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VOL. I.

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J. H. M. Cameron

Descriptions of New Genera and Species of Hymenoptera from
Dunbrody, Cape Colony.

BY P. CAMERON.

For the pleasure of describing the following species I am indebted to the Rev. J. A. O'Neil, S.J., who captured them at Dunbrody. At his suggestion I have sent this paper to Dr. Schönland for publication in the "Records of the Albany Museum" as thereby the descriptions will be easily accessible to South African Entomologists. Many of the species are also to be found in the Albany district as I have observed from a collection just sent me by Dr. Schönland. In addition to the species taken by the Rev. O'Neil I have added descriptions of two or three taken by Prof. R. Broom.

CEROPALIDÆ.

Schizanophlius, gen. nov.

Apex of clypeus with a semicircular incision in the middle. Labrum bilobate, incised narrowly down the centre. Mandibles with a long apical and a short subapical tooth. Antennæ situated clearly above the clypeus, the 3rd joint long, nearly as long as the 3rd and 4th united. Transverse median nervure placed shortly beyond the transverse basal. Cubitus in hind wing placed shortly before the transverse median; apex of radial cellule triangularly pointed; 3rd cubital cellule wide in front. Metathorax posteriorly rounded, furrowed in the middle, transversely striated. Pronotum, with the basal neck, nearly as long as the mesonotum. Claws with a minute tooth. Wings uniformly fuscous. Front tarsi with long spines on the outer side.

A genus of *Anopliini* easily known by the distinctly incised apex of clypeus, cleft labrum, striated median segment and long, sharply pointed, mandibles.

Schizanoplius violaceipennis, sp. nov.

Dark brick-red ; the apical 6 joints of antennæ, an oblique mark on the sides of the ocelli touching the eyes and united to a larger, somewhat triangular, spot in front of and touching the anterior, a mark on the propleuræ, the mesopleuræ, mesosternum, median segment, the greater part of the ventral surface of the abdomen, the base of the 1st and the apices of all the segments, the fore coxæ above and the 4 posterior entirely black ; wings fuscous-violaceous, metanotum transversely striated ; the middle with a longitudinal furrow. Female.

Length 18 mm.

Eyes clearly converging above ; malar space very small ; eyes almost touching the base of the mandibles ; tooth of mandibles black ; hinder ocelli separated from the eyes by a greater distance than they are from each other ; temples nearly as long as the scape of the antennæ, rounded behind ; occiput transverse. Pronotum large, but shorter than the mesonotum, its sides rounded ; the base forming a distinct neck ; metanotum clearly longer than it is wide at the base ; its apex with a gradually rounded slope ; 3rd abscissa of radius nearly twice the length of the 2nd ; the 1st recurrent nervure is received near the base of the apical third ; the 2nd shortly beyond the middle of the cellule. The inner spur of calcaria does not reach to the middle of metatarsus ; the underside of tarsi thickly spined ; the tibiæ sparsely spined.

Anoplius johannis, sp. nov.

Black, the basal 2 segments of abdomen entirely, and the basal half of the 3rd, red ; wings fuscous-violaceous ; 3rd cubital cellule greatly narrowed in front, being there about half the length of space bounded by 2nd transverse cubital and 2nd recurrent nervure ; transverse median nervure received distinctly beyond transverse basal ; 1st recurrent nervure received in apical fourth, the 2nd very shortly behind the middle of cellule ; cubitus in hind wings almost interstitial, received very shortly behind transverse median. Female.

Length 17 mm.

1st joint of flagellum not quite so long as the 2nd and 3rd united. Pronotum longer than mesonotum, its apex broadly roundly arcuate. Apex of median segment with a rounded slope,

its middle slightly hollowed. Temples small, occiput transverse, margined : apex of clypeus almost transverse, its sides rounded : malar space very small. Eyes converging above, separated by about the length of 1st joint of flagellum. Long spur of hind tibiae not quite reaching to the middle of metatarsus : claws with a subapical tooth.

Anoplus O'Neili, sp. nov.

Black, red and yellow, the antennae rufous : legs rufous ; the foretarsi, almost entirely, the middle, except at the apices of the joints, the basal two-thirds of the basal joint of the hinder and the base of the 2nd and 3rd narrowly, bright yellow. Head yellow : the vertex and the centre of the front broadly (the mark slightly narrowed below) a line slightly dilated at the apex, in the middle of clypeus, reaching to the base of the apical third, a somewhat triangular mark on the base of the labrum and the greater part of the occiput, black. Prothorax red, the pronotum broadly yellow : the yellow part irregular above, projecting largely into the middle of the yellow apical part of the mesopleuræ, the projection being black at the apex. Mesonotum black, except for a large yellow mark, cleft at the base, transverse at the apex. Mesopleuræ red, black at the base, above the oblique furrow. Mesosternum for the greater part black ; median segment rufous : the lateral apical angles yellow. Abdomen rufous : the base of 1st segment broadly, its apex narrowly black ; the basal third of 2nd segment, the base of 3rd, 4th and 5th segments less broadly—the bands incised in the middle and the apical broadly—the bands not incised—yellow. Wings hyaline, tinged with fulvous, the apex from the end of radius, smoky ; 2nd cubital cellule about one-fourth longer than the 3rd which is broad in front ; 2nd transverse cubital nervure angularly bent backwards below the middle.

This species does not fit into any of Mr. Ashmead's genera. The cubitus in hind wing is received far beyond the transverse median : the transverse basal nervure interstitial ; malar space small ; apex of clypeus broadly rounded : temples short : hind ocelli separated from eyes by about the same distance they are from each other : median segment with a gradually rounded slope ; its apex transverse, with the sides angled. Mandibles bidentate, their apical tooth long and stout : the 1st recurrent nervure is received near the apex of the cellule : tibiae and tarsi sparsely spinose : claws cleft.

Belongs to the group of *A. multipictus*, Sm.

Anoplius (Ferreoia?) gradatus, sp. nov.

Black : the legs, except the coxæ, trochanters and base of femora, red ; wings uniformly fuscous-violaceous ; 3rd cubital cellule in front one third shorter than 2nd ; 1st recurrent nervure received in apical third ; the 2nd very shortly before middle ; transverse median nervure in front, wings interstitial ; the long spur of hind tibiæ reaching close to the basal of apical fourth of metatarsus. Male.

Length 10 mm.

Temples very short ; occiput transverse. Eyes converging below ; the orbits narrowly lined with pale yellow ; malar space small, but distinct. Hind ocelli separated from each other by about the same distance as they are from the eyes. 1st joint of flagellum as long as the 2nd. Labrum large, not much shorter than the clypeus, its apex broadly rounded. Pronotum about two-thirds of the length of mesonotum. Median segment large, broader at the base than its length in middle ; the apex roundly, but not much, incised ; the sides sharply projecting above. First segment of abdomen broad at the base, nearly as long as the following 2 united. Tibial spines long, the tarsal shorter ; claws with a stout longish basal tooth.

Looks not unlike *A. tibialis*, Klug ; in that species the ocelli are in a triangle ; in the present in a curve. The pronotum is nearly, if not quite, as long as the mesonotum. The cubitus in hind wings originates before the transverse median ; claws bifid ; the basal tooth the shorter and stouter. Head viewed from front longer than wide. First joint of foretarsi shorter than tibiæ.

