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## ON THE PARASITIC HYMENOPTERA COLLECTED BY MR. A. J. T. JANSE, TRANSVAAL.

BY P. CAMERON.

VERY little has been written on the parasitic Hymenoptera of the Transvaal. The material collected so industriously by Mr. Janse (whose study is the Lepidoptera, not the Hymenoptera) forms a very welcome contribution towards our knowledge of that part of South Africa. In my paper on the parasitic Hymenoptera of the South African Museum, Capetown (Annals of the South African Museum, v, 17-186), I was only able to record, from the material in the museum's collection, thirteen species from the Transvaal. I am very glad to be able to record, from the rearings of Mr. Janse, the larval hosts of a number of the species.

### TENTHREDINIDAE.

#### *Arge pretoriaensis*, sp. n.

Dark blue, densely covered with a white pile, the sides of the pronotum to shortly below the middle, the mark triangular, the narrowed end at the base, the tegulae, a large mark on the upper part of the mesopleurae, extending from the base to near the apex, the lower part obliquely narrowed to an acute point from the apex to the base; the apex rounded, with an incision in the middle at the oblique furrow; the antennae darker coloured than the body, densely covered with black pubescence. Wings hyaline, iridescent, the nervures and stigma blackish fuscous, the base of the stigma pale. Female.

Length, 7 mm.

Pretoria. January.

Head hardly, if at all, dilated behind the eyes. Second abscissa of radius about one-fourth longer than the third, which is of the same length as the fourth; the first transverse cubital nervure is fainter than the

others, the second is slightly roundly curved, the third much more distinctly so; the first recurrent nervure is received shortly behind the middle, the second near the base of the cellule; the first transverse median nervure near the base of the apical third. Antennal fovea clearly defined, with sharp, projecting bounding keels, which approximate, but do not meet, below. The costal and basal alar nervures are paler than the apical.

*Arge transvaalensis*, sp. n.

Black, densely covered with a white pile, the upper part of the head and of the thorax with the black, tinged with blue; the face, clypeus, except below, outer orbits, and the prothorax, except narrowly and irregularly below, yellowish testaceous; the antennae, palpi, and mandibles black; the abdomen rufo-testaceous, a broad black band on the sides of the first, second, and fourth to seventh dorsal segments. Wings hyaline, tinged with yellow, the costa and nervures testaceous, except the basal two abscissae of the radius, the cubitus except the basal abscissa, the second transverse cubital and the anal nervure which are black; the second abscissa of the radius is about one-fourth shorter than the third, the first transverse median nervure is received in the middle of the cellule. Temples distinctly roundly dilated behind the eyes; there is no antennal area, only a keel on the inner side of the antennae. Legs with the coxae, trochanters, femora, base of tibiae narrowly, their apex more broadly, the apex of the basal two joints of the four front tarsi, the base and apex of the hinder pair and all the other joints black, the rest testaceous. There is a fuscous cloud, longer anteriorly than along the radius, in the base of the radial cellule, one in the apex of the first cubital of equal width at the base, the basal (and larger) hyaline part being triangular and this cloud is continued into the second cubital cellule where it is wider along the cubitus than along the radius.

Allied to *A. dirce*, Kirby.

*Athalia himantopus*, Klug.

Jahrb. d. Insect I, 253, 7; Kirby, List of Hymen, I, 236; Konow, Wissen. Erbeg. d. Schwed., Zool. Exped. nach dem Kilimandjaro, etc., Tenthredinidae, 3.

Waterval. November and December. Zusterstroom, September.

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 ICHNEUMONIDAE.  
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ICHNEUMONINI.

*Ichneumon transvaalensis*, sp. n.

Dark rufous, the central part of the propleurae, the apex of the mesopleurae above and more narrowly below, the mesosternum and the base of the metapleurae, black; the centre of the mesonotum and of the metanotum darker coloured than the sides; legs coloured like the body, the four anterior tarsi darker coloured, the posterior black. The antennal scape rufous, the flagellum black, the ninth to eighteenth joints of the flagellum for the greater part yellowish-white. Wings hyaline, very iridescent, the stigma rufous, the costa and nervures black; the discocubital nervure with a minute stump, the recurrent nervure angled above

the middle and with a short but distinct stump on the outer side of the angle; it is received shortly beyond the middle of the areolet, which is narrowed in front, the nervures almost meeting there; the transverse median nervure is received shortly beyond the transverse basal. Head, thorax (especially the upper part), and legs densely covered with white pubescence. The areola is clearly longer than wide, the base open, the apex rounded inwardly, the sides outwardly, the inside in the centre irregularly longitudinally, the sides irregularly transversely striated. Head and thorax strongly, closely punctured, the metathorax more strongly than the rest, the scutellum less closely than the mesonotum, with its base smooth. Female.

Length, 11 mm.

Fountains (Pretoria). April.

Basal three segments of the abdomen closely punctured, the first more strongly than the second, the latter than the third, which is weakly punctured at the apex. Gastracœli deep, strongly striated; the part between them is more strongly striated than the rest of the segment.

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*HOLCICHNEUMON*, *gen. nov.*

Clypeus transverse, armed in the centre with two small teeth or tubercles. Labrum prominent. Scutellum not raised above the mesonotum, its sides stoutly keeled, furrowed inside the keels; both are separated at the apex. Metathorax broadly rounded, regularly areolated; the areola longish, the basal half of equal width, the apical obliquely narrowed; the basal area almost square, of equal width; the spiracles longish, linear. Areolet four-angled, the transverse cubital nervures meeting in front; disco-cubital nervure broken by a stump; the transverse median nervure received shortly beyond the transverse basal. Post-petiole smooth; it becomes gradually widened towards the apex; gastracœli moderately large and deep; the seventh segment is as long as the sixth. Tarsi closely spinose beneath and with longer spines on the apex. Antennae dilated towards the apex. Ventral keel on segments 2-4.

Characteristic of this genus are the transverse, bituberculate clypeus and the scutellum deeply grooved laterally.

*Holcichneumon testaceus*, *sp. n.*

Testaceous, the orbits narrowly bordered with yellow, the face, clypeus, mandibles, malar space, and pleurae tinged with yellow; the tips of mandibles, stemmaticum and two broad lines on the mesonotum, commencing near the base and extending to the apex, black, the lines on the mesonotum bordered with pale yellow; legs coloured like the body, the hind tibiae infuscated, their tarsi black. Flagellum of antennae black, the apex infuscated, the eleventh to seventeenth joints white. Covered with a white pile; the head and thorax closely punctured, the scutellums smooth; the lateral furrows on the scutellum deep, bordered outwardly by stout keels which do not meet behind. Areola fully one-half longer than wide, the apical half narrowed, the base transverse, the apex rounded inwardly; the basal area large, almost square, being of equal width.

Basal segment of abdomen smooth, the others closely, weakly punctured. Gastracoeli large, striated outwardly, the inner side deep and smooth. Female.

Length, 13 mm.

The pubescence is short, sparse, and white. The face and upper part of the clypeus are strongly, but not closely, punctured; the front smooth, the vertex punctured. Thorax closely punctured, the metanotum more strongly than the rest. Scutellum smooth, the base sparsely, weakly punctured, each puncture with a hair. The second and following abdominal segments are weakly closely punctured. The temples are short, obliquely rounded.

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LISTRODROMINI.

*Ctenochares*, Foer.

*Ctenochares xanthomelas*, Bé.

*Cf.* Cameron, Annals of South African Museum, V, 177.

A single example of this widely distributed species.

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CRYPTINAE.

CRYPTINI.

*OSPRYNCHOTUS*, Spin.

*Osprynchotos ruficeps*, Cam.

Annals of South African Museum, V, 142.

Lemana (Zoutpansberg District). October. One example.

*Osprynchotus capensis*, Guér.

Cameron, Annals of South African Museum, V, 142.

Waterval (Zoutpansberg District). January. Rietfontein (Pretoria District). November.

The male varies in length from 15 to 25 mm.

*Alriada*, gen. nov.

Areolet pentagonal, twice longer along the radius and cubitus than along the transverse cubital nervures, the recurrent nervure received in the middle; transverse median nervure received behind the transverse basal; transverse cubital nervure in hind wings broken shortly below the middle; disco-cubital nervure broadly rounded, unbroken. Metanotum smooth, shining, with two complete keels, the basal farther removed from the base than is the apical from the apex; the spiracles small, almost circular. Mesonotal furrows extending from the base to the apex. Lower half of face bordered by wide, deep furrows. Clypeus separated from the face, slightly, broadly depressed in the middle. Labrum prominent, rounded below. Mandibles depressed in the middle at the apex. Occiput margined, not transverse. Eyes large, converging below; the malar space short. Abdominal petiole becoming gradually, but not much, widened from the base to the apex, smooth, the second and third segments closely distinctly punctured, the second raised at the base. Antennae much longer than the body, slender, slightly thickened towards the apex,

near which is a broad white ring. Legs slender, the fore tibiae more than twice the length of the tibiae. Claws short. Metapleural keel complete, stout. Head wider than the thorax.

The type of this genus is a slender, uniformly luteous species, with clear hyaline wings. I refer it to the *Mesostenini* from the form of the areolet, which, although larger than is usual with that tribe, has the second nervure faint and it is not narrowed in front as it is in the *Cryptini*. There is no described genus with which it can be compared. Characteristic is the face with the sides deeply furrowed and the depressed clypeus.

*Alriada spilocephala*, sp. n.

Luteous, the flagellum of antennae, except the apex of the tenth and the eleventh to seventeenth joints which are clear white; a mark on the centre of the vertex and upper half of the front, the mark narrowly dilated for a short distance along the keel on occiput and roundly narrowed below, the apex of mandibles and the apical fourth of the ovipositor, black. Wings hyaline, the stigma and nervures black, the second transverse cubital nervure and the disco-cubital nervure beyond the middle bullated. Female.

Length, 7 mm.; terebra, 3 mm.

Smooth and shining, the second and third abdominal segments closely, rather strongly, the fourth weakly, punctured. There is a short, sparse, white pubescence.

*Mesostenus albilabris*, sp. n.

Black, shining; the thorax red, the lower part of the propleurae, prosternum, the centre of mesosternum, a triangular mark along the apex of the furrow and the metasternum, black; the apical half of the eighth and the ninth to fourteenth joints of the antennae and the labrum, white; the clypeus tinged with brown, the palpi blackish-fuscous, the middle of basal abdominal segment dark rufous. Wings hyaline, the nervures black, the posterior part of the stigma fuscous, the disco-cubital nervure largely bullated at the base of the apical third, the recurrent nervure largely in the middle; it is received at the base of the apical third of the areolet, which is twice longer than wide. Parapsidal furrows crenulated; the mesonotum smooth; scutellum strongly but not very closely punctured. The centre of the basal part of the metanotum is smooth at the base and apex, the rest finely, closely, irregularly striated, with scattered punctures; the outer part is strongly punctured, the punctures clearly separated, the basal two-thirds of the apical part strongly, closely, irregularly striated; the apex less strongly, more regularly, striated, with the striae distinctly separated. Propleurae smooth, with a striated belt near the base. Mesopleurae closely, irregularly reticulated, a closely, obliquely striated band below the tubercles, the apex smooth near the top. Metapleurae more strongly and closely punctured than the mesopleurae, the lower part near the centre more or less obliquely striated; the parts beyond the apical furrow striated. Mesosternum more strongly and regularly punctured than the mesopleurae. First abdominal segment smooth, except narrowly at the base; there is a conical depression near the base of post-petiole, and

along its sides a wide curved furrow ; the second and third segments are closely, rather strongly punctured, the others sparsely and weakly so. Female.

Length, 10 mm. ; terebra, 14 mm.

Lemana (Zoutpansberg District). November.

Face closely, irregularly, longitudinally striated in the centre, the lower part of this striated part bordered by curved furrows ; the sides above with a few weak punctures. Clypeus and labrum smooth, shining, sparsely covered with white hair ; the front and vertex smooth, shining, punctured between the ocelli. Legs black, the four anterior femora and tibiae largely infuscated, the anterior more largely so than the middle ; the second, third, and base of fourth joint of the hinder tarsi white ; the tarsi covered with short white spines.

This species, of those known to me, comes nearest to *M. lissonotus*, Cam. ; the following are the essential differences between the two :—

Length, 17 mm. ; labrum and base of first abdominal segment black, the third and fifth abdominal segments with the apices white ; base of metanotum strongly punctured throughout, a keel between the ocelli. *lissonotus*, Cam.

Length, 10 mm. ; labrum white, base of first abdominal segment rufous, the third and fifth abdominal segments without white, base of metanotum striated and punctured only in the middle ; no keel between the ocelli. *albilabris*, Cam.

#### HEMITELINI.

##### VALOGA, gen. n.

Metanotum closely, transversely striated ; there are two keels down the middle of the basal half ; the spiracles small, round. The only transverse cubital nervure is short, the radius and cubitus nearing each other at it ; the recurrent nervure is received four times its length beyond it ; transverse median nervure almost interstitial ; the disco-cubital nervure rounded, unbroken ; the transverse cubital nervure in hind wings broken shortly below the middle. Third joint of antennae longer than the fourth ; there are twenty-seven antennal joints. There is a raised tubercle in the centre of the face near the clypeus, which is not clearly separated from the former. Malar space furrowed, one-third of the length of the eyes. Ocelli in a curve, separated from the eyes by a slightly greater distance than they are from each other. Occiput margined. Scutellum raised, smooth, keeled laterally at the base. Basal three abdominal segments closely striated ; the first becomes gradually widened from the base to the apex ; the ovipositor is half the length of the abdomen. The wings are clouded.

