two-thirds as long as the marginalis; postmarginalis 1,5 times as long as the marginalis. Legs with the Ist segment of the hind tarsi shorter than the following segments together.

Abdomen narrow, 3 times as long as the thorax; basal tergites without a trace of a lateral ridge above the normal sharp edge; apical tergites thickly hairy; Ist, seen from the side, hardly elevated, but certainly produced back-

wards to fill the propodeal cavity and, like the rest of the tergite, dull, being finely wrinkled, the surface almost finely rugose; tergites 2-4 longer than wide, dull; the sculpture of the 2nd consists of fine, close, extremely wavy wrinkles; the sculpture of the 3rd and 4th is less definite, and can be described only as finely rugose; 5th about as long as its basal width, twice as wide basally as apically; 6th laterally, strongly compressed, nearly 4 times as long as its basal width.

Length: 4 mm.

Cape Province (Ceres), I ♀.

Macroteleia nebrija sp. n.

Black. Sides of the head and of the thorax, a patch on the mesonotum and a very broad, longitudinal band on the 2nd and 3rd tergite, brownish yellow. Legs entirely honey-yellow.

Head weakly transverse. Face behind the eyes slightly bulging and as wide as the eyes themselves. Frons and vertex shallowly punctate; the spaces between the punctures and the base of the punctures themselves covered with minute cracks. Face behind the eyes less clearly punctured than the vertex, the punctures being confused with longitudinal aciculations; along the posterior eye margins the surface, narrowly, becomes almost entirely smooth and shining. Antennae: scape as long as the following 2 segments together; pedicel at least 3 times as long as its apical width; lst segment of the funicle narrower and hardly longer than the pedicel; 4th a little longer than wide; there is no sharp separation between the rather weak club and the basal seg-

Thorax: Mesonotum sculptured as is the head but more shining on the median lobe, where the surface between the punctures is often quite smooth. Parapsidal furrows very narrow and somewhat indistinct. Postscutellum medially produced into a weak, triangular lamella. Propodeum without a visible dorsal surface, being covered by the horn of the 1st abdominal tergite; the sides of the propodeum are produced upwards into 2 subtriangular lamellae, which

ments of the funicle, the 4th segment being intermediate

in size between the 3rd and the 5th. Eyes bare.



Fig. 7.-Abdomen of Macroteleia nebrija sp. n. ♀: dorsal.

wrap round the apex of the abdominal horn, partly obscuring it. Wings nearly hyaline, extending a little beyond the apex of the 3rd tergite; stigmalis as long as the marginalis; postmarginalis nearly 3 times as long as the marginalis. Legs with the Ist segment of the hind tarsi shorter than the following segments together.

Abdomen 4 times as long as the head and thorax together; apical 2 tergites linear, more than two-thirds as long as the rest of the abdomen; Ist tergite produced backwards but not elevated basally, the

thorax and the abdomen lying in the same plane; the apex of this horn is overlapped by the lamella of the postscutellum and by the lamelliform sides of the propodeum; 2nd and 3rd tergite finely, and as closely as possible, striated; the sculpture of the following tergites tends to become less definite.

Length: 6 mm.

Natal (Van Reenen), I Q.

A very distinct species on account of the great length of the abdomen.

Macroteleia stabilis sp. n.

O. The eyes, a broad band extending from the ocelli to the occipital margin, the mesonotum, scutellum, postscutellum, and propodeum above, the 5th and 6th tergite, the 5th and 6th sternite, more or less black. Rest of body honey-yellow except the antennae and the sides of the middle tergites which are brownish.

Head distinctly transverse, a little more than 1,5 times as wide as long, with moderately large, almost contiguous punctures. The face behind the eyes is almost as wide as the eyes themselves. Antennae: scape about as long as the following 3 segments together; pedicel twice as long as wide; funicle clothed with inconspicuous hairs, which are short, fine, and slope forwards slightly; Ist segment as long as the pedicel; 2nd much shorter than the Ist; 3rd somewhat longer than wide, with a faint keel on its lower side extending from its base to within a third of its apex; following segments up to the 10th hardly longer than wide. Eyes bare. Ocelli separated from the eye-margin by about half their own diameter.

Thorax more shining and smoother than the head, with sharply defined punctures which are separated from each other by a distance considerably greater than their own diameter. Parapsidal furrows sharply defined. Postscutellum short, medially longitudinally costate. Propodeum finely rugose, with 2 somewhat illdefined longitudinal carinae; these carinae are parallel and lie close to one another. Wings faintly yellowish; marginalis a little longer than the stigmalis; postmarginalis 3 times as long as the stigmalis. Legs with the basal segment of the hind tarsi a little shorter than the following segments together.

Abdomen nearly 2,5 times as long as the thorax, very narrow; Ist tergite longitudinally striated, the striae somewhat fine; remaining tergites very finely striated, the striae not very close; 7th tergite strongly transverse, its apical margin straight.

Length: 3,4 mm.

Cape Province (Port St. John), 3 or or.

This species can be immediately distinguished from versicolor Kieffer and flavigena Kieffer by the shape of the 7th tergite, which, in both of Kieffer's species, is triangular and has its apex sharply pointed.

Macroteleia versicolor Kieffer & M. flavigena Kieffer. 1910, Bull. Soc. Ent. France, p. 293.