This species has a great resemblance in colouration and form to *Anoplius labialis*, and might very well be mistaken for the male of that species. *A. labialis* may easily be separated by the interstitial cubitus in hind wings ; by the 3rd cubital cellule being more narrowed in front, by the 3rd transverse cubital nervure being more distinctly oblique—roundly curved—and by the metanotum projecting more laterally at the apex.

Anoplius (Schizosalius?) melanostomus, sp. nov.

Black ; the front and vertex (except the ocellar region), orbits (the outer narrowly to the bottom), occiput, prothorax, except the lower part of the propleuræ, mesonotum, scutellum and post-scutellum, orange-red ; wings dark fuscous-violaceous. Female.

Length 18 mm.

First joint of flagellum not much shorter than the 2nd and 3rd united, the joints brownish below. Occiput transverse; temples small. Eyes curved on innerside; malar space small; ocelli in a curve, separated from each other by a distinctly greater distance than they are from the eyes. Antennæ clearly separated from the clypeus, which has the apex transverse, labrum large, broadly rounded, obliquely depressed. Pronotum nearly as long as the mesonotum, not much narrowed towards the base; its apex broadly rounded. Parapsidal furrows complete, distinct. Scutellum longish, narrowed slightly towards the apex, not much raised. Median segment not quite so long as the mesonotum, transverse behind; a deep furrow in the centre of the apical two-thirds; its apex transverse; apical slope somewhat steep; the sides distinctly toothed at top and bottom. The 2nd cubital cellule is much narrowed in front, being there the length of the space bounded by the recurrent and the 2nd transverse cubital nervures, the latter being straight, oblique; the others rounded. Transverse basal in forewings and accessory nervure in hind wings interstitial. Tibial and tarsal spines short. Claws with a short stout tooth. Radial cellule short; apical abscissa of radius oblique, nearly as long as the basal.

The wings are not much longer than the abdomen; the antennæ short; mandibles with a long apical tooth; the long spur of hind tibiæ reaches to the middle; malar space small; apex of pronotum angularly emarginate; the sides straight and oblique from the middle. Front tarsi without a distinct long comb; the apices of the joints with stiff bristles. Apex of clypeus sinuate. The labrum is larger than usual and is broadly depressed in the middle.

This species fits in, fairly well, with the genus *Schizosalius*, Sauss.

Anoplus argenteo-decoratus, sp. nov.

Black, the basal 2 segments of abdomen red; the whole body and legs thickly covered with silvery pile, which forms bands on the abdominal segments; wings hyaline, the fore darker in tint than posterior, the apices of both smoky, the former from the end of radial cellule; 3rd cubital cellule much narrowed in front, there half the length of space bounded by 2nd recurrent and 3rd transverse cubital nervures; 1st and 3rd transverse cubital nervure obliquely bent in front. Female.

Length 11 mm.

Lower part of front, face and clypeus densely covered with silvery pubescence. Eyes roundly curved on inner side, more converging below than above: hinder ocelli separated from each other by a less distance than they are from the eyes. Temples almost obsolete. Occiput transverse. Apex of clypeus broadly rounded. Top part of pronotum slightly shorter than mesonotum, the whole length longer than it. Median segment furrowed down the centre: its apex with a steep slope, the sides slightly roundly projecting: the centre of the slope furrowed. Both the recurrent nervures are received shortly beyond the middle of cellules; apical abscissa of radius oblique, slightly curved upwards. Calcaria and tarsal spines black; the long hind spur reaching beyond middle of metatarsus. The cubitus in hind wings originates beyond the transverse median; the transverse basal nervure interstitial; fore tarsi with long stiff spines on outside: 1st joint of flagellum distinctly longer than the 2nd. Claws with a minute tooth near the base. The metanotum has the apex transverse at the apex: the middle of the apical slope slightly hollowed; the sides rounded; the base has a narrow but distinct furrow in the middle.

If it were not that the body is densely covered with silvery pile this species might be included in *Arachnophila*, Ashm.

Anoplus dunbrodyensis, sp. nov.

Black. Head, pronotum, propleurae, except at bottom, mesonotum and scutellum, red; a triangular black mark on the clypeus, the narrow end above, a mark between the ocelli, a line along the sides of the mesonotum and a mark in its centre at the base—the mark broader than long—black; wings uniformly dark fuscous-violaceous. Female.

Length 11-12 mm.

Antennæ short and stout; the 3rd joint longer than the basal 2 united and not quite so long as the 4th and 5th together. Eyes parallel; hinder ocelli separated from each other by about the same distance they are from the eyes; apex of clypeus broadly rounded; temples short, obliquely rounded; prothorax large, nearly as long as the mesonotum; its apex with the sides slightly obliquely narrowed towards the centre; metanotum broader than long, the apex transverse in the middle, the sides rounded. Apical abscissa of radius with an oblique slope and slightly curved upwards; the 3rd cubital cellule much narrowed in front, being there about one-third of the length of the 2nd; both its nervures are broadly

roundly curved ; 1st recurrent nervure received near base of apical fourth, the 2nd shortly, but distinctly beyond the middle ; accessory nervure in hind wings almost interstitial. Tibial and tarsal spines long and black.

This is probably a variable species as regards the black marks on the head and thorax.

Anoplius labialis, sp. nov.

Black ; the basal half of the flagellum of antennæ, the apex of the fore femora and the fore tibiæ dark red : the apex of middle femora, the posterior, except at the base, and the 4 posterior tibiæ, red ; wings fuscous, the nervures and stigma black ; the 3rd cubital cellule in front not quite one-fourth shorter than the 2nd : the 1st and 3rd transverse cubital nervures roundly curved ; the 3rd more obliquely bent in front : 1st recurrent nervure received shortly beyond, the 2nd almost in middle of cellule ; cubitus in hind wings originating before the middle. Male.

Length 7 mm.

Malar space small ; temples very short ; occiput almost transverse. Eyes slightly converging below ; ocelli separated from each other by the same distance they are from the eyes ; clypeus roundly convex, its apex almost transverse. Basal two joints of flagellum equal in length ; labrum large, its apex broadly rounded ; pronotum nearly as long as the mesonotum, rounded in front, its apex broadly rounded ; metanotum not quite so long as the mesonotum, its apex slightly roundly incised ; abdomen sessile ; tibial spines long ; the tarsal shorter and more numerous ; the long spur of posterior tibiæ about two-thirds of the length of the metatarsus ; claws bifid ; the inner claw shorter than outer.

The head is densely covered with long black, the base of the thorax more sparsely with shorter, hair. The apical abscissa of radius is slightly curved upwards. Apart from the difference in size and colour, this species may be known from *gradatus* by the cubitus being clearly received before the transverse median, by the 3rd cubital cellule being wider in front compared with the 2nd and by the eyes not converging in front.

Anoplius spilopus, sp. nov.

Black ; the flagellum of antennæ rufous, the 2nd segment of abdomen red ; there is a white line on the apical half of the hind tibiæ ; wings almost hyaline, the apex infuscated ; head thickly

covered with long white hair : the thorax and base of legs with silvery pile.

Length 12-14 mm.