This genus may be known by the absence of areae on the metanotum. It is not unlike the South African genus *Lievella*, Cam., which wants also the first transverse cubital nervure, but it has the metanotum regularly areolated.

##### *Valoga nitidisentis*, sp. n.

Black, the pro- and mesothorax and the metapleurae red ; flagellum of antennae dark red, joints fourth to seventh and the twelfth and following, blackish ; the fore legs testaceous, the middle of a darker testaceous

colour, black at the base, the spurs dark testaceous. Head, thorax, and apical segments of abdomen covered with white pubescence. Wings hyaline, a wide pyriform cloud behind the transverse basal and transverse median nervures, the narrowed end in front, the posterior rounded; it does not reach to the costa, but extends to the posterior edge of the wings; there is a large, irregular pyriform cloud, narrowed in front extending from the anterior to the posterior part of the wing; it commences at the base of the disco-cubital nervure; the apex is clouded; there is a fainter cloud in the front of the posterior wings beyond the middle at the transverse radial nervure. Head closely punctured, the face more strongly than the vertex, the clypeus smooth at the apex, as is also the malar space; the temples shining, not very closely punctured. Mesonotum irregularly, rather strongly and closely transversely striated, the scutellum smooth; the metanotum closely irregularly transversely striated. Pleurae closely, rugosely punctured, the puncturation strongest on the metapleurae. The striae on the basal three abdominal segments are strong and clearly defined. Female.

Length, 4 mm.; terebra, 2 mm.

Pretoria. February.

The tegulae are black; the base of the costa is white. Outside the clouds the alar nervures are pale.

*Lienella annulata*, sp. n.

Black, shining; covered with a white pubescence, which is longest and densest on the face and metanotum, shorter and denser on the legs than on the body; the antennal scape, the basal three or four joints of the flagellum except above, mandibles, the four front legs and the posterior trochanters rufous; the palpi long and white; wings hyaline, the stigma, costa, and nervures black; a dark fuscous cloud extends from the base of the radius to the end of the areolet, and posteriorly near to the anal nervure, the cloud becoming slightly roundly narrowed behind; the disco-cubital nervure broken by a minute stump, the transverse cubital nervure in the hind wings broken shortly below the middle. The base of hind tibiae annulated with pale yellow. Male.

Length, 5 mm.

Valdesia (Zoutpansberg District). November.

Front depressed in the middle, closely transversely striated. Face opaque, the clypeus shining, sparsely punctured, the vertex more closely, the temples more sparsely and weakly punctured. Third and fourth joints of the antennae almost equal in length. Middle lobe of mesonotum somewhat strongly punctured, a furrow, bordered by smooth and shining spaces down the middle, the lateral lobes irregularly, obliquely or transversely striated, the centre smooth, the striae wide and deep; those near the apex roundly curved. Depression at the base of scutellum wide, with two keels down the middle. Scutellum not very closely punctured, the sides keeled. Metanotum regularly areolated, the areola three times longer than wide, obliquely narrowed at the base, where it is united to a triangular area; the other areae are coarsely, irregularly reticulated—striated.

Propleurae almost smooth, the apex stoutly striated, the striated band narrowed above. Mesopleurae closely punctured at the base above, the apex smooth, narrowly above, widely below, the rest irregularly striated. Metapleurae closely, rather strongly punctured. Base of first abdominal segment aciculated, the apex with a broad band of curved striae on either side; the basal half of the second segment more strongly and regularly striated; the other segments smooth.

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## PIMPLINAE.

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### ACOENITINI.

#### *Acronus melanarius*, sp. n.

Black; the sides of the clypeus broadly above to the commencement of the rounded apex, the mandibles except the teeth, and the apical seven or eight joints of the antennae, rufous; wings, fuscous violaceous, highly iridescent, the nervures and stigma black. Antennae as long as the abdomen and longer than the head and thorax united, thirty-jointed, the pubescence microscopic, the third joint a little longer than the fourth. Transverse median nervure interstitial; the disco-cubital broken by a distinct stump, the recurrent nervure with two bullae and received one-third of its length beyond the transverse cubital; the transverse cubital nervure in hind wings broken near the bottom. Pubescence on metanotum dense, moderately long, black; on the rest of the body it is sparse, except on the base of the abdomen. Male.

Length, 25 mm.; wing stretch, 57 mm.

Waterval (Zoutpansberg District). November.

Head finely, closely punctured; a fine keel between the antennae, a broader, rounded one down the middle of the face, not reaching to its apex; it is separated from the clypeus by a wide, not very clearly defined, furrow, which is wider and deeper on the sides. Apex of clypeus broadly rounded. The curved mandibles have the basal part striated, the striae becoming gradually stronger. Malar space half the length of the eyes. Apex of clypeus broadly rounded. Hinder ocelli separated from each other by half the distance they are from the eyes. Upper part of thorax opaque, alutaceous, the pleurae finely, closely punctured; metanotum with two irregular keels down the middle, the sides bordered by a more distinct one; the apical slope bordered by keels all round, the keels forming a closed area, roundly narrowed at the top, the upper keel waved; on either side of this is another area, three times wider than long, commencing near the middle of the central area; it is transverse at the apex and wider than long. Abdomen alutaceous; on the sides of the basal segment is a keel, which curves round the inner side of the spiracles at the base. The head is not so wide as the thorax; the temples are broadly, roundly dilated.

Allied to *A. niger*, Enderl.

ACOENITINI.

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*Paracollyria carinifrons*, sp. n.

Black, smooth and shining; the head, including the mandibles, except the apex narrowly, palpi, antennal scape, prothorax, and anterior legs, red; the eighth to fourteenth joints of the flagellum except above and the fifteenth to eighteenth or nineteenth entirely yellowish-white; wings fuscous violaceous; there is a tripartite cloud of irregular shape in the fore wings, it commences near the costa, half-way between the stigma and apex of the wings, outside the transverse cubital nervure, from which it is clearly separated and of the recurrent nervure which it almost touches and where it becomes widened; disco-cubital nervure broken by a stump. Male.

Length, 11 mm.

Waterval (Zoutpansberg District). November.

Face and clypeus sparsely, weakly punctured; the latter depressed on either side of the apex. Front depressed, a narrow but distinct keel down the middle. Hinder ocelli separated from the eyes by the same distance as they are from each other. Malar space as long as the eyes, a narrow furrow down it. Parapsidal furrows deep, the base smooth, the rest stoutly crenulated. Base of post-scutellum with two large foveae, longer than wide, rounded at the apex. Middle of metanotum with two keels forming a deep channel, slightly widened and rounded at the apex; the part on either side is smooth to near the middle, the rest closely, strongly reticulated, this part being bordered laterally and at the apex by a keel. The first abdominal segment is as long as the following two united. Antennae twenty-nine-jointed, the last joint thickened, the three behind it narrowed to a bluntly rounded point on the under side, clearly separated. There is a bulla on the disco-cubital nervure and two on the recurrent; the recurrent nervure is separated from the transverse cubital by a slightly greater distance than its own length. There is an area, lengthened and narrowed on the outer side, on either side of the apical slope of the metanotum.

Allied to *P. ruficollis*, Cam., from Rhodesia, of which only the female is known.

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OPHIONINAE.

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OPHIONINI.*Heniscospilus pallidiceps*, sp. n.

Pallid testaceous; the head for the greater part pale yellow, the antennae rufous, the wings clear hyaline, highly iridescent, the costa, stigma, apex of transverse basal nervure broadly and the basal abscissa of the radius testaceous, the other nervures black; there are two horny points, both with long curved processes; the basal one is wide, almost bilobate at the base, the sides rounded, it becomes gradually narrowed to

a point and is nearly as long as it is wide at the base ; the second point is not quite so long as the top of the posterior one, runs parallel with the radius, is slightly curved downwards at the base and is twice longer than wide ; the basal abscissa of the cubitus is slightly roundly curved, and is a little more than half the length of the recurrent nervure ; the transverse median nervure is received behind the transverse basal. Sides of scutellum keeled ; its apical slope strongly striated. Base of metanotum finely, closely punctured ; the base of the posterior part irregularly reticulated, the rest more strongly, roundly striated. Upper half of metapleurae finely, closely punctured, the lower closely, rather strongly, obliquely striated ; the sternum, pro- and mesopleurae are almost smooth ; the sternum and abdomen (especially at the base) are more rufous in tint than the rest of the body. Female.

Length, 24 mm.

Bred.

Sheath of ovipositor shortly projecting, black. First abdominal segment as long as the scutellum and metanotum united, a little longer than the second, its apex nodose, twice the width of the base. The disco-cubital nervure is roundly curved towards the honey points shortly before the middle. Tibiae spineless, the apices of the tarsal joints with short weak spines. Temples moderately long, obliquely roundly narrowed. Hind ocelli almost touching the eyes. Apex of clypeus bluntly rounded.

*Enieospilus transvaalensis*, sp. n.

Dark rufo-ferruginous ; the eye orbits narrowly lined with pale yellow, the line on the outer wider than the inner, but not half the width of the orbits, the line continued more narrowly behind the ocelli, the hinder of which touch the eyes. Base of metanotum finely, closely, distinctly punctured, the middle with some fine striae ; the rest is closely, somewhat strongly, reticulated. Propleurae finely, closely striated, the striae oblique, rounded above, the upper side at the base and the lower edge smooth. Mesopleurae for the greater part finely, closely, obliquely striated. Metapleurae more strongly obliquely striated, the striae becoming stronger below. Scutellum keeled laterally to beyond the middle, closely, distinctly punctured, the apical slope irregularly striated. Wings hyaline, the costa and stigma sordid testaceous, the nervures black ; the honey points without processes ; the basal irregularly triangular, with the three angles rounded ; at the base it is as long as it is at the apex ; the second point is conical, rounded at the base and apex ; the lower part narrowed. The disco-cubital nervure is rounded backwards near the centre, the apical part straight, the angle at the junction rounded ; it is unbroken. As usual the apical abdominal segments are infuscated. Female.

Length, 18 mm.

Pretoria. September.

The pubescence is dense, white, and short. The transverse keel on the base of the metanotum is distinct.

The relationship of this species is with *E. rufus*, Bé.; the two may be separated thus :

The hind orbits entirely yellow, the yellow line on the inner broad, dilated in the middle below, the basal horny point oblique, conical, longer than it is wide in front; the hind ocelli separated from the eyes, metanotum without a transverse keel on the top of the striated part. *rufus* Bé.

The inner and outer orbits only narrowly yellow, the inner line not dilated below, the basal horny point triangular, not longer than wide, the hinder ocelli not separated from the eyes, metanotum with a distinct basal transverse keel.

*transvaalensis* Cam.

*Pleuroneurophion rotundistriatus*, sp. n.

Rufo-testaceous; the apical abdominal segments infuscated, the wings hyaline, the costa and stigma ferruginous, the nervures blackish, the transverse basal nervure and the basal abscissa of the radius lighter coloured, tinged with ferruginous; the outer orbits tinged with yellow. Sides of scutellum stoutly keeled on basal half; the apical slope finely, closely striated. The extreme base of metanotum smooth, the rest of the basal part finely, closely striated, more strongly laterally than in the middle; the upper part of the apical slope transversely striated, the rest more strongly striated, the striae roundly curved, running into reticulations on the sides. Propleurae punctured, the punctures large and clearly separated above, finer and closer below, the centre more or less striated. Mesopleurae more strongly punctured all over; the metapleurae much more strongly, obliquely punctured, the punctures almost forming striae. Face closely, the clypeus less closely punctured; the labrum closely and strongly punctured. Hinder ocelli almost touching the eyes. The pubescence dense and white. First abdominal segment distinctly longer than the scutellum and metanotum united; the apex nodose, fully twice wider than the base. Female.

Length, 24 mm.

Kourulene (Zoutpansberg District). December.

The transverse cubital nervure in the hind wings is broken at the top of the posterior fourth, where it is sharply angled; the two abscissae are straight and obliquely sloped. Temples half the length of the top of the eyes. Parapsidal furrows weakly indicated on the basal slope of the mesonotum.

This species is smaller than *P. pruinus*, Cam.; the following are the chief differences between the two :—

The hinder orbits entirely clear whitish yellow: the scutellar keels white, densely covered with white pubescence, the costa black, apex of metanotum reticulated, the transverse cubitus in hind wings broken at the top of the apical third, the fore part rounded. *pruinus* Cam.

The hinder orbits with the inner half obscure yellow, the scutellar keels ferruginous, not densely haired, apex of metanotum roundly transversely striated: the transverse cubitus in hind wings broken at the posterior fourth, the fore part straight. *transvaalensis* Cam.

CAMPOPLEGINI.

*Campoplex transvaalensis*, sp. n.

Black, the head and thorax densely covered with white pubescence. the flagellum of antennae almost fuscous, the sides of the post-petiole, of

the second abdominal segment broadly below, the third, fourth, and fifth almost entirely, the sixth not so broadly and the seventh entirely, ferruginous; the mandibles except the teeth and the palpi pale yellow; the four front legs whitish, the coxae black, the femora darker coloured, the pale colour suffused with fuscous; the hind legs black, the femora obscure dark rufous; the tibiae with a broad pale band commencing near the base and extending to shortly beyond the middle; the spurs white. Wings clear hyaline, the stigma and nervures black, the areolet four-angled, it being distinctly angled where the recurrent nervure is received at the apex of the basal fourth; in front the transverse cubital nervures unite; the transverse median nervure is received shortly beyond the transverse basal; the apical longitudinal nervures in the hind wings are faint; the cubitus is broken shortly below the middle. Female.

Length, 10 mm.

Warmberg (Zoutpansberg District). March.