Both these species, originally described from the Seychelles Is., occur in Cape Province; the former, to judge from the numerous examples from various localities, appears to be fairly common.

The of of flavigena, has hitherto not been described. It is so like that of versicolor, that a detailed description of it would be superfluous. The differences are as follows:

- 1. Size larger, length 4,1 to 5 mm.; head more transverse; 7th tergite shorter; hairs of the apical tergites, denser, longer, and of a rich brown colour....

 versicolor 3ⁿ.

Gen. Thelepte nov.

Head nearly quadrate. Antennae 12-segmented in boths sexes; funicle filiform in the Q^* , with a 6-segmented club in the Q. Eyes bare. Posterior ocelli touching the eye-margins. Mandibles three-dentate.

Thorax longer than wide and without a trace of parapsidal furrows. Postscutellum medially with a lamelliform process. Wings: marginalis a little longer than the stigmalis; postmarginalis twice as long as the marginalis.

Abdomen longer than head and thorax together, narrow, nearly

parallel-sided; Ist tergite with a horn in the Q, simple in the Q; middle tergites transversely impressed at their base so that the abdomen, in lateral aspect, has the appearance of being distinctly notched along its dorsal surface.

Type of the genus, the following species:

· Thelepte serapis sp. n.

Black. Antennae, except the apical 5 segments, dark yellow. Legs ochreous yellow except the hind coxae which tend to become blackish-brown.

Q. Head transverse, but not conspicuously so, about 1,5 times as wide as long; seen from above, the head behind is feebly emarginate and the vertex only weakly declivous posteriorly; the shortest distance between the eyes and the occipital margin is slightly greater than half the width of the eyes themselves. Frons, vertex and the temples dull, or sometimes faintly shining in the region of the ocelli, the surface finely alutaceous, and with scattered, hardly visible, microscopic punctures. Cheeks with very fine, wavy striations, which, as they approach the mouth and the genal sulcus, often fade out, leaving a smooth shining surface. Genal sulcus sharply defined. Antennae: pedicel about twice as long as its apical width; Ist segment of the funicle 1,5 times as long as wide; 2nd and 3rd more or less moniliform; 5th transverse, its colour intermediate between that of the club and the segment preceding it; segments 6-10 forming a thick club. Eyes not very large; if the anterior ocellus be looked down upon directly from above, a line drawn horizontally through this ocellus would cut the eyes into 2 more or less equal halves.

Thorax: Mesonotum and the scutellum sculptured more or less as is the head but more shining. Postscutellum with its posterior margin, medially, directed upwards, lamelliform, deeply and widely emarginate; the length of each of the subtriangular lamellae thus formed is a little less than half the length of the scutellum. Propodeum, dorsally, deeply excavated to receive the abdominal horn. Mesopleurae nearly smooth beneath the shining, longitudinal impression. Metapleurae entirely smooth and shining. Wings subhyaline, reaching to

about the apex of the 4th abdominal tergite. Legs with the 1st segment of the hind tarsi slightly longer than the following segments together.

Abdomen twice as long as the head and thorax together, with a sculpture similar to that of the head but coarser and more shining,

the surface almost finely rugose; Ist tergite strongly elevated and produced backwards over the propodeum to as far as the postscutellum; this horn is short, strongly shining and smooth over its apical part; the Ist tergite, considered apart from the horn, would be almost square in outline; tergites 2-5 subequal in length, all a little longer than wide; 6th tergite strongly flattened and sharply pointed, about 1,5 to 1,75 times as long as its basal width; 6th sternite projecting strongly beyond the apex of the 6th tergite.

Length: 3,3 mm.

J. Head: Antennae: scape and pedicel both shining, coloured as are the legs; scape as long as the following 3 segments together;

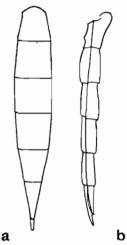


Fig. 8. — Abdomen of Thelepte serapis sp. n. Q: a, dorsal; b, lateral.

pedicel 1,5 times as long as its apical width; funicle dark brown, thickly clothed with mostly adpressed, light brown hairs, which more or less obscure the sculpture of its segments; Ist segment about 1,75 times as long as wide, 2nd slightly shorter; remaining segments hardly 1,25 times as long as wide.

Thorax: Medial lamelliform process of the postscutellum only weakly emarginate. Propodeum measured along its middle, about as long as the scutellum; 2 high, sharp ridges run, in a very oblique curve, from the midpoint of its anterior edge to the posterior lateral corners; the transverse area enclosed by these 2 ridges is strongly shining and nearly smooth. Wings reaching to the apex of the 5th tergite.

Abdomen: Ist tergite about as long as its apical width, its posterior margin raised and slightly produced backwards; the entire tergite bears delicate wrinkles on a finely rugose surface; anteriorly these wrinkles fade out, leaving a smooth, shining band along the apical

margin of the tergite; tergites 2 and 3 with a dull, almost chagrined, surface; 7th tergite visible as a very narrow, shining, strip.

Length: 2,8 mm.

In all other respects like the Q.

Cape Province (Mossel Bay; Port de St. John), 10 QQ, 300.

The wing-venation, which is that of typical *Macroteleia*, the entire absence of parapsidal furrows together with the peculiar form of the abdomen provide a combination of characters which prevents the inclusion of this species in any known genus. The insect is, further, very distinct specifically on account of its fine, indefinite sculpture.