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W. E. LaBerge

On the Hymenoptera of the Albany Museum, Grahamstown,
South Africa.

BY P. CAMERON.
(Second Paper).

APIDÆ.

Halictus volutatorius, sp. nov.

Black, the abdomen ferruginous, tegulæ piceous red ; wings clear hyaline, the stigma fuscous, the nervures darker coloured. Female.

Length 6 mm.

Brak Kloof. Mrs. G. White.

Antennæ fuscous beneath towards the apex. Clypeus shining, strongly but not closely punctured ; the face more weakly punctured. Apex of clypeus fringed with short golden pile, and more sparsely with long white hair. Front alutaceous, thickly covered with fuscous pubescence, the vertex shining. Pro- and mesonotum shining, sparsely punctured.

Metanotal area closely, finely reticulated, without an apical border. Mesopleuræ coarsely alutaceous, opaque. Base of 1st abdominal segment sparsely covered with long white hair, the apical thickly covered with white pile and more sparsely with long white hair ; the segments smooth and shining. Anal rima rufo-piceous, bordered with golden pubescence. The basal 3 abscissæ of radius become successively longer, but not much ; the 3rd transverse cubital nervure in front has a small part straight and oblique, the rest roundly curved.

Halictus iridicolor, sp. nov.

Dark green, thickly covered with fulvous pubescence on the head and thorax, with white on the abdomen; the front and vertex blue, streaked with violet; the mesonotum, scutellum and base of metanotum rosy red, streaked with blue. Legs black, thickly covered with white hair, the 4 anterior tibiæ and tarsi testaceous in front. Wings hyaline, the stigma and nervures pallid testaceous. Antennæ black, the flagellum brownish below. Female.

Length 8 mm.

Brak Kloof. Mrs. G. White.

Base of metanotum closely, minutely punctured, the central area less strongly than the sides. Clypeus strongly, but not closely punctured; the face slightly punctured. Mandibles broadly rufo-testaceous in the centre. The hair on the face and clypeus long and white. Head and thorax closely and strongly punctured; the abdomen minutely punctured; the rima dark rufous.

A robust species.

Halictus bidens, sp. nov.

Black; the head, thorax and ventral surface of abdomen thickly covered with long grey hair, that on the mesonotum mixed with black. Wings hyaline, the stigma fuscous, the nervures blackish; the 3rd cubital cellule narrowed in front, shorter than the 2nd, the 3rd transverse cubital nervure roundly, broadly curved, the 1st recurrent nervure almost interstitial. Apex of clypeus transverse, the sides projecting into stout teeth. Metanotal area stoutly keeled behind, closely, strongly longitudinally striated. Head and thorax not distinctly punctured, the lower half of metapleuræ closely, finely obliquely striated. Apex of clypeus with a deep, longer than wide depression in the centre, wider towards the apex; the sides bordering it stoutly, irregularly striated. Malar space large. Abdomen smooth, the base shining; the apical segment above sparsely covered with longish black hair; rima blackish, bordered with rufous.

Length 8 mm.

Salem. R Webber. November.

Halictus kloofensis, sp. nov.

Black, the mandibles broadly ferruginous in the middle, the flagellum rufous below; the apical joints of the tarsi bright ferruginous; wings clear hyaline, the stigma and nervures black; the 3rd cubital cellule narrowed in front, equal in length with the 3rd; 1st recurrent nervure received not far from the transverse cubital; the 2nd at the base of the apical third of the cellule. Metanotal area coarsely, irregularly reticulated, without an apical bordering keel. Clypeus strongly, but not closely punctured. Front finely, closely rugose, and covered thickly with fuscous hair; the vertex is not so closely nor distinctly punctured. Mesonotum strongly punctured; the apex of metanotum sparsely punctured, with a shagreened appearance; its centre largely hollowed. Abdomen smooth, the base of the segments with a band of depressed white pile. Apices of ventral segments pale; the penultimate thickly covered with long golden hair. Tegulae dark piceous. The hair is cinereous; on the front it is darker coloured, and the mesonotum tinged with fulvous, as is also the hair on the underside of the tarsi. Male.

Length 9 mm.

Brak Kloof. Mrs. G. White. March.

Halictus Whiteanus, sp. nov.

Black, the pubescence cinereous, on the apex of the abdomen and tarsi bright fulvous; on the tibiae it is tinged with fulvous; wings hyaline, tinged with fulvous, iridescent, the stigma testaceous, the costa and stigma darker. Female.

Length 10-11 mm.

Brak Kloof. Mrs. G. White.

Apex of clypeus slightly curved, sparsely punctured, the apical half more sparsely than the basal; the face shining, almost impunctate in the centre, almost bare, the sides densely pilose, closely wrinkled. Mesonotum and scutellum closely, strongly punctured, the latter depressed in the centre. Basal area of metanotum closely, irregularly, longitudinally reticulated, striated, the apex not bordered; in the centre is a fine longitudinal keel. The basal 2 segments of the abdomen are closely and distinctly

punctured and depressed; the base of all the segments covered with white depressed pubescence; the apices with longish white pubescence; the rima is bright rufous, and is fringed with bright ferruginous hair.

Comes close to *H. deceptus*, Sm., which may be known from it by the pile on the head and thorax being rufous, by the metanotal area being closely and regularly rugose, by the basal 2 segments of the abdomen not being closely and regularly punctured, and by the anal rima being black.

Halictus heliophilus, sp. nov.

Black, the apices of the abdominal segments testaceous, the knees, tibiæ and tarsi rufo-testaceous; the 4 front-tibiæ broadly yellow in front, the fore tibiæ behind in the middle and the hinder in the middle all round black; the wings clear hyaline, the stigma and nervures pallid testaceous. Flagellum of antennæ brownish beneath. The pubescence white. Tegulæ testaceous yellow. Female.

Length 7 mm.

Grahamstown. Misses Daly and Sole.

Clypeus shining, sparsely punctured; the front and vertex closely, uniformly and rather strongly punctured, as are also the mesonotum and scutellum. Metanotal area closely reticulated except round the apex. Apex of clypeus transverse, the sides projecting into short blunt teeth, rounded at the apex. Third transverse cubital and 2nd recurrent nervures very pale, the former broadly curved outwardly; the 2nd abscissa of radius not much longer than the 1st, and clearly shorter than the 3rd. Anal rima piceous; the segment at the sides rufous, the hair also tinged with rufous. First abdominal segment minutely punctured.

I am not sure but that this may be *H. pallidipennis*, Sm.; but without an examination of the type it is impossible to decide this from the description.

Halictus transiens, sp. nov.

Black, the hair white, the underside of the flagellum fuscous; wings hyaline, the stigma fuscous, the nervures pallid testaceous,

the 1st and 2nd transverse cubital nervures paler than the others, roundly curved; the 3rd with the upper half obliquely sloped; the 2nd cubital cellule half the length of the 3rd; 1st recurrent nervure received in front of the 2nd transverse cubital, almost interstitial. Metanotal are closely, rugosely punctured throughout; the sides to the centre rounded, clearly margined; the centre almost transverse. Female.

Length 5 mm.

Museum Grounds, Grahamstown. November. Misses Daly and Sole.

Front, face and clypeus thickly covered with white pubescence, clypeus strongly, almost rugosely punctured except on the apex; face irregularly rugose. Front and vertex opaque, coarsely alutaceous. Mesonotum and scutellum shining, sparsely, indistinctly punctured. Pleuræ finely rugose. Abdomen shining, impunctate, the apices of the segments testaceous.

Halictus collegus, sp. nov.

Black, the apex of the clypeus pale lemon-yellow; the under side of the flagellum, the tarsi for the greater part testaceous, wings hyaline, the nervures and stigma fuscous; the 2nd cubital cellule hardly one half the length of the 3rd, the 1st recurrent nervure interstitial, tegulæ yellowish testaceous on the outer, black on the inner half; base of metanotum irregularly longitudinally striated. Male.

Length 6 mm.

Museum Grounds, Grahamstown. November.

Lower part of front, face and clypeus thickly covered with white pubescence; the hair on the thorax white. Head, pro-, mesonotum and scutellum closely, finely, distinctly punctured; the upper part of the mesopleuræ closely punctured, the hind part longitudinally striated, the striæ distinct and clearly separated. Apex of metanotum smooth, shining, bare; it is bordered by a stout keel. Abdomen smooth, shining, the apices of the segments piceous.

The 1st and 2nd transverse cubital nervures are straight, slightly oblique ; the 3rd oblique in front, broadly rounded below. Face not elongated. Apical half of mandibles rufous.

Halictus ferinus, sp. nov.

Black, the hair white, the clypeus fringed with golden hair ; antennæ deep black ; wings hyaline, the nervures and stigma black ; the 2nd cubital cellule two-thirds of the length of the 3rd ; the 1st recurrent nervure received shortly in front of the transverse cubital, almost interstitial ; the 2nd reaping-hook-shaped, received at a distance from the transverse cubital, which is roundly, broadly curved. Metanotal area closely, uniformly reticulated. Female.

Length 6-7 mm.

Grahamstown, September. Misses Daly and Sole.

Clypeus strongly punctured, the punctures clearly separated. Face weakly, sparsely punctured. Front and vertex opaque, finely, closely coriaceous. Pro- and mesonotum and scutellum shining, obscurely, sparsely punctured. Pleuræ opaque, alutaceous, the apex of the meso- obscurely striated above, below minutely punctured ; the meta- closely, finely, not very distinctly punctured. Metanotum not bordered by keels. Abdomen smooth, the segments not depressed ; the rima obscure, rufous.

The wings in certain lights are highly iridescent, and have a slight fuscous tinge.

Halictus designatus, sp. nov.

Black ; apical half of mandibles ferruginous ; apical half of flagellum brownish below ; the pubescence white, except on the tarsi, where it is ferruginous ; apical joints of tarsi rufous ; calcaria testaceous ; wings hyaline. the stigma and nervures testaceous. Female.

Length 6 mm.

Brak Kloof, November. Mrs. G. White.

Metanotal area closely, strongly reticulated-striated, the sides more distinctly striated, the striæ oblique. Clypeus shining, very sparsely punctured on the apex, more closely on the base, the sides impunctate. Centre of face broadly, roundly raised,

punctured; the sides much more closely punctured. Front and vertex closely rugosely punctured, opaque. Pro- and mesothorax closely, distinctly punctured, the pleuræ more closely and rugosely than the mesonotum. Apex of metanotum transverse in the middle above, without a smooth border. Abdominal segments closely, distinctly punctured, the basal more strongly than the apical; the base and apices of the segments covered with a white pile; anal rima rufous, the last segment fringed with golden hair. Basal 3 abscissæ of radius of equal length; 2nd recurrent nervure received at a greater distance from the cubital than the first.

Paranomía quadrituberculata, sp. nov.

Black; the abdomen with 4 white smooth, broad bands; the body closely, strongly punctured, the punctuation on the metanotum and abdomen more widely separated and stronger than on the rest. Scutellum in the centre broadly, roundly depressed in the centre, the sides being thereby tuberculated; basal area of metanotum with a row of stout striæ at the base, the rest aciculated, opaque; the sides near the apex project into short, somewhat triangular teeth. Tegulæ small. The lower part of the front, face and clypeus densely covered with white pubescence; the temples, pleuræ and base of abdomen thickly covered with longish white hair. Legs covered with white hair; the tarsi bright red; calcaria rufo-testaceous. Wings hyaline, stigma fuscous, the nervures blackish; 2nd cubital cellule half the length of the following, smaller than usual, of equal width, the 1st recurrent nervure interstitial. Antennal flagellum brownish, black above. The 2nd abdominal segment with a smooth, transverse line in the middle. Female.

Length 5 mm.

Brak Kloof, February. Mrs. G. White.

Paranomía Whiteana, sp. nov.

Black; the abdomen with (4 in female, 5 in male) smooth, shining, white bands; the hair on the head and thorax fulvous when fresh, grey when old; wings hyaline, the stigma testaceous, the costa and nervures blackish; the hind femora and tibiæ in male not much more dilated than in the female.

Length 9 mm.

Museum Grounds. Grahamstown.—Brak Kloof. Mrs. G. White.

Head and thorax closely, but not strongly punctured; the clypeus with larger, more widely separated punctures; the front and face thickly covered with longish hair. Scutellum slightly depressed in the middle. Metanotal area closely, finely reticulated, smooth along the edges. Abdomen smooth, shining; anal rima smooth, piceous, bordered by fulvous pubescence. Male antennæ stout, brownish beneath; the last joint acutely pointed at the apex. The pubescence on the head and thorax is probably normally fulvous, becoming grey with age.

Stictonomia, gen. nov.

Male. Scutellum laterally at the apex projecting into a stout spine, which is nearly as long as the scutellum, originates from the base and becomes narrowed towards the apex, which is bluntly rounded. Thorax and abdomen strongly, deeply punctured, the abdominal depressions covered with depressed white pile. Tegulæ very large. Hind femora not much swollen. Antennæ simple. Middle tibiæ with a long spine. Wings as in *Nomia*.

The affinities of this genus or sub-genus are clearly with *Nomia* from which and *Paranomía*, and *Hoplonomia* it may be known by the strongly spined scutellum which is not depressed in the middle. *Hoplonomia* has the post-scutellum spined; but the spines are much shorter and more slender than the scutellar spines in this genus. The body is much more strongly punctured than it is in *Nomia*.

Stictonomia punctata, sp. nov.

Black, densely covered with longish white pubescence, the flagellum of antennæ rufous, darker towards the apex, the legs except the coxæ and trochanters, of a brighter red, the femora darker behind; wings hyaline, the stigma and nervures blackish. Tegulæ dark rufous, the flattened apical part whitish. Apical half of mandibles dark piceous. Ventral surface rufous, brighter coloured on the sides. Male.

Length 7 mm.

Brak Kloof. March. Mrs. G. White.

Front and vertex closely and rather strongly punctured, covered somewhat thickly with longish grey hair, that on the front being the longer. Face and clypeus much more thickly covered with whitish pubescence. Labrum rufous, smooth, a minute depression in the centre above. Mesonotum and scutellum finely, closely punctured, and with larger, deeper, scattered punctures; the punctures on the scutellum are larger and deeper. Post-scutellum thickly covered with grey, longish pubescence. Basal area and metanotum smooth and shining; the rest bearing deep, round, clearly separated punctures. Propleuræ closely, strongly striated. Mesopleuræ strongly punctured, the meta-not so closely nor so strongly. Legs thickly covered with long white hair; the hind tibiae and base of tarsi stout. The apices of the abdominal segments are smooth; the base of the middle ones depressed and thickly covered with a white pile. Apex of wings slightly smoky.

Morice (Results of the Swedish Zool. Expedition to Egypt and the White Nile, 1901, No. 14, Hymen. Aculeata, p. 6), describes the male of what he supposes to be *N. tegulata*, Sm. It has the scutellum as in the species I have described, and, otherwise, appears to be closely related. In *tegulata* (male) *teste* Morice, i.e., joints 4 to 12 are "about as long as broad" and joints 3-13 are "little longer than the others": in my species they are clearly longer than broad, and the 3rd is about equal in length with the 4th; the last is slightly but distinctly longer than the 12th.

MEGACHILINÆ.

Lithurgus? spiniferus, sp. nov.

Black, the face, temples and pleuræ densely covered with long white hair, the front with long, the vertex with short fuscous pubescence; the metanotum with long pale fuscous hair; the scopa long, dark silvery; the dorsal segments with a narrow band of white pubescence; the last segment above and below

densely covered with rufous hair. Hair on legs long, dense and white, on the hind tarsi rufous; the apices of the 4 hinder tarsi rufous. Wings hyaline, short compared with the body; iridescent, the stigma and nervures black. Female.

Length 12 mm.

Brak Kloof. Mrs. G. White.

Head coarsely punctured, a narrow but distinct keel runs from the ocelli, becoming thicker towards the apex. Face in the centre largely, roundly tuberculate, coarsely rugosely punctured. Mandibles smooth and shining. Mesonotum and scutellum closely, rugosely punctured. Metanotum weakly punctured, smooth in the middle at the apex. Back of abdomen punctured, the punctuation becoming stronger towards the apex; the hair on the pygidium long and dense, covering the sculpture, dark at the base, the rest bright red. Epipygium stoutly, sharply spined in the centre, the sides with shorter and stouter spines, which are placed further back than the central.

Lithurgus ovatus, sp. nov.

Black, the inner orbits, front, clypeus, lower outer orbits and pleuræ thickly covered with long silvery white hair; the hair on the legs white, on the tarsi tinged with rufous; scopa white. Wings hyaline, the stigma and nervures black; tegulæ piceous. Female.

Length 9 mm.

Brak Kloof. Mrs. G. White.

Face coarsely, rugosely punctured; the hair on the clypeus very long; the part below the apex of the clypeus fulvous. Front and vertex strongly punctured; much more closely on the former than on the vertex where the punctures are clearly separated. Malar space below roundly trituberculate, the middle one the smaller. Thorax rugosely punctured. Abdomen not much longer than the thorax; the basal segments depressed at the apex; the apical thickly covered with rufo-fulvous hair. Fore-tibiæ irregu-

larly punctured; hinder armed somewhat thickly with short, stout blunt spines. Apical tarsal points rufous. Frontal tubercle smooth and shining; it is followed by 2 keels which have between them a few transverse keels; they are prolonged below the antennæ.

Apart from the other differences this species may be known from *L. spiniferus* by the distinct smooth tubercle on the front.

Megachile tardula, sp. nov.

Black, the pubescence white, on the face pale ochraceous, on the mesonotum tinged with fulvous; apical joints of tarsi rufous; the hair on the underside of tarsi tinged with rufous. Wings clear hyaline, the nervures and stigma black.

Length 9 mm.

Brak Kloof. Mrs. G. White.