Antennæ stout, the third joint, if anything longer than 4th ; temples very short, almost obsolete ; the occiput transverse : hinder ocelli separated from each other by a somewhat greater distance than they are from the eyes ; clypeus roundly convex, its apex almost transverse ; malar space distinct ; eyes converging below, large above ; the head becomes gradually wider from the top to near the base of the antennæ ; pronotum as long as mesonotum, it becomes gradually, but not much, narrowed from the apex to the base ; its apex arcuate. There is a narrow, but distinct furrow, on the sides of the mesonotum ; metanotum broader than long ; the base with a distinct furrow in the centre, which becomes narrowed towards its apex ; the apex of the segment has a rather steep slope ; its sides project on the upper part, the projection dilated above, and to a less extent below ; the upper being rounded ; 2nd abscissa of radius longer than 3rd ; the apical obliquely curved upwards not very straight ; transverse basal nervure interstitial ; 1st recurrent nervure received near the base of apical third of cellule ; the 2nd almost in the centre ; cubitus in hind wings interstitial ; 1st and 2nd transverse cubital nervure oblique, straight ; the 3rd roundly curved ; claws with a median longish tooth ; the long spur of hind tibiae extends slightly beyond middle of metatarsus ; tibial spines short, sparse ; abdomen sessile.

In Ashmead's system this species would come into *Tachypompilus* if it were not that the first joint of the flagellum is not "very elongate."

Anoplius hirtiscapus, sp. nov.

Black ; the last dorsal segment white ; densely covered with silvery pile ; the head and thorax densely with long silvery hair ; the under side of the antennal scape with longer fuscous hair ; antennæ thick, as long as the thorax, the 3rd and 4th joints equal in length ; the middle joints slightly produced at their apices below ; wings clear hyaline, the apex of anterior smoky from the 3rd transverse cubital nervure ; the 2nd abscissa of radius a little shorter than the 3rd ; both recurrent nervures received shortly beyond the middle ; the transverse median distinctly beyond the transverse basal ; the cubitus in hind wings shortly beyond the transverse median. Male.

Length 11-12 mm.

Temples short, largely roundly narrowed; the occiput rounded; eyes converging above; hind ocelli separated by about the same distance from each other as they are from the eyes; apex of clypeus rounded; mandibles rufous near the middle; the sub-apical tooth stout, longish, rounded at apex. Pronotum not quite so long as mesonotum; its apex rounded. Median segment longer than it is wide at the base, its apex rounded, with an oblique slope and an impressed line in the centre. Abdominal segments with broad bands of silvery pile; the 1st segment at base half the width of apex; it becomes gradually wider towards the apex. Tarsi shortly spined: the hind spurs thick; the longer one reaching close to middle of metatarsus; claws bifid.

The apical abscissa of radius straight, obliquely sloped; 3rd cubital cellule large; its length in front fully half the length of the length behind; eyes separated by a short space from the mandibles. Head in front longer than wide.

Anoplus trichiocephalus, sp. nov.

Black; the apical two-thirds of hind femora and hind tibiae, red; a spot on under side of antennal scape, and on the last abdominal segment, white; wings dark fuscous, the nervures and stigma black; the head thickly covered with long, the thorax with shorter, black hair. Male.

Length 14 mm.

Hab. Pearston (Prof. Robert Broom).

The 3rd and 4th joints of antennae almost equal in length. Eyes parallel, not converging above or below; malar space small, but distinct. Temples short. Occiput transverse. Hinder ocelli separated from each other by about the same distance as they are from the eyes. Labrum more shining and bare than the rest of the head. Pronotum nearly as long as the mesonotum, which has narrow, shallow, but distinct, lateral furrows. Metanotum nearly as long as the mesonotum, its apex slightly roundly incised; in the middle is a narrow impressed line. Tibial and tarsal spines black, stout and long; the long spur of the hind calcaria not quite two-thirds of the length of metatarsus; the claws with a stout basal tooth; the fore tarsi with short spines, not ciliated. Transverse basal nervure in fore wings interstitial; cubitus in hind wings originating beyond the transverse median; 3rd cubital cellule in front wing half the length of 2nd; the 2nd and 3rd transverse cubital nervures roundly curved; 2nd recurrent nervure received almost in the centre of the cellule.

Anoplius (Homonotus) spilonotus, sp. nov.

Black, with a blue tint : the pronotum except for a large mark in the centre—broad in the middle, obliquely narrowed towards the base and apex—an irregular, triangular mark—its length more than the width at the base—in the middle of the mesonotum, the scutellum and the upper part of the propleuræ—the mark continuous with that on the pronotum and broadest at the base—orange-yellow ; the hinder tibiæ brownish ; wings uniformly dark fuscous, highly iridescent, the nervures and stigma black. Male.

Length 10 mm.

Head short, transverse behind, rounded in front ; temples small ; eyes reaching to base of mandibles, converging above ; ocelli . . . the hinder separated from each other by a distinctly greater distance than they are from the eyes. Face depressed, the front projecting over it. Apex of clypens transverse, the sides rounded. Pronotum slightly longer than the mesonotum, narrowed slightly towards the base ; the apex almost transverse. Mesonotum and scutellum flat, the latter rounded behind. Median segment longer than the mesonotum, flat, its apex slightly, but distinctly, roundly incised, its sides not projecting much above. Spines on tibiæ and tarsi long : the long spur of hinder calcaria two-thirds of the length of metatarsus. Third cubital cellule much narrowed above—about one fourth of the length of the second ; below, shortly but distinctly, longer than it ; 1st transverse cubital nervure roundly curved ; the 2nd straight, oblique ; the 1st recurrent nervure received near the apex ; the 2nd shortly beyond the middle of the cellule. The transverse median nervure interstitial ; the cubitus received shortly before the transverse median in hind wings. Antennal scape stout, about 3 times longer than broad, cylindrical, narrowed at the base, as long as the 1st joint of flagellum, which is, if anything, longer than the 2nd.

This species has considerable affinity with *H. Wasmanni*, Brauns., which may be known from it by the pronotum being "twice so broad behind as it is long in the middle"; and "the median segment as long as it is broad at the stigmas," while the pronotum in the present species is broader at the apex than it is long in the middle and the metanotum shorter than its width at the stigmas.

Anoplus (?) canoceras, sp. nov.

Black; the wings uniformly fuscous-violaceous; head, antennal scape, and prosternum, thickly covered with long black hair; 2nd abscissa of radius about one fourth longer than the 3rd; 1st recurrent nervure received shortly beyond the 2nd shortly before middle of cellule. Antennæ as long as the head and thorax united; thick; the 1st and 2nd joints of flagellum about equal in length; the base of the middle joints slightly obliquely incised; the underside of the 6th to 9th projecting into a short spine. Occiput rounded, short, the malar space forming part of the segment of the circle. Malar space small. Hinder ocelli separated from the eyes by a slightly greater distance than they are from each other. Apex of clypeus broadly rounded. Eyes slightly converging below. Mandibles long, piceous at the apex; the apical tooth long, sharp, the subapical small. Median segment longer than its width at the apex; it has a flat, gradually rounded slope to the apex. Tibiæ and tarsi minutely spined; the 4 front claws bifid; the inner tooth shorter than the outer; the hind claw greatly more thickened, larger, curved and with 2 smaller teeth at the apex. Median segment transversely rugose, thickly covered with short black pubescence; 1st abdominal segment longer than 2nd; at base half the width of apex; it becomes gradually wider.