Eyes distinctly incised on the inner side. Face closely, somewhat strongly punctured, almost reticulated; the vertex closely, but not quite so strongly, punctured. Thorax closely punctured, the puncturation on the metathorax closer; on the mesopleurae the punctures are larger and more widely separated. There are no keels on the metanotum, the apical slope of which is widely furrowed, the apical half of the furrow being distinctly, transversely striated. The lower part of the propleurae is strongly obliquely striated.

*Pimplomorpha nigro-ornata*, sp. n.

Rufo-testaceous; the antennae, tips of mandibles, ocellar region, three large marks on mesonotum, the central wider and shorter than the others, a minute spot on either side of the metanotum at the base, a conical spot on the base of mesopleurae below, a streak on mesosternum, an irregular spot at the base of the post-petiole, a distinct line on either side of the basal half of the second segment, two squarish spots on the base of the third, a semicircular mark on the sixth and the basal half of the first ventral, black; wings hyaline, the nervures and stigma black. Female.

Length, 11 mm.; terebra, 9 mm.

Van der Merwe (Pretoria District). November.

The pubescence is short, dense, and white; the puncturation on the head and thorax dense and close; it is stronger on the metanotum, which has the apical slope rather strongly transversely striated in the middle; there is an indistinct, longer than wide, areola, the posterior and apical keels of which are indistinct. The second abdominal segment is closely striated. The apical nervures in the hind wings are faint; the transverse cubital nervure is broken shortly below the middle, the recurrent nervure is largely bullated at its junction with the cubitus. There are two fuscous spots on the occiput. The pleurae and scutellum are largely yellow.

May be known from *P. trilineata*, Cam., the type of the genus (Annals of South African Museum, V, 96) by the base of the metanotum having only two small marks, not the basal half black, by the dorsal abdominal segments being marked with black lines and spots and by the second being striated.

*Amorphota densepilosella*, sp. n.

Black; densely covered with silvery pubescence, the antennal scape rufous, the mandibles, except the teeth, palpi, and tegulae, yellow; the abdomen rufo-testaceous, the basal segment entirely, the second above except at the apex, the greater part of the basal half of the third, the mark roundly narrowed at the apex, a longish conical mark in the middle of the basal half of the fourth, a similar but smaller mark on the fifth, and the greater part of the apical, black; the genital sheath black; the second and third ventral segments yellow. Legs rufo-testaceous; the hind coxae and basal joint of hind trochanters black, the four anterior coxae black at the base; the four anterior trochanters and the apical joint of the posterior yellow; the spurs pale, the hind tarsi blackish. Wings hyaline, the stigma testaceous, the nervures black; the areolet with a pedicle longer than the branches, the outer of which is a little longer than the inner; the recurrent nervure received near the centre; the disco-cubital nervure is bullated widely beyond the middle, the recurrent nervure is still more widely bullated, the transverse median nervure interstitial; the apical nervures in the hind wings are faint, almost obsolete. There is a short keel near the base of the metanotum; from it a keel runs obliquely to the sides, its apex reaching to the apex of the basal fourth for the metanotum; an indistinct keel borders the outer edge and one runs from the spiracles to the coxae; the spiracles are small, oval, twice longer than wide. Hind ocelli separated from each other by double the distance they are from the eyes. Male.

Length, 6 mm.

Pretoria. 27th February.

Antennae slightly longer than the body, densely covered with a microscopic pile. Head and thorax closely punctured, the punctures on the scutellum more widely separated than they are on the mesonotum; on the base of the metanotum they are weaker; the apical slope of the latter is strongly alutaceous, impunctate, more or less transversely striated. The pubescence on the head and metanotum is denser than elsewhere. The post-scutellum is striated on the apical half.

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*ANDRONA*, gen. nov.

Wings without an areola, the recurrent nervure received beyond the transverse cubital; the transverse median interstitial; the transverse median nervure in hind wings unbroken, the apical longitudinal nervures being obliterated; the stigma large, gradually narrowed to a point in the middle, angled where the transverse cubital nervure is received at the apex of the basal third; the radius issues from the middle of the stigma. Metanotum regularly areolated, with three central and three lateral areae; the areola longer than it is wide at the apex; it is closed at the base; the spiracles are small, oval; there is a large, wide spiracular area. Abdominal petiole clearly dilated at the apex; the other segments are compressed, but stout; the ovipositor in the known species is shorter than the abdomen. Head transverse, the temples short, roundly narrowed. Apex of clypeus

broadly rounded, not separated from the face in the middle; the sides above with a distinct fovea, from which runs below a narrow furrow. Eyes large, parallel; there is a short, but distinct, malar space. The hind metatarsus is more than one-third of the length of the tibiae; the spurs of normal length; the claws simple; antennae shorter than the body. The scutellum is flat, or at least not much raised above the mesonotum, which has no indications of furrows.

The affinities of this genus are clearly with *Pimplamorpha*, Cam.; that genus may be known from it by the apex of the first abdominal segment not being swollen, but gradually dilated; by the clypeus being more distinctly separated from the face, by the recurrent nervure not being received clearly beyond the transverse cubital, by the apical longitudinal nervures in the hind wings being clearly traced and the transverse median distinctly broken; the pterostigma is longer and not so thick in the middle; the radial cellule is narrower, not so much widened in the middle, the scutellum is more convex, and the metanotum is less distinctly areolated, the basal areae, including the areola, being not clearly defined.

The following table may aid in the determination of the species of *Androna* described here:—

- 1 (4) Mesonotum for the greater part black.
- 2 (3) Mesonotum with only two continuous yellow lines, the face and clypeus yellow. *variventris*.
- 3 (2) Mesonotum with two lines and a large square mark in the centre of the apex, the face and clypeus broadly black in the middle. *spilopus*.
- 4 (1) Mesonotum rufo-testaceous.
- 5 (6) The black line on the metanotum extending from the base to the apex, the back of the basal two abdominal segments entirely black. *flaviceps*.
- 6 (5) The black lines on the metanotum and the basal two abdominal segments not reaching to the apex.
- 7 (10) The black on the metanotum not narrowed to a fine point, of equal width throughout.
- 8 (9) The head for the greater part pale yellow, the mesosternum black, the black in centre of second abdominal segment wider than the outer testaceous part. *latimaculata*.
- 9 (8) The head without yellow, the sternum immaculate, the black on second abdominal segment narrower than the outer testaceous part. *fuscicornis*.
- 10 (11) The black on the metanotum narrowed to a fine point. *basiornata*.
- 11 (10) The metathorax entirely black, the second abdominal segment lined laterally with black. *flavo-orbitalis*.

*Androna variventris*, sp. n.

Black; the face except for a short black line below each antenna, the clypeus, mandibles except the teeth, the eye orbits except opposite the ocelli, antennal scape, a line down the sides of the mesonotum, commencing near the apex and continued to the base where it is dilated and

then along the outer edge to the tegulae, the scutellar keels, basal two-thirds of the scutellum, the base of propleurae, a triangular mark on the apex above, the tubercles, base of mesopleurae narrowly, a wide mark along the lower half, irregularly, roundly incised on the apical half above, more regularly and deeply on the basal half below, the apical half obliquely narrowed to a narrow point, a semicircular mark below the hind wings, a line, dilated at the base, on the top, along the keel and the spiracular area from the spiracles, pale yellow. The second and third ventral segments are pale clear yellow, the others and the apices of the third, fourth, and fifth dorsal, rufo-testaceous. Wings hyaline, the stigma fuscous, the nervures black. Legs pallid yellow, the hind femora broadly above, the hind tibiae except near the middle and the hind tarsi, black. Male.

Length, 7 mm.

Pretoria. October.

Head and thorax closely punctured, the clypeus less strongly and more sparsely than the face; its apex is broadly rounded, the lateral foveae large, deep; the front is closely, rather strongly striated; the apical slope of the metanotum transversely striated, the striae weak in the middle of the posterior median area; the areola is large, twice longer than it is wide at the apex, which is transverse; towards the base it is roundly narrowed from the middle. The second abdominal segment is aciculated.

*Androna spilopus*, sp. n.

Black; the eye orbits moderately broadly, more broadly above, where there is a triangular incision, the malar space entirely, the apex of the clypeus, the mark with a wide shallow incision above and with a shorter, deeper incision in the centre of the apex below, a large mark, of equal width, longer than wide, in the middle of the apical half of the mesonotum; from the outer edges of this a line runs to the base of the mesonotum and is then continued along the top of the mesopleurae, the basal part between the two being dilated; a line on the upper part of the pronotum, which becomes gradually widened towards the apex, a broader line of equal width on the lower part of the propleurae, the tubercles, a broad mark on the lower part of the mesopleurae, straight above, rounded below, and with the apical third roundly narrowed, a large irregular mark on the lower half of the metapleurae, the mark continued to the posterior median area of the metanotum, the scutellum, its keels and the ventral surface of the abdomen, clear yellow; a narrow testaceous line on the apex of the first abdominal segment, and broader testaceous lines, rounded at the base, on the others. Legs rufo-testaceous, the coxae and trochanters pale yellow, marked behind with black, the knees paler, more yellowish in tint, the hind tibiae darker, broadly black at the base and apex. Wings hyaline, the nervures and stigma fuscous. Female.

*Androna flaviceps*, sp. n.

Rufo-testaceous; the head, prothorax, the sides and two lines on the base of the mesonotum yellow, the stemmaticum, metanotum, upper edge of metapleurae, first abdominal segment, upper part of second, a semicircular mark on the base of the third and the greater part of the apical two segments above, black; legs coloured like the body, the last joint of

the tarsi blackish ; wings hyaline, the stigma fuscous, the nervures black, the recurrent nervure largely bullated, received one-fourth of the length of the transverse cubital nervure beyond the latter. Flagellum of antennae fuscous, a broad obscure yellow band beyond the middle, the scape for the greater part yellow. Metanotum regularly areolated, the areola four times longer than wide, the base narrowed gradually to a sharp point, the apex transverse ; the puncturation is much stronger than it is on the mesonotum ; the posterior median area is transversely striated. The striation on the second abdominal segment is weak. Male.

Length, 6 mm.

Pretoria. October.

This species is clearly con-generic with *P. flavo-orbitalis*, from which it may be known by the paler, more yellowish colour of the body, by the yellowish head and prothorax, and by the second abdominal segment being entirely black above, it being also less strongly striated.

*Androna latimaculata*, sp. n.

Rufo-testaceous ; the head pale yellow, the scape of antennae pale yellow, the flagellum black, fuscous below on the basal half, the stemmatum black, the mark continued on to the vertex, it becoming gradually narrowed behind, mesosternum, a large mark of equal width, three times longer than wide, on the basal three-fourths of the metanotum, the basal fourth of the first abdominal segment, the basal half of the second and the greater part of the following segments above, black ; the legs paler coloured ; tarsi fuscous. Male.

Length, 5 mm.

Pretoria. March.

*Androna fuscicornis*, sp. n.

Rufo-testaceous ; without yellow, except on the mandibles, which are pale yellow with black teeth ; the stemmaticum, the mark rounded behind, a mark of equal width and two-and-a-half times longer than wide, its apex transverse on the basal two-thirds of metanotum, the basal fourth of the first abdominal segment, a narrow line, widened at the base, on the basal two-thirds of the second, and wide marks on the base of the following segments, the apical two larger than on the others, black ; and the basal ventral segment is narrowly black at the base ; antennal scape pale testaceous, the flagellum fuscous, darker at the base. Wings hyaline, the stigma and nervures fuscous, the former paler in front. The apex of the areola and the posterior median area transversely striated. Pleural smooth. Legs paler coloured than the body ; a line near base of the hind tibiae and a wider one on the apex, the base and apex of the hind tibiae and the hind tarsi fuscous. Wings hyaline, the stigma and nervures fuscous. Abdomen almost twice the length of the thorax, the ovipositor two-thirds of its length. Female.

Pretoria. February.

The centre of the face and of the clypeus tinged with rufous, as well as the middle of the front ; the former two are covered with short white pubescence. Metanotum closely and rather strongly transversely striated.

the base of the areola finely, closely punctured. Pleurae finely closely punctured, the metapleurae more strongly and closely than the rest. The second abdominal segment is closely striated.

*Androna basiornata*, sp. n.

Pale yellow; the flagellum of the antennae, except at the base, where it is fuscous, the tips of mandibles, stemmaticum, the lower part of the occiput, a line on the sides of the mesonotum, continued down the sides and round the apex of the scutellum, continued broadly down the centre of the basal three-fourths of the metanotum, the apex of the latter line being acutely pointed, the basal third of the first segment of the abdomen, a line, one-third of the width of the segment, down the basal two-thirds of the second, a semicircular mark on the base of the third, and larger, more irregular marks on the others, black. The base of the legs pale, the rest coloured like the body, except the base of the hind tibiae narrowly, the apex more broadly and the tarsi fuscous. Wings hyaline, the stigma and nervures fuscous. Male.

Length, 5 mm.; terebra, 4 mm.

Pretoria. January.

The yellow on the face and occiput runs into rufous; the mesonotum is rufous except in the centre of the apical half; the abdomen is for the greater part rufous. The amount of the rufous colour probably varies and may indeed be a discolouration.

The male has no black round the scutellum, the line on the metanotum is shorter and of equal width, not sharply pointed at the apex, and the abdominal black marks are smaller.

Length, 7 mm.; ovipositor, 2 mm.

Pretoria. February.

Covered with a short white pile, the head and thorax closely, distinctly punctured, except for a smooth band over the mesopleural depression; the metathorax is more coarsely punctured than the rest; the top of the areola is smooth, the rest of it and the posterior median area less closely, rather strongly transversely striated. Abdomen smooth, the second segment longitudinally aciculated, almost striated on the apical half. The antennae are stout, of equal thickness and are as long as the head, thorax, and basal segment of the abdomen united. The areola is long, narrow, and of equal width.