Apex of abdomen with eight teeth; the central two the larger, stout, the space between rounded at the base, as long as wide, the second smaller and sharper, the outer two shorter and blunter; the third separated from the second by a greater distance than it is from the fourth; outside the fourth is a short, blunt tubercle. Mandibles with two distinct large teeth; the second shorter than the first, and not obliquely pointed like it. Head, pro- and mesothorax closely punctured; the metanotal area finely rugose, opaque; the rest closely punctured, more closely and rugosely in the centre than on the sides. The penultimate segment of the abdomen is thickly covered with long black hair; the last above entirely with white pubescence, as are also the apices of the others. The segments are closely punctured, the apical more strongly and closely than the others. Fore legs not dentate.

Megachile Whiteana, sp. nov.

Black; the pubescence on the front, face and clypeus white, on the occiput and back of thorax dark rufous, on the pleuræ and

sternum white, tinged with rufous; the apices of abdominal segments narrowly fringed with white; the scopa bright ferruginous; the hair on the legs white, on the inner side of the tarsi rufous; wings hyaline, slightly tinged with fuscous-violaceous; the nervures and stigma black. Female.

Length 10-11 mm.; breadth 3 mm.

Brak Kloof. Mrs. G. White.

Mandibles 3-dentate; the second gradually narrowed from the base to the apex; the space between it and the apical rounded; the third bluntly rounded; the space between it and the second roundly curved; except on the three ridges on the apical half they are strongly, closely punctured. Clypeus strongly, closely punctured, more widely in the centre, where the punctures run into striæ; the apex is transverse, smooth, depressed, slightly waved in the centre. Front and vertex closely punctured. Pro- and mesothorax closely and strongly punctured. Metanotum alutaceous, the basal area closely striated at the base. Basal two segments of abdomen sparsely, the others closely and more strongly punctured. Apex of tibiæ about one-fourth wider than the base of metatarsus. Tegulæ deep black, shining.

Megachile spiniscutis, sp. nov.

Black, strongly and closely punctured all over. The lower part of front, face, clypeus and lower part of outer orbits thickly covered with white pubescence; the basal abdominal segments banded with depressed white pile. Wings hyaline, slightly tinged with fuscous; the stigma and nervures black. Male.

Length nearly 6 mm.

Brak Kloof. Mrs. G. White.

Mandibles bidentate, the second tooth short and bluntly rounded, their base strongly punctured, the lower half more closely than the upper. Metanotum opaque, coarsely alutaceous. Legs covered with white hair; the calcaria rufo-testaceous, the fore tibiæ on the upper side at the apex slightly projecting; the coxæ not spined. Apex of last abdominal segment bluntly rounded, depressed, not incised. On the base of the scutellum at the sides is a stout, curved spine, broad at the base, gradually narrowed towards the apex.

The female is similar; the clypeus is fringed with long rufous hair; the scopa white, tinged slightly with rufous.

This species is very similar to *M. prionsa*; the latter is a narrower, more elongated species, especially as regards the abdomen, which is clearly longer than the head and thorax united; the scutellum is more broadly rounded, and it wants the stout lateral spines; the head is longer, especially behind the eyes, and the second tooth of the mandibles is blunter, more broadly rounded.

Prosopis quadrilineata, sp. nov.

Black, a line along the inner orbits, commencing shortly below the ocelli and becoming thicker towards the apex, a slightly narrower line in the centre of the face, a broader line on the hind edge of the pronotum, and a large broad mark on the scutellum, roundly curved at the apex, the base with two broad shallow curves. Wings hyaline, the stigma testaceous, the nervures darker. Female.

Length 6-7 mm.

Brak Kloof. Mrs. G. White.

Shining. Face and clypeus strongly but not closely punctured. The centre of front distinctly raised, closely and strongly punctured, and with a thin keel down the centre; a deep depression, obliquely narrowed towards the apex, before the ocelli. Upper part of pro- and the mesopleuræ closely punctured. Apices of basal three abdominal segments narrowly testaceous; the apical coarsely chagreened. First recurrent nervure received a slightly greater distance from the 1st, than is the 2nd from the 2nd transverse cubital nervure.

Osmia? capensis, sp. nov.

Black, thickly covered with long, white hair; the four front tibiæ and tarsi rufous, the tibiæ darker behind; flagellum of antennæ ferruginous below; wings hyaline, with a slight fuscous-violaceous tinge; the stigma testaceous, the costa and nervures blacker.

Length 10 mm.

Cape Town (Rev. J. O'Neil, S.J.).

Face and clypeus strongly punctured, the sides more closely than the centre; the centre of the face only sparsely punctured. Vertex sparsely punctured, the sides closely, distinctly, somewhat obliquely striated, the striae going on to the front, which is rugosely punctured. Mesonotum shining; closely, but not strongly punctured; the scutellum similarly punctured, more closely on the apical half. Central area of metanotum closely rugose; the rest sparsely but distinctly punctured. Abdomen smooth and shining; the apical segments thickly covered with long rufous hair. Pleurae rather strongly punctured, the punctures large and irregular, intermixed with fine striae. The second abscissa of cubitus as long as the third; second transverse cubital nervure oblique and straight in front, the rest roundly curved. In front it is slightly less than the space bounded by the recurrent nervures. The hair on the hind tarsi is more rufous in tint than it is on the others. Tegulae large, piceous, pale on the outer side.

Ceratina bicarinata, sp. nov.

Black, shining, a broad line, rounded in front, transverse above, and of equal width throughout in the centre of the clypeus, tubercles, and a line on the basal half of the anterior tibiae cream white. Wings fuscous violaceous, the nervures and stigma black. Female.

Length 9 mm.

Grahamstown, February. Misses Daly and Sole.

Vertex sparsely punctured, almost transverse behind; temples longer than the antennal scape, longer than usual, rounded. Ocellar region raised. From the ocelli a deep, clearly defined furrow runs to the antennae; its basal half much wider than the apex, forming an elongated oval, with obliquely sloped sides; the apical border narrow, furrowed by stout keels; this apical part is clearly raised; its sides obliquely sloped, and coarsely and irregularly punctured. Face coarsely punctured, the sides more closely than the centre; the clypeus smooth, except for some round punctures bordering the white line and on the sides below. Mandibles and labrum impunctate; the latter covered with long white hair, slightly tinged with fulvous. There are three

impressed lines on the basal half of the mesonotum; these are bordered by some punctures; the apical slope closely and strongly punctured. Basal half of scutellum sparsely, the apical closely punctured, as is also the post-scutellum, except narrowly in the centre. Basal area of metanotum coarsely aciculated, opaque, the rest almost smooth. Mesopleuræ coarsely, closely punctured—more finely and closely above. Metapleuræ coarsely aciculated. Basal three segments of abdomen smooth and shining; the others opaque; the fourth closely punctured; the apical two coarsely aciculated.

The head is longer, more quadrate, than it is with any species I have seen. It probably comes close to *C. subquadrata*, Sm., the description of which is very incomplete: *e.g.*, no mention is made of the colouration of the wings nor of a frontal furrow, and the four hind legs were absent.

Podalarius aethiopicus, sp. nov.

Black, a stripe below the antennæ, rounded above, transverse below, a similar oblique one on the sides of the face above; the rest of the face, except for an irregular oblique mark bordering the lateral oblique mark, dilated broadly above and with an irregular edge, the lower edge of the upper dilated part triangularly dilated downwards, the labrum, except for a narrow line on the top and sides, and the mandibles except at the apex, pale yellow. Temples and cheeks thickly covered with long white hair; the hair on the front and vertex fuscous. Hair on upper part of thorax pale fulvous, on pleuræ soot-coloured, on breast white; on back of abdomen white, with the apex of the segments piceous, on neutral surface black. The hair on the upper side of the forelegs white on the tibiæ and tarsi, on the rest black or soot-coloured; on the four posterior black. Wings clear hyaline. The nervures and stigma black. Male.

Length 14 mm.

Martindale. Mr. Barnes.

Clypeus strongly but not closely punctured; a smooth, flat keel on the upper two-thirds; the labrum similarly punctured; the centre of the mandibles with some elongated punctures. Tegulæ piceous.

Habropoda capensis, Cam.

Brak Kloof. Mrs. G. White.

Habropoda lata, sp. nov.

Black; the hair on the head white, on the top of the thorax fuscous, tipped with black, on the scutellum darker coloured, on the pleuræ and breast pale. The abdomen sparsely covered with black hair; the apices of the segments broadly banded with white depressed pile. The hair on the coxæ, femora and base of tibiæ pale, on the rest rufous, the calcaria pale testaceous. Wings hyaline, iridescent, with a fuscous-violaceous tinge, especially towards the apex; the stigma and nervures black, the tegulæ fuscous-black.

Length 11-12 mm.

Glen Lynden. Miss Leppan.

Clypeus closely rugosely punctured, its apex depressed, slightly waved. Thorax, except in the middle of the mesonotum, which is almost smooth, closely and distinctly punctured and in the centre of the scutellum behind; the centre of the metanotum is alutaceous. The apices of the ventral segments are lead coloured; the hair on the basal segments fuscous, on the others fuscous tinged with rufous.

This is a smaller species than *H. capensis*; apart from the difference in colouration, &c., the two may be separated by the difference in the length of the second and third cubital cellules: in *capensis* the second cellule on the lower side is as long as the third: in *lata* it is not much more than half its length; the second cellule, too, being of equal width at top and bottom, while in *capensis* it is clearly longer behind than in front. It is also a broader species compared with the length.

Anthidium melanosomum, sp. nov.

Entirely black, except the apical joints of the four front tarsi, which are rufous, the tarsi above thickly covered with pure white pubescence, below with dark rufous; the front with long

white hair ; the vertex, face, clypeus and the upper part of thorax with fuscous, the pleuræ more densely with longer white hair ; the dorsum of abdomen sparsely with pale hair ; the pollen brush white. Wings hyaline, with a distinct fuscous-violaceous tinge ; the nervures and stigma black. Female.

Length 8, breadth 3 mm.

Grahamstown. Misses Daly and Sole. February.

Mandibles four-dentate ; the fourth tooth the smallest ; the second shorter than the first or third. Head and thorax closely strongly punctured, the clypeus more closely than the rest. Apex of clypeus broadly rounded, almost transverse. Apex of clypeus transverse with the sides rounded ; the apical slope smooth, impunctate, hardly projecting. Tegulæ black, smooth and shining.

Smith (Cat. Hym. Brit. Mus. Apidæ, 210) describes an entirely black species (*A. immaculata*) from the Cape, but its description, such as it is, does not fit the species I have described.

Anthidium crassidens, sp. nov.

Black ; the front tarsi and their tibiæ anteriorly rufous, the apical joints of the middle tarsi of a darker rufous colour ; on the outer side of the first abdominal segment is a large transverse yellow mark, dilated on the inner side at the base, on the sides of the second a much smaller line about three times broader than long ; on the third, fourth, and fifth, more towards the middle, are larger and broader marks, that on the fourth being larger than the others. Wings fuscous violaceous, more or less hyaline, the stigma and nervures black. The hair on the face, clypeus and pleuræ white ; on the front, vertex and top of thorax fuscous. Tegulæ black ; scopa white, tinged with rufous. Female.

Length 11 mm. ; breadth 4 mm.

Katberg. December. Miss Sole.

Mandibles with four stout, broadly rounded teeth ; the apical longer and sharper pointed than the basal three ; the base clearly separated from the fourth tooth, its anterior part with an oblique slope ; except in the middle at the base they are closely, but not strongly punctured ; behind the second tooth is a rufous mark. Head and thorax closely rugosely punctured. Apex of scutellum

broadly rounded, the middle slightly incised ; it projects over the metanotum. Apical segment thickly covered with long silvery hair. Metatarsus narrower than the tibiæ. Clypeus not very flat. Hind ocelli separated from the eyes by a distinctly greater distance than they are from each other.

Anthidium eurysomum, sp. nov.

Black, the clypeus, the lower half of the inner orbits broadly and mandibles except the teeth, pale yellow ; a spot on the outer side of the basal two abdominal segments, narrow lines towards the middle of the third and fourth, a large broader line, transverse on the inner side, narrowed towards the outer, and a larger line on the outer side of the 5th, lemon-yellow. Four front tarsi white ; the fore tibiæ anteriorly testaceous, their apex and that of the middle pair pale testaceous, the apex of the hind tibiæ also testaceous. Wings fuscous-violaceous, with hyaline clouds ; the tegulæ black. Female.

Length 7 ; breadth 3 mm.

Grahamstown. Misses Daly and Sole.

Mandibles tridentate, the apical tooth long and curved, the basal two shorter, broader and bluntly rounded. Apex of clypeus transverse, its sides rounded. The clypeus and face covered with long white hair ; the front with darker, the vertex and occiput with dark fulvous hair. The hair on the top of thorax dark fulvous, on the pleuræ white ; as is also the case with the hair on the ventral surface. Apex of last abdominal segment bluntly, shortly bidentate, the incision between the two shallow. Apex of clypeus broadly rounded, projecting. Hair on legs long and clear white ; calcaria pale testaceous. The second recurrent nervure is almost interstitial ; there is a white line on the apex of the antennal scape below. Metatarsus narrower than tibiæ. The 2nd abscissa of radius distinctly shorter than the 1st.

This species agrees closely with *A. crassidens*, but can hardly be its male, the structural difference between the two being too great. The two may be separated thus :—

Mandibular teeth four, the apical not greatly longer and sharper than the others ; apex of scutellum with a slight but distinct incision in the middle ; second abscissa of radius equal in length to the first
.....*crassidens*.

Mandibular teeth three, the apical much longer and sharper than the others, apex of scutellum not incised; second abscissa of radius clearly shorter than the first.....

..... *eurysonum*.

VESPIDÆ.

Odynerus Schönlandi, sp. nov.

Black; a curved line on the top of the clypeus, its apex a mark, broader than long, slightly dilated in the centre above and slightly incised below above the antennæ, a band along the lower side of the eye incision, a small mark behind the top of the eyes, a band on the apex of the pronotum, obliquely dilated to a point in the middle behind, a narrow line along the upper edge of the pronotum, two marks on the apex of the scutellum, rounded on the outer side, gradually narrowed on the inner and the apices of the abdominal segments, yellow, the yellow tinged with rufous especially on the head. Legs yellow, largely tinged with rufous, the coxæ black, the middle marked with yellow, the hind femora for the greater part black; the tarsi and apex of tibiæ rufo-fuscous. Antennæ black above, the scape yellow, the flagellum brownish below. Wings hyaline, tinged with fuscous violaceous. Female.

Length 11 mm.

Brak Kloof. Mrs. G. White.

Clypeus strongly punctured, the punctures long, deep; the apex depressed, roundly incised. Head closely, strongly punctured. Thorax strongly, closely punctured; the pronotum not quite transverse, it is projecting slightly in the middle. Sides of scutellum rather stoutly keeled; the sides of the post-scutellum projecting into stout, bluntly rounded teeth at the base; it has an oblique slope. Sides of metanotum bluntly rounded; the centre depressed, furrowed in the middle. First abdominal segment cup-shaped; there is an oblique, ovoid mark on the sides, attached to the apical

line: it is, as is also the second, closely, distinctly punctured. Tegulae yellow, rufous in the middle. Mandibles rufous, darker at the apex.

The clypeus near the top is as wide as the total length.

Odynerus acanthoaspis, sp. nov.

Black, the clypeus, a large mark above the antennae, roundly narrowed in the middle above, becoming narrowed towards the apex, a broad line on the lower part of the eye incision, a small mark behind the eyes, a broad band on the hinder edge of the pronotum, continued as a narrow line on the top of the pleurae: tegulae, two broad marks on the scutellum, a small mark on the sides of the post-scutellum, a line on the apex of the first abdominal segment, broadly dilated laterally and a narrow line on the apex of the third, yellow tinged with rufous. Legs rufous-yellow, the coxae black behind, the hind femora tinged with black. Wings hyaline, tinged with fuscous violaceous, the stigma and nervures black. Male.

Length 8 mm.

Brak Kloof. Mrs. G. White.

Clypeus longer than its greatest breadth, coarsely punctured, the apex roundly incised. Front and vertex closely and strongly punctured. Thorax closely and strongly punctured, the apex of post-scutellum smooth and shining; its sides with a stout yellow tooth. Sides of metanotum broadly rounded; its centre aciculated, obscurely punctured. Pro-, meso- and apical half of metapleurae strongly punctured, the base is aciculated, with scattered punctures on the lower half. The basal three segments closely and strongly punctured, the four apical with the apical half obscurely punctured.

Odynerus kloofensis, sp. nov.

Black, the clypeus, a large mark between the antennae, dilated in the centre above, becoming gradually roundly narrowed to the middle, the lower part of equal width and united to the yellow clypeus, the lower part of the eye incision broadly, a short line behind the eyes above, a band on the pronotum, dilated on the apical inner side, two large, almost united marks on the apex of the scutellum, a small mark on the sides of the post-scutellum, and

the tegulae yellow, tinged with rufous; the apices of the basal two abdominal segments yellow. The underside of the antennal scape yellow, of the flagellum rufous. The four front legs and the hinder tibiae and tarsi yellow; the fore femora tinged with fulvous. Wings hyaline, the radial and cubital cellules smoky. Male.

Length 8 mm.

Brak Kloof. Mrs. G. White. February.

Clypeus roundly convex, rather strongly punctured, the length about as long as the greatest width, the apex triangularly incised. Thorax rather strongly punctured. Post-scutellum laterally projecting into stout, blunt yellow teeth. Metanotum broadly rounded. Abdomen rather strongly punctured.

Odynerus erythrospilus, sp. nov.

Black, the apex of clypeus (but not always), a small mark on the inner side of the eye incision; a mark, rounded above and below, longer than broad, and with a pedicle below above the antennae, the under side of the antennal scape, the apex of the pronotum broadly in the centre, the tegulae and legs rufous; a broad mark on the pronotum on the inner side of the rufous line, two lines on the post-scutellum; the apex of the first abdominal segment, of the 2nd more broadly, the line broadly dilated on the sides, the apex of the third and the centre of the others, yellow; the coxae, trochanters and the base of the femora narrowly black. Wings hyaline, the radial cellule and the cubital cellules to a less extent fuscous-violaceous. Female.

Length 11-12 mm.

Brak Kloof, Mrs. G. White. Dunbrody, Rev. J. A. O'Neil.

Clypeus as long as its width in the greatest part, the apex transverse; the centre flat, the punctures longish, running into each other at the apex. Front and vertex closely, rugosely punctured. Thorax closely, rugosely punctured, except on the base of the matapleuræ. Scutellum with an oblique slope. Sides of metanotum broadly rounded. First abdominal segment campanulate, strongly punctured, the second closely, but not so strongly punctured, the apex more strongly than the rest.

Odynerus (Leionotus) tegularis, sp. nov.

Black ; the clypeus, the base of the pronotum broadly, the band divided by a smooth depression in the middle, its inner edge narrowly and the apices of the abdominal segments broadly, yellow ; the tegulæ much larger than usual, yellow, rufous in the middle. Legs yellow, tinged with rufous, the coxæ black, the hind femora blackish below. Wings hyaline, tinged with fuscous-violaceous. Pronotum transverse, the sides projecting into stout teeth.

Length 8 mm.

Teafontein. December. Miss Leppan.

Clypeus broader than long, sparsely, strongly punctured ; its apex almost transverse. Head strongly rugosely punctured, the punctures in the centre almost running into reticulations. Thorax strongly rugosely punctured ; the metanotum less strongly than the rest and with a smooth V-shaped depression in the centre ; its sides below armed with a longish sharp tooth. Scutellums with an oblique slope. First abdominal segment cup-shaped, with a short, distinct neck at the base ; the second depressed at the base ; the middle of the basal half raised. Antennal spine stout.

Eumenes rufolineata, sp. nov.

Black, a curved line on the centre of the clypeus, separating the black from the yellow, the greater part of the basal slope of the pronotum, except for a conical black mark on the centre below, the red extending on to the pleuræ above, and as a thin line along the upper edge to the pleuræ, tegulæ and a narrow line on the apex of the 1st abdominal segment, before the yellow apical line, rufous ; the apical half of clypeus, basal half of mandibles, a narrow line on the apex of the first abdominal segment and one three times its width on the apex of the 2nd, yellow ; the latter line is bordered, obscurely above, more distinctly below, by red. Antennæ black above, the scape yellow below, the flagellum brownish. Legs rufous, the coxæ and femora black above, the hinder femora more broadly than the anterior. Wings hyaline, iridescent, the radial cellule smoky ; the stigma and nervures black. Male.

Length to end of 2nd abdominal segment 7 mm.

Brak Kloof. Mrs. G. White.—Dunbrody. May. Rev. J. A. O'Neil, S.J.

Clypeus pyriform, broadly rounded above, the apex with a distinct incision, which is, if anything, longer than it is wide at the apex. Head and thorax closely and strongly punctured; the metapleuræ coarsely shagreened, the upper part with shallow, round punctures; the apex of metanotum thickly covered with white hair. First abdominal segment stout, broad, narrowed behind the tubercles, which are distinct; it is not so long as the thorax, but longer than the 2nd segment.

Allied to *E. lucasia*, Sauss.; that species is larger, has the petiole longer and thinner, the 2nd segment clearly narrowed at the base as in *Zenthus*, and the temples are only slightly developed; in the present species they are as long as the space between the hind ocelli.

Synagris intermedia, sp. nov.

Black, antennæ, clypeus in male, and the 3rd and following segments of the abdomen bright orange, wings fuscous violaceous; palpi 4 and 5-jointed. Female and male.

Length 13-15 mm.

Teafontein. Miss Leppan.—Brak Kloof. Mrs. White.—Glen Lynden. Miss Leppan.

Head and thorax closely, rugosely punctured. Clypeus in female in length as long as its greatest width, pyriform, sparsely punctured, the punctures more distinct near the apex; the dilated top part slightly depressed in the middle: its apex depressed in the middle, transverse, but through the depression the edges project. The basal 3 teeth of the mandibles are sharply separated, they become gradually longer, the 3rd being as long as the basal two united, and the 2nd more than double the length of the 1st. Post-scutellum depressed in the centre, the sides roundly convex. Median segment rugosely reticulated; the sides at the apex with 2 short blunt teeth. First abdominal segment laterally keeled below in male, the keel incised near the apex. The apical one or two joints of the tarsi rufous.

In the male the clypeus does not differ much from the female's, except in colour; it is as wide as long, sparsely punctured; its apex may be, in the middle, transverse or slightly rounded inwardly. The basal two-thirds of the 2nd abdominal segment below, are broadly depressed, the depression rounded at the apex.

Comes close to *S. minuta*, but that has the clypeus in the male clearly longer than its greatest width; and the form of the mandibles is different, these being formed as in *analis*, more than as in *fervida* with which Saussure compares them. Cf. Saussure, Melang. Hymén. ii. pl. 2.

Synagris calida L.

Brak Kloof. Mrs. G. White.—Kowie. F. Pym.—Grahamstown. Dr. Penther.

In all the examples I have examined of this species the maxillary palpi are 3-jointed; and those I have mounted in balsam do not look as if a joint had been broken off.

SPHEGIDÆ.

Oxybelus ruficaudis, sp. nov.

Black, base of mandibles, a line on the hinder edge of the pronotum, tubercles, a somewhat oval oblique mark on the sides of the scutellum at the base, post scutellum, and broad bands on the sides of the basal 4 abdominal segments, pale yellow; the apex of the penultimate abdominal segment, the last entirely, the apex of femora narrowly and the tibiae and tarsi rufous, as are also the tegulae. Wings hyaline, the nervures and stigma fuscous. Flagellum brownish below. Female.

Length 8 mm.

Grahamstown. February. Misses Daly and Sole.

Scutellar spine twice longer than wide, depressed deeply above, the apex deeply, roundly incised. Scutellum with a narrow, but distinct keel down the centre, sides of post-scutellum rounded outwardly, the apical lateral projection projecting, on the inner

side, into a bluntly rounded tooth ; the centre bearing a large, thin keel, rounded at the base and apex. Apex of clypeus armed with 3 short, bluntly rounded teeth. Metanotal area wide at the base, becoming roundly narrowed towards the apex ; in the centre are 2 stout, parallel keels, with a few transverse ones between ; on either side are a few oblique ones and the apex is closely, coarsely striated. Head, thorax and abdomen coarsely, closely punctured ; the lower part of front, face and clypeus thickly covered with silvery pubescence. Hind tibiae with the spine stout, long and pale, the tarsal spines being also long and white. Pygidium closely and strongly punctured, the sides distinctly margined.

Oxybelus capensis. sp. nov.

Black, antennal seape, the greater part of the mandibles, a line on the apex of pronotum, tubercles, 2 large marks, transverse behind, rounded in front, on the base of the scutellum, post-scutellum, except the spine and large transverse marks on the basal 5 abdominal segments, bright lemon-yellow ; the greater part of the 4 anterior femora, and the tibiae bright lemon yellow ; the hind tibiae with a black mark on the outer side in the middle ; the tarsi yellow, tinged with rufous. The pubescence on the front golden, on the rest of the head and body silvery. Wings hyaline, the stigma and nervures dark fuscous. Male.

Length 5 mm.

Brak Kloof. Mrs. G. White.

Head and thorax closely rugosely punctured. Scutellum with a distinct keel down the middle. Sides of post-scutellum roundly curved outwardly, the apex of the lateral projection incised in the middle, the 2 parts bluntly rounded, the inner the larger ; the spine broad at the base, becoming gradually, but not much, wider towards the apex, which is widely incised, the incision wider at the apex than its total length ; it is greatly hollowed, the sides projecting upwards ; it is black to shortly beyond the middle ; the black roundly incised ; the apex yellowish testaceous ; in the centre of the base is a stout yellow spine. The metanotum is bordered laterally by a stout keel ; in the centre are 2 keels which unite in the middle, then run united to the apex ; the space enclosed by them is rugose at the base, the rest smooth and shining ; on its

outer side, at the base, are 2 or 3 irregular areae united to it; the apical central keel is wider, smooth and shining at the base; there is a shining fovea on either side of it at the apex. The 2nd to 5th abdominal segments project laterally into sharp, narrow blackish spines.

Comes near to *O. spiniferus*, Cam.; the scutellar spine in that species is larger, longer compared with its width, it is raised and keeled in the centre, not hollowed, and the central area of the metanotum is raised and clearly reticulated, while in *capensis* it is finely rugose, with 2 transverse keels above the apical depression.

Hoplisus Whitei, sp. nov.

Black, the clypeus, labrum, underside of antennal scape, a line on the hinder edge of the pronotum and of the scutellum and on the apices of the basal 4 abdominal segments, yellow; the apical two abdominal lines narrower than the basal and edged laterally with blood red; the tubercles, tegulae, the sides of the basal abdominal segment broadly, the apical half of the penultimate and the whole of the last, blood red; legs black, the anterior tibiae and tarsi, the apex of the middle femora, the greater part of their tibiae and the apical 4 joints of the middle tarsi, the greater part of the hind coxae, trochanters, femora and tibiae below, rufous; the basal joint of the fore tarsi slightly, of the middle distinctly yellowish white, of the hind tarsi for the greater part whitish below; the 2nd and following joints of the hind tarsi black; the base of the 2nd and 3rd white. Wings hyaline, the nervures and stigma black, the radial cellule, the greater part of the 2nd cubital cellule in front smoky; the stigma is paler in the centre. Male.

Length 6 mm.

Brak Kloof. Mrs. G. White.

Antennae stout, their 5th and 6th joints oblique, produced below; the 3rd is as long as the following two united; the last nearly twice the length of the penultimate. Clypeus covered with silvery pubescence; the pedicle testaceous. The front, except above, smooth; the upper part, and vertex covered with distinct, clearly separated punctures; the front thickly covered with fuscous

pubescence. Hinder ocelli separated from each other by a distinctly greater distance than they are from the eyes. Mesonotum strongly, but not closely punctured; the scutellum more sparsely punctured, the sides almost smooth in the centre. Post-scutellum aciculated, sparsely punctured. Metanotal area with some stout, irregular, slightly oblique keels; the part beyond it smooth, the rest of the segment strongly punctured. Pleuræ sparsely punctured, thickly covered with white pubescence. First abdominal segment almost smooth, the 2nd sparsely, the others more closely and distinctly punctured. The recurrent nervures are received closely to each other, beyond the middle of the cellule. The alar neuration is as in *H. quadrifasciatus* Pz., cf. Kohl, Ann. K.K. Hof Mus. Wien, XI, 415, fig. 66. The central keel on the metanotum is more twisted than the others; there are about 12 keels. The penultimate joint of the antennæ is hollowed beneath. Comes close to *H. thalia*, Hand. In the male antennæ of that species the 6th joint does not project equally with the 5th as in *Whitei*; the 7th, too, is clearly narrowed below, while in my species it is of equal width above and below, this being also the case with the 6th, which in *thalia* is distinctly narrower below than above. The basal joints of the antennæ in my species are stouter compared with the apical than they are in *thalia*. Cf. Handlirsch, Ver. Z-B. Ges., Wien, 1901, 428. *Thalia*, too, is a larger species and the cloud in the radial cellule does not reach to the cubitus. The eyes in my species hardly converge below. The striation on the median segment probably varies.

Tachysphex Schönlandi, sp. nov.

Black, the basal half of the abdomen red; the apex of femora, tibiæ and tarsi rufo-testaceous, the spines paler; the front, face and clypeus thickly covered with golden pubescence; wings hyaline, the nervures and stigma testaceous. Male.

Length 10 mm.

Grahamstown. Dr. Penther.

Eyes strongly converging above, separated on the top by not much more than half the length of the antennal scape. Basal half of mandibles black, covered with golden pubescence; the apica

dark red. Mesonotum and scutellum closely and distinctly punctured; their pleuræ more shining and only weakly punctured. Metanotum opaque, coarsely alutaceous, the apical slope irregularly transversely striated; the metapleuræ finely, closely and regularly striated. Penultimate abdominal segment coarsely punctured, the last smooth, bare, transverse at the apex.

Tachyspher Pentheri, sp. nov.

Black, the basal two segments of the abdomen red; the apical half of clypeus and labrum yellow, tinged with testaceous; mandibles rufous, yellow at the base; the apex of femora, tibiæ and tarsi rufous; wings hyaline, the nervures and stigma testaceous. Male.

Length 9 mm.

Grahamstown. Dr. Penther.

Front and face thickly covered with silvery pubescence; they are, with the vertex, opaque, closely, finely punctured. Vertex furrowed in the middle above; above the ocelli is a reversed U-shaped furrow. Palpi rufo-testaceous. Thorax opaque, covered with white pubescence; the metanotum transversely, the metapleuræ more closely and regularly longitudinally striated. Abdominal segments banded with silvery pubescence; pygidium indistinctly, sparsely, finely punctured; the apical half of epipygidium coarsely punctured. Eyes at the top separated by almost the length of the antennal scape. Tegulæ rufo-testaceous.

CEROPALIDÆ.

Microphadnus, gen. nov.

Cubitus in hind wings originating largely before the transverse median nervure. Transverse median nervure received very shortly behind the transverse basal, almost interstitial. Radial cellule small, narrow, not reaching to the middle of the space between the stigma and apex of the wings; 2nd cubital cellule not quite square, slightly but distinctly, narrowed in front, wider than

long; 1st recurrent nervure interstitial; the 2nd received near the apex of the cellule. Apex of metathorax rounded, not dentate. No tarsal comb. Claws bifid. Mandibles with a long, sharply pointed apical tooth. Prothorax longer than the meso—; its hind edge almost transverse. Tibiæ sparsely, the tarsi thickly spinose.

This genus should readily be known by the cubitus in hind wings originating far behind the transverse median, in the known genera it originates beyond it or is interstitial. The radial cellule is smaller than usual.

Microphadnus bicolor, sp. nov.

Black; the tibiæ and base of tarsi dark rufous; palpi fuscous, wings hyaline, the apex from near the 2nd transverse cubital nervure smoky; the stigma and nervures dark fuscous; the 2nd transverse cubital and the 2nd recurrent nervures pale. Female.

Length 5 mm.

Grahamstown Misses Daly and Sole.

Pruinose, the apices of abdominal segments with broad bands of white pile; the mesonotum and scutellum closely, minutely punctured. Eyes slightly, but distinctly converging above. Ocelli in a triangle, the hinder separated from each other by the same distance they are from the eyes. Long spur of hind tibiæ half the length of the metatarsus.

Microphadnus? fuscipennis, sp. nov.

Black, covered with cinereous pubescence; mandibles piceous; wings fuscous, iridescent, the stigma and nervures black. Male.

Length 7 mm.

Grahamstown. Dr. Penther.

Eyes curved, converging above, separated there by the length of the 2nd, 3rd and 4th antennal joints united. Ocelli in a curve, the hinder separated from each other by a slightly greater length than they are from the eyes. Second cubital cellule on the lower side nearly as long as the radial; the transverse cubital nervures in front obliquely bent towards each other, the cellule being thus narrowed in front; the 1st recurrent nervure is received near the apex of the basal fourth; the 2nd closer to the apex. Tibial spurs long; there are 2 or 3 at the apex of the femora; fore claws with a tooth; the posterior simple.

In this species the radial cellule is slightly and the 2nd cubital cellule distinctly longer than it is in *M. bicolor*, it being clearly longer than wide ; the ocelli are not in a triangle and the recurrent nervures are received further from the transverse cubitals. In the other generic characters they agree. The 3rd and 4th joints of the antennæ are equal in length. If not a *Microphadnus* there is no other genus in which it can be placed. The cubitus in hind wing originating, in the hind wings, behind the transverse median nervure separates it from the known genera of *Aporini*.

Planiceps ruficaudis, sp. nov.

Black, the oral region and the 3rd and following segments of the abdomen rufous ; the basal 3 or 4 joints of the antennæ dark rufous beneath ; tarsi for the greater part rufous, their spines black ; calcaria white, the long spur of the hinder two-thirds of the length of the metatarsus ; wings hyaline, suffused with dark fuscous, the stigma and nervures black. Female.

Length 8 mm.

Grahamstown. Dr. Becker.

Antennæ stout, the 3rd joint not much longer than the 4th. Hind ocelli widely separated, separated from each other by 3 times the distance they are from the eyes. Occiput almost transverse. Eyes long ; malar space small, the eyes reaching close to the base of the mandibles. Temples as long as the 2nd antennal joint. Median segment as long as the mesonotum and the scutellum ; its sides at the apex clearly projecting. Pleuræ closely, minutely punctured, thickly covered with silvery pubescence. First recurrent nervure received 3 times the distance from the 1st that the 2nd is from the 3rd, the latter being received close to the 2nd transverse cubital nervure. The abdomen is not quite as long as the mesonotum with the metanotum.

Pseudagenia kloofensis, sp. nov.

Black, covered with a cinereous pile, the apex of clypeus broadly, the apex of fore femora and tibiæ narrowly and the greater part of the fore femora below, rufous ; the fore tibiæ in

front and the tarsi fuscous-rufous; wings hyaline, a black cloud on the apex of fore wings, extending from the 3rd transverse cubital nervure and the apex of the radial cellule. Female.

Length 9 mm.

Brak Kloof. Mrs. White. February.

Eyes converging very little above. Hinder ocelli separated from each other by the same distance they are from the eyes. Apex of clypeus broadly rounded. Apex of pronotum arcuate. The 2nd and 3rd cubital cellules in front are equal in length; below the 2nd is the longer. Basal joints of palpi black, the apical dark fuscous.

Pseudagenia infantula, Kohl.

This Cameroon species has been taken on the Katberg by Miss Sole. Characteristic is the distinct spine on the apex of the clypeus. Cf. Kohl, Ann. K. K. Hofmus., XI, 1894, 307.

Pseudagenia capicola, sp. nov.

Black, covered with a silvery pile; flagellum of antennæ brown; wings clear hyaline, iridescent, stigma fuscous, the nervures black; there is a brownish narrow cloud along both sides of the transverse, median and transverse basal nervures, broader along the latter than the former on the inner side; on the outer side it commences at the cubitus, is of the same width that it is on the inner side; along the transverse median it is narrower and more irregular on the outer than on the inner side. The apical cloud occupies the radial cellule except at the apex; the 2nd cubital cellule except a triangle on the lower inner side, the whole of the 3rd and a cloud below, broad at the top, roundly narrowed behind, extending from the apex of the 1st recurrent nervure to the 3rd transverse cubital, and backwards to the discoidal nervure on either side of the 2nd recurrent nervure, the inner part being much larger than the outer. Female.

Length 10 mm.

Brak Kloof. Mrs. G. White.

Eyes distinctly converging above, separated there by the length of the 2nd and 3rd antennal joints united. Ocelli in a tri-

angle, the posterior separated from each other by a less distance than they are from the eyes. Pronotum as long as the mesonotum, its apex bluntly angulate; the mesonotum slightly raised in the centre. Metanotum finely, obscurely, transversely striated. Pygidium brown, paler along the apex, densely haired, the hairs issuing from punctures.

The 2nd cubital cellule is distinctly shorter than the 3rd in front and behind and is of the same width at the base and apex, the 1st transverse cubital nervure is oblique, only slightly bent in front; the 2nd is roundly bent outwardly.

Comes near to *P. spilotenia*, Kohl; in that species the cloud occupies the radial and the 2nd cubital cellules entirely and the cloud along the transverse median and basal nervures is wider on the outer than on the inner side, it being also not indented on the lower side.

Anoplus Leppani, sp. nov.

Black, the head except for a large black oval mark extending from the middle of the vertex to the antennæ, a broad band on the apex of the pronotum, a square mark on the apex of the mesonotum, and scutellums, reddish yellow, as are also the antennæ and legs except the coxæ, trochanters, the 4 front femora to near the middle and the posterior to near the apex, which are black; wings bright yellowish hyaline, the apex from the 3rd cubital cellule bright fuscous violaceous. Female.

Length 17 mm.

Eyes converging above, separated by the length of the 2nd and 3rd antennal joints united. Apex of clypeus broadly rounded. Labrum entire, fringed with golden hair. Mandibles with the apex broadly black, the base pale testaceous. Apex of pronotum broadly angled in the middle. The 2nd and 3rd cubital cellules almost equal in length in front; the 3rd transverse cubital nervure obliquely sloped towards the 2nd in front; the 2nd roundly curved backwards; the 1st recurrent nervure is received near the base of the apical fourth of the cellule; the 2nd in the middle; transverse basal nervure interstitial; cubitus in hind wings received beyond transverse median. The long spur of the hind tibiæ does not

reach the middle of metatarsus. Fore claws cleft, the others toothed at the base. Metanotum short, rounded. Mandibles bidentate. The last segment of the abdomen is brownish, bluntly rounded. Fore tarsi combed. Scutellums flat.

This species does not fit into any of the genera as defined by Dr. Ashmead. It is to be referred to the group commencing with *Pompilius*, which has the cubitus in hind wings originating beyond the transverse median. Cf. Canad. Ento. XXXIV, 86.

Glen Lynden, December. Miss Leppan.

Anoplius vindicatus, Sm.

What appears to be this species has been taken by Mr. F. Pym at Grahamstown. It does not fit very well into any of the Genera as defined by Dr. Ashmead. The cubitus in hind wings originates far beyond the transverse median; the transverse median nervure interstitial; the 1st recurrent nervure is received near the apex of the cellule; the 2nd transverse cubital nervure is roundly curved backwards; the long spur of the hind tibiae reaches to the middle of the metatarsus. Eyes distinctly converging above, separated there by the length of the 4th antennal joint. Apex of clypeus broadly rounded. Apex of pronotum obliquely arcuate, of metanotum broadly rounded. The latter is not striated, it is alutaceous and thickly covered with black hair. There is a narrow rufous line on the hinder orbits. The spines on the outer side of the fore tibiae and tarsi are long and stiff.

Anoplius Soleanus, sp. nov.

Black, covered with cinereous pile, the wings fuscous violaceous, the nervures and stigma black; the 3rd cubital cellule much narrowed in front, about one-third of the length of the 2nd; transverse median nervure received shortly beyond the transverse basal; the cubitus in hind wings originating in front of transverse median. Female.

Length 8 mm.

Grahamstown. Misses Daly and Sole. May.

Eyes slightly converging above, separated there by about the length of the third and 4th antennal joints united. Front with a distinct furrow. Ocelli in a broad curve; the hinder not clearly

visible, through being placed in a depression, at the end of the central part which is raised, the sides beyond the raised central part being depressed. Apex of clypeus broadly rounded; the top clearly separated, and divided into 3 waved parts. Pronotum, if anything, longer than the mesonotum, bluntly arcuate behind. Apex of metanotum almost transverse. Apical abscissa of radius curved roundly upwards; upper half of 3rd transverse cubital nervure obliquely bent backwards; the recurrent nervures received beyond the middle of the cellules, the 2nd nearer the apex than the 1st. Claws with a tooth in the centre.

This species, in Ashmead's tables (Can. Ent. XXXIV, 82), would run into *Hypoferreola*, if the 3rd cubital cellule were not so small—in *Hypoferreola* it is "large, not or only slightly narrowed in front." The temples are very small.

Anoplus Dalyanus, sp. nov.

Black, covered with grey pubescence, the abdominal segments broadly banded with the same; wings hyaline, the apex infuscated; 3rd cubital cellule much narrowed in front, about one-fourth of the length of the 2nd; apical abscissa of radius straight, oblique, transverse median nervure received behind the transverse basal; cubitus in hind wings received behind the transverse median. Male.

Length 8 mm.

Grahamstown. Misses Daly and Sole.

Antennæ short and thick; the 3rd and 4th joints about equal in length. Occiput transverse, the temples very short. Eyes slightly converging above; the hind ocelli separated from each other by the same distance they are from the eyes; they are in a curve. Pronotum as long as the mesonotum, almost transverse behind. Metanotum curved, projecting laterally. Claws unequally cleft, the inner shorter than the outer. Tibial and tarsal spines long; the fore tarsi not fringed with long spines; the long spur of the hind tibiae three-fourths of the length of the metatarsus. First recurrent nervure received shortly before the middle, the second near the base of the apical fourth; the 1st and 3rd transverse cubital nervures roundly curved; the 2nd straight and oblique.

In Ashmead's arrangement this species would run near *Schiztosalius*, but the pronotum is not obtusely or arcuately emarginate as in that genus and in *Sophropompilus*.

Anoplius (*Pompilogastra*?) *erythrourus*, sp. nov.

Black; the clypeus, face and orbits narrowly dark rufous; the antennæ, apical third of femora, tibiæ and tarsi, reddish yellow; wings yellowish hyaline, the base and apex narrowly smoky; the apical 3 segments of the abdomen dark rufous. Male and female.

Length, male 16, female 22-27 mm.

Brak Kloof. Mrs. G. White.

The 3rd cubital cellule in front about one-fourth shorter than the 2nd; 1st recurrent nervure received not far from the apex of the cellule; the 2nd shortly beyond the middle; transverse median nervure received shortly beyond the transverse basal; the 1st and 2nd transverse cubital nervures straight, oblique, parallel; the 3rd roundly bent towards the 2nd in front; cubitus in hind wings originating before the transverse median nervure. Apex of clypeus slightly roundly incised; the labrum with a wide furrow in the centre, the furrow narrowed above. Head roundly narrowed behind; the eyes slightly converging above, separated there by about the length of the 3rd antennal joint. Hind ocelli separated from each other by the same distance they are from the eyes. Fore tarsi, strongly combed on the outer side, stout, the 2nd joint about one-third the length of the basal; claws with a tooth near the base; in male almost bifid. Sides of mesonotum depressed. Apex of metanotum transverse, with a slightly oblique slope; the base with a shallow longitudinal furrow on the apical half. Tibiæ sparsely, tarsi thickly spinose; the long spur of hind tibiæ one-third of the length of metatarsus.

The head is clearly longer than wide. Mandibles dark rufous, black along the apex. Palpi rufo-testaceous. Apex of pronotum roundly arcuate. The head probably varies considerably in the amount of rufous colour it bears above. In the male the antennæ are stout, short, not much longer than the head and thorax united; their 3rd and 4th joints are equal in length; the 3rd segment of the abdomen is red, not black as in the female.

I am not sure but that this species may be *Pompilus ignitus*, Sm. (Cat. Hym. Brit. Mus. iii, 142) from the "Interior of South Africa." The description of the median segment "rounded" behind, does not fit the transverse apex of my species. The description otherwise is incomplete; the head is said to be entirely ferruginous; but my specimens show variations in its colour; it is black for the greater part in all the specimens.

In Dr. Ashmead's arrangement it comes nearest to *Pompilogastra*, Ashm., the type of which is an American species.

Pompiliodes Beckeri, sp. nov.

Black, covered with grey pile, the head thickly with long black hair; the apical two-thirds of hind femora and hind tibiae red; wings hyaline, highly iridescent, suffused slightly with fuscous; the apex of both wings distinctly clouded, the anterior from the end of the radius; antennal scape yellowish, the basal joints of flagellum brownish below. Male.

Length 9 mm.

Grahamstown. January. Dr. H. Becker.

Eyes converging above, separated there by the length of the 3rd and 4th antennal joints united. Hind ocelli separated from each other by the same length they are from the eyes. Apex of clypeus transverse in the middle. Pronotum not quite so long as the mesonotum. Apex of metanotum truncate, densely covered with dark grey pubescence. Abdominal segments with grey primrose bands, the last segment pale. First recurrent nervure received not far from the apex, the 2nd in the middle of the cellule.

The interstitial transverse basal nervure in fore wings, cubitus in hind, petiolated 3rd cubital cellule, &c., refer this species to *Pompiliodes* as now defined.

Salix Whiteanus, sp. nov.

Claws with 1 tooth. Deep black; the head, thorax and apex of abdomen thickly covered with black pubescence; wings fuscous-violaceous, iridescent, the nervures and stigma black. Male.

Length 12 mm.

Brak Kloof. November. Mrs. G. White.

Head, pro- and mesothorax closely rugosely punctured, the scutellum more sparsely than the mesonotum; the metanotum closely at the base, the rest more widely and strongly transversely striated. Upper part of metapleuræ finely punctured to the longitudinal furrow, which is deep; the lower part finely and closely striated; the apex strongly striated like the metanotum. Eyes hardly converging above; separated there by the length of the basal 3 joints of the flagellum united; the joints are clearly separated; the 3rd is slightly smaller than the 4th. Apex of clypeus broadly transverse; a row of foveæ behind it. Face smooth depressed; a large round fovea at the sides. Hind ocelli separated from each other by a slightly less distance than they are from the eyes. Radial cellule short, the radius roundly curved; 3rd cubital cellule in front shorter than, behind longer than the 2nd; 1st and 3rd transverse cubital nervures obliquely bent in front; 2nd recurrent nervure received in middle of cellule. The fore tarsi are not much longer than the tibiæ, thick; the basal joints thickly and stoutly spinose below; the fore coxæ and femora are broader than usual compared with the posterior and middle. Pronotum as long as the mesonotum. Temples very short. Transverse median nervure received clearly beyond the transverse basal: the cubitus in hind wings in front of transverse median.

Salix (Mygnumia) Pringleæ, sp. nov.

Black, shining, especially the abdomen; the head sparsely, the prosternum thickly covered with longer black hair; the flagellum of antennæ orange yellow; wings dark fuscous, with a distinct, uniform blue-violaceous tinge. Female.

Length 25 mm.

Claws with one tooth. Apex of clypeus almost transverse in the centre. Apex of labrum with a small triangular incision. Apical joints of palpi dark testaceous. Ocelli in a triangle. Temples roundly narrowed. Apex of pronotum broadly rounded. Median segment transversely striated, but not closely or strongly;

furrowed down the centre; the apical slope steep, smooth, narrowly furrowed in the centre. Scutellums flat, on a level with the mesonotum. The 2nd recurrent nervure received shortly behind the middle.

This species is identical in colouration with *Anoplius vindicatus*, Sm.

Kokstad. May. Mrs. Pringle.

Salix (Priocnemis) spilocephalus, sp. nov.

Black, the antennæ and legs except the coxæ and trochanters reddish yellow; the head, except the centre of the vertex and of the occiput, and the mandibles, except at the apex, rufous. Wings fuscous-violaceous, the nervures and stigma black. Male.

Length 15 mm.

Brak Kloof. Mrs. G. White.

Eyes not much converging above; separated there by the length of the 3rd antennal joint. Ocelli in a triangle, the hinder separated from the eyes by almost double the distance they are from each other. Apex of clypeus broadly rounded laterally, the middle transverse, projecting. Apex of labrum slightly incised in the middle, appearing to be almost bilobate. Median segment longish, obscurely striated, the apex with an oblique, gradual slope. Legs long and slender, the tibiæ and tarsi shortly closely spinose; claws with one tooth; the long spur of the hind tibiæ does not reach to the middle of the metatarsus. Temples broad, roundly narrowed. The 3rd cubital cellule distinctly shorter than the 2nd; 1st recurrent nervure received shortly beyond, the 2nd shortly in front of the middle; the cubitus in hind wings originates shortly behind the middle.

Salix (Cyphononyx) spilostomus, sp. nov.

Length 23 mm. Male.

Brak Kloof. Mrs. G. White.

This species agrees in size and colouration with *S. Schönlandi*; the two may be separated thus:

Temples narrow, oblique, the occiput rounded in the middle, 3rd cubital cellule distinctly shorter than the 2nd.

spilostomus, sp. nov.

Temples broad, not obliquely narrowed, the occiput transverse in the middle; the 3rd cubital cellule as long as the 2nd.

Schönlandi, sp. nov.

Head and thorax velvety, covered with long black hair. Hind ocelli separated from the eyes by double the distance they are from each other. Eyes distinctly converging below. Metanotum at the base irregularly striated, furrowed in the middle; basal tubercles large, longer than broad. Upper half of 3rd transverse cubital nervure obliquely bent towards the 2nd. Cubitus in hind wings received shortly behind transverse median, almost touching it. The clypeus broadly in the middle and the labrum are dark rufous. Mandibles black.

Salix (Cyphononyx) Schönlandi, sp. nov.

Black, the head and thorax velvety, thickly covered with longish black hair, the legs reddish yellow with a golden pubescence; the coxæ, trochanters and base of femora black; the apex of clypeus and labrum dark testaceous; a brownish triangular spot below the antennæ; wings uniformly dark fuscous-violaceous; the 2nd cubital cellule hardly longer than the 3rd; the 2nd recurrent nervure received shortly behind the middle; cubitus in hind wings received shortly behind the transverse median; upper half of 2nd transverse cubital nervure roundly curved towards the apex of the wing, the upper half of 3rd with an oblique slope. Long spur of hind calcaria short, hardly longer than the 2nd tarsal joint. Male.

Length 23 mm.

Grahamstown. Dr. Penther. June.

Eyes above separated by the length of the 2nd and 3rd antennal joints. Ocelli in a curve, the hinder separated from the eyes by nearly twice the distance they are from each other. Apex of clypeus transverse. Metanotum widely, obscurely striated, broadly furrowed down the middle; the basal tubercles large. Basal branch of claws stout, not reaching to the middle of the outer. Temples as long as the antennal scape.

Salius (Cyphononyx) erythrostromus, sp. nov.

Black, the antennal scape, and clypeus ferruginous; the antennal flagellum rufous, darker towards the apex; legs rufous, covered with a golden pile; wings fuscous violaceous. Female.

Length 25 mm.

Brak Kloof. April. Mrs. G. White.

Head smooth, impunctate. Eyes at the top separated by the length of the 2nd and 3rd antennal joints united. Apex of clypeus broadly rounded; the base deeply depressed. The 2nd cubital cellule slightly, but distinctly, longer than the 3rd; the 1st recurrent nervure received near the base of the apical third of the cellule, the 2nd shortly behind the middle; the 1st transverse cubital nervure obliquely bent above, the 3rd from below the middle; transverse median nervure in hind wings interstitial. Claws stout. Basal half of metanotum almost smooth, the apical with stout, clearly separated, more or less curved striæ. Tibial spines short. Long spur of hind calcaria reaching slightly beyond the middle of metatarsus. The transverse median nervure received near the apex of basal third of the cellule. Hind ocelli separated from the eyes by 3 times the distance they are from each other.

Looks like a small specimen of *S. dedjas*, Guér. but, *inter alia*, that species is much larger, and the cubitus in hind wings is received behind the transverse median, not interstitial.

SCOLIIDÆ.

Discolia bonaspei, sp. nov.

Length 37 mm. Female.

Grahamstown. June. Mr. J. Webber.

Black, densely covered with black hair; the flagellum of antennæ rufous below; the spines on the fore tarsi black and red. Wings dark fuscous violaceous, a pale fiery red cloud in the base and apex of the costal cellule; a longish one, roundly curved, in

the first radial cellule, a triangular one in the base of the 1st cubital cellule, a long narrow one along the apex of the 2nd, an irregular one in the base of the discoidal, one along the apex of the hind wings in front; the stigma and nervures black. Base of abdomen broadly rounded, not tuberculate. Temples obliquely narrowed; the occiput straight, oblique.

This species is very close to *D. ruficornis* from which it may be known by the clouds in the wings, by the temples and occiput not being rounded, by the base of abdomen being rounded broadly, not transverse and tuberculate in the middle. The punctuation is as in the common species just mentioned.

PROCTOTRYPIDÆ.

SCELIONINI.

Roena, gen. nov.

Antennæ 12-jointed, the pedicle twice longer than broad at the apex; it becomes gradually wider towards the apex; the 1st joint of the flagellum is similarly formed, and fully twice longer than it is wide at the apex; the other joints form a stout club. First segment of abdomen broader than long, clearly separated, roundly convex above, the second in the centre not much more than half the length of the 3rd; its base is bounded by a roundly curved furrow, its sides being longer therefrom than its centre; the 3rd is slightly shorter than the 4th; the 5th longer than the latter. Wings with a distinct submarginal vein; a very short marginal and a short clavate stigmal vein.

The eyes are oval; the malar space is nearly as long as them. Temples wide. Mesonotum without furrows. Scutellums flat, not spined; the apex of the scutellum bordered by a distinct keel. Metanotum with longitudinal keels. Mesonotum and abdomen closely longitudinally striated. Front furrowed below. Ocelli minute. The antennæ originate from a protuberance; the apex of clypeus distinct, transverse sides of metanotum broadly rounded.

Characteristic of this genus are the stoutly clavate antennal flagellum, keeled apex of scutellum and the deep curved, crenulated furrow bordering the 2nd abdominal segment. Its affinities are probably with *Idris*.

Roena cariniscutis, sp. nov.

Black, the tarsi and anterior tibiæ testaceous; the head, thorax and base of abdomen covered with white, glistening, longish hair. Wings hyaline, the nervures pale. Female.

Length 3.5 mm.

Head obscurely, closely striated; the longitudinal striæ on the mesonotum and scutellum are intersected by finer transverse ones, which form reticulations. Malar space striated. Abdomen not quite so long as the head and thorax united; the apices of the 2nd and 3rd segments smooth and shining. The metanotum with a strong lens is seen to be closely reticulated.

ICHNEUMONIDÆ.

ICHNEUMONINI.

Ichneumon Leppani, sp. nov.

Black, the head, the basal two segments of the abdomen, and the basal half of the 3rd rufous, as are also the tibiæ and tarsi and the apex of the femora; wings fuscous-violaceous, the stigma and nervures black. Female.

Length 13-14 mm.

Teafontein. May. Miss Leppan.

Face coarsely punctured, broadly roundly raised in the middle, clearly separated from the sides. Clypeus shining, sparsely punctured. Vertex and upper part of front rugosely punctured; the front excavated, smooth, shining; the middle of the punctured part of vertex slightly projecting into it, the sides rounded. Temples wide, rounded, not much narrowed. Thorax closely, almost rugosely punctured, except the scutellum, which is smooth,

almost impunctate, and not much raised; longer than broad. Metanotum more strongly, rugosely punctured; only the areola is defined; it is open at the base, where the lateral keels are more distinct than they are at the apex, which is transverse; the posterior median area is not defined. Petiole narrow; the post-petiole clearly separated, strongly punctured; the 2nd segment is closely and distinctly punctured; the gastracoeli transverse, deep. smooth; the 3rd segment is more weakly punctured, smooth at the apex; the others smooth. Areolet large, 5-angled, slightly narrowed in front; the recurrent nervure is received close to the middle. Transverse median nervure oblique, interstitial; disco-cubital nervure not broken.

Ichneumon ~~dr~~ *Schönlandi*, sp. nov.

Black, a large, irregular mark on the face, projecting below into 2 conical points, and, in the centre above, into two shorter, bluntly rounded ones and laterally prolonged along the eyes, the lines becoming gradually narrowed above, the scutellums, 2 short. oblique marks on the apex of the 1st abdominal segment and narrow ones on the apices of the others, the middle lines narrower than the others, yellow. Antennæ rufous, the scape black, yellow below. Apices of mandibles rufous. Head and thorax closely punctured, thickly covered with short fuscous pubescence. Scutellum impunctate. Areola large, broadly roundly narrowed at the base, transverse at the apex, longer than broad; the base of the segment smooth, obliquely depressed. Post-petiole coarsely punctured throughout. Gastracoeli large, longer than wide, smooth. Legs red, with black coxæ and trochanters; the hind femora lined above with black; the hind tibiæ and tarsi are darker coloured. Wings hyaline, slightly suffused with fulvous, the stigma black; areolet half the width in front it is behind, receiving the recurrent nervure beyond the middle. Disco-cubital nervure not broken by a stump of a nervure; transverse median nervure interstitial.

Length 12 mm. Male.

Grahamstown. Dr. Schönland. October.

Ichneumon ? *Peringueyi*, sp. nov.

Black, the head, thorax and basal abdominal segment red; the 2nd to 6th segments black, the apex of the 6th and the whole of

the 7th white; the eye orbits narrowly yellow; the legs dark rufo-fuscous, the hinder almost black; wings hyaline, the nervures and stigma black. Female.

Length 7 mm.

Grahamstown. November.

Areola horseshoe-shaped, longer than broad, the apex almost transverse. Spiracles small, oval. Scutellum flat, only slightly roundly convex, smooth, shining, the base with a small yellow mark on the sides. Abdominal petiole long, slender, the post-petiole closely, longitudinally striated; the 2nd, and to a less extent, the 3rd, closely punctured; the gastro-coeli represented by a striated band, not depressed. Basal and lateral areæ of metanotum almost confluent, the keels being very indistinct. Face closely punctured, roundly convex in the middle above. Front and vertex very sparsely and indistinctly punctured, the former very little depressed. Temples short, rounded, the occiput slightly roundly incised. Areolet 5-angled, wide, narrowed in front; disco-cubital nervure angled in the middle, straight, oblique at the base and apex. Transverse basal nervure interstitial. Pleuræ closely punctured.

This is not a typical *Ichneumon* as now limited.

Ichneumon? lissotuspus, sp. nov.

Areola large, barrel-shaped, indistinctly closed at the base; the only other areæ are the spiracular 3 on the apical slope, and an oval one on the lower part of the metapleuræ. Metathoracic spiracles about 3 times longer than wide, curved. Areolet 4-angled, the nervures touching above. Disco-cubital nervure broken by a stump of a nervure. Scutellum moderately flat, smooth and shining. Abdominal petiole long, the post-petiole finely striated in the centre; the 2nd segment finely closely punctured, the others smooth and shining; the last segment as long as the penultimate, the ovipositor projecting, as long as it. There are 7 dorsal segments; the ventral fold on segments 2 and 3. The abdomen is as long as the head and thorax united; its apex not spotted with white; apex of clypeus broadly rounded, not transverse; labrum hidden. Transverse basal nervure interstitial. Antennæ stout, curled, ringed with white.

Ferruginous, the legs black, the anterior fuscous in front ; the antennæ fuscous-black ; the 8th to 13th joints white except above ; the inner orbits and the outer below, narrowly yellow. Wings hyaline, the stigma fuscous, the nervures black. Female.

Length 7-8 mm.

Dunbrody. June. Under stone by riverside.

Face closely, the clypeus sparsely punctured. Front impunctate ; the vertex closely punctured, but not so strongly as the face. Thorax closely punctured, the scutellum impunctate ; the metanotum more strongly punctured than the mesonotum, the posterior median area transversely, closely, finely striated. Coxæ closely punctured and covered with white pubescence.

This species does not fit very well into any of the genera of the *Ichneumonini* as now limited.

Stenichneumon? aethiopicus, sp. nov.

Black, the 2nd and 3rd segments of the abdomen rufous ; the apical 2 yellowish testaceous, legs rufo-fulvous ; the coxæ and basal joint of trochanters black ; the apex of the hind tibiæ blackish. Antennæ rufo-fulvous, tinged with yellow ; a broad line, narrowed above, on the sides of the face, and a broad transverse one on the base of the clypeus, rufous-yellow. Mandibles rufous, black at the base. Wings hyaline, tinged with fulvous ; the stigma fulvous ; the costa and nervures dark fuscous. Palpi testaceous, rufous at the base. Male.

Length 10 mm.

Brak Kloof. Mrs. G. White.

Head, including the front, strongly, closely, almost rugosely punctured ; the face thickly covered with longish white pubescence. Temples obliquely contracted. Thorax closely, strongly punctured ; the scutellum roundly convex, more shining and less closely punctured than the mesonotum. Areola large, longer than wide, the apex roundly curved inwardly, the base not very clearly closed, rounded backwards ; the basal area bounded by oblique keels ; the other areæ are not clearly defined ; the apical slope is bounded round the edges by a keel. Post-petiole strongly, but not closely punctured, the sides more closely than the centre ; the 2nd and 3rd segments closely and rather strongly punctured, the

others weakly punctured, the apical almost smooth. Gastracoeli deep, widened on the innerside at the base; the innerside with 3 or 4 keels. Ventral fold on segments 2-4. Areolet 5-angled wide in front, the recurrent nervure received at the base of the apical fourth; transverse median nervure received beyond the transverse basal; disco-cubital nervure not broken by a stump of a nervure. Tarsi closely spinous.

The metanotum is less regularly areolated than usual.

Pseudamblyteles ? erythropus, sp. nov.

Black, the scape, basal joints of flagellum of antennæ and legs red; all the coxæ and the base of the 4 front trochanters black, the flagellum at the apex brownish below; wings fuscous violaceous, the nervures and stigma black. Female.

Length 9-10 mm.

Brak Kloof. Mrs. G. White.

Antennæ short, stout, attenuated towards the apex; the scape short and thick. Head closely punctured, the face less closely than the vertex, the clypeus less closely and strongly than the face, smooth at the apex; the lower part of the front deeply excavated, smooth and shining. Scutellum roundly convex, the base shining, with only a few punctures, the apex more strongly punctured, but not closely. Median segment closely rugose, obliquely depressed at the base, the areola large, slightly, but distinctly, longer than wide, the sides straight, slightly converging towards the apex; the base and apex transverse. Post-petiole in the middle closely longitudinally striated, the sides punctured. Gastracoeli transverse, with 2 or 4 stout striæ on the outside. Apex of abdomen bluntly rounded; the ovipositor projecting, the sheath broad. Areolet wide, 5-angled, receiving the recurrent nervure in the apical fourth; disco-cubital nervure broken by a stump of a nervure; transverse median nervure almost interstitial. Segments 2 and 3 with ventral fold.

Is not quite typical of the genus.

Spanophatnus, gen. nov.

Male. Base of metanotum without areæ, the apical slope with a large central and small lateral area; the 2 inner keels are indistinct; the spiracles linear. Scutellum roundly

convex, clearly raised above the mesonotum, broader than long, rounded at base and apex; the sides keeled to near the middle of the apex. Areolet 5-angled, the nervures converging closely in front; recurrent nervure received behind the middle; transverse median nervure interstitial. The petiole becomes gradually wider from the base to the apex, the post-petiole not being clearly defined. Gastracoeli moderately deep. Antennæ shortly, densely pilose, the 3rd joint slightly longer than the 4th. Abdomen with 8 segments. Tarsi not spinose.

The species on which this genus is founded looks more like one of the South African *Cryptina* than an *Ichneumon*. The absence of an areola and clearly defined basal areæ on the metanotum shows also an approach to *Cryptina*; but the absence of pleural and mesonotal furrows separates it from that group.

It comes nearest to *Platylabris*, which has a clearly defined areola and other areæ on the metanotum.

Spanophatnus ruficeps, sp. nov.

Head and thorax rufous, a broad band of equal width in the centre of the vertex and front, the occiput except round the edges, the sutures of the thorax and a broad band in the centre of the basal half of the mesonotum black. Abdomen black, the 5th and following segments white, slightly tinged with blue. Four front legs dark rufous, the hind coxæ and trochanters largely black; the femora rufous, black at the apex, the tibiæ and tarsi of a darker red, the former broadly blackish at the apex. Antennal scape red, the rest black, densely covered with short black pile. Wings clear hyaline, the nervures and stigma black.

Length 7-8 mm.

Grahamstown. May. Dr. Schönland.

Head and thorax closely, strongly punctured; the metanotum is more coarsely rugose; the upper part of the metapleuræ at the apex is irregularly reticulated; there is a square black mark in the centre at the base. The basal abdominal segments are aciculated; the apex of the 1st and the base of the 2nd appear to be finely, closely reticulated. The apex of the disco-cubital nervure and the 2nd transverse cubital are largely bullated; the former is angled in the middle.

HERESIARCHINI.

Macrophatnus, gen. nov.

Metathorax short, with a steep slope behind; areola large, defined all round, slightly longer than broad, transverse at the base and apex, the sides bulging slightly outwardly; from its sides keels run round the sides of the apical slope; another keel runs from the base, inside the spiracles to the apex of the segment. Spiracles large, fully 3 times longer than wide. The whole segment rugose. Scutellum roundly convex, roundly sloped at the base and apex, not keeled. Antennæ stout, tapering towards the apex, about half the length of the body. Apex of clypeus transverse. Face swollen in the middle, but not much. Labrum hidden. Temples wide, slightly obliquely, roundly narrowed. Occiput roundly incised. Malar space as long as the antennal scape. Gastraceli longish, narrow; they are united by a transverse furrow at the base of the segment. Areolet large, 5-angled; the disco-cubital nervure is indistinctly broken; the transverse median nervure is received shortly beyond the transverse median.

The apical keel on the metanotum is dilated in the middle at the sides, forming blunt teeth. The ventral keel is on segments 2 and 3. Tibiæ and tarsi spinose.

Macrophatnus rufipes, sp. nov.

Black, the legs, except the coxæ and trochanters, and abdomen red; the antennæ of a paler, more testaceous red; the scape yellow in the middle below. The inner orbits yellow from the antennæ, the line becoming wider below, and bordered on the innerside with dark rufous, there being also a rufous mark in the centre of the face. The sides of the clypeus with an oblique yellow mark above; the part between these black; the apex is rufous. Thorax closely and distinctly, the median segment closely rugosely punctured. Apical slope of scutellum and the post-scutellum yellow. Post-petiole strongly, but not closely punctured; there is a transverse yellow mark on the apex. The front ocellus is large, more prominent and brighter-coloured than the posterior.

CRYPTINA.

Allophatnus, gen. nov.

Wings uniformly fuscous-violaceous. Transverse median nervure in hind wings broken shortly, but distinctly below the middle. Radial cellule short. Areolet small, square, the recurrent nervure received at its apex. Transverse median nervure interstitial. Scutellum roundly convex, keeled stoutly to the middle. Median segment rugose, with 2 transverse keels and a square area in the middle at the base, the spiracles about four times longer than wide. Petiole long; the apex gradually widened, not separated, the apex about twice the width of the base. Apex of clypeus depressed, smooth and shining, transverse, clearly separated. Temples wide, rounded, not narrowed. Tarsi strongly spinose. The disco-cubital nervure is not broken by a stump of a nervure. The 1st and 2nd joints of the flagellum are equal in length.

In Ashmead's arrangement (Bull. U. S. Nat. Mus. xxiii, 43) this genus would run near to *Pyncocryptus*, with which it cannot be confounded. The type (I only know the male) is larger, longer than usual. Characteristic are the uniformly fuscous-violaceous wings, with the small square areolet, which is more as in the *Mesostenini* than in the *Cryptini*.

Allophatnus fulvipes, sp. nov.

Black, the legs except the coxæ and the basal joint of the hind trochanters bright fulvous red. Wings uniformly fuscous-violaceous, the nervure and stigma black. Male.

Length 17 mm.

Brak Kloof. Mrs. G. White.

Head (except the apex of clypeus) and thorax closely and strongly punctured; the metanotum more rugosely and strongly punctured; the apical slope closely, irregularly reticulated, closely covered with short, black hair. Scutellum more shining, and less closely punctured than the mesonotum, longer than wide, the basal and apical slopes rounded. Abdomen closely punctured, the 1st segment (and more particularly the post-petiole) more coarsely punctured than the rest.

Cryptus ethiopicus, sp. nov.

Head, thorax and the sides of the basal two segments of the abdomen rufous; the rest of the abdomen black, with the apical two segments, white above; legs blackish, the anterior testaceous below, the middle tibiae and tarsi dark fuscous; the hind legs black, their coxae rufous. Antennae black, the 5th, 6th and 7th clear white below; wings clear hyaline, the nervures and stigma black. Female.

Length 8-10 mm.; terebra 4 mm.

Museum Grounds. Misses Daly and Sole. September and October.

Vertex finely and closely punctured; the upper part of the front somewhat strongly, transversely striated, the lower part of front deeply excavated. Mesonotum closely punctured, more or less closely reticulated; the furrows crenulated. Scutellum roundly convex, keeled stoutly, laterally to the top of the apical slope; the base smooth, the middle punctured, the apex irregularly longitudinally striated. Metanotum closely, rugosely punctured-reticulated; the apical keel stouter than the basal, ending laterally in stout teeth. Propleurae closely, slightly, obliquely striated, the upper half more closely and finely than the lower. Mesopleurae and metapleurae closely rugose. Abdomen smooth, impunctate, the petiole more shining than the other segments. Areolet 5-angled, narrowed in front, half the width there it is at the apex; the recurrent nervure received shortly beyond the middle; transverse median nervure interstitial.

Mesostenus leptonotus, sp. nov.

Black, the thorax rufous, the breast and lowerside of the propleurae black; the apical 3 segments of abdomen white; the basal five joints of antennae pale-rufous, the rest black, with a white band in the middle; 4 front legs testaceous, the middle darker than the anterior; their coxae and trochanters black; hind legs black, the tibiae dark testaceous; calcaria testaceous. Wings hyaline, the nervures and stigma dark fuscous. Female.

Length 7-8, terebra 2 mm.

Vertex below the ocelli irregularly striated, reticulated. Mesonotum stoutly, transversely striated, the centre of the lobes depressed, smooth, as is also the apex. Scutellum roundly convex, smooth and shining. Base of abdomen behind the keel smooth, with the basal furrow crenulated; the rest stoutly, transversely striated, the striæ roundly curved in places. Propleuræ strongly, closely striated; the meso- closely punctured, the centre with a curved striated depression. Abdominal petiole long, slender, smooth and shining; the middle segments closely punctured, the apices of the basal 3 narrowly testaceous. The abdominal petiole is longer and more slender (especially the post-petiole) than usual, the whole insect, indeed, being more slenderly built than in the typical species. So, too, the parapsidal furrows and the apical depression are deeper and more strongly striated. Areolet square, receiving the recurrent nervure shortly beyond the middle. The transverse median nervure in hind wings broken at the middle. Temples obliquely narrowed. Thorax about 4 times longer than wide.

Brachyropalum? nigriceps, sp. nov.

Rufous-luteous, the antennæ, head, trophi and prosternum, black; wings fuscous, iridescent, the nervures and stigma black. Female.

Length 7, terebra 8-9 mm.

Grahamstown. Misses Daly and Sole.

Face and clypeus, except round the foveæ, closely and strongly punctured; the front and vertex with clearly separated punctures. Apex of clypeus broadly rounded. Malar space fully as long as the eyes. Mesonotum and scutellum sparsely punctured. Metanotum rugosely punctured; an elongated area, narrowed at the base and apex; the sides bordered by a waved keel. Parapsidal furrows, wide, shallow, but deeper and wider round the apex of the middle lobe; the sides at the apex below, widely projecting. Abdomen shorter than the thorax, smooth and shining; a waved, shallow, indistinct furrow on the middle of the 2nd segment. Legs densely pilose. Areolet almost square; transverse median nervure received beyond the transverse basal.

Brachycoryphus? striolatus, sp. nov.

Dark rufous, the apical half of the 5th and the following segments of the abdomen yellowish-white, the greater part of the occiput, sides of oral region, the greater part of the malar space, mandibles broadly at the base, scutellar depression, base of metanotum, the centre of mesosternum, the sides at the base and apex, pleural furrow, base of metapleuræ narrowly, and the lower side broadly, black. Legs darker coloured, the rufous colour on the hind tibiæ and tarsi blackish. Wings clear hyaline, the nervures and stigma black; the areolet small, square, closed, receiving the recurrent nervure at the apex, interstitial. Male.

Length 9 mm.

Capetown.

Face, closely rugose; the sides separated from the centre, which is roundly convex. Clypeus somewhat strongly punctured to shortly beyond the middle, the apex smooth. Fore part of vertex rugose, irregularly striated. Temples very short. Occiput transverse. Mesonotum strongly, closely transversely striated; the lateral lobes depressed down the centre. Scutellum smooth at the base, the rest strongly, but not closely, punctured. Base of metanotum closely reticulated; its central area large, narrowed obliquely towards the apex; the rest strongly reticulated, thickly covered with pale pubescence; the teeth prominent, broad, rounded at the apex. Propleuræ irregularly, strongly clearly striated, the top closely rugose, the centre at the base almost smooth, meso- and metapleuræ closely, coarsely rugose, except at the apex above; the metapleuræ are more coarsely rugose than the meso-. First abdominal segment longer than the second; it becomes gradually wider towards the apex; it is strongly punctured, especially at the apex which laterally, is bordered by keels; the 2nd to 4th are closely and strongly punctured, the apical smooth and covered with white pubescence; the last segment bluntly pointed at the apex; longer than the penultimate.

The malar space is as long as the antennal scape. Transverse median nervure received almost behind the transverse basal. Transverse median nervure angled where it is broken below the middle in the hind wings.

PIMPLINA.

Pimpla albipalpis, sp. nov.

Rufous, the head and antennæ black, palpi white ; the 4 front legs obscure rufous ; the anterior femora white in front, with a white line beyond the middle behind, the line on the femora the larger, the middle tibiæ with a broad white band near the base ; the hind coxæ rufous, the rest of the legs black, slightly tinged with rufous ; a broad white band near the base, the band as long as the apical black part ; wings clear hyaline, the stigma and nervures black. Female.

Length 8 mm ; terebra 2 mm.

Grahamstown. August. M. Sole.

Face closely punctured, covered with white pubescence ; the clypeus smoother, more shining. Front smooth below, the upper part and sides finely closely striated, the striæ curved roundly. Thorax closely punctured ; the upper part of the base of the propleuræ smooth, the rest striated, except at the extreme base. Scutellum roundly convex, sparsely punctured. Metanotum closely rugose, the centre at the base raised, closely, transversely striated ; the apical slope smooth, raised in the centre, the sides oblique, the outer edges raised. Abdomen closely punctured, the apices of the segments smooth, narrowly lined with pale yellow ; the yellow more distinct on the apical. Only the 3rd segment has a transverse depression ; on the base of the 2nd is a deep transverse depression, which is narrowed on the innerside at the base. Stigma narrowly white at the base. Areolet narrowed in front, the nervures almost touching there ; angled behind, where the recurrent nervure is received beyond the middle.

Pimpla brunneiventris, sp. nov.

Black, a broad band, broadest behind, on the upper edge of pronotum, tegulae, tubercles, scutellum, and an irregularly oval mark on the apex of the median segment, half on the metanotum, half on the metapleuræ, yellow; the abdomen dark brownish-red; the legs red, the coxæ and trochanters black; wings clear hyaline, the nervures and stigma black, the stigma white at the base. Female.

Length 12; terebra 4 mm.

Grahamstown. Bred from the Cocoon of a Moth.

Face and clypeus closely punctured; the face raised in the centre, the middle of the dilated part smooth. Front and vertex less strongly and regularly punctured than the face; the former transversely striated in the middle and with a keel down the centre. Mesonotum closely, regularly punctured; the parapsidal furrows indicated only at the base. Scutellum only sparsely, weakly punctured. Base of metanotum closely, rugosely transversely striated, the middle almost smooth; the apical slope smooth, except for some irregular reticulations on the sides; the sides have a distinct keel in the centre of the yellow marks. Abdomen closely, uniformly punctured except the apices of the segments which are smooth, as are also the apical two segments. There are no transverse or other depressions. Pleuræ closely punctured, the meta- more rugosely than the meso-; the pro- less strongly and striated in the middle. Areolet oblique, 4-angled; the transverse cubital nervures touching in front; the posterior part distinctly angled where the recurrent nervure is received half way between the middle and apex.

Lissonota Peringueyi, sp. nov.

Red, yellow and black; the head, thorax, base of abdomen and the apices of the segments narrowly, yellow; the rest of abdomen red; the centre of the front and vertex, of the occiput more broadly, a broad band on the basal two-thirds in the centre, similar lines on the sides of the apical two-thirds, a narrow line on the apex of the pronotum, the sides of the scutellum, the base

of mesopleuræ narrowly, of the mesosternum more broadly, a line on the upper part of the mesopleuræ, a broader, irregular one on the apex, the sides of the metapleuræ and metanotum on the basal two-thirds, except for a yellow mark, about twice longer than broad, and the sides and base of the 1st abdomen segment at the yellow part, black. Four front legs yellow; the fore trochanters and base of femora marked above with black; the hind legs rufous, tinged with yellow; the coxæ and trochanters yellow; the coxæ broadly black to near the apex on the innerside, more narrowly on the outer to shortly beyond the middle of the base of the trochanters, black. Wings hyaline, the stigma and costa testaceous, the nervures black; there is a large fuscous oval cloud in the centre of the apex: areolet triangular, the pedicle about one half longer than the lower branches which are equal in length. Female.

Length 20 mm.; terebra 10 mm.

Grahamstown. Misses Daly and Sole. March.

Antennæ black, brownish below at the apex, the scape marked with yellow in the middle. Head closely and distinctly punctured, the front and vertex much more closely and strongly than the face; the clypeus smooth. Mandibles and palpi yellow, the teeth black. Thorax strongly, closely and uniformly punctured, except the base of the propleuræ, which is smooth. Abdomen closely and finely punctured; there is a deep pyriform fovea near the apex of the 1st segment. The recurrent nervure is received in the apical third of the cellule.

Lissonota spilostoma, sp. nov.

Black, the head, except the centre of the vertex and front, 3 small marks in a curve on the top of the clypeus and the greater part of the vertex, the mesonotum except a large mark, rounded at the apex, in the centre of the basal two-thirds, the sides along the apical two-thirds, the apex in the centre more narrowly, a conical mark on the base of the scutellum, the base, top and apex of mesopleuræ, the basal line conically dilated at the apex below; a large mark on the sides of the median segment at the base, the

inner side broadly rounded, the outer straight, oblique and with an irregularly oval mark in the centre ; the base and apex of the first, the apices of the other abdominal segments and an irregular mark on the sides of the 2nd at the base, yellow. Four front legs, the hind coxæ and trochanters, yellow, the rest of the hind legs fulvous ; a large mark on the innerside of the hind coxæ at the base, a smaller one on the outer and the basal joint of the trochanters, black, wings hyaline, the apex fuscous, the stigma fuscous, the nervures blackish ; the areolet shorter than the pedicle, the basal nervure straight, oblique, the outer roundly curved. Female.

Length 11 mm. ; terebra 7 mm.

Brak Kloof. January. Mrs. G. White.

Head closely and strongly punctured, the face less strongly than the vertex ; the lower part of the front smooth, the clypeus almost smooth. Thorax closely, strongly, uniformly punctured all over. Basal 3 segments of the abdomen closely, distinctly, the 4th weakly punctured, the others smooth.

BRACONIDÆ.

Iphiaulax Trimeni, sp. nov.

Black, smooth and shining ; wings yellowish hyaline ; the fore wings fuscous from the base of the stigma, the hind wings from the middle of the radial cellule ; the stigma orange yellow. Female.

Length 9, terebra 6 mm.

Brak Kloof. Mrs. G. White.

Apical abscissa of radius as long as the other two united. Palpi black, covered with white hair. Abdomen as long as the head and thorax united. Area on 2nd segment smooth, broad at the base, becoming gradually narrowed to a sharp point at the apex ; the lateral furrows deep, straight, oblique ; suturiform articulation crenulated ; the lateral furrows smooth, obliquely curved.

Is very like *I. odontoscapus*, Cam., which species may be known from it by the abdomen being closely longitudinally striated.

Iphiaulax spilopus, sp. nov.

Black, the abdomen and hind legs orange-yellow; the 4 front knees and tarsi, except the apical joint and the apex of the basal, pale orange yellow; the apex of the hind tibiæ and of all the tarsal joints black; the wings to the upper half of the transverse median nervure yellowish hyaline, beyond fuscous, the stigma black. Antennæ black. Female.

Length 8, terebra 3 mm.

Grahamstown. Misses Daly and Sole.

Head and thorax smooth and shining. Ocellar region clearly raised, triangular. Temples longer than usual, if anything longer than the front of the head from the end of the eyes; they are not narrowed; the occiput transverse. Mesonotum flat. Scutellum rounded, distinctly raised above. Basal 5 segments of abdomen longitudinally striated, strongly on the basal, more weakly on the apical segments; the suturiform articulation wide, deep; the plate on the 2nd segment small, broader than long. Apical abscissa of radius as long as the basal two united. Antennal scape about 3 times longer than wide, covered with stiff black hair, not hollowed below, nor toothed at the apex. The black bands on the hind legs are broad; on the middle joints of tarsi they occupy more than the half, on the basal almost the half; the apical is entirely black. The middle area of the 1st abdominal segment is triangular, clearly separated, longer than it is wide at the apex.

Iphiaulax? platynotus, sp. nov.

Rufo-testaceous, the antennæ, head, hind tibiæ from near the base and the hind tarsi, black; wings smoky fuscous, the 1st cubital cellule, the discoidal cellule below its apex, the extreme base of radial cellule and a cloud on either side of the 2nd transverse cubital nervure, hyaline; the basal two-thirds of the stigma pale ochraceous yellow. Male.

Length 8 mm.

Grahamstown. Misses Daly and Sole.

Temples long, not narrowed, longer than the fore part of the head from the end of the eyes; the occiput transverse. Antennal scape about $2\frac{1}{2}$ times longer than wide, its apex below projecting into a stout, oblique tooth; the 2nd joint roundly, broadly projecting below. Mandibles testaceous, their apex black. Mesonotum flat, depressed; the scutellum also depressed. The raised central part of the 1st abdominal segment raised, striated, the sides flat, smooth, wider than it. The 2nd-5th segments closely, longitudinally striated; there is no central area or keel on the 2nd segment; the central part is triangular; the sides depressed, smooth; the lateral furrows straight, oblique; on the 3rd segment the lateral furrows are roundly curved, on the 4th short, slightly curved. Legs covered closely with long hair; the tarsi more thickly with shorter and darker hair; the apices of their joints spinose; the fore tarsi long, their basal two joints together as long as the tibiae.

As in *I. spilopus* here described, the temples in this species are longer than usual, and not narrowed behind the eyes. The whole of the upper part of the thorax is very flat, except that the mesonotum is slightly raised at the base; the parts behind this are flat, and on one level. The pedicle of the antennæ is stouter and projects downwards more than usual.

The species may belong to *Odontoscopus*, Grib. which was described very briefly from East Africa.

Meteorus trilineatus, sp. nov.

Rufous-testaceous, the ocellar region, 3 broad lines on the mesonotum (the anterior almost divided in two), the base of the metanotum, the middle broadly in the centre, the mesopleuræ narrowly above, the meta- more largely at the base, the greater part of the 1st abdominal segment and the 2nd in the middle at the base, black. Antennæ fuscous black. Wings clear hyaline, the nervures and stigma pallid testaceous. Female.

Length 4 mm., terebra 1 mm.

Grahamstown. May. Misses Daly and Sole.

Head and thorax covered with a pale pubescence, closely, minutely punctured; the metanotum at the base closely obscurely reticulated. The dilated apex of petiole finely, closely, longitudinally striated; it becomes gradually widened towards the apex and bears tracheal grooves. The recurrent nervure is interstitial; the 2nd cubital cellule is of almost equal width. In length the petiole is about 3 times longer than its width at the apex. Scutellar depression wide, of almost equal width, deep, an indistinct keel in the centre. Head hardly so wide as the thorax, the temples roundly contracted.

Rhogas capensis, sp. nov.

Rufo-testaceous, the antennæ, ocellar space—the mark square—the tarsi and the hind tibiæ, black; wings clear hyaline, iridescent, the stigma and nervures black. Male.

Length 9 mm.

Grahamstown. October. Misses Daly and Sole.

Thorax finely, closely rugose; the mesopleuræ distinctly punctured. Parapsidal furrows wide; the middle lobe of mesonotum clearly separated; the apex of the mesonotum depressed. Scutellum roundly convex, narrowed towards the apex. Metanotum irregularly wrinkled; a keel down the middle; the apical slope is closely, irregularly reticulated. Abdomen irregularly, longitudinally striated; the basal two segments keeled down the centre. The 2nd cubital cellule is almost square, the transverse cubital nervures parallel, not converging; the first is pale at the bottom: the 2nd pale except at the top and bottom. The middle tibiæ are infuscated.

EVANIIDÆ.

Evania Schönlandi, sp. nov.

Black, the flagellum of antennæ, the apex of femora, tibiæ and tarsi testaceous, the tarsi darker coloured than the tibiæ; wings clear hyaline, the nervures and stigma black, the cubitus and radius paler-coloured. Male.

Length 4 mm.

Teafontein. Miss Leppan.

Head smooth and shining; two furrows run from the antennæ to the mouth; they are straight and parallel; below they curl inwardly slightly. Mandibles rufo-testaceous in the middle. Ocelli separated from each other by a distinctly less distance than they are from the eyes. Third antennal joint fully 3 times the length of the pedicle, and shortly (about one fourth) longer than the fourth; the last joint is compressed, thinner and laterally clearly separated from the penultimate and longer than it. Malar space large, as long as the 3rd antennal joint. Mesonotum and scutellum smooth and shining; the parapsidal furrows deep; metanotum not so shining at the base; the rest of the segment closely, irregularly reticulated. Upper half of mesopleuræ smooth, the lower irregularly reticulated—less strongly than the metapleuræ. Lower part of propleuræ obscurely striated at the base. Metasternal process bifid at the apex; the branches short, about one fourth the length of the keel, roundly curved; the keel itself is narrow. The transverse median nervure is received distinctly beyond the transverse basal; the recurrent nervure near the base of the 2nd cubital cellule.

The median cellule is not confluent with the cubital; being separated from it by an oblique nervure before the stigma, closing the cubital cellule behind. It is therefore an *Evania sensu str.*, but it differs from the typical species in the transverse basal nervure being received at a distance from the stigma, not touching it as usual.

The sternal keel is longer, with the forks shorter and more rounded than usual. The 2 apical abscissæ of the radius are paler than the basal, broadly rounded at their junction. Abdominal petiole smooth and shining. Tibiæ and tarsi with a few weak spines. The long spur of the hind tibiæ is about two-thirds of the length of the metatarsus.

This species should, *inter alia*, be known by the short, roundly curved forks of the sternal process, by the transverse cubital nervure being received at a distance behind the stigma, and by the compressed apical joint of the antennæ.

On some new Genera and Species of Hymenoptera collected by the Revd. J. A. O'Neil, S.J., chiefly at Dunbrody, Cape Colony.

BY P. CAMERON.

This paper is in continuation of my "Descriptions of New Genera and Species of Hymenoptera from Dunbrody, Cape Colony," published in the *Records of the Albany Museum*, i. No. iii., pp 125-160. The specimens come from Dunbrody, unless another locality is mentioned.

ICHNEUMONIDÆ.

Ichneumon? Johannis, sp. nov.

Black, the thorax red, the centre of metanotum, lower part of pleuræ (the lower half of the meta-) and the breast black; the face, clypeus, labrum, orbits narrowly, a narrow line on the upper edge of the pronotum, tubercles, a narrow line on the sides of the scutellum, its keels, post-scutellum, a small mark on the sides of the metanotum at the base, a larger mark, transverse on the inner, roundly narrowed on the outer side, and longer than broad, on the sides of the apex whitish yellow. Abdomen black; the apex of the basal 3 segments, and of the 5th narrowly, and the whole of the apical two, whitish yellow. Four front legs whitish yellow, their femora and tibiæ fuscous and black behind; hind legs black, the spurs yellow. Wings hyaline, the stigma and nervures black. Antennal scape black, yellow below; the flagellum fuscous, black on top; they are short, thick, serrate. Male.

Length 10-11 mm.

Closely punctured, covered with short white pubescence. Scutellum roundly convex, keeled to near the apex. Areola coffin-shaped, fully twice longer than wide, open behind; the basal, lateral and middle lateral areas separated. Post-petiole slightly aciculated and with scattered punctures.

This species does not fit into any of the subgenera of *Ichneumon*. Characteristic are the keeled scutellum and the long coffin-shaped areola.

Lienella, gen. nov.

Male. First transverse cubitus short, not much more than twice longer than thick; the 2nd entirely absent. First joint of flagellum fully longer than the second; the antennæ have at least 19 joints. Eyes large, parallel, not converging above or below; only the ocelli project above them; the hind ocelli are separated from the eyes by more than half the distance they are from each other. Malar space nearly as long as the antennal scape. Metanotum regularly areolated, the areæ large, distinct; the base smooth, depressed, bounded behind by a keel; the spiracles small, roundish-oval. Face thickly covered with long white hair; the clypeus distinct from it, more convex.

The discoidal cellule is closed at the apex; the transverse median nervure in hind wings angled below the middle, almost unbroken, the longitudinal nervure being almost obliterated, the radius and cubitus being also very faint. Legs normal, longish. Parapsidal furrows not reaching to the apex of mesonotum, but beyond the middle; the middle lobe furrowed down the middle; anal valves large, prominent. Clypeus projecting, rounded at the apex, hiding somewhat the mandibles, which have 2 unequal teeth. Discoidal cellule closed at the apex. Basal abscissa of radius more than half the length of the second. Postpetiole bi-carinate.

This genus of *Hemitelini* comes close to *Allocota* and *Alas-toneura*, which may be known by the 1st transverse cubitus being entirely wanting, the disco-cubital nervure being interstitial with the radius, while here they are clearly separated, although the transverse cubitus is very short.

Lienella nigriceps, sp. nov.

Black ; the pro-mesonotum with the scutellum, the pro- and mesopleuræ and the greater part of the metapleuræ, red, the middle segments of the abdomen of a more obscure red. Legs rufo-testaceous, the hinder of a darker, more distinct red ; the apical joints of their tarsi paler ; all the coxæ and trochanters black, thickly covered with glistening white pubescence. Wings hyaline, a fuscous-black cloud extends from shortly behind the radius to near the middle of the basal abscissa of the radius, and backwards to shortly beyond the sub-discoidal nervure ; the stigma and nervures black. Male.

Length 5 mm.

Base of antennæ rufo-testaceous. Front irregularly transversely, stoutly striated, the striæ roundly curved ; the vertex finely, more obscurely striated. Face closely rugose ; the clypeus more distinctly punctured. Mandibles broadly rufous at the base. Palpi yellow. Mesonotum closely, strongly, transversely striated, less strongly on the outer edges ; on the apex laterally the striæ are oblique. Scutellar depression large, deep, striated in the middle. Scutellum almost smooth at the base, the rest rather coarsely punctured. Areola large, longer than broad, 6-angled, narrowed obliquely from close to the base to the apex, which is transverse ; at its base are three rows of transverse striæ ; the basal lateral areae are irregularly rugose, the spiracular irregularly rugosely striated, as is also, but more finely, the posterior median. Propleuræ punctured above, striated at the apex below, the rest smooth. Mesopleuræ punctured and irregularly striated in the middle, the meta- closely, coarsely rugosely punctured. Petiole not quite so long as the following two segments united ; its apex not very strongly or regularly striated ; the second and third segments are closely, strongly, longitudinally striated. Legs covered with white pubescence ; the hind coxæ rugosely punctured.

Cænoaulax, gen. nov.

Second transverse cubital nervure absent, the first very short, as broad as it is long ; the recurrent nervure received clearly beyond it. Transverse median nervure received shortly behind

the transverse basal. Transverse median nervure in hind wings broken far below the middle. Basal 3 segments of abdomen closely, strongly, longitudinally striated; their centre with a transverse, broad furrow, the second having at the base, on the sides, a transverse one; the furrow on the 2nd segment is deeper and more clearly defined than it is on the other two. Ovipositor projecting, short. Median segment with one transverse furrow; the spiracles small, round. Eyes large, parallel, not converging. Malar space moderate. Hind ocelli separated from the eyes by a less distance than they are from each other. Parapsidal furrows shallow, wide, not extending much beyond the middle. Antennæ 25-jointed, the basal 2 joints of flagellum equal in length. Face separated from the clypeus. densely covered with longish, white pubescence.

The absence of areæ on the median segment separates this genus from the normal *Hemitelini*; but there is one genus without areæ in the group. Its neurulation is similar to *Lienella* here described; but the form of the abdomen, with its deep transverse furrows and the strongly striated basal segments of the abdomen separates it from all known *Cryptina*. The form of the abdomen reminds one strongly of the Braconid genus *Iphiaulax*.

Caenocaulax striatus, sp. nov.

Black, the thorax rufous, the abdomen of a darker rufous colour, the apical 3 segments white. Legs black; the apex of the fore femora, tibiæ and tarsi testaceous, a white band near the base of the hind tibiæ. Wings clear hyaline, the nervures and stigma black. Female.

Length 6, terebra 1 mm.

Grahamstown.

Thickly covered with white pubescence. Vertex and upper part of front coarsely, rugosely punctured; the lower part of front striated; the vertex behind the ocelli on the sides strongly obliquely striated. Mandibles rufous, black at the apex. Palpi long and yellow. Mesonotum strongly transversely striated; the furrows wide, crenulated; there is a narrow furrow on the middle lobe. Scutellum raised, rounded, rugosely punctured, the sides

keeled on the basal half. Metanotum finely rugose, the transverse keel directed obliquely backwards in the middle; there are 2 irregular keels on the outer edge of the outer slope. First abdominal segment roundly curved; the striæ commence near the base; it is broader at the base than it is in the other genera; the striæ become weaker towards the apical segments; the apical 3 segments are smooth; the basal are longer than broad; the 3rd is produced bluntly at the apex below. Pleuræ closely, finely rugose; the apex of the pro-striated. Antennæ not quite so long as the body; the scape rufous.

Mesostenus basimacula, sp. nov.

Black, the thorax, except the breast, red, the lower edge of the mesopleuræ and of the metapleuræ more broadly, black, as is also the basal half of the propleuræ; a conical mark (the broad end above) in the centre of the face, extending from the top to the bottom, the upper half of the clypeus, a short line in the centre of the inner orbits and the palpi, pale yellow, a broad black band of equal width on the base of the metanotum; a mark on the sides of the second abdominal segment and the whole of the sixth and seventh yellowish white. Legs black, the anterior in front, the apical half of the middle femora below, the middle tibiæ behind, the base of the hind tibiæ all round and the calcaria, white. Wings hyaline, the nervures and stigma black. Male.

Length 7 mm.

February.

Vertex below the ocelli strongly, obliquely striated. Face closely rugosely, the clypeus sparsely punctured. Middle lobe of mesonotum closely, strongly punctured, its apex irregularly reticulated; the lateral irregularly transversely striated, the apex on the innerside punctured. Scutellar depression large, deep, stoutly closely striated. Scutellum shining, sparsely punctured along the sides. Base of metanotum smooth, the rest rather strongly and closely reticulated. Propleuræ strongly irregularly striated. Mesopleuræ closely, coarsely punctured, the upper part at the base and the lower at the apex striated. Metapleuræ

rugosely punctured, more or less striated and reticulated. Post-petiole covered with elongated punctures which run into striæ in the centre; the sides irregularly reticulated. The abdominal segments 2-5 closely punctured. Areolet small, square. Hind coxæ closely, rugosely punctured.

Mesostenus mimeticus, sp. nov.

Rufous, the abdomen darker coloured, the fourth and following segments white, flagellum of antennæ black, a band of four white joints in the middle. Legs black, more or less brownish in front, the fore tibiæ white anteriorly, spurs white, wings hyaline, the nervures and stigma black. Female.

Length 9 mm.; terebra 2 mm.

Head closely, rugosely punctured; the front depressed in the centre, strongly, closely transversely striated; the sides smooth; clypeus more shining and more sparsely punctured. Basal half of mandibles reddish yellow. Mesonotum closely strongly transversely striated; the centre at the apex. Metanotal area not very distinctly defined; basal transverse keel distinct, the apical indistinct, especially laterally, the part behind the keel closely rugose; the apical part more coarsely, rugosely reticulated. Propleuræ rugosely punctured above, the rest rather strongly, but not closely obliquely striated. Mesopleuræ closely rugose, the base coarsely irregularly obliquely striated. Metapleuræ coarsely, irregularly, obliquely striated. Post petiole coarsely longitudinally punctured, the sides more coarsely than the centre. The second and third segments are closely strongly punctured. The under side of the thorax is black.

The type of colouration of this species is common in South Africa in the *Cryptinæ* and *Pimplinæ*. It is very similar to *M. O'Neili*, Cam., but that species has not the mesonotum or any part of the thorax striated; and its ovipositor too is much longer.

Nototrachus flavomaculatus, sp. nov.

Rufo-testaceous, the face, clypeus, mandibles, except the teeth, palpi, orbits, prothorax, except near the apex of the propleuræ, 2 lines on mesonotum, dilated on the outside at the

apex, a line at the tegulæ, scutellums, the apical slope of metanotum, a line in the centre at the base, the greater part of the mesopleuræ, and the base narrowly above and the apex more broadly below, yellow. Legs coloured like the body, the 4 front coxæ and trochanters yellow. Wings clear hyaline, the nervures and stigma black. Female.

Length 8-9, terebra 4 mm.

February.

Head smooth and shining: the front transversely striated in the middle, keeled down the centre. Mesonotum strongly, irregularly, transversely striated, the sides distinctly punctured. Scutellum roundly convex, the sides keeled at the base; it is reticulated, with 2 short stout keels in the apex in the middle. Post-petiole keeled at the sides and apex; the depression at its sides strongly, closely striated. The base of the metanotum behind the keel with scattered punctures; the rest of the segment reticulated. Propleuræ, except at the apex above, closely, strongly striated, the striæ curved; the meso- rugose, striated round the smooth apical part; metapleuræ coarsely, irregularly reticulated. Antennæ black, rufous at the base. Apical half of 1st abdominal segment dilated, smooth and shining; the other segments blackish above; on the apex of the 1st are some stout striæ.

Lissonota interstitialis, sp. nov.

Black, the abdomen red, the apices of the basal two segments narrowly edged with yellow; the orbits (the outer more narrowly than the inner), the face, clypeus, mandibles, except at the apex and palpi, yellow; there is a black line down the middle of the face, which curves, more broadly round the top of the clypeus, a line on the pronotum, angularly turned downwards at the base, a curved line in the centre of the mesopleuræ, commencing near the base, and extending to the apex, 2 lines on the mesonotum dilated outwardly at the base, curved slightly inwardly and dilated at the apex, a broad curved line on the apex of the mesonotum, dilated backwards in the middle, a short line under the hind wings, and an ovate one on the apex of the metapleuræ in the centre, yellow. Legs rufous, the 4 anterior in front and their coxæ and trochanters

yellow ; the hind coxæ and trochanters black ; hind tarsi blackish. Wings hyaline, the apex narrowly smoky ; areolet with a long pedicle ; the recurrent nervure interstitial with the 2nd transverse cubital. Female.

Length 11 mm. ; terebra 6 mm.

December.

Front and vertex rather strongly punctured, the face less strongly, the clypeus only sparsely. Thorax strongly and closely punctured, the metanotum more rugosely than the rest. Abdomen smooth.

BRACONIDÆ.

Iphiaulax ornaticollis, sp. nov.

Black, a spot on the malar space, the upper part of the propleuræ and a spot on the apex, orange yellow ; wings yellowish-orange hyaline, to the end of the stigma ; the stigma and nervures similarly coloured, the former with a black spot at the base ; beyond the stigma dark fuscous ; hind wings similarly coloured, the dark part commencing near the apical third. Female.

Length 13 mm. ; terebra 2 mm.

Grahamstown. April. On Acacia.

Smooth and shining, except the face which is finely, closely punctured ; the face with a deep longitudinal furrow on the apical half. Clypeus irregularly rugose. Antennal scape short, covered with longish black hair. Abdomen as long as the head and thorax united, smooth (including the furrows), impunctate, shining. The 1st segment is bluntly keeled on the basal half in the centre. The area on the 2nd segment is triangular, the sides slightly curved, its length slightly more than the width at the base ; the bordering furrows wide, shallow ; on the sides is a deep furrow, roundly curved inwardly, the suturiform articulation, oblique laterally, straight, narrowed in the centre. Head cubital, the temples not narrowed, the occiput transverse.

PROCTOTRYPIDÆ.

BETHYLINÆ.

Paralælius, gen. nov.

Female. Antennæ 13-jointed, fully twice longer than the head. Head twice longer than its width across the eyes, roundly narrowed behind, obliquely in front. Eyes of moderate size, placed in the centre, and about one-third of the length of the head; they are bare. Antennal scape about one-fourth of the length of the head, as long as the following two joints united; stout; the pedicle clearly longer than the 1st joint of flagellum, narrowed at the base. Prothorax about three times longer than the mesonotum, gradually widened towards the apex. Mesonotum without furrows. Scutellum with a large fovea on either side at the base. Metanotum long, transverse at the apex; in the centre are 3 complete longitudinal keels; the sides are bordered by a keel; and there is a short one inside it, on the base. There are 2 closed basal cellules in the fore wings, the anterior clearly longer than the posterior; the bounding apical nervure is obliquely sloped, so that it is wider in front than behind; there is a distinct marginal vein, about 3 times longer than wide; the stigmal vein about the length of the marginal, dilated towards the apex; the apex of the wings shortly ciliated. The basal segment of the abdomen sessile, slightly longer than the 2nd, the following 3 equal in length. The outer tooth of the mandibles is acute, distinct; the others I cannot make out satisfactorily. Tarsi longer than the tibiæ.

May be known from *Lælius* (an American genus), its nearest ally, by the longer head, by the smaller, not hairy, eyes, and by the clavate stigmal vein.

Paralælius firmipennis, sp. nov.

Black; the antennal scape and pedicle testaceous, the legs dark red, the coxæ and trochanters black; wings smoky, paler at the base, the nervures testaceous. Female.

Length 3.5 mm.

Head, pro- and mesonotum smooth, shining, with some longish black hairs. Basal 3 joints of flagellum about as long as the pedicle, which is narrowed at the base. Metanotum finely transversely rugose; the lateral central keels converge slightly at the base. Mesopleuræ with a round fovea in the centre; the meta- finely, closely obliquely aciculated, opaque. Abdomen shorter than the thorax, acutely pointed at the apex; the ovipositor shortly projecting.

SPHEGIDÆ.

Ampulex capensis, sp. nov.

Head and thorax dark purple, the metanotum tinged with indigo blue, the pleuræ dark blue; the abdomen blue, the apical segments testaceous, the mandibles bright rufous. Wings hyaline, the radial cellule, the apex of the 1st, the 2nd cubital cellule, and a cloud beyond it dark fuscous.

Length 13 mm.

February.

Head coarsely, rugosely punctured. Eyes converging above, separated there by the length of the pedicle and following joint united. Hind ocelli separated from the eyes by the length of the penultimate antennal joint. Frontal keels clearly diverging above. Apex of clypeus with 2 stout teeth on either side of the apex, the outer slightly stouter than the inner. Temples roundly narrowed. Pronotum not much longer than its width at the apex, its base without a distinct neck; closely rugosely punctured; the mesonotum less closely and strongly all over and the scutellum still less closely and strongly punctured, its middle being almost smooth. Central area of metanotum stoutly irregularly striated, the basal striae more oblique and regular than the apical; the 2nd area closely, stoutly obliquely striated, the 3rd reticulated; the apical slope closely, stoutly, irregularly reticulated all over; the teeth short and broad. Pleuræ closely and strongly punctured. Head

and thorax thickly covered with long black hair. Basal segment of abdomen large, the apical part more than half the length of the 2nd, which is about one-third longer than its width at the apex; it does not project much in the middle; below its base projects straight down from the first, somewhat as in *A. cognata*, Kohl, and *A. latifrons*. Cf. Kohl's figures pl. xii, f. 34 and 43, Ann. K.K. Hof Mus. viii. The 2nd cubital cellule is clearly shorter than the length of the 2nd transverse cubital nervure. Fourth tarsal joint not much shorter than the 3rd, largely dilated towards the apex.

Comes near to *A. cyanura*, Kohl, in Kohl's system.

Ampulex spiloptera sp. nov.

Violaceous, slightly tinged with blue; the centre of mesonotum, scutellum and the 3rd and following segments of the abdomen black, the mandibles and the antennal scape, except above, rufous; the 4 front tarsi testaceous, the posterior fuscous; wings hyaline, a fuscous cloud along the transverse median and transverse basal nervures, the radial cellule and a broad cloud of almost its width extending from it to the opposite side of the wings and the apex of the hind wings dark fuscous; legs, except the tarsi, black. Flagellum of antennæ black. Female.

Length 15 mm.

Third transverse cubital nervure received two-thirds of the length of the transverse cubital nervure from the apex of the radius, as in *A. laevigata* Kohl. Cf. Kohl. Annal. K.K. Hofmus VIII. Taf. XI; f. 15. 2nd cubital cellule in front less than the length of the transverse cubital nervures; somewhat wider behind than in front; 2nd recurrent nervure received at the apex of the basal fourth of the cellule. Head closely and strongly punctured; the temples roundly narrowed behind. Frontal keels stout, commencing shortly behind the middle, parallel, not converging, straight. Hind ocelli separated by the length of the 4th antennal joint from the eyes. Apex of clypeus with a stout, longish, straight tooth on either side of the apex; outside this and clearly separated is a short, broader oblique one. Pronotum clearly longer than its width at the apex; its base with

an oblique slope, the apex in the centre produced into a conical protuberance; the basal slope is longer than the apex, straight, oblique; the apical slope is oblique and much steeper and shorter; it is sparsely punctured; the base deeply furrowed to near the middle in the centre; the apical protuberance is smooth and black above; on the sides below are some curved furrows. Mesonotum sparsely, deeply punctured; the scutellum almost impunctate. Metanotum closely, transversely striated; the sides at the apex project into long, sharply-pointed teeth, which are about one-half longer than the base, and obliquely pointed; the 4 outer keels are parallel and separated by the same width from the base to the apex; the 2nd does not reach much beyond the middle. Propleuræ sparsely and weakly punctured and with a striated band below; the meso- much more strongly and uniformly punctured; the meta- irregularly reticulated above, the apex below with 5 stout curved keels. The apical slope is stoutly reticulated all over; it has a steep slope. Apex of 1st abdominal segment large, fully two-thirds of the length of the 2nd which is as long as the 1st with the narrowed basal part; they are smooth, impunctate. Base of 2nd ventral segment broadly rounded at the base. The 1st joint of flagellum almost twice the length of the 2nd. Penultimate joint of tarsi half the length of the 3rd and last.

In Kohl's arrangement this species would come in near *A. lazulina*, Kohl and *A. spectabilis*, Kohl.

Ampulex africana, sp. nov.

Dark green, the lower part of the vertex, front and the pleuræ dark blue, the antennæ and mandibles black; legs dark blue, mixed with green, the tibiæ in front and the tarsi black, wings hyaline, the radial cellule, the 2nd cubital and a cloud beyond it light fuscous; the 2nd abscissa of radius slightly longer than the 1st transverse cubital; the 2nd cubital cellule slightly narrower in front than behind; the 3rd transverse cubital nervure received at a distance from the apex of the radius—the length of the transverse cubital nervures; the 2nd recurrent nervure received near the apex of the basal third of the cellule. Metanotal spines short, conical. Male.

Length 10 mm.

February.

Head and upper part of the thorax covered with long fuscous hair; the apical slope of the metanotum with white hair, the pleuræ with white pubescence. Head rugosely punctured; on the front the punctures run into striations; the eyes converge slightly above; the hind ocelli separated from the eyes by half the length of the 3rd antennal joint, which is about one fourth longer than the next. Temples broad, roundly narrowed behind. Sides of apex of clypeus broadly, roundly projecting. Upper half of frontal keels roundly projecting outwardly. Labrum with a pyriform depression in the centre; the sides obliquely sloped; the narrowed end at the top. Pronotum as long as it is wide at the apex, coarsely punctured, deeply furrowed in the centre. Mesonotum and scutellum as strongly, but not so closely punctured, the scutellum smooth in the middle. The middle area of metanotum not very closely, transversely striated; the longitudinal central keel reaches to the apex; the 2nd area is closely and regularly striated; the 3rd has the keels widely separated, forming squarish areas. The longitudinal keels are twisted; the 2nd is roundly curved and unites with the 3rd at the apex; the apical slope is irregularly areolated and striated. Pro- and mesopleuræ coarsely punctured; the meta- at the base almost smooth; the middle sparsely punctured, the apex reticulated. The basal 4 segments of the abdomen closely, coarsely punctured, the apical brownish and smooth. Apical part of 1st abdominal segment wider than long, half the length of the 2nd; the base of 2nd ventral segment broadly roundly sloped, somewhat as in *A. novaræ*. Cf. Kohl, Ann. d.K.K. Hof Mus. VIII., Taf. XII, 39. The upper part of the abdomen is somewhat as in *A. neotropica*, Kohl, l.c. Taf. XI., f. 10. In Kohl's table the species would come in near *A. compressiventris*, which may be known from it by the shorter basal segment of the abdomen and by the 2nd and 3rd keels of the median segment not uniting in a sharp point at the apex.

Astata melanaria, sp. nov.

Black, thickly covered with white hair; tegulæ and base of fore tibiæ yellowish white; fore wings to the end of radial cellule,

slightly, but distinctly fuscous, with a slight violaceous tinge, the apex and hind wings clear hyaline, the nervures and stigma black. Male.

Length 9-10 mm.

Front and vertex closely punctured, the upper part furrowed down the centre. Clypeus closely, strongly punctured, obliquely sloped at base and apex, the centre being raised; the apical part becomes gradually narrowed to a point. Mesonotum closely punctured, the apex more sparsely in the middle; the sides and apex of scutellum somewhat closely punctured. Metanotum closely reticulated, except in the centre; the apical slope much more closely and regularly reticulated. Pro- and mesopleuræ closely punctured; the latter more strongly and not so closely as the former. Metapleuræ closely reticulated, the base not so closely as the apex. Abdomen obscurely punctured; pygidium shagreened, with 3 foveæ along the sides; these become successively larger, the apical being also shallower. Hypopygium with a large oval depression in the centre. Radial cellule as long as the space bounded by the 1st and 3rd transverse cubital nervures.

Astata fuscistigma, sp. nov.

Black, the apical half of the 1st, 2nd and 3rd abdominal segments red; the head, thorax, base of abdomen, and to a less extent, the ventral surface, densely covered with longish white hair; wings hyaline, the stigma testaceous, the nervures and costa black. Metanotum closely longitudinally striated, with some finer, very irregular transverse striæ; the apical slope almost smooth on the sides, the centre with some striæ minutely broken up. Front and vertex closely, minutely punctured, the face and clypeus shining, almost smooth. A broad dark rufous band behind the apex of the mandibles. Mesonotum closely and distinctly punctured, less closely and more shining in the middle near the apex. Basal half of scutellum and its centre impunctate, the sides of the apex punctured; the centre of the apical half with a fine longitudinal furrow. Propleuræ very closely punctured; opaque, thickly covered with long white hair; mesonotum more shining, less pilose and much strongly and less closely punctured; the longitudinal furrow in its centre clearly defined, deep. Meta-

pleuræ closely, irregularly, strongly, obliquely striated. Abdomen smooth; the epipygium at the apex transverse, the hypopygium rounded. Radial cellule as long as the space bounded by the 1st and 3rd transverse cubital nervures. Male.

Length 12-13 mm.

February.

This species agrees closely with *A. boops*, which may be known from it by the much more strongly reticulated metanotum, the transverse keels being distinct and form, with the longitudinal ones, more or less regular areae; the apical slope is more regularly reticulated, the metapleuræ much more regularly and strongly reticulated, the wings not clear hyaline, and the radial cellule is clearly shorter than the space bounded by the 1st and 3rd transverse cubital nervures.

Crabro erythrotoma, sp. nov.

Black, the basal 5 joints of the flagellum, pronotum broadly behind, tubercles, tegulae, mandibles except at the apex and apical segment of the abdomen, red; the antennal scape, post-scutellum, a mark on the 1st abdominal segment commencing near the middle, dilated more broadly inwardly at the apex, a large mark, 3 times broader than long, on the 3rd, and the apical half of the 5th, yellow. Two front legs red, their coxæ black; middle legs red, the coxæ, base of trochanters, femora to near the apex above and the tarsi black, the trochanters yellow below; hind legs black, the tibiæ dark red, the trochanters yellow below. Wings hyaline, the nervures and stigma black. Female.

Length 10 mm.

Face and clypeus thickly covered with silvery pubescence, apex of clypeus bluntly, shortly trituberculate in the middle. Mandibles bidentate, the upper tooth longer, sharper, and not so broad as the lower. Front and vertex closely punctured, the former covered with golden pubescence. Mesonotum opaque, alutaceous, the scutellum more shining, closely, but not strongly punctured. Metanotal area shining, aciculated, the centre with 2 keels; the space between with transverse keels, all clearly separated; the rest is minutely punctured, and thickly covered with white hair. Pleuræ smooth. Basal segment of abdomen about

3 times longer than it is wide at the apex, nearly as long as the 2nd and 3rd segments united. Apical segment sparsely, but distinctly, punctured above and on the sides, the top clearly margined laterally. Radial cellule short, reaching half way between the stigma and the apex; the apical abscissa of radius straight, not oblique, transverse cubital nervure received in the middle of the radial cellule; the transverse discoidal shortly, but clearly beyond the middle.

Has the form of a *Dasyproctus*, but the petiole is not quite so long as it is in that group, and in it the mandibles are tridentate.

Trypoxylon capense, sp. nov.

Black, the mandibles rufous, the palpi pale testaceous; wings hyaline, the apex narrowly clouded, the stigma and nervures black. Face, clypeus and pleuræ thickly covered with silvery pubescence. Front opaque, obscurely striated; from the upper part of the eye incision it becomes gradually narrowed to a point at the apex, but is not keeled; in the centre is a furrow which is more distinct above than below. Eyes slightly converging below. Hind ocelli separated from each other by a less distance than they are from the anterior. Above the eyes are separated by slightly more than the length of the 3rd antennal joint. Last antennal joint slightly shorter than the preceding two united. Thorax almost smooth. Median segment with a wide central, bordered by equally wide curved lateral furrows; the central is closely striated, except at the top and bottom; the lateral have some irregular striæ; apical slope irregularly striated and thickly covered with silvery pubescence. Petiole slightly longer than the thorax and the following 3 segments united. Radial cellule long and narrow; the apical abscissa of radius fully 3 times longer than the basal. Fore legs brownish in front; the last joint of fore tarsi and the 4 front calcaria pale testaceous, the hind calcaria black. The 2nd abdominal segment is more than double, the 3rd and 4th not double so long as wide at the apex. Third antennal joint distinctly longer than the 4th, more than twice the length of the pedicle.

Comes near to *T. leptogaster*, Kohl. It may be known from the Cape *T. foveatum*, Cam. by the front and vertex being without an area bordered by keels.

Pison iridipennis, sp. nov.

Black, the head, thorax and basal segment of abdomen rugosely strongly punctured, the rest of the abdomen more closely and less strongly punctured, the punctuation becoming closer towards the apex; the pubescence on the head and thorax silvery, on the abdomen silvery, distinctly tinged with golden. Wings hyaline, tinged with fuscous, very highly iridescent; the first recurrent nervure received shortly beyond the transverse cubital, the 2nd interstitial. Male.

Length 8 mm.

Clypeus becoming gradually narrowed towards the apex, ending there in a stout, distinct tooth. Hinder ocelli separated from the eyes by about the same distance they are from each other; the anterior is separated from the posterior by a greater distance than these are from each other. On the centre of the basal half of the metanotum is a wide deep furrow; its basal half irregularly striated, the apical smooth; the apical furrow is narrower and deep. Legs covered with silvery pubescence.

Oxybelus striatiscutis, sp. nov.

Black, scape of antennæ yellow, the flagellum rufous; mandibles yellowish at the base, the middle piceous red, the apex black. Tegulæ, tubercles, a mark on the basal half of the scutellum on the sides, the lateral spines, broad bands on the sides of the basal 4 abdominal segments and a narrow band on the apex of the 5th, pale yellow. All the tarsi and the fore tibiæ rufous, the middle tibiæ yellowish in front, rufous behind, the base of the hind tibiæ marked with yellow. Apex of pronotum yellow, transverse. Tegulæ yellow in front, blackish behind. Wings hyaline, the nervures black. Female.

Length 8-9 mm.

Head rugose, thickly covered with silvery pubescence. Thorax closely rugosely punctured. Scutellum as strongly, but not so closely punctured as the mesonotum; its apical two-thirds keeled down the centre, its apex depressed, the central keel dividing the depression into two; on either side are 4 or 5 stout keels. Lateral plates large, triangularly produced laterally at the apex; the inner part roundly narrowed. The apical plate is large, about 3 times longer than wide, the basal roundly depressed, the sides raised; roundly curved outwardly, not straight, the apex roundly incised, the incision longer than it is wide at the apex; the centre is keeled, and, from the central keel, others run obliquely to the sides. Abdomen closely and strongly punctured. Pygidial area roundly narrowed gradually from the base to the apex, which is slightly roundly incised; it is irregularly wrinkled; the apical half covered with golden pile. Epipygium coarsely punctured in the middle, more finely laterally. Metapleuræ closely longitudinally striated.

Comes near to *O. ruficaudis*, Cam. The two may be separated thus:—

Scutellar plate small, not reaching to the middle of the 1st abdominal segment, not striated, the apical incision wider than long; the apical segment rufous.

ruficaudis, Cam.

Scutellar plate large, reaching to the middle of the 1st abdominal segment, stoutly striated, the apical incision longer than wide the apical segment black.

striatiscutis, n. sp.

CEROPALIDÆ.

Anoplius mimeticus, sp. nov.

Length 12 mm. Male.

March.

This species is very similar to *A. hirtiscapus*, Cam., having like it, the body black, the head and thorax densely covered with long pale hair, the hair on the scape long and black, the abdominal

segments with broad bands of silvery pubescence, the last segment white and the wings hyaline, smoky round the apex from the 3rd transverse cubital cellule. The two species may be separated thus :

Temples roundly obliquely narrowed, the occiput being also rounded, the two forming one rounded curve; apical abscissa of radius roundly curved; 2nd cubital cellule in front longer than the 3rd, behind equal in length with it; 3rd transverse cubital nervure roundly curved in front.

mimeticus, n. sp.

Temples obliquely narrowed, the occiput transverse, apical abscissa of radius straight, oblique; 2nd cubital cellule before and aft shorter than the 3rd, 3rd transverse cubital nervure straight, oblique in front.

hirtiscapus, Cam.

The mandibles are ferruginous, black at the apex; the 3rd antennal joint is slightly longer than the 4th; the antennæ stout, as long as the thorax; the eyes are parallel, not converging; the head, pro- and mesothorax distinctly punctured; the median segment opaque, alutaceous, narrowly furrowed down the middle; the apex with rounded slope. The long spur of the hind tibiæ extends beyond the middle of the metatarsus (in *hirtiscapus* it does not extend to the middle); the tarsi sparsely spined; the claws bifid.

Anoplius bretoni, Guér.

Mr. O'Neil has taken, what I make out to be this widely ranging species at Dunbrody. The inner eye orbits are broadly dark, the outer more narrowly of a brighter brown colour; and there is a broad brown band in front of and at the sides of the ocelli. It belongs probably to the genus *Aphiloctenus* Ashmead. *Pompilus solanus*, Kohl appears to be the same or a closely allied species.

VESPIDÆ.

Odynerus (Leionotus) melanodontus, sp. nov.

Black; the apex of the clypeus rufous; an oblique spot on either side of its top above, a spot above the antennæ, broader than

long, slightly incised in the middle below and dilated above, a line on the lower part of the eye incision, a small line on the outer orbits above, a small irregular mark on the sides of the scutellum near the apex; a line on the apex of the 1st abdominal segment, the line largely dilated backwards at the sides and the apex of the 2nd segment more broadly, yellow; the apices of the other segments brownish. Four front legs yellow, their coxæ and trochanters black; the tarsi and apex of tibiæ dark rufous; hind femora for the greater part black; tibiæ yellow, their apex and the tarsi dark rufous. Antennæ blackish above, the scape below yellow, the flagellum brownish. There is a narrow rufous line on the edge of the pronotum; the tegulæ and tubercles rufous. Wings fuscous-violaceous; the nervures and stigma black. Male.

Length to end of 2nd abdominal segment 8 mm.

Clypeus as long as it is wide in the centre; coarsely and closely punctured, its apex depressed and with a shallow incision. Mandibles rufous, tinged with yellow at the base, the teeth black. Head closely, rugosely punctured, a longitudinal depression behind the ocelli. Thorax, except the metapleuræ, coarsely, rugosely punctured. Sides of post-scutellum projecting into stout teeth at the base. Abdominal segments closely punctured. The 2nd cubital cellule much narrowed in front.

This species closely resembles *O. Schönlandi*; the two may be separated thus:

A continuous curved line on the top of the clypeus; post-scutellar spines testaceous.

Schönlandi.

Two spots on the top of the clypeus; post-scutellar spines black.

melanodontus.

Odynerus dunbrodyensis, sp. nov.

Black, the upper and lower third of the clypeus, the sides in the middle narrowly, a small mark, obliquely narrowed above the apex transverse, above the antennæ, a narrow, roundly curved line on the centre of the apex of the pronotum, a curved mark near the inner edge of the tegulæ, the apex of the 1st abdominal segment narrowly above, and of the 2nd more broadly all round, yellow; a

narrow line on the apex of the pronotum, continued from the central yellow one, tegulæ, more than the apical third of the scutellum, the sides of the 1st abdominal segment, a broad band in the middle, the sides and the hinder edge of the yellow apical line on the 2nd abdominal segment, rufous. Legs reddish; the anterior coxæ and trochanters black, a mark on the lower side of 4 posterior coxæ, a line on the outside of the middle, the apical third of the fore tibiæ below, and a more obscure line on the middle of the intermediate, yellow; the hind femora black below; the hind tibiæ and base of tibiæ and base of tarsi blackish. Wings fuscous-violaceous, the stigma and nervures black. Female.

Length 9 mm.

Antennal scape and underside of flagelium rufous. Clypeus about twice longer than wide, widest above, the sides stoutly keeled, the apex roundly incised. Head closely, strongly punctured. Apex of pronotum transverse, raised. Mesonotum coarsely rugosely reticulated; in the centre of the apical two-thirds are 2 stout longitudinal keels, with 2 shorter ones in the centre; the latter almost unite with the lateral keels on the scutellum, which diverge towards the apex. Scutellum irregularly, longitudinally reticulated. Post-scutellum rugosely punctured, the sides sharply toothed. Apex of metanotum broadly rounded. Base of meso- and metapleuræ smooth. First and second segments of abdomen closely, strongly punctured; the base of the 2nd depressed; its middle with a longitudinal keel in the centre. The 3rd and following segments are smooth.

The keel between the antennæ is stout and extends on to the oblique basal slope of the clypeus. First abdominal segment short, cup-shaped, without a transverse keel; there is a short yellow line on the outer orbits; the small mark below the tegulæ is yellow above, rufous below.