The 1st and 3rd transverse cubital nervures are obliquely bent in front; the transverse median nervure is received beyond the transverse median; the cubitus in hind wings originates beyond the transverse median; the long spur of hind calcaria reaches to middle of metatarsus.

This is not an *Anoplus* as now limited. Probably when the female is discovered it will be found to be the type of a new genus. In Ashmead's arrangement it comes near *Pompilinus*. The long hair on the head, the short, thick, peculiarly incised middle joints of antennæ and thick, sharply curved hind claws are 3 noteworthy characters.

Pseudagenia longitarsis, sp. nov.

Black, the antennæ, head, the prothorax (except for an elongated triangular mark on the pleuræ and the sternum which are black) the mesonotum and scutellum dark ferruginous; legs red, the 4 front coxæ broadly at the base and the hinder entirely black; the hind tarsi infuscated; wings uniformly dark fuscous-violaceous. Male.

Length 17 mm.

Third joint of antennæ nearly as long as the following 2 united; eyes distinctly converging above; ocelli almost in a triangle; the hinder separated from the eyes by double the distance they are from each other; temples broad, one-third the length of 3rd antennal joint; obliquely rounded. Clypeus distinctly roundly convex, its apex broadly rounded; metanotum with a gradually rounded slope; the base closely transversely striated; the apex alutaceous; there is no central furrow; 2nd abscissa of radius about one-fourth longer than the 4th; the 1st recurrent nervure received near the base of the apical third of the cellule; the 2nd in the middle; eubitus in hind wings received shortly behind transverse median; tarsi thickly spinose; claws with a short stout tooth in the middle; the tarsi very long; the basal 2 joints of hinder longer than the tibiæ. Comes close to *P. rostrata*, Grib.

Pseudagenia robusta, sp. nov.

Black; the apex of clypeus and labrum, mandibles, basal 6 joints of antennæ, femora and tibiæ dark red; wings uniformly dark fuscous-violaceous. Female.

Length 18 mm.

1st joint of flagellum as long as the scape and pedicle united and not much shorter than the 2nd and 3rd united, eyes on inner side slightly diverging below; ocelli in a curve, the hinder separated from each other by about the same distance they are from the eyes; temples short, roundly narrowed; apex of clypeus transverse; malar space minute; apex of mandibles broad, oblique; apex of pronotum broadly rounded, slightly angled in the middle; mesonotum flat at apex; base of scutellum transverse, raised; scutellums smooth and shining in the middle; median segment clearly longer than wide, opaque, alutaceous, obscurely transversely striated; the apical slope sharply striated, the striæ clearly separated; the base with a distinct, wide furrow down the middle; pleuræ opaque, mesopleural furrow with some keels; apex of metanotum with a straight, oblique slope; first segment of abdomen distinctly narrowed at the base; wings short; the apex of radius oblique, slightly rounded at the top; 2nd abscissa of radius about one-third longer than 2nd; 1st transverse cubital nervure broadly, the 2nd less broadly rounded; the 3rd obliquely bent at the top, transverse median nervure received dis-

tinctly beyond the transverse basal; cubitus in hind wing received before the transverse median; tarsi stoutly spined.

This species looks more like a *Salix* or *Anoplius* than a *Pseudagenia* or *Agenia*.

Pseudagenia iridipennis, sp. nov.

Length 13 mm.

This species is very similar to *P. robusta*; the two may be separated thus:—

Legs and antennæ black; median segment not furrowed; the cubitus in hind wings interstitial. Length 13 mm. (*iridipennis*). Legs and antennæ for the greater part dark red; metanotum distinctly furrowed; the cubitus nervure in hind wings received before transverse median. Length 18 mm. (*robusta*).

Entirely black, except the greater part of mandibles, and apex of clypeus; head and thorax opaque, abdomen shining; eyes slightly diverging below; malar space almost absent; ocelli in a curve, the hinder separated from each other by about the same distance they are from the eyes; temples obliquely roundly narrowed; apex of clypeus broadly rounded; median segment closely transversely striated, the striae becoming coarser towards the apex, which is broadly rounded above and laterally. The segment is clearly longer than it is broad at the base; second abscissa of radius about one-third longer than the 3rd; the 1st and 3rd transverse cubital nervures are obliquely bent in front, the latter more sharply than the 1st; both the recurrent nervures are received beyond the middle; the 2nd farther than the 1st; cubitus in hind wing interstitial.

Pseudagenia athiopica, sp. nov.

Reddish-orange, the mesonotum at the sides of the scutellums, median segment, pro- and mesopleuræ, the basal half of the 1st abdominal segment, and the ventral surface in the middle, black; legs coloured like the body, all the coxæ, black; wings hyaline slightly suffused with fuscous; the nervures and stigma black; antennæ coloured like the body. Male.

Length 10 mm.

Head sparsely covered with pale hairs. Eyes on the inner border clearly converging above. Ocelli in a black spot, which projects obliquely beyond them in front and is there incised in the middle; the hinder are separated from the eyes by a distinctly

greater distance than they are from each other. Clypeus roundly convex : its apex broadly rounded, the apex depressed, smooth. Mandibular teeth black. Temples roundly narrowed. Third antennæ joint as long as the vertex between the eyes and distinctly longer than the fourth. Palpi pale testaceous. Pronotum behind broadly incised ; rounded ; its sides broadly rounded. Metanotum alutaceous, covered with a silvery pubescence : indistinctly furrowed down the middle. The 2nd and 3rd abscissæ of the radius and cubitus equal in length, or almost so ; the 1st recurrent nervure received shortly beyond the middle : the 2nd at the apex of the basal third of the cellule.

The metanotum is clearly longer than broad : the metapleuræ are obscurely striated. Abdomen shorter than the thorax : apex of penultimate ventral segment roundly incised. The long spur of the hinder calcaria does not quite reach to the middle of the metatarsus and is longer than the 2nd tarsal joint.

The form of colouration shown by this species is, apparently, common in Africa. The present species comes near to *P. nigro-aurantiaca*, Magr., from which it differs, *inter alia*, in the propleuræ and all the coxæ being black.

Ceropales punctulata, sp. nov.

Black ; the lower part of the front including the lower half of the inner orbits, the outer orbits narrowly, face, clypeus, labrum, mandibles, under part of the scape and second joint of antennæ and the 4 front coxæ below, bright yellow : a broad line on the apex of the pronotum, the apical half of the 1st abdominal segment and the legs rufous ; the flagellum of the antennæ bright rufo-testaceous ; the scape black above : wings hyaline, the stigma fuscous in the middle, the rest and the nervures black. Male.

Length 8 mm.

Antennæ short and thick ; the 3rd and 4th joints equal in length : front and vertex strongly punctured, the vertex behind less closely than the front : hind ocelli separated from the eyes by about the same distance they are from each other. Temples short, rounded. Eyes distinctly converging below ; roundly incised : the malar space small. Apex of clypeus slightly roundly incised. Mesonotum strongly, but not closely punctured ; the part bordering the furrows (which are distinct) smooth : the sides of the scutellum punctured, the centre smooth ; its top marked with yellow in the centre. Median segment opaque, alutaceous ; a V-shaped depression at the base in the middle ; its centre is furrowed ; its sides

have an oblique slope : the part on either side of it is irregularly, stoutly obliquely striated : the apical slope is straight, oblique. Propleuræ strongly punctured above in front ; the mesopleuræ less strongly and more regularly punctured except at the apex below : metapleuræ almost smooth. The 2nd abscissa of radius almost twice the length of the 3rd : the 3rd cellule in front about one third of what it is behind, it being in front the length of the space bounded by the 2nd recurrent and 2nd transverse cubital nervures ; the upper part of the 1st transverse cubital nervure is obliquely bent ; the 2nd is slightly, roundly bent towards the apex of the wing. Hind coxæ black, rufous below : the upper part on the outer side with a yellow line.

The genus *Ceropales* appears to be rare in Africa.

SPHEGIDÆ.

Trypoxylon foveatum, sp. nov.

Black : the mandibles rufo-testaceous, palpi pale testaceous : calcaria white : wings hyaline, the anterior with a slight fuscous tinge and highly iridescent : the nervures and stigma black : frontal area large : broadly rounded behind and enclosing the front ocellus ; its apex narrowed to a sharp point, the keels there slightly curved inwardly, head and thorax covered with longish white pubescence ; abdominal petiole longer than the 2nd and 3rd segments united : last segment ending in a long, curved, stout spine. Female.

Length 11 mm.

Eyes distinctly converging below. The frontal area is raised : its sides have an oblique slope outside the keel ; inside it is depressed towards the centre where there is an impressed line. Eye incision and vertex obscurely punctured ; the face and clypeus covered with silvery pubescence. Area on metanotum raised, depressed in the centre which is transversely striated : its raised sides rounded : the part at its apex depressed : the depression narrowed and rounded at the apex ; the part at the sides of the area with a few irregular transverse striæ ; the apical slope

irregularly transversely striated. Pro- meso- and base of metapleuræ smooth ; the rest of metapleuræ closely, finely obliquely striated, the top and bottom more strongly than the middle at the base. Pleural sutures irregularly striated ; there is a round fovea behind the middle of the mesopleuræ ; propleural depression wide and deep ; it is finely obliquely, but not closely, striated. Radial cellule elongated, as in *T. confratum*, Kohl. Malar space absent. From the angle of the frontal area where it commences to narrow, a not very distinct keel runs to the eyes ; the apex of the clypeus is depressed and bordered behind by a fine furrow ; cubitus at its junction with the transverse cubital nervure broadly rounded, not acute as in *T. confratum*. Comes near to *T. stroudi*, Grib.

BETHYLIDÆ.

Tanynotus, gen. nov.

Antennæ about 40-jointed, issuing from the front of the head, where they are widely separated and cover the mouth. Head flattened, longer than broad, the occiput roundly incised ; the eyes large, reaching near to the edge of the occiput, and in front, to near the base of the apical third of the head ; there are no ocelli. Thorax flattened above : the prothorax nearly as long as the rest united ; it is of equal width throughout ; mesothorax small, wider than long ; the metathorax nearly three times the length of the meso-, it is roundly narrowed behind. Abdomen shorter than the thorax, and broader than it ; flat. Fore femora largely dilated, as long as the prothorax, ovate, broadest at the base ; the tibiæ are similarly dilated, broadest at the base ; the middle femora are not much dilated ; the hinder flat, roundly dilated above ; the tarsi are longer than the tibæ.

Belongs, except as regards the large number of joints in the antennæ, to the *Bethylinæ*. I am not certain about the exact number of joints, owing to the difficulty of counting them exactly. The parapsidal furrows are absent. The form of the mandibles I am unable to describe, owing to their being hid by the projecting front of the head. In the known apterous genera of *Bethylinæ*

there are no ocelli, and the eyes are always small: but here the eyes are fully larger than they are in the winged genera, than in *e.g.* *Bethylus*. The fore legs, too, are much more swollen than they are in any of the described genera.

Tanynotus rufithorax, sp. nov.

Black: the greater part of the antennæ, oral region and thorax red; the tibiæ and tarsi testaceous, smooth, shining, covered with a white microscopic pile; the pronotum and metanotum furrowed down the middle. Scape of antennæ thickened, as long as the following 2 joints united. Apical segments of abdomen dark testaceous. Antennæ as long as the thorax: head almost as long as the prothorax, behind distinctly wider than it. Antennæ as long as the thorax. Female.

Length nearly 5 mm.

ICHNEUMONIDÆ.

Ichneumon rubriornatus, sp. nov.

Black: the flagellum of antennæ, petiole, and basal third of 2nd abdominal segment red: scape of antennæ, face, clypeus, mandibles, palpi, a line on the base of pronotum, tegulæ, tubercles, the scutellums, metanotum, except at the base, post-petiole, apical third of 2nd abdominal segment, less than the apical half of the 3rd, the band roundly narrowed in the middle, the apical two-thirds of the 6th segment and the whole of the 7th, bright yellow: legs yellow: the hind coxæ below, apex of hind femora, of the hind tibiæ more broadly and the apical joints of the hind tarsi, black: there is a rufous band in front of the black ring on the hind tibiæ: wings hyaline: the costa and stigma dark testaceous, the nervures darker. Male.

Length 12 mm.

Antennæ short and thick, distinctly narrowed towards the apex, in length hardly longer than the abdomen. Head and thorax thickly covered with short white pubescence; temples obliquely narrowed: front, vertex, face and clypeus closely strongly punctured: apex of clypeus transverse, the sides rounded: front

furrowed in the centre. Thorax closely, the metanotum more rugosely punctured; the keels on the metanotum not very strongly developed; the areola square, not clearly defined behind. The central part of the petiole and post-petiole raised; the latter coarsely punctured; the other segments are more closely and regularly punctured; gastrocoeli oblique, narrow, the part between them not striated. Areolet 5-angled; disco-cubital nervure broken by the stump of a nervure. Tarsi pilose beneath, the apices of the joints spinose.

Eristicus iridipennis, sp. nov.

Black, the eye-orbits narrowly, basal 3 segments of abdomen, the fore femora except at the base, the apex above, the apical half of the middle below, the hinder on the inner side, tibiæ and tarsi rufous; wings fuscous violaceous, the stigma and nervures black. Female.

Length 9 mm.

Antennæ brownish below on the apical half: the scape obscure rufous below. Head closely and distinctly punctured and covered with pale pubescence; the clypeus is more shining and less closely punctured. Thorax closely and strongly punctured; the median segment more coarsely than the rest; the scutellum shining, sparsely punctured. On the median segment the only distinct area is on the sides of the apical slope. Abdomen shining, the basal 3 segments minutely punctured; the 4th and following segments are obscure rufous at the apex; the last is broadly rounded; the ventral segments largely marked with rufous. Apices of tarsal joints and of tibiæ thickly spinose; the basal joint of tarsi thickly spinose below: the outer side of tibiæ sparsely spined.

The wings are highly iridescent; the areolet is large, 5-angled: mandibles rufous in the middle; metanotum obliquely depressed in the middle at the base; the sides bordered: the areola is only distinctly bordered at the base, and indistinctly laterally at the base.

Cryptus capensis, sp. nov.

Black; the abdomen, except at the base of the 1st segment, the femora, tibiæ, and tarsi, red; wings hyaline, with a fuscous-violaceous tinge, the nervures and stigma black. Female.

Length 13, terebra 4 mm.