*Androna flavo-orbitalis*, sp. n.

Rufous; the inner orbits broadly pale yellow, the antennae, metathorax, the first abdominal segment, a broad line down the sides of the back of the second segment, the back of the fourth, the whole of the following segments, the hind coxae, trochanters, and the base of the hind tibiae, black; wings hyaline, the stigma and nervures black; the recurrent nervure is almost interstitial and is received outside the transverse cubital; it is largely bullated in front; the transverse median nervure is interstitial; the apical nervures in the hind wings are very faint, almost obliterated. Metanotum completely areolated; the areola three times longer than wide, the basal half obliquely narrowed to a sharp point at the base; its apical half and the posterior median area are closely, transversely striated;

the rest is closely, distinctly punctured; the metathorax is more densely covered with white pubescence than the rest; the spiracles are oval. Female.

Length, 7 mm.; terebra, 3 mm.

Bronkhorstspuit (E. Pretoria District). December.

Covered with a minute white pile; the head and thorax closely punctured, the latter more strongly than the former. Antennal scape testaceous below. Clypeus not clearly separated from the face, but with large foveae at the sides above. There is a smooth tubercle on the top of the face. The post-petiole is closely, but not very strongly, striated.

*Silavoga*, gen. nov.

Post-costal nervure with a short straight nervure, having a short curved transverse nervure on the top; transverse median nervure received distinctly beyond the transverse basal; the areolet distinctly appendiculated, the second nervure the longer and roundly curved; the recurrent nervure received near the apex; disco-cubital nervure unbroken, broadly roundly curved. Transverse cubital nervure in the hind wings broken above the middle. Metanotum with a narrow area extending from the base to the apex, and two large, wide lateral ones; the spiracles curved, narrow, three times longer than wide. Clypeus not separated from the face, its apex broadly rounded. Basal slope of scutellum keeled; the post-scutellum bordered by stout oblique keels. Abdominal petiole as long as the following two segments united, slender, the apical half thicker than the basal, the spiracles placed shortly beyond the middle. Mandibles bluntly edentate. Occiput and cheeks margined. Antennae long and slender, much longer than the body. Sheath of ovipositor projecting, large, broad, curved. Cerci longish. Abdomen broad, but compressed, the segments laterally becoming wider towards the apex. Legs slender, long, the hinder coxae two-and-a-half times longer than wide, the claws simple.

This genus of *Ophioninae* may be easily known by the curious nervure on the post-costal, a nervure not found, so far as I know, in any other Ichneumon. It fits in best with the *Campoplegini*, but in my opinion a new tribe should be formed for it.

*Silavoga longicornis*, sp. n.

Luteous; the tarsi darker coloured, the flagellum of antennae, tips of mandibles and stemmaticum, black; covered with a short, white down; the wings hyaline, the stigma pale testaceous, the nervures blackish, the disco-cubital and recurrent nervures largely bullated. Head closely, rather strongly punctured, the thorax not quite so strongly punctured, the scutellum not quite so strongly as the mesonotum. Flagellum of antennae densely covered with short stiff black pubescence. Female.

Kourulene (Zoutpansberg District). August.

PANISCINI.

*Paniscus melanoctis*, Holm.

Engenies Resa., Zool., VI, 411, 44; Tosquinet, Mém. d. l. Soc. Ent. de Belgique, VI, 407; Cameron, Annals South African Museum, V, 101.

Pretoria. March to November.

*Paniscus natalensis*, sp. n.

Rufo-ferruginous; the antennae blackish, the scape and base of flagellum ferruginous; wings hyaline, the costa and stigma sordid testaceous, the nervures black, the disco-cubital nervure broken by a distinct stump; the second transverse cubital nervure largely bullated behind; the recurrent nervure roundly curved outwardly between the bullae; the disco-cubital nervure broken by a distinct stump; the transverse cubital nervure in the hind wings is broken close to the bottom of the anterior fourth. Scutellum not very strongly keeled to near the apex. Metanotum closely, distinctly, transversely striated; a shallow, narrow longitudinal furrow down the centre of the basal half. The first abdominal segment is twice the length of the second; its apex is finely closely punctured; the ventral surface and apical segments are spotted with fuscous. Female.

Length, 14 mm.

Colenso, Natal.

The face, clypeus, and orbits are tinged with yellow. Face and clypeus closely punctured, the latter more strongly than the former, and separated from it, but not very distinctly. Apex of mandibles broadly black; Ocelli not in a black patch, the hinder clearly separated from the eyes. Tarsi closely spinose. Calcaria and comb black. Parapsidal furrows shallow but distinct.

This species is stouter than *melanocotis*, from which it may be known by the blackish, not rufous, flagellum of the antennae, by the more deeply tinted ferruginous colour, which is not tinged with yellow, by the recurrent nervure being only roundly curved in front, while in *melanocotis* the curve extends from the top to bottom; in it, too, the transverse cubital nervure in the hind wings is broken at the bottom of the top third, in the present species at the top fourth.

*Paniscus nigroeandis*, sp. n.

Rufo-ferruginous; the flagellum of the antennae, the apex of mandibles, a spot in the hollow behind the tegulae and the sixth and following segments of the abdomen, black; wings hyaline, the costa fuscous, the stigma pale testaceous, the nervures black, the disco-cubital nervure broadly rounded, unbroken, the recurrent nervure broadly rounded, the transverse cubital nervure in hind wing broken at the bottom of the fore fourth. The hind ocelli touch the eyes; they are not in a black patch; the orbits are pale yellow. Scutellum distinctly keeled to the apex. Metanotum closely transversely striated, more strongly in the centre than on the sides. Face and clypeus closely punctured, the former raised in the middle; the latter bounded above at the sides by a short distinct furrow. First abdominal segment not twice the length of the second; the abdomen is fully twice longer than the head and thorax united. Male.

Length, 11 mm.

Kranspoort (Pretoria District). December.

Tibiae and tarsi closely spinose. The eye orbits are pale yellow. The parapsidal furrows are not indicated.

## TRYPHONIDAE.

### BASSINI.

#### *Bassus lætatorius*, Fab.

Cameron, Annals South African Museum, V, 131.

Pretoria. May and September.

This is now practically a cosmopolitan species. It would be interesting to know the Dipteran it is parasitic on in South Africa.

## BRACONIDAE.

### BRACONINAE.

#### *Iphianlax havelandi*, Cam.

Annals of the South African Museum, V, 42.

Waterval (Zoutpansberg District). November and December.

The male does not differ appreciably in coloration from the female; it is smaller, that in the collection being hardly 10 mm. long, and is also more slenderly built than the female.

#### *Iphianlax pretoriaensis*, sp. n.

Black; a wide streak along the sides of the apical two-thirds of the mesonotum, a curved mark near the centre of the scutellum, and the mesosternum dark blood-red; wings fuscous, a mark on the base of the stigma, prolonged in front and behind at the apex, the central black part being wider than the yellow prolongations and with the base rounded, orange yellow; there is a narrow oblique cloud in the lower apical two-thirds of the first cubital cellule reaching the apex at the end of the first abscissa of the cubitus and is prolonged below the cubitus; outside the fore part of the recurrent nervure is an irregular pyriform cloud, the fore part of which is dilated at the base, along the cubitus. Basal two segments of abdomen irregularly, the following three strongly, more regularly striated; the first segment has a stout keel down the middle; the striae are more or less oblique, the lateral furrow is wide, smooth, striated at the base. The area on the base of the second segment is large, wider than long, finely closely obliquely striated; its keel extends to the apex of the segment, which is depressed on either side of it, the striae there being few and curved. The suturiform articulation is wide and strongly, but not closely, striated; the lateral area is smooth on the inner side, finely closely striated on the outer; the furrow on the base of the fourth is deep, narrow, crenulated; the apices of the segments are smooth.

Allied to *I. durbanensis* Cam. (Annals South African Museum, V, 43.).

#### *Iphianlax pictus*, Bé.

*Bracon pictus*, Brullé, Hymén, IV, 426.

*Iphianlax pictus*, Cam., Annals South African Museum, V, 47.

Waterval (Zoutpansberg District). November.

*Iphianlax varipalpis*, Cam.

Annals South African Museum, V, 49.

Lemana (Zoutpansberg District). October.

*Vipio transvaalensis*, sp. n.

Rufous; the head paler, brighter in tint, the antennae, tips of mandibles, trophi, stemmaticum, a broad line, twice wider than long, on the base of mesonotum, a narrower longer one on the sides, continued on to the base of scutellum, the apical slope of metanotum largely, the mesosternum, the under side of the fore femora and apical joint of the trochanters, black; wings fuscous, an oblique hyaline irregular cloud in the first cubital cellule continued as a small roundish cloud beyond the cubitus on the outer side of the recurrent nervure, the stigma and nervures black, the base of the stigma testaceous. Male.

Length, 10 mm.; terebra, 17 mm.

Kranspoort (Pretoria District). December.

Front and vertex smooth, shining, the face finely sparsely punctured. Mesonotum and apical half of scutellum with large, widely separated punctures; the scutellar basal furrow crenulated. Metanotum closely and slightly more strongly punctured than the mesonotum. Pleurae smooth, the apex of metapleural weakly punctured. Abdomen with the basal four segments closely rugosely punctured, the punctures becoming weaker from the first; the triangular area on the second and third is more finely punctured, especially on the inner side. The oblique furrows and the first transverse one are crenulated; there is a narrow smooth one on the apex of the third segment. There is a not very clearly defined keel down the middle of the metanotum.

In the table of the South African species of *Vipio*, I have given in the Annals of the South African Museum, V, 59 and 60, this species would run near to *Vipio longicandis*, Cam., with which it cannot be confounded, e.g. the ovipositor in the latter is 30 mm. long.

*Vipio melanopus*, sp. n.

Rufous; the antennae, tips of mandibles, trophi, stemmaticum, three marks on the mesonotum, the anterior conical, not much longer than it is wide at the base, the lateral longer, extending from the base to the apex, the sides and apex of the scutellum broadly, the mesosternum, the greater part of the mesopleurae and the greater part of the legs, black; wings fuscous, with the usual hyaline spots at the base of the stigma; the stigma and nervures black. Female.

Length, 7 mm.; terebra, 17 mm.

Pleisieskloof (Pretoria District). 22nd December.

Head smooth, the sides of the face broadly, weakly, but distinctly, punctured. Mesonotum strongly, sparsely punctured, except in the centre at the apex, where the puncturation is much closer. The scutellum has a few scattered punctures in the centre of the apex, where there is a central keel. Metanotum closely, strongly punctured, a furrow with a keel in the middle down its centre. Pro- and meso-pleurae smooth, the meta-pleurae punctured, but much less strongly than the metanotum. Basal

four segments of the abdomen closely, strongly, almost rugosely punctured, less strongly so on the sides of the second at the base and still less strongly and more shining on the sides of the third; the oblique furrows on the third are clearly defined and straight. The knees, apical half of middle femora, the greater part of the posterior and the basal half of the middle tibiae below are rufous. Pubescence on thorax, including metanotum, white.

In my table, *l. c. supra*, this species runs to *maculiceps*, which has the head maculate with black.

*Vipio* (?) *pallidiventr*is, sp. n.

Rufo-testaceous; the ventral surface pallid yellow, the antennae, stemmaticum, almost the apical half of the mandibles, a wide mark, almost twice longer than wide, rounded at the base, transverse at the apex, towards which it becomes gradually, but not much, narrowed; on the middle lobe, a longer, narrower one, obliquely narrowed towards the apex, on the lateral lobes, the marks reaching to the base of the stigma, a line on the sides of the mesosternum, transverse on the inner, rounded on the outer side, the apex rounded and clearly separated, a large mark, twice longer than wide, on the apical three-fourths of the first abdominal segment, reaching to the apex, a mark, fully three times longer than it is wide at the base, it becoming gradually narrowed towards the apex on the second, and two longish triangular marks on the third, fourth, and fifth segments; the first to fifth and the basal half of the sixth, closely longitudinally striated. The metanotum with a large ovoid belt of irregular longitudinal striae, the base and apex being free from them; the metapleurae punctured, the punctures clearly separated and distinct. Antennae longer than the body, the third joint not much shorter than the fourth. Wings hyaline, the apex slightly clouded, the stigma fuscous on the front, livid testaceous on the posterior half. Male.

Length, 8 mm.

Groenvlei (Pretoria District). January.

This is not a typical *Vipio*; the abdominal segments, for example, want the oblique furrows; the trophi appear to be different, being apparently as in *Bracon*, but I am not certain about this and, having only a single specimen, I do not care to dissect it. The general form of the body and the neurulation are as in *Vipio*, including the short radial cellule. The apical abscissa of the radius is longer than the basal two united; the second is one-fourth longer than the first; the first transverse cubital nervure is obliquely sloped, so that the second cubital cellule is much narrowed in front.

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BACUMA, Cam.

*Bacuma rufa*, sp. n.

Rufous; the antennae, the face, front, the vertex to the fore half of the temples, the centre behind continued down the occiput as a triangle, mandibles and the mesonotum, black; wings fuscous, a somewhat triangular cloud behind the transverse basal and transverse median nervure

along the first transverse cubital nervure, its apex obliquely truncated, a wider cloud extending from the base of the cubitus to the base of the radius, from the stigma to the posterior edge of the wing and a small one on either side of the second transverse cubital extending slightly and roundly on to the radial cellule, yellowish hyaline, the stigma black, its base, except in front, yellowish; the nervures black, yellowish along the central cloud; the base of the hind wing narrowly hyaline and there is an oval longish cloud at the base of the cubitus. Abdomen closely, strongly reticulated punctured, the basal slope of the first and the apical two segments smooth; the area on base of second segment smooth at the base, the rest closely longitudinally striated; ventral surface whitish, the basal four segments marked with black. Female.

Length, 16 mm.; terebra, 33 mm.

“Transvaal.”

Head below the antennae sparsely covered with black hair; there are a few hairs above them. Mesonotum sparsely covered with black hair; the rest of the thorax and the legs more densely covered with white pubescence. The third abscissa of the radius is longer than the basal two united; the recurrent nervure is received in the apex of the first cubital cellule. Front depressed, neither distinctly keeled nor furrowed. Face coarsely reticulated, the reticulations finer below.

May be known from the two described species of *Bacuma* (*maculiventris*, Cam., and *fumipennis*, Cam., Annals South African Museum, V, 68 and 69) by the red body and legs.

#### *Hormiinae.*

#### *Hormius*, Nees.

#### *Hormius testaceus*, sp. n.

Testaceous; the flagellum of the antennae, the lower part of the mesopleurae and the sides of the mesopleurae black, the legs of a paler colour than the body; wings hyaline, the stigma pale, the nervures of a darker testaceous colour; the first transverse cubital nervure sharply obliquely sloped, so that the second cubital cellule is much narrowed in front; the first abscissa of the radius is a little longer than the second; antennae twenty-two jointed. Metanotum reticulated. Female.

Length, 2.5; terebra, .5 mm.

Pretoria. December.

Smooth, shining, bare; first abdominal segment clearly separated, as wide as long, the second nearly as long as the third and fourth united.

### RHOGADINAE.

#### *Rhogas*, Nees.

The following is a synoptical table of the species of *Rhogas* described in this paper:—

- 1 (2) Red; the head and apex of the abdomen black, the pterostigma black. *erythrostromus*.
- 2 (1) Testaceous; including the pterostigma.

- 3 (4) The mesopleurae, metanotum, and base of abdomen, black.  
*melanospilus.*
- 4 (3) Thorax and abdomen immaculate.
- 5 (6) Apex of hind femora and upper part of pleurae black.  
*pleurilineatus.*
- 6 (5) Legs and pleurae immaculate.
- 7 (8) Front striated (pterostigma uniformly coloured, the legs coloured like the body).  
*striatifrons.*
- 8 (11) Antennae entirely black.
- 9 (10) A large black mark on the metanotum, the first abscissa of the radius shorter than the second, which is a little longer than the first transverse cubital.  
*varinervis.*
- 10 (9) Metanotum immaculate, the first abscissa of radius longer than the second, which is as long as the first transverse cubital nervure.  
*pallidipalpis.*
- 11 (8) Antennae at the most fuscous, the base of flagellum paler than the apex (the stigma pale, fuscous near the apex, the nervures fuscous).
- 12 (13) Second cubital cellule distinctly narrowed towards the apex, one-half longer than wide, the basal two abdominal segments paler than the others.  
*varicarinatus.*
- 13 (12) Second cubital cellule not narrowed towards the apex, twice longer than wide, the basal two abdominal segments not paler than the others.  
*transvaalensis.*

*Rhogas erythrostomus*, sp. n.

Rufo-testaceous; the head, antennae, the third and following segments of the abdomen and the sheath of the ovipositor, black; the oral region and the mandibles except the teeth, dark red; the palpi black, covered with white pubescence; wings hyaline, the costa pale, the stigma black, the nervures fuscous; the legs coloured like the body, the apex of the hind tibiae and the four hind tarsi black. Female and male.

Length, 8-9 mm.

Pretoria. October. Tweefontein (Pretoria District). January.

Covered with a short white pubescence, which is longest on the metanotum. Face in the middle closely irregularly striated, almost reticulated, the sides punctured. Centre of front smooth and shining, the sides finely irregularly striated, the vertex opaque, coarsely alutaceous, more or less striated. Mesonotum closely, irregularly punctured, the scutellum more strongly punctured. The transverse depression at the base of the metanotum stoutly crenulated. Metanotum closely rugosely punctured, the apical slope striated; the keel hardly extends to the middle. Pleurae closely punctured, the apex of the propleurae striated. Basal two abdominal segments closely irregularly striated, more strongly in the centre than on the sides; the central keel distinct; the basal two-thirds of the third segment finely closely striated.

The head is not quite transverse, the temples are rounded, narrowed, the occiput roundly incised. Parapsidal furrows narrow, shallow. The

palpi vary in colour from black to fuscous. First abscissa of radius not half the length of the second; the second cubital cellule of equal width throughout, about one-fourth longer along the radius than along the transverse cubitals. The colouration of the tarsi and the palpi varies, the latter from black to fuscous.

*Rhogas melanospilus*, sp. n.

Head, thorax, and abdomen except the apical third of the first segment, the second except the sides, and the third except the sides and apex, which are pale yellow, rufo-testaceous; the antennae blackish, except the basal three-fourths of the scape; the stemmaticum, the basal three-fourths of the mesopleurae broadly above, the post-scutellum and the part bordering it, and the metathorax except the apex below, black; the rufous colour on the base of the first abdominal segment is largely tinged with black; wings clear hyaline, iridescent, the costa and stigma pallid yellow, darker towards the apex; the second cubital cellule is narrowed towards the apex. Metanotum finely, closely, transversely striated, the central keel distinct, as it is also on the first abdominal segment. Male.

Length, 4 mm.

Rietfontein No. 57 (Pretoria District). September.

Temples distinctly, obliquely, roundly narrowed; the occiput not transverse. Head, pro- and mesothorax shagreened, covered with a white pubescence, the lower part of the propleurae obscurely striated, the apex of the mesonotum more strongly longitudinally striated. Palpi long, pallid yellow. The abdomen is smooth, except the basal segment.

*Rhogas plurilineatus*, sp. n.

Testaceous, the stemmaticum, face, the greater part of the clypeus, the greater part of the outer orbits, the pleurae above, the meso- more broadly than the pro-pleurae and the latter than the meta-pleurae, the antennae dark rufous, darker towards the apex; the sides of the basal two abdominal segments and the whole of the others tinged with rufous; legs coloured like the body, but paler, the apex of the hind femora slightly, the apical fourth of the middle, the apical half of the posterior and the end joint of the tarsi, black. Wings clear hyaline, the stigma pale testaceous, the nervures darker, almost black; the basal abscissa of radius one-third of the length of the second; the second cubital cellule almost twice longer than wide; the basal abscissa of radius roundly curved towards the costa. Basal three segments of the abdomen closely, distinctly striated, the third with the apex smooth. The front immediately below the ocelli is strongly transversely striated; the hollowed lateral part is blackish and is finely longitudinally striated.

The amount of black on the face varies, and the red down the sides of the abdomen may run into black; the black on the upper side of the pleurae may change to rufous. Parapsidal furrows shallow. The puncturation on the head and thorax is close. The furrow at the base of the scutellum is strongly crenulated. Male.

Length, 5-6 mm.

Pretoria. December. Rietfontein No. 57 (Pretoria District). January.

A variable species probably as regards coloration.

*Rhogas varicarinatus*, sp. n.

Rufo-testaceous; the basal two segments of the abdomen paler coloured, the flagellum of antennae, tips of mandibles and stemmaticum black; wings clear hyaline, the costa and stigma pallid, the latter infuscated behind; the first abscissa of radius three-fourths of the length of the second; the second cubital cellule distinctly narrowed in front, the second transverse cubital nervure one-fourth shorter than the first. Metanotum infuscated, its keel distinct. The keel on the first abdominal segment is weak, on the second it is obsolete; the first is weakly striated, the striae stronger towards the apex; the apical segments are tinged with rufous and fuscous. Temples sharply obliquely narrowed, the occiput roundly incised. Male.

Length, 4 mm.

Pretoria. October.

*Rhogas varinervis*, sp. n.

Testaceous; stemmaticum, an irregularly triangular mark in the centre of the metanotum on the basal half, the antennae, mandibular teeth, and the apices of the tarsi black; wings clear hyaline, the costa and stigma testaceous, the basal nervures, the base and apex of cubitus pale, the others darker coloured; first abscissa of radius three-fourths of the length of the second; the second cubital cellule of equal width, not one-fourth longer along the radius than it is along the transverse cubitals. Parapsidal furrows shallow. The keel on the metanotum extends shortly beyond the middle; the keels on the basal two abdominal segments are fine, but distinct; the segments are irregularly striated in the middle, the striae intertwining; the second furrow is wider than the others and is more strongly crenulated; the third is narrower and smooth on the apex. Male.

Length, 8 mm.

Pretoria. February.

The pubescence is dense, short, and white; it is longer on the metanotum. Temples rounded, not much narrowed.

Allied to *R. melanocerus*, Cam. (also from the Transvaal); the latter may be known from it by the black costa, stigma, and nervures.

*Rhogas pallidipalpis*, sp. n.

Testaceous; the antennae, stemmaticum, and tips of mandibles black; wings hyaline, the costa and stigma pale testaceous, the nervures paler; the second cubital cellule of equal width, not one-fourth longer along the radius than it is along the transverse cubitals; legs coloured like the body, the tips of tarsi slightly infuscated. The keels on the metanotum and the basal two abdominal segments are weak; the furrow between the second and third segments is weakly crenulated; the first and second segments are finely closely longitudinally striated, almost reticulated. Parapsidal furrows distinct on the basal half. Male.

Length, 6 mm.

Kranspoort (Pretoria District). December.

Temples rounded, not much narrowed, the occiput transverse. Head and thorax finely closely punctured, the latter more strongly than the

former; the apex of the mesonotum longitudinally striated. Apex of mesopleurae closely finely striated, the centre smooth and shining. Basal segment of abdomen closely longitudinally striated and punctured, the striae more distinct on the apex; the sculpture on the second is almost similar, the third is closely weakly punctured; the second furrow is weakly crenulated. The pubescence is short, dense, and white.

*Rhogas striatifrons*, sp. n.

Testaceous; the antennae darker coloured on the apical half, the tips of mandibles, the stemmaticum and the greater part of the apical joint of the tarsi black; wings clear hyaline, highly iridescent, the costa, nervures, and stigma pallid testaceous; basal abscissa of radius half the length of the second, the second cubital cellule of equal width, one-fourth longer along the radius than along the transverse cubitals. Basal three segments of abdomen closely, distinctly striated, the first more strongly on the sides and in the centre; the keels are not clearly defined. Male.

Length, 6 mm.

Pretoria. August.

Temples slightly rounded, distinctly obliquely narrowed. Head and thorax finely, closely punctured, the front distinctly striated, the striae on the sides obliquely sloped. There is a striated belt on the basal half of the pronotum. The apex of the hind femora is infuscated.

*Rhogas transvaalensis*, sp. n.

Rufo-testaceous; the legs much paler than the body, the basal third of the antennae dark testaceous, the rest black, the metanotum and basal segment of the abdomen infuscated; wings clear hyaline, the stigma with the basal half white, the apical pallid fuscous, the nervures pale testaceous, the second cubital cellule not quite twice longer than wide, the first abscissa of the radius about one-third of the length of the second. Metanotum obscurely transversely striated, the keel distinct. Basal two abdominal segments obscurely, finely striated, the keel on the first distinct, but not so stout as that on the metanotum, that on the second is weaker. Temples broadly, roundly narrowed, the occiput transverse. Male.

Length, 4 mm.

Rietfontein No. 57 (Pretoria District). August. Warmberg (Zoutpansberg District). April.

The apex of the mesonotum is irregularly longitudinally striated. Pleurae more strongly shagreened than the mesonotum. Parapsidal furrows indicated on basal slope only.

DORYCTINI.

*Xenolobus*, gen. n.

Wings with three cubital cellules, the second not half the length of the third, wider along the radius than along the cubitus; the radial cellule long, reaching to the apex of the wing, the radius issuing from the basal third of the stigma; the recurrent and anal nervures interstitial; the transverse median nervure received not far from the centre. Base of metanotum with two large raised coloured lobes, narrowed and rounded

at the apex, longer than wide, extending slightly beyond the middle, there being a triangular space at the apex between them; from the top of it a furrow runs to the apex. The basal two and the basal half of the third segments are closely longitudinally striated, the basal two with a not very strong keel down the centre; there is a narrow but distinct furrow between the second and third segments; the basal segment sessile, longer than wide, and a little longer than the second; occiput and cheeks margined. Eyes incised on inner side. Legs stout; the fore tarsi not much longer than the tibiae; the metatarsus as long as the following two joints united. Spiracles small, round.

The antennae are in the male fully longer than the body and taper towards the apex. The head is cubital, narrower than the thorax, the occiput is roundly incised; the wings are large, yellowish hyaline and spotted with fuscous. The parapsidal furrows are distinct on apical half. First abscissa of radius about one-fourth of the length of the second.

The type of the genus has much more the look of one of the *Exothecini* than of the *Doryctini*, especially in its large size and colouration. In the arrangement of Szépligeti (Gen. Ins., Brac., 63) this genus would come in near *Gymnobracon* and *Osmophila*. It should be readily known by the two large roundly raised lobes on the metanotum and by the incised eyes.

*Xenolobus rufus*, sp. n.

Rufous; the antennae, tips of mandibles, the four posterior tarsi, the apical joints of anterior and the hinder tibiae black; wings yellowish hyaline, a large fuscous triangular cloud along the outer apical three-fourths of the transverse basal nervure, the apex all round from near the base of the stigma except for a large irregular oval hyaline cloud extending from near the costa to near the posterior margin, it extending into the first cubital cellule as a triangular projection along the radius, the apical fourth of the hind wings, the cloud extending backwards along the margin as a double triangle, of which the posterior is the larger and longer. Thorax and legs covered with short, white pubescence. Male.

Length, 18 mm.

Pretoria. November.

Sides of face broadly, irregularly transversely striated; the ocelli bordered by curved pyriform foveae, the space between which and the eyes is striated. Pro- and mesonotum punctured, the depressed apical central part of the latter longitudinally strongly striated, the striae more or less twisted. Scutellum sparsely punctured, the parts bordering it stoutly striated. Metanotal lobes shagreened, the rest irregularly reticulated; the apical slope smooth, with two transverse stout keels. Basal two segments of the abdomen closely striated, the striae on the first more or less twisted, that on the apical half of the second much finer than on the basal, the striae on the basal half of the third finer than on the apex of the second.

CHOLONINAE.

*Chelonus rufoscapus*, sp. n.

Black; a broad yellowish white band of equal width on the basal fourth of the abdomen, the antennal scape and the legs, except the coxae, red;

the palpi white ; wings hyaline, the stigma and nervures black, the basal nervures at the base and the transverse basal nervure testaceous ; tegulae black. Densely covered with a white pile. Female.

Length, 3.5 mm.

Pretoria. October.

Antennae sixteen-jointed, as long as the head and thorax united. The upper inner orbits with a closely longitudinally striated border ; the sides of the face closely obliquely striated. Mesonotum finely, closely punctured, the apical half in the centre reticulated, the reticulations square. Scutellum closely, minutely punctured, the basal furrow crenulated. Metanotum and pleurae alutaceous, the former more strongly than the latter ; there is a keel down its centre. Base and middle of abdomen striated, the latter more closely and finely than the former. Basal two abscissae of radius equal in length, thicker than the third ; the cubitus is roundly curved, bullated at the base, the transverse cubital nervure is bullated in front.

Allied to *C. curvimaculatus*, Cam. (Annals South African Museum, V, 34), from which it may be known by the red scape and legs.

*Gastrotheca trimaculata*, sp. n.

Rufo-testaceous ; the stemmaticum, the hinder part of the vertex and the occiput black, the whole forming one mark and three large marks on the mesonotum, black ; wings slightly, but distinctly tinged with fuscous, the base paler, more yellowish in tint, the stigma and nervures black. Female.

Length, 5 mm.

"Cape" is the locality noted on the specimen. Face shagreened, the front and vertex smooth, the mesonotum finely punctured, the scutellum more finely punctured ; the metanotum with a shallow furrow down the middle. Abdomen closely, distinctly, longitudinally striated, the striae interlacing ; the terminal spines four times longer than wide, straight, of almost equal width ; separated by a wider space than the outer edge, which is serrate. The second abscissa of the radius is fully three times longer than the first.

Allied to *G. furcata*, Guér., which may be known from it by there being no black on the hinder part of the head and only two black lines on the mesonotum.

*Gastrotheca melanocera*, sp. n.

Rufo-testaceous ; the head, except the centre of the vertex, paler, more yellowish in tint ; the apex of abdomen broadly infuscated, the antennae, stemmaticum, tips of mandibles and claws black ; wings hyaline, largely and deeply tinged with fuscous, the costa and stigma deep black, the nervures of a lighter black colour, the nervures testaceous, the apical darker in tint. Female.

Length, 5 mm.

Lemana (Zoutpansberg District). October.

Rather densely covered with short fulvous pubescence. Face, oral region and malar space paler, more yellowish in tint than the rest of the

head. Parapsidal furrows shallow, not reaching to the scutellum. Apex of mesonotum depressed in the middle, reticulated. Scutellum almost smooth, shining. Metanotum shagreened, broadly round at the apex, with the sides slightly projecting. Pleurae almost smooth. Abdomen closely reticulated, more strongly towards the apex than at the base, which is transverse with the outer edges projecting; the apical teeth about four times longer than wide and narrowed towards the apex.

*Gasterotheca areolata*, sp. n.

Rufo-testaceous; the antennae, apex of mandibles, stemmaticum and sheaths of ovipositor black; covered closed with short white down; wings hyaline, tinged with fulvous, the costa and nervures black, the nervures testaceous. Female.

Length, 7 mm.

Waterval (Zoutpansberg District). December.

Centre of face with a smooth broad keel which becomes gradually widened (but not much) from the base to the apex. Sides of face, front and vertex rugose, the latter two more strongly than the former; the top of the eye orbits obliquely, closely striated behind. Mesonotum trilobate, the middle lobe not narrowed to a point at the apex and with a shallow furrow down the centre; it is followed by a strongly longitudinally striated depression; there is a narrower oblique furrow on the outer lobe on the apical half. Scutellum finely rugose; it is followed by a smooth, shining depression, with a keel down the centre. The base of metanotum with a large, almost semicircular depression or area in the centre, bearing some stout striae; this is followed in the centre by a large triangular area, the keels bounding it being curved towards the apex; it is irregularly transversely striated and has down the centre two keels which slightly converge towards the apex; there are a few transverse keels between them; the sides of the metanotum are margined by a keel. Propleurae smooth except for a few striae in the central hollow. Mesopleurae finely, closely, indistinctly punctured; there is a wide oblique furrow on the base near the top, this furrow being striated moderately strongly and extends from the base to the apex. Except at the depressed base the metapleurae are rugosely, obliquely punctured. Abdomen closely, rugosely reticulated with a narrow keel down the centre of the basal half; this central keel is enclosed by a broad rufous-fuscous mark, which extends beyond it; the apical spines are long—about five times longer than they are wide at the base—and become narrowed towards the apex; the part between them forms a broad crenulated round curve, the sides at the apex being also crenulated.

*Minanga bimaculata*, sp. n.

Rufo-luteous; the antennae and a wide longish line on the lateral lobe of the mesonotum, black; wings hyaline, the costa, parastigma, and stigma black, the nervures testaceous, darker coloured beyond the stigma. Female.

Length, 4.5 mm.

Transvaal.

Smooth and shining; the apex of mesonotum sparsely, weakly punctured; the scutellum more strongly and weakly punctured. Metanotum with three broad, longitudinal smooth keels down the centre; inside them, near the middle, are two stout transverse keels; outside them is a shallow wide depression, with a few irregular transverse striae; the outer side is coarsely, mostly longitudinally striated, almost reticulated. Pleurae smooth, the base of the metapleurae with a closely, finely striated band. On the basal third of the abdomen, down the centre, are three stout keels, the outer converging and uniting with the central; the space between them at the base is transversely incised, the sides projecting; at their apex is a similar area, but longer and wider at the base, which is formed by the transverse keel at the apex of the basal lateral keels; these areas are stoutly transversely striated; they are bordered by transverse striae, outside of which, and beyond them, the segment is irregularly rather strongly and closely reticulated; on the apex are two rounded incisions, the part separating the two forming a longish triangular tooth; outside the incisions the apex is irregularly toothed. The basal abscissa of the cubitus is slightly roundly curved towards the costa; the second is broadly roundly curved backwards; the apical abscission of the radius is as long as the basal two united.

*Phanerotoma curvimaculata*, sp. n.

Luteous; the apex of the antennae fuscous, a large rufo-fuscous mark on the centre of the second segment; it becomes gradually widened towards the apex, where there is a semicircular incision; the third segment is fuscous, except on the sides and for an incision, longer than wide, transverse at the base, rounded at the apex in the centre; the legs are similarly coloured, but paler, and with the apex of the hind tibiae and the hind tarsi infuscated. Wings hyaline, iridescent, the stigma and parastigma pallid testaceous; the first transverse cubital nervure broadly, roundly curved, the much shorter second straight, and oblique. Female.

Length, 5.5 mm.

Face bluntly keeled down the centre, smooth; the space on either side of the keel closely, finely obliquely striated. Front closely, irregularly obliquely striated and with a smooth furrow down the centre. Vertex irregularly closely punctured. Prothorax finely punctured, the pleurae more or less striated. Mesonotum finely reticulated, more finely so at the base. The scutellum forms almost an equilateral triangle, and is finely irregularly striated; the parts bordering it are more strongly obliquely striated. Base of metanotum closely, irregularly striated; the apical slope irregularly reticulated. Mesopleurae obliquely striated, the striae more or less interlacing. Upper half of metapleurae irregularly punctured, the lower irregularly obliquely striated. Basal two segments of abdomen somewhat strongly, closely, irregularly striated, the other finely rugulose, and more densely covered with white pile than the others.

*Phanerotoma pallidipes*, sp. n.

Rufo-testaceous; the abdomen and legs pallid yellow, the third abdominal segment darker coloured (perhaps discoloured); the apex of

the hind femora narrowly and the apical fourth of the hind tibiae dark fuscous; wings clear hyaline, the apical half of the stigma and the radius fuscous, the apical abscissa of the radius broadly roundly curved towards the costa; the basal third of the second abscissa of the cubitus obliterated; the first transverse cubital nervure broadly, roundly curved; the second about one-third of its length, thinner, straight, oblique; the first recurrent nervure is received very shortly beyond the first transverse cubital; the apical half of the first cubital cellule has a faint fuscous cloud. Head, pro- and mesothorax finely, closely punctured, the head more strongly, than the thorax, the clypeus more shining and less closely punctured, the apical half of the scutellum smooth. The parts bordering the scutellum strongly striated. Basal half of metanotum longitudinally rugose; the apical closely reticulated. Propleurae and prosternum pallid yellow, almost smooth. Mesopleurae finely, closely rugosely punctured, as are also the metapleurae, but they bear also some striae. Basal two segments of abdomen with shallow clearly separated punctures, the third finely, closely rugose. Female and male.

Length, 4.5 mm.

The space between the ocelli is black.

Pretoria. November and December.

*Phanerotoma curvicarinata*, sp. n.

Similar as regards size and coloration to *P. pallidipes* described above; the two may be separated thus:

Apex of scutellum punctured like the base, a stout transverse keel on the top of apical slope of metanotum, basal two segments of abdomen finely, closely, longitudinally striated, the basal third with a curved keel on either side, the two converging towards the apex. *curvicarinata*.

Apex of scutellum smooth, no transverse keel on metanotum, basal two segments of abdomen with scattered punctures and without longitudinal keels. *pallidipes*.

The basal two abdominal segments are pallid yellow like the legs, which have the apex of the hind femora, a band near the base of the hind tibiae and their apical third rufo-testaceous. The apical abscissa of the radius is not roundly curved towards the costa as in *pallidipes*, but almost straight, oblique; the apical abscissa of the cubitus is faint, almost obsolete.

Pretoria. December.

SIGALPHINAE.

*Foersteria nitida*, sp. n.

Black; the head and thorax smooth and shining, the apex of the femora and the base of tibiae broadly rufo-testaceous; wings clear hyaline, the nervures fuscous, the stigma and parastigma black; the abdomen almost opaque, finely longitudinally alutaceous, almost striated. Female.

Length, body and ovipositor, 4.5 mm.

Bronkhorstspuit (Pretoria District). December.

Metanotum finely, closely reticulated, more or less irregularly longitudinally striated. Parapsidal furrows deep, not reaching to the apex of the mesonotum. The second abdominal segment is slightly but distinctly longer than the third. Radius roundly curved, the radial cellule sharply

pointed at the apex; in front it is bordered by a distinct nervure which extends beyond the radius; the recurrent nervure is received at the base of the apical fourth of the first cubital cellule; the cubitus ends shortly beyond the transverse cubitus; the anal nervures is a little longer than it. There is a narrow, smooth, shining line down the middle of the second and third abdominal segments. Head fully as wide as the thorax. The basal alar nervures are paler than the apical. The amount of testaceous colour on the legs appears to vary.

I place this species in *Foersteria* rather than in *Sigalphus*, because the second abdominal segment is longer than the third.

#### AGATHIDINAE.

##### *Disophrys erythropus*, sp. n.

Rufous; the antennae black, the wings fuscous, the first cubital cellule except along cubitus, an irregular cloud along the outer side of the recurrent nervure, extending below it to the anal nervure, a cloud before the transverse basal nervure, a smaller one before the transverse median and a still smaller one on its outer side, and one in the base of the radial cellule in the posterior wings, hyaline. Metanotal areola smooth, triangular, appendiculated; there is a large irregular lateral area; the keel bounding it is roundly curved; from its middle a straight keel runs to the apex, there being a rounded keel outside this.

Face closely punctured, the front and vertex smooth. Pro- and mesothorax weakly, sparsely punctured, the furrows weakly crenulated. The basal part of the metanotum smooth in the centre, the sides with broken striae; the apical part in the centre closely, strongly, the sides sparsely, irregularly striated. The lower mesopleural furrow is shallow and is strongly crenulated. Male.

Length, 10 mm.

Waterval (Zoutpansberg District). November.

Head, thorax, and legs covered closely with a white pile. The alar stigma is pale ochraceous except at the apex; the nervures at the hyaline spaces are pale, the other nervures are darker, especially on the outer edges. Palpi of a paler rufous colour than the head. The suture between the first and second abdominal segment is deep laterally, very shallow in the centre. Areolet about one-fourth shorter along the radius than along the cubitus; the first transverse cubital nervure is roundly curved.

Allied to *D. rufa*, Cam. (Annals South African Museum, V, 38) which may be known from it by the head being largely marked with black.

##### *Crassomicrodus curvinervis*, sp. n.

Luteous; the antennae except the base and inner side of the scape, the back of the second abdominal segment broadly in the middle, the sheath of the ovipositor and the tarsi, black; wings fuscous hyaline; lighter coloured at the base, the stigma and nervures black, the transverse cubital nervure roundly curved, becoming gradually thickened in front, the end oblique, the first transverse cubital nervure straight, oblique, the second roundly curved, the recurrent nervure with the front half

roundly curved backwards, united to the first transverse cubital. Metanotum with two rows of areae of three each; the central in both narrower than the lateral; the anterior central becoming gradually widened towards the apex; the posterior becoming narrowed; the posterior is wider than the anterior. Female.

Length, 7 mm.

Pretoria. 26th March.

The top and sides of the face punctured, but not strongly or closely. There is a curved keel, roundly narrowed below, on the middle of the front. Mesonotum closely punctured; trilobate, the middle lobe short, ending in a keel; the sides of the lateral lobes at this keel obliquely sloped, irregularly obliquely striated. Scutellar depression large and bearing three straight keels. Pro- and mesopleurae finely and closely, the upper half of the metapleurae more strongly punctured, the lower closely, irregularly obliquely striated. Scutellum strongly, but not very closely punctured, it becomes gradually roundly narrowed to the apical fourth, which has the sides straight and the apex transverse. Post-scutellum depressed; it becomes gradually narrowed to a sharp point, and is followed by a keel.

### MICROGASTERINAE.

#### *Apanteles*, Foer.

The species of this useful genus of *Braconidae* appear to be numerous in South Africa. The species here described may be separated as follows:—

- 1 (8) Legs rufo-testaceous, the sides of the basal abdominal segments testaceous.
- 2 (3) The basal two abdominal segments broadly rufo-testaceous, the abdomen broader and shorter than the thorax; the areolet half closed. *eurygaster*.
- 3 (2) The basal abdominal segments narrowly testaceous, the abdomen as long and narrower than the thorax.
- 4 (5) The centre of the metanotum and its outer edges keeled, the stigma testaceous. *fuscinervis*.
- 5 (4) The metanotum not keeled, the stigma fuscous.
- 6 (7) The apex of the hind femora, of the hind tibiae, more broadly, and the hind tibiae, black; the pleurae shining. *testaceiventris*.
- 7 (6) The hind legs not marked with black, the pleurae opaque. *testaceolineatus*.
- 8 (1) Legs largely black, the rest not rufo-testaceous.
- 9 (10) The basal ventral segments rufo-testaceous, the basal transverse nervures forming a broad, rounded curve, without an angle, between the stigma and the cubitus. *africanus*.
- 10 (9) The basal ventral segments black, the basal transverse nervures bluntly angled between the stigma and cubitus. *transvaalensis*.

*Apanteles eurygaster*, sp. n.

Black ; the sides of the basal two abdominal segments broadly rufo-testaceous, the legs of a deeper rufo-testaceous colour, the hind legs with the coxae, apex of hind femora narrowly, of the hind tibiae more broadly and the hind tarsi black ; wings hyaline, the stigma and the transverse cubital nervures fuscous, the basal nervures pale ; the second cubital cellule is twice longer than it is wide at the apex, where it is almost closed ; the anterior part of the cubitus is almost twice longer than the posterior. Metanotum smooth and shining, a narrow keel down the middle, the sides and apex more strongly keeled. First abdominal segment as long as it is wide at the apex, the base in the middle widely depressed ; the second segment is a little longer than the third. Genital armature testaceous, black at the apex. Male.

Length, 3 mm.

Pretoria. May.

Head and thorax densely covered with short white pubescence. The central keel on the metanotum is striated on either side. The abdomen is broader than it is with the other species and the areolet shows an approach to the closed one of *Microgaster*.

*Apanteles africanus*, sp. n.

Black ; the anterior legs except the coxae, the middle except the coxae, trochanters and basal half of femora and basal ventral segment, testaceous ; the hind legs black, the basal third of the tibiae and of the tarsi very narrowly testaceous, the calcaria whitish testaceous ; wings hyaline, the stigma fuscous, the nervures pale, the transverse radial nervure broadly rounded. Palpi almost white. Head and thorax shagreened, the metanotum hardly more strongly than the rest, its sides margined. First abdominal segment about one-fourth longer than wide, the second segment shorter than the third ; the back has a bluish tinge. Female.

Length, 3 mm.

Pretoria. Bred.

The cocoon is clear white. Head and thorax covered with short, white pubescence. The scutellum is bounded by a crenulated furrow laterally.

*Apanteles fuscinervis*, sp. n.

Black ; the sides of the first abdominal segment and of the second rufo-testaceous ; the line on the first becoming gradually widened towards the apex, that on the second narrow, of equal width, the basal half of the ventral surface similarly coloured ; the legs of a brighter rufo-testaceous colour, the hind coxae, apex of hind femora, more than the apical third of the hind tibiae and the hind tarsi, black ; wings hyaline, the costa, stigma, and nervures pale testaceous. Metanotum finely, closely punctured all over ; there is a weak keel down the centre and the sides and apex are bounded by stronger keels. Male.

Length, 3.5 mm.

Rietfontein No. 57 (Pretoria District). July.

The first abdominal segment is about one-fourth longer than it is wide at the apex; the second is shagreened and is longer than the third. The furrow bordering the scutellum is wide and is irregularly crenulated.

*Apanteles transvaalensis*, sp. n.

Black; shining, legs black, the front pair except the coxae, the apex of middle femora, their tibiae and tarsi, the basal half of the hind tibiae, the basal joint of the hind tarsi at the basal fourth and the base of the other joints very narrowly, testaceous, as are also the calcaria; wings hyaline, the stigma dark fuscous, paler at the base, the nervures pale, except the hinder part of the transverse cubital, which is fuscous. Palpi testaceous. Face covered densely with white pubescence, the thorax more sparsely pilose. Female.

Length, 2 mm.

Pretoria. April.

Head and thorax shagreened; the metanotum finely punctured; there are two faint keels on its base, converging towards the base, and two more distinct ones on the apex converging towards the apex. Basal segment of the abdomen distinctly longer than it is wide at the apex, coarsely shagreened; the other segments very shining, slightly tinged with blue; the second and third are not clearly separated. The front part of the transverse cubital nervure is slightly longer and distinctly thinner than the posterior; it is roundly angled outwardly at the junction. Antennae covered with a fuscous, microscopic pile.

*Apanteles testaceolineatus*, sp. n.

Black; the sides of the basal two abdominal segments above pale testaceous, the line on the second widened towards the apex, that on the second towards the base, the ventral surface of a more reddish testaceous colour; legs rufo-testaceous; palpi pale testaceous; wings hyaline, the stigma and nervures fuscous, the basal nervures paler; the transverse cubital nervure not much narrowed posteriorly. Female.

Length, 3 mm.

Smooth and shining; sparsely covered with a white microscopic pile; the metanotum finely punctured, not keeled. First abdominal segment about one-half longer than it is wide at the apex; the second is about one quarter shorter than the third, which has a triangular testaceous mark on the sides, wider than that on the second. The transverse cubital nervure is wider than the others. Legs densely covered with a white pile, the hind coxae are black, the apex of the hind tibiae and the hind tarsi infuscated.

*Apanteles testaceioventris*, sp. n.

Black; the ventral surface rufo-testaceous, the sides of the first and second dorsal segments pale testaceous, that on the first widened towards the apex, that on the second narrower, of equal width; legs testaceous, the hind coxae black, the apex of the hind femora narrowly, of the hind tibiae more broadly (the apical fourth) and the hind tarsi black, the base of the tarsal joints testaceous; wings hyaline, the stigma and nervures black; the posterior part of the transverse cubitus shorter than the

anterior and forming a distinct angle at the junction; the stump of the cubitus forms a sharp narrow angle with it. Metanotum shining at the base, punctured, the punctures distinct and clearly separated, the rest is closely punctured; this apical part being less than the basal. Male.

Length, 3 mm.

First abdominal segment hardly one-half longer than it is wide at the apex; its apex, on the black central part, smooth in the middle, the sides closely punctured. The second segment is fully half the length of the third.

This species is closely related to *A. testaceolineatus*, here described; it may be known from it by the black apex of hind femora and tibiae and tarsi, by the shorter, more acutely angled posterior part of the transverse cubital nervure and by the less closely punctured basal part of the metanotum.

## BLACINAE.

### CYCLOCORMUS, *gen. nov.*

Head not margined, if anything, wider than the thorax; the temples roundly narrowed; the clypeus separated from the face. Antennae longer than the body, thirty-five-jointed; the third joint, if anything, shorter than the fourth. The first abscissa of the radius not one-fourth of the length of the second, which is slightly roundly curved; the transverse median nervure is received shortly beyond the transverse basal; anal nervure roundly curved, not interstitial; the second discoidal cellule open at the apex, the nervure being very faint, if not obliterated beyond the anal nervure.

The discoidal and cubital cellules are separated; the apical nervures in the hind wings are obliterated. Tarsi shorter than the tibiae. Metanotum short, broadly rounded behind, without areae or keels. Mesopleurae without a furrow.

In the arrangement of Szépligeti (Gen. Ins., Braconidae, 138), this genus would come near *Blacus*, Nees., which may be readily separated from it by the third antennal joint being longer than the fourth, by the margined vertex and cheeks, by the mesopleurae being furrowed, and by the tarsi being also as long as the tibiae. The antennae appear to have more joints than *Blacus*, which has only seventeen in the female.

### *Cyclocormus luteus*, sp. n.

Pale luteous; the head and legs paler coloured than the body, the apical half of the antennae and the base and apex of the abdomen infuscated, as are also the apices of the basal joints of the flagellum of the antennae narrowly; wings hyaline, the stigma fuscous, its base and the parastigma pale. Smooth and shining, almost bare. Female.

Length, 2.5 mm.; terebra, 3 mm.

Pretoria. October.

First abscissa of radius two-thirds of the length of the transverse cubital nervure.

## MACROCENTRINAE.

*Macrocentrus luteus*, sp. n.

Luteous; the flagellum of antennae, stemmaticum, and the tips of the mandibles black, the antennal scape darker coloured than the head; the hind tibiae black, except at the base, the tarsi infuscated; wings hyaline, the stigma and nervures black, the parastigma pale; the first abscissa of radius half the length of the second; the first transverse cubital nervure one-third longer than the second; the second abscissa of cubitus and the radius in the hind wings roundly curved. Mesonotum distinctly tribolate, the furrows crenulated; there is a wide, transversely striated band between the middle lobe and the base of scutellum. Smooth and shining, the face closely punctured, more weakly and sparsely on the sides than in the centre. Male.

Length, 10 mm.

Doornfontein (Pretoria District). January.

The antennae are slender and about one-half longer than the body. The long spur of the hind tibiae is about half the length of the metatarsus. The transverse median nervure is not quite interstitial, being received very shortly beyond the transverse basal.

*Macrocentrus pallidistigmas*, sp. n.

Luteous; the stemmaticum and apical half of mandibles black, the antennal scape luteous, the basal half of flagellum fuscous, the apical black; wings hyaline, the stigma and parastigma pallid livid testaceous, the costa testaceous, the nervures black; the first abscissa of the radius nearly two-thirds of the length of the second, and shorter than the first transverse cubital; the two transverse cubital nervures and the third abscissa of the cubitus are largely bullated; the latter is roundly curved, as is also the radius in the hind wings on the basal half. Male.

Length, 9 mm.

Rietfontein No. 57 (Pretoria District). February.

The sides of the front are obscurely striated; the face is finely closely punctured. Mesonotum smooth, the furrows obscurely crenulated. Metanotum closely punctured, the punctures on the apical half running into reticulations. Propleurae smooth at the base, the rest for the most part rather strongly punctured; the mesopleurae closely but not so strongly punctured; the metapleurae more strongly and more irregularly punctured.

*Macrocentrus latisulcatus*, sp. n.

Luteous; the legs at the base paler; the stemmaticum and mandibular teeth black; the antennae fuscous, the basal third luteous; wings hyaline; the basal half of stigma pale, the apical fuscous, the nervures black, the first abscissa of the radius slightly but distinctly longer than the second. Parapsidal furrows smooth. Metanotum opaque, finely transversely striated, more strongly on the apical half; the metapleural furrow wide, narrowed at the base, stoutly, widely crenulated. First abdominal segment and the base of the second finely, closely striated. Propleurae sparsely, weakly punctured, the furrow regularly striated; the mesopleurae

finely, distinctly, closely punctured all over, the metapleurae much more coarsely and more closely punctured. Female and male.

Length, 6 mm.; terebra, 7 mm.

Lekkerwater (Zoutpansberg District). September. Groenvlei (Pretoria District). January.

The pubescence is short and white.

*Macrocentrus nigro-ornatus*, sp. n.

Luteous; the stemmaticum, mandibular teeth, the greater part of the metanotum, the first abdominal segment and the basal half of the second, black; wings hyaline, the stigma fuscous, pale at the base and in front, the nervures black, the first abscissa of the radius about two-thirds of the length of the second, the second transverse cubital nervure about two-thirds of the length of the first; the cubitus at the second cubital cellule roundly curved. Parapsidal furrows smooth; the metanotum shagreened, the basal two segments of the abdomen finely closely striated. Propleurae smooth, the mesopleurae smooth above and at the apex, the rest punctured, but not very strongly or closely, the metapleurae more strongly and closely punctured. Female.

Length, 5 mm.; terebra, 5 mm.

Pretoria. October.

The legs, especially at the base, are paler, more yellowish in colour.

*Macrocentrus annulicornis*, sp. n.

Luteous; the joints on the basal half of the flagellum narrowly annulated with black on the apex, the apical half of the flagellum fuscous; the stemmaticum and mandibular teeth black; wings hyaline, the stigma and parastigma pallid, livid testaceous, the costa testaceous at the base, the nervures in the fore wings black, in the hinder pale; the first abscissa of radius fully three-fourths of the length of the second, which is as long as the first transverse cubital nervure; the third abscissa of cubitus is rounded and is largely bullated at the base. Female.

Length, 7 mm.; terebra, 7 mm.

Pretoria.

The legs are paler coloured than the body; the scutellar depression is large and strongly striated.

The following is a synoptical table of the species of *Macrocentrus* described above:—

- 1 (2) Stigma black, the second abscissa of radius three times longer than the first. *luteus*.
- 2 (1) Stigma pallid testaceous, the second abscissa at the most twice the length of the first.
- 3 (4) The metanotum and base of abdomen for the greater part black. *nigro-ornatus*.
- 4 (3) The metanotum and base of abdomen immaculate.
- 5 (6) The antennae with the joints of their basal half marked with black. *annulicornis*.
- 6 (5) The antennal joints not marked with black.

- 7 (8) *Pterostigma* testaceous throughout, the first abscissa of the radius two-thirds of the length of the second ; length 9 mm.

*pallidistigmus*.

- 8 (7) *Pterostigma* fuscous, broadly pale at the base, the first abscissa of the radius as long as the second ; length 6 mm. *latisulcatus*.

#### ALYSIINAE.

##### *Coelalysia*, gen. nov.

Metanotum irregularly areolated ; the spiracles small, longish oval. Parapsidal furrows deep, distinctly defined, converging towards the apex. Scutellum large, flat. Post-scutellum raised, the sides bordered by stout raised keels. Radial cellule large ; the first abscissa of the radius one-fourth of the length of the second, which is shorter than the first transverse cubital nervure ; the recurrent nervure is received in the second cubital cellule ; the radius issues from the apical fourth of the stigma ; the second discoidal cellule is open at the apex below, the nervure being distinctly bullated there. Mesopleural furrow crenulated. The first abdominal segment is striated, the others smooth and shining, with narrow furrows. The third antennal joint is distinctly shorter than the fourth.

The eyes are rather small, oval ; the malar space is not half their length. Clypeus separated from the face, which is more convex and rounded. The upper mandibular tooth is longer and more sharply pointed than the lower ; the two are clearly separated. Calcaria short, the claws slender, simple. The second cubital cellule is large, narrowed towards the apex and five-angled ; the transverse median nervure received beyond the transverse basal.

In the arrangement of Szépligeti (Gen. Ins., Braconidae, p. 205), this genus runs near to the little known genus *Symphanes*, Foer., which may be known from it by the third and following abdominal segments not being clearly separated, by the metanotum not being keeled, and by the third and fourth antennal joints being of equal length.

##### *Coelalysia lutea*, sp. n.

Luteous ; the flagellum of antennae, inner mandibular tooth, ocelli, the greater part of the sixth and the following two abdominal segments, black ; the hind tibiae and metatarsus blackish ; wings hyaline, the stigma and nervures black. Smooth and shining ; the metanotum with a stout keel down the middle, the sides with a thinner keel which curves roundly outwardly at the base ; on the sides of the apical slope is a rounded keel. Apex of first abdominal segment distinctly, but not closely, longitudinally striated, the other segments smooth and shining. The third joint of the antennae is distinctly shorter than the fourth. The space between the parastigma and stigma is pale. Male.

Length, 4 mm.

Waterval (Zoutpansberg District). December.

The metathorax is densely covered with longish white pubescence, its base is smooth ; in the centre of the apex are two keels which roundly

converge towards each other at their top, outside them is a short, roundly curved keel; the sides are bordered by a broadly rounded keel. The metapleurae has a distinct, crenulated, longitudinal furrow.

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## CHALCIDIDAE.

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### CRATOCENTRUS, Cam.

#### *Cratocentrus auropilosus*, sp. n.

Black; the antennae, lower edge of the clypeus, the lower half of the front and face broadly, the vertex behind the ocelli, the line broadest in the middle, the outer orbits narrowly, the malar space, the base and apex of pronotum, the latter from the apex to the crenulated ridge, more than the apical half of the pro-pleurae, the lower half except narrowly at the base, the scutellum, the mesopleurae at the base above, the mesopleural furrow, the base of the first abdominal segment from shortly beyond the slope, the basal third of the second segment, its apex narrowly and the ventral surface, the terminal segment except for a black triangular mark on the base above, extending near to the middle, the sheath of the ovipositor except at the apex and the legs, red; the hind femora except round the top and lower edge on the outer side, black; there are thirteen short, broad teeth on the hind femora, the basal one larger than the others. Wings hyaline, the apex clouded, the cloud rounded at the base; a narrow, curved cloud runs from the stigmal branch; the nervures black. The body and legs are densely covered with silvery pubescence; there is a broad band of depressed golden pubescence on the basal half of the second segment on the sides, not extending to the central third; the apical segments are also covered with golden pubescence. Female.

Length, 9 mm.; terebra, 4 mm.

Pretoria. Bred.

Head and thorax closely, rugosely punctured; the basal slope of the pronotum smooth, the apex coarsely reticulated, as is also, but more closely, the scutellum; the space bordering the post-scutellum and a furrow on the base of the metanotum crenulated; the apex of the latter is longitudinally striated; this striated central part is bordered by a stout roundly curved keel, which is continued more narrowly down the outer edge of the apex; the upper outer part is densely covered with longish depressed silvery white pubescence; the lower edge projects into a bluntly rounded reddish tooth. The mesopleural depression has the upper two-thirds finely closely striated, the lower part is smooth, bare, and shining. The lower edge of the sheath of the ovipositor is irregularly punctured. The apex of the scutellum below is bordered by a furrow, which projects bluntly in the middle and has a furrow behind it.

## PERILAMPIDAE.

*Perilampus*, Latr.*Perilampus testaceitarsis*, sp. n.

Black, shining; the flagellum of the antennae rufous, the tarsi testaceous, black at the apex; wings hyaline, the nervures testaceous. Head, shining, the hinder part of the vertex and the occiput transversely striated distinctly, but not very closely. Pro- and mesonotum umbilically punctate, the apex of the latter more strongly than the rest; the scutellum is still more strongly umbilically punctate. Pleurae smooth and shining, the raised apex of the propleurae coarsely reticulated. Metanotum smooth and shining, bare, a crenulated furrow at the base; a furrow, widened above, down the centre; there is a keel down its middle with two transverse keels on either side of the centre.

Length, 5 mm. Female.

Pretoria. September.

The scutellum has the sides and apex margined, the latter more strongly than the former, and with the centre narrowly transverse. The mandibles are of a darker red than the antennae; their teeth black. The fore tibiae are red at the base and apex in front; the hind femora have a bluish tint.

*Chalcis*, F. sec.*Chalcis transvaalensis*, sp. n.

Black; the legs bright red, the base of the four anterior coxae and the femoral teeth black; the apex of the anterior femora broadly, of the middle more narrowly, a spot on the apex of the posterior, the base and apex of the four anterior tibiae, a band near the base of the hinder and a broader one on the apex, white; the lower part of the antennal scape obscure red. Wings hyaline, the nervures black. Tegulae white. Femoral teeth ten in number, the basal two small and close together. Female.

Length, 4 mm.

Head strongly punctured, the vertex behind the ocelli umbilically so; the sides at the depression weakly, the face and clypeus strongly, irregularly punctured. Thorax above, with the scutellum umbilically punctate; the metanotum coarsely reticulated. Abdomen smooth, the apical segments fringed with white pubescence. Female.

Length, 4 mm.

Bred.

Propleurae aciculated, the mesopleurae smooth, the lower part and the sternum reticulated; there are five distinct foveae bordering the lower half of the base. Metapleurae reticulated like the metanotum except for an aciculated space at the base above. The malar space margined on the inner side. There is no clearly defined areola on the metanotum; the centre is without an areola and is bordered by two oblique keels, forming longish areae. The apical lobes of the scutellum are short, broadly rounded and hollowed. Sides of metanotum broadly rounded, untoothed.

The apical abdominal segments form a short broad sheath, showing an approach to *Phasgonophora* or *Trigonvura* as in *C. capensis*, Cam. (Rec. Alb. Mus., I, 311) to which this species is closely allied.

NOTE.—In my description of *capensis*, l. c., in the fourth line from the bottom of the page, for “mesonotum” read “mesopleurae”.

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ONCOCHALCIS, Cam.

= *Holcochalcis*, Kief., Berl. Ent. Zeit. XLIX, 258.

*Uncochalcis lissostoma*, sp. n.

Black; the tegulae, apex of anterior femora, the black part obliquely narrowed towards the apex, a spot on the apex of the hind femora above and the tibiae, pale yellow; the apex of the middle femora and the tarsi reddish testaceous; the hind femora from shortly behind the middle red, the black basal mark roundly narrowed; there are eleven distinct teeth, followed by six minute ones close together, the termina, one short, broad, indistinct. Apex of scutellum broadly rounded and fringed with silvery hair. The face, cheeks, and metapleura densely covered with long silvery pubescence; the second and following abdominal segments fringed with silvery hair. Wings clear hyaline, the nervures black; the tegulae whitish yellow. Female.

Length, 4 mm.

Groenvlei (Pretoria District). January.

Bred.

Face and clypeus smooth; the sides of the vertex strongly, obliquely striated; the occiput irregularly, obliquely, reticulated-striated. Pro- and mesothorax umbilically punctured all over, the prothorax finer than the rest. Metanotum strongly reticulated, without an areola; it is short, with the sides broadly rounded. Sheath of ovipositor broad, projecting.

Allied to *O. rotundata*, Cam. (Zeits., f. Hymen, ü Dipter, 1905, 231) which is also from South Africa and has, like the present species, the apex of the scutellum not bilobate, the hind femora, too, being entirely red.

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EURYTOMINAE.

*Eurytoma transvaalensis*, sp. n.

Black; the head, thorax, and apical segments of the abdomen densely covered with silvery white pubescence; the under side of the antennal scape rufous beneath, the legs white, the coxae, the greater part of the four anterior femora—about the basal three-fourths—and the posterior to near the apex, black; the tibiae are tinged with fulvous more or less broadly in the middle—the fulvous tint varying in depth, inclining to black in one example—the apical tarsal joint fuscous to black; wings clear hyaline, the nervures pale testaceous. Female.

Length, 3.5 mm.

Pretoria. Bred.

Antennae stout, the flagellum densely covered with white pubescence; the third joint becoming gradually thickened towards the apex, about one-quarter longer than the fourth. Parapsidal furrows clearly defined,

deep, straight, converging towards the apex. Sides of metanotum broadly rounded, the middle depressed, finely obliquely striated on the upper half, the lower with fine striae which form almost reticulations. The last abdominal segment forms a longish triangular projection; the apex of the sheath of the ovipositor is testaceous. The abdomen is hardly so long as the meso- and metathorax united; the petiole is short. Marginal vein distinctly thicker and not quite so long as the post-marginal; the stigmal vein ending in a semicircular thickening.

The colouration of the legs probably varies.

Allied to *E. capensis*, Wlk., and *E. natalensis*, Cam.

*Eurytoma palliditarsis*, sp. n.

Black; the head, thorax, apical segments of abdomen and legs densely covered with white pubescence; the antennal scape, mandibles, palpi, and legs rufo-fulvous, the hind tibiae at the base and apex and the hind tarsi white; the flagellum of the antennae testaceous, infuscated above; wings hyaline, the nervures whitish. Female.

Length, 2.5 mm.

Pretoria. September "from a gall".

Flagellum of antennae stout, covered with white pubescence; the third joint about one-fourth longer than the fourth. Metanotum obscurely striated, the top and outer edges bordered by a keel, which is broadly rounded above, and there is a straight keel down the centre. The marginal vein is distinctly longer than the post-marginal, and is distinctly longer than it, and projects only very slightly beyond the stigmal vein, which is semicircularly dilated below.

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IDARNINAE.

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TETRAGONASPIS, Mayr.

*Eukoebelea* (?) *testaceipes*, sp. n.

Black; the antennal scape, the pedicel, the legs, the apical segments of the abdomen above, and the ventral segments testaceous; the face, clypeus, oral region, palpi, and mandibles of a darker, more rufous, testaceous colour; the flagellum dark rufo-testaceous; wings clear hyaline, the nervures dark testaceous, the stigmal branch paler. Female.

Length, 2.5 mm.; terebra, 8 mm.

Pretoria. Bred.

Head and thorax, except the metanotum (which is smooth and shining), opaque, the abdomen smooth, shining. Joints of flagellum wider than long. The post-marginal branch is a little longer than the marginal; the stigmal branch is two-thirds of its length. Parapsidal furrows distinct, curved roundly, not commencing at the base of the mesonotum, but at the sides, distant from the base. Scutellum large, quadrangular, of equal width, longer than wide. Ocelli in a curve, the hinder widely separated, placed close to the eyes. The antennae are not much thickened towards the apex; the third joint is longer than thick and longer than the fourth.

Metanotum shorter than the scutellum. Temples very short, the occiput not transverse. The hinder ocelli are placed before the end of the eyes. The scutellum has not "longitudinal grooved lines".

The species described above does not fit into any of the described genera. It is clearly related to *Idarnes*, Walker (which, according to Ashmead, Mem. Carnegie Mus., I, 238, is identical with *Tetragonaspis*, Mayr., cf. also Mayr., Wiener Ent. Zeit., XXV, 164), and *Eukoebelea*, Ashm.

It differs from *Idarnes*, Wlk., *sec.* Ashm., in the body not being metallic and in the joints of the antennae not being twice longer than thick; from *Eukoebelea* in the ocelli not being "arranged nearly in a straight line", but almost in a triangle as in *Idarnes*; from both it differs in the scutellum not having two longitudinal grooved lines; the scutellum otherwise is as in these two genera, being flat, broad, and quadrate. In body form it is like *Tetragonaspis* as figured by Mayr. (Verh. z-b. Ges. Wien., XXXV, pl. xii, f. 28), but has the post-marginal branch in the wings much shorter as compared with the marginal, the temples, too, being less developed.

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Cameron, Peter. 1911. "On the parasitic Hymenoptera collected by Mr A.J.T. Janse, Transvaal." *Annals of the Transvaal Museum* 2(4), 173–217.

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