Antennæ, with joints 6-8, white beneath; head opaque, closely punctured, the clypens more shining and more widely punctured than the face, which is roundly dilated above in the centre; front deeply and widely depressed: the upper two-thirds with a stout longitudinal keel down the centre: the rest closely transversely striated: there is a brownish line on the middle of the inner orbits. Thorax closely rugose: the apex and the lower part of the propleuræ strongly striated; the metapleuræ more coarsely than the meso-, the punctuation running into reticulations: the apex of the meta- stoutly, irregularly, obliquely striated-reticulated. Scutellum more shining and less closely punctured than the mesonotum: its sides stoutly keeled to near the apex, which is irregularly striated. The part between the 2 metanotal keels is irregularly reticulated: the apex is more closely punctured-reticulated; the tooth on the sides of the basal carina is short, on the second it is stouter and more distinct; on the base of the segment, in the middle, is a small triangular area. Abdomen smooth and shining. There is a longish stump of a nervure on the discocubital; the recurrent nervure is received almost in the middle of the areolet; transverse basal nervure interstitial. The tarsi are darker coloured than the tibiæ and are closely spined. There is a distinct keel down the base of the propleuræ, extending from the top to the bottom; the clypens is not separated from the face by a furrow; the labrum and mandibles above, in the middle, rufous: malar space as long as the antennal scape; the basal metanotal keel is sharply projected backward; the projection is sharply pointed and is united to the basal area; metanotal spiracles small, about 3 times longer than wide; the metapleuræ project into a small tooth at the apex below.

Allied to *C. muricatus*, Tosq.

Mesostenus O'Neili, sp. nov.

Rufous, the abdomen of a darker red, its apical 5 segments white, the breast and lower part of metapleuræ black, legs black, suffused with white: the anterior and the middle tibiæ in front white; wings clear hyaline; the nervures and stigma black. Female.

Length 10, terebra 4 mm.

Front below the ocelli irregularly reticulated, keeled down the centre. Face broadly, roundly projecting in the centre, not

separated from the face by a furrow, irregularly punctured, the sides less strongly punctured, the centre of the clypeus with distinct punctures, the sides almost smooth. Mandibles for the greater part black, a yellow spot at the base above : the teeth equal in length. Palpi yellowish. Mesonotum closely punctured, the outer sides of the middle lobe and the inner and outer sides of the lateral closely, finely transversely striated. Scutellum sparsely punctured on the basal, the apical closely punctured : the keels for the greater part yellow. The base of metanotum closely, irregularly finely reticulated : the rest much more strongly and closely reticulated, the apical slope more regularly than the rest. Propleuræ closely punctured and striated above, the lower part, in the middle, stoutly striated; the meso- and meta- closely reticulated and punctured, the latter more strongly than the former. Basal 3 abdominal segments closely rugosely punctured ; the postpetiole more coarsely than the rest. Tarsi dark testaceous.

The 2 transverse keels on the metanotum are interrupted in the middle ; the areolet minute, square, the basal nervure thick, the apical thin : the transverse median nervure is received distinctly behind the transverse basal ; tegulæ rufous ; temples small, obliquely narrowed ; labrum white ; the transverse median nervure in hind wings is broken far below the middle.

Comes close to *M. vulpis*, Tosq.

Larpeletes, gen. nov.

Front depressed, a keel, projecting into a spine, at its apex, in the centre. Apex of clypeus depressed, its top indistinctly separated from the face. Thorax more than three times longer than wide. Parapsidal furrows distinct for two-thirds of the length of mesonotum. Scutellum roundly raised, its sides distinctly keeled to beyond the middle. Metanotum with 2 transverse keels, the sides spined. Areolet moderately large, narrowed at the base, the recurrent nervure received near the apex : transverse median nervure received shortly behind the transverse basal ; transverse median nervure in hind wings angularly broken shortly below the middle. Front tarsi about twice the length of tibiæ ; claws small. Abdominal petiole long and slender, gradually widened to the apex. Metapleural keel reaching to the hind coxæ.

The eyes do not reach to the base of the clypeus, the malar space being therefore large : the temples large, obliquely narrowed ;

there is an area on the centre of metanotum at the base : the metathoracic spiracles small, longish oval ; there are no thyridia : there is an oblique keel on the propleuræ : there are 8 dorsal abdominal segments : there are no distinct cerci. Mandibles bidentate.

Comes nearest to *Listrognathus*. To this genus probably belongs *Mesostenus striatifrons*, Brullé, from the Cape of Good Hope.

Larpeles ruficollis, sp. nov.

Black, the prothorax, mesonotum with scutellums, the mesopleuræ from shortly below the middle, red : a band on the upper side of the middle of antennæ, a narrow line on the apex of the penultimate and on the last segment above, white ; legs black, the 4 anterior femora and tibiæ dull testaceous in front : wings hyaline, the apex infuscated, the nervures and stigma black. Female.

Length 10 mm. : terebra 4 mm.

The ocellar region and the upper part of the front bearing large, round, clearly separated punctures : the frontal spine in front becomes gradually lengthened to the apex, which is sharply pointed. Face and upper part of clypeus closely and distinctly punctured, the punctures in the centre almost forming reticulations ; the depressed apex of the clypeus and the labrum smooth and shining. Mandibles opaque and punctured at the base, the rest smooth and shining. Palpi dark testaceous. Pro- and mesothorax closely and strongly punctured ; the base of the metanotum is similarly, the rest of it more strongly rugosely, punctured. Scutellar keels stout, extending to the middle. Post scutellum smooth and shining. Abdomen smooth, the apical segments more shining.

Pimpla shawi, sp. nov.

Black, the face, clypeus, the lower half of outer orbits, mandibles to near the teeth and 4 front legs, yellowish-fulvous : wings yellowish-hyaline, the apex from the base of the stigma fuscous, with a large yellowish-hyaline cloud extending from the apex of the stigma to near the middle of the apical abscissa of radius and extending to shortly beyond the sub-discoïdal nervure, where it becomes obliquely narrowed, and touching the outer side of the apex of the recurrent nervure : the apex of the hind wings fuscous.

The stigmal cloud has the anterior half narrower than the posterior and is irregularly narrowed in the centre. Female.

Length 12 mm. : terebra 11 mm.

Hab. Grahamstown.

Antennæ black : head smooth and shining : the temples rounded, not obliquely narrowed : face blackish in the centre above : it is separated from the face by a distinct transverse furrow, which has a fovea on either side of the middle : clypeus semicircularly depressed in the middle : its centre roundly incised, the sides roundly lobed. Thorax smooth and shining : the parapsidal furrows distinct at the base only : the sides of the median segment sparsely punctured : abdominal segments closely, strongly punctured, the 1st not so closely as the others and the apical less strongly : the apices of all the segments are smooth and shining. The upper half of the metapleuræ sparsely punctured. Wings large : the areolet oblique : the nervures unite in front : the recurrent nervure is roundly curved, and is received near the base of the apical third : the disco-cubital nervure is broken by a large stump of a nervure. Tegulæ luteous. Tarsi covered with stiff pubescence, which is fulvous on the hind pair : the apices of the joints spinose : the hinder calcaria pale.

Comes near to *P. crocata*, Tosq. The species is named after my old schoolmaster, Dr. John Shaw of Colesberg.

Pimpla spiloaspis, sp. nov.

Black; the abdomen and legs ferruginous : a broad band on the pronotum, tegulæ, scutellum from near the base, the mark roundly narrowed there, post-scutellum, and a mark, longer than broad, on either side of the apex of metanotum, white. Wings clear hyaline, the nervures and stigma black, the areolet narrowed in front, the nervures uniting there, recurrent nervure received shortly beyond the middle : transverse median nervure almost interstitial : transverse median nervure in hind wing broken about halfway between the middle and top. Female and Male.

Length 9-10, terebra 3 mm.

Face closely and strongly punctured : clypeus smooth, its lower part rufo-testaceous. Mandibles closely punctured, the teeth smooth. Palpi black. Pro- and mesothorax closely and uniformly punctured : metanotum closely transversely, finely striated, the striæ more or less curved : the punctuation on the

metapleuræ is closer and finer than on the mesopleuræ. All the coxæ are black; the hind femora are of a darker red; the hind tibiæ and tarsi are blackish. Abdomen closely and distinctly punctured, except the base of the 1st segment which is smooth and bears 2 small shining tubercles above: the depressions on the back are indistinct.

Male distinctly coloured: the fore tibiæ and tarsi are white in front; the 4 front femora have a white mark on the apex in front, their tibiæ and tarsi blackish.

Lissonota curvilineata, sp. nov.

Black; the face, except for a black line in the middle, clypeus, mandibles, except at apex, eye orbits (the inner more broadly than outer), the greater part of prothorax, a U-shaped mark, dilated laterally at the base, on the basal two-thirds of the mesonotum; 2 longish lines on the sides of the scutellum, extending shortly beyond the middle, a narrow transverse one on its apex, a similar line on the post-scutellum, the apex of the metanotum, the mark dilated backwards in the middle, tegulæ, tubercles and a curved line on the lower part of the mesopleuræ, pale yellow. Legs rufous, the front coxæ and trochanters, the middle trochanters below, middle coxæ and the base of all the tibiæ narrowly, pale yellow. The sides of the 1st abdominal segment at the base, its apex and the apices of the 2nd to 4th narrowly, yellow. Wings hyaline, the apex smoky; areolet with the pedicle as long as the lower branches, which are roundly curved. Head and thorax closely punctured, the thorax much more strongly than the head and the median segment than the mesothorax. Abdomen smooth. The hind tibiæ and tarsi blackish.

Lissonota africana, sp. nov.

Rufous; the head yellow, its occiput rufous, the vertex and front broadly black in the middle, a rufous line, dilated gradually to the apex, on the centre of face and top of clypeus, darker at the apex; labrum dull rufous. Antennæ black, the scape dull below. On the mesonotum are two lines, expanded outwardly at the base and reaching near to the scutellum, which is yellow, with a rufous line on its basal two-thirds: post-scutellum, a line on the apical two-thirds of the metanotum in the centre, united to a broader transverse one on the apex, the greater part of the pronotum, tegulæ, tubercles, a broad band below them, which is continued

obliquely on the lowerside to the apex of the mesopleuræ, where it is narrowed below at the apex, a mark below the hind wing and a mark, longer than broad, and narrowest behind, on the apex of the metapleuræ, and the apices of the basal 4 abdominal segments narrowly, yellow. Legs coloured like the body, the fore coxæ and trochanters, the greater part of the outside and the apex below of the middle coxæ, yellow. Wings clear hyaline, the apex smoky; pedicle of areolet about twice the length of the inner lower nervure. Sutures of thorax black; the parts at the base and sides of scutellum, a transverse mark on the apex of the metanotum in the centre; the apex of the pro- and base of mesopleuræ, the top of the latter more broadly, the line dilated downwards near the apex, the pleural and sternal sutures, black. Head and thorax closely and distinctly punctured. The transverse median nervure is received very shortly beyond the transverse basal, almost interstitial. The metathorax is more strongly punctured than the rest of the thorax; the hind tarsi are black. Mandibles black, the base broadly white. The amount of black and yellow on the head and thorax probably varies.

Metopius erythropus, sp. nov.

Black; the head, except the occiput, yellow, suffused with red; the edge of the pronotum broadly, a large mark, rounded behind and below on the base of the mesopleuræ, scutellum, its keels, the sides of the apical slope of the metanotum and the apex of the metapleuræ, red, as are also the sides and apex of the 1st abdominal segment, and the two apical entirely; the apices of the 2nd, 3rd, 4th, and 5th segments yellow, the lines narrowed in the middle; legs red, the front coxæ black; wings hyaline, the apical half of the radial cellule and the whole of the 3rd cubital fuscous-violaceous. Female.

Length 12 mm.

Clypeus closely punctured, its tops and sides depressed, its apex broadly rounded; labrum pale yellow, smooth. Mandibles red, black at apex. Palpi red. Thorax closely punctured; a smooth shining spot on the sides of the metanotum and on the upper part of the apex of the mesopleuræ. Scutellum sparsely punctured, the punctures large; its lateral keels large, roundly curved, largely projecting beyond the central part of the apex, which is almost transverse. Post-scutellum closely punctured. On the centre of the metanotum are two curved keels; on the apical slope are two straight, less widely separated, keels; on either side

of the basal area is a smooth depression, rounded at the apex. Pleuræ and sternum covered with white pubescence; the red apex of metapleuræ striated; the lower part of the meso- is furrowed. First segment of abdomen with large, widely separated punctures; the base with 2 widely separated keels; the sides at the apex smooth; the other segments are closely, strongly and regularly punctured: the punctuation being weaker gradually to the apical. The large rhomboidal areolet is shortly appendiculated and receives the recurrent nervure shortly behind the middle; the stigma pale testaceous; the transverse median nervure is received shortly in front of the transverse basal; tegulæ red; the transverse median nervure in hind wings broken above the middle. Basal joints of antennæ red; the rest are broken off. First, second, third, fourth and sixth segments are longer than broad; the 5th almost square.

This is a *Metopius* s. str.

BRACONIDÆ.

Iphiaulax capensis, sp. nov.

Rufo-testaceous, the front, vertex, occiput, upper half of outer eye orbits and antennæ, black; palpi blackish, thickly covered with long white hair; apex of mandibles black: there is a short black line on the top of the face in the centre, wings dark fuscous; the basal two-thirds of stigma ochraceous; a curved, oblique hyaline cloud, narrowed below in the 1st cubital cellule, extending below into the discoidal cellule; and there is a small hyaline cloud on either side of the 2nd transverse cubital nervure, the larger cloud on the outerside. Female.

Length 14-15, terebra 20 mm.

Antennæ stout, shorter than the body; the scape about 4 times longer than wide, shining, sparsely covered with black hair; the 3rd and 4th joints equal in length. Face coarsely rugosely punctured, sparsely covered with black hair; the clypeus smooth. Front deeply depressed, its sides raised; the centre with a deep furrow; the orbits lined with luteous to near the top of the eyes.

Temples broad, rounded behind. Thorax smooth and shining: the furrows fine. Abdomen nearly twice the length of the thorax. First segment of abdomen about one fourth longer than broad at the apex, smooth, the apex irregularly striated: 2nd, 3rd, and 4th segments with their furrows closely longitudinally striated: the area on 2nd segment is large, slightly longer than broad, rounded broadly at the apex and irregularly striated: it is surrounded by a broad striated belt, the striæ on the sides being oblique, and on the outer side bounded by a smooth keel: the lateral depression is almost smooth at the base, its apex obliquely striated. Apical abscissa of radius about equal in length to the basal two united; recurrent nervure received in the apex of the 1st cubital cellule. Tarsi darker coloured than the rest of the legs; pilose below: the apices of the joints spinose.

Iphiaulax basimacula, sp. nov.

Black, the abdomen, except for a square mark in the centre of its 1st segment, red: wings uniformly dark fuscous, the base of the stigma pale orange. Female.

Length 8, terebra 3 mm.

Antennæ longer than the body; the scape thickly covered with stiff black hair, of equal width, about 3 times longer than wide; 2nd joint minute, narrowed, red; the 3rd slightly longer than the 4th. Face thickly covered with long black hair, smooth; clypeus, small; oral opening large, almost transverse in the middle above; the malar space moderately large, as long as the 3rd antennal joint; it has a large rufous mark. Palpi black, covered with long white hair. Thorax smooth and shining; scutellum roundly convex; middle lobe of mesonotum slightly raised: parapsidal furrows indicated as fine lines. 3rd abscissa of radius longer than the 1st and 2nd united; the 1st abscissa of cubitus straight, oblique. Abdomen broad, ovate, as long as the head and thorax united; 1st segment as long as its width at the apex, its central part closely, finely longitudinally striated; the depressed sides irregularly obliquely striated; 2nd to 5th segments closely rugosely punctured and irregularly striated; the 3 transverse furrows are wide and deep, closely, strongly striated; there is no area on the base of 2nd segment; its sides at the base are largely depressed; the sides of the 5th are roundly dilated at the apex.

The eyes are not so large as usual; temples wide, slightly obliquely narrowed; occiput transverse; fore tibiæ as long as the

basal 3 joints of tarsi. There is a pale narrow cloud in the 1st cubital cellule, and a wider, shorter one beyond it in the discoidal cellule. Front with a deep, opaque furrow extending from the antennæ to near the apex.

Allied to *I. natalensis*, Szép.

Ipbiaular clanes, sp. nov.

Ferruginous : the front half of vertex, the posterior part of front, the band roundly dilated in the middle, the antennæ and apex of mandibles, black : wings light fuscous, the 1st cubital cellule almost hyaline; the basal two-thirds of the stigma pale ochraceous; the costa and nervures black. Female.

Length 6, terebra 1 mm.

Face covered with white pubescence, irregularly wrinkled. Scape of antennæ covered with white hair, shining, about 3 times longer than broad, narrowed towards the base : 3rd joint narrowed at the base, slightly longer than the 4th. Abdomen broadly oval, fully longer than the head and thorax united : the raised central part coarsely, irregularly, longitudinally striated, with finer, irregular transverse striae ; its sides depressed, almost smooth, pale yellow and bordered outwardly, the keel with an oblique, straight slope at the base and tuberculated outwards above : the sides, outside this, are depressed, pale yellow, broad at the apex. The central part of the 2nd segment is square, bounded laterally by a straight keel : the basal area is large, longer than broad, obliquely narrowed at the apex, smooth and shining : the sides are closely striated, the striae more curved and clearly separated at the base than at the apex : the 3rd, 4th and 5th segments are closely, longitudinally striated, the apices of the segments smooth : transverse furrows wide, deep and closely striated. Apical segments smooth, pale yellow. The 3rd abscissa of radius as long as the basal 2 united ; the recurrent nervure received in apex of 1st cubital cellule.

Ipbiaular rubrilineatus, sp. nov. *

Black; the lower part of the face on the sides, oral region, malar space on the sides and apex rufo-testaceous : thorax rufous : 2 narrow lines on the 2nd abdominal segment, bordering the area and extending from the base to the apex, suturiform articulation, except in the centre ; the following 2 furrows in the centre, a

band down the centre of the 3rd and 4th segments and the base of the 5th in the centre, rufous. Wings dark fuscous: the stigma, except at the base, ochraceous; a hyaline cloud in the 1st cubital cellule, extended into the discoidal cellule, and one on either side of the base of the radial nervure in the hind wings. Female.

Length 18, terebra 22 mm.

Antennæ shorter than the body, stout; the scape about 4 times longer than wide, thickly covered with long black hair. Face coarsely, rugosely punctured, sparsely covered with long black hair. Mesonotum flat behind. The apex of the 1st, 2nd, 3rd and 4th abdominal segments closely, longitudinally striated; the area on the 2nd segment is large, closely longitudinally striated, and becomes gradually narrowed to a sharp point: its bordering depressions are stoutly obliquely striated; the lateral apical depressions are obliquely striated. The 3rd abscissa of radius is nearly as long as the basal 2 united; the recurrent nervure is received in the apex of the 1st cubital cellule. Basal two joints of fore tarsi as long as the tibiæ.

Iphiaular rubrinervis, sp. nov.

Vermilion-red: antennæ, the front and vertex, except along the orbits narrowly, occiput, a broad mark on the centre of mesonotum, extending from its base to the middle, a longer, narrower one on the sides extending from near the base to the apex, an obscure mark on the base of scutellum a mark, longer than broad, on either side of the centre of the base of metanotum, followed by a thinner one of the same length on the outer side of the apex, prosternum, mesosternum, a broad line on the centre of mesopleuræ, on the apical two-thirds, a mark, longer than broad, on the apex above it, and a somewhat pyriform mark near the apex below it, black. Wings fuscous; the base to the transverse basal nervure fuscous-hyaline, the 1st cubital cellule and a cloud in front of the recurrent nervure, extending to the opposite side of the wings, hyaline: and the basal two-thirds of the hind wings are greyish in front: the costa and stigma and the basal half of the costal nervure in the hind wings are rufous. Legs coloured like the body: the hinder tarsi from the apex of the 1st joint blackish. Female.

Length 13½ mm.

Antennæ longer than the body, its scape fully twice longer

than broad. Head smooth and shining, the face thickly covered with long white hair; temples broad, slightly, roundly obliquely narrowed; front with an oblique slope, furrowed in the centre: tips of mandibles black: palpi pale red, thickly covered with white hair. Thorax smooth and shining: the pleuræ, breast and metanotum thickly covered with white hair. Abdomen distinctly broader than the thorax, as long as it and the head united: the raised central part of the 1st segment with 4 stout longitudinal striæ: the depressed lateral part smooth, wide: the 2nd to 5th segments are coarsely, closely rugosely punctured, their furrows deep and crenulated, wider and curved at the sides; there is no area on the base of 2nd segment, which is irregularly longitudinally striated: the 3rd to 5th are smooth laterally at the base: the 5th has the apex produced at the sides. The 3rd abscissa of the radius is longer than the basal two united: the 2nd transverse cubital nervure is bordered by a narrow hyaline cloud: the basal lobe of mesonotum is hardly raised: the scape of antennæ is produced into a short, sharp tooth at the apex below.

My only example wants the ovipositor. The species is related to *I. pictus*, Bé, and *I. incisus*, Bé.

Iphiaular athiopicus, sp. nov.

Black; oral region, mandibles, the greater part of malar space, apical half of fore femora, tibiæ and tarsi, yellow; wings yellowish-hyaline, the apices of both fuscous, the anterior from the apex of the stigma, the stigma and nervures yellow. Female.

Length 13, terebra 24 mm.

Front and vertex smooth and shining: the former deeply furrowed down the middle; face rugosely punctured, irregularly reticulated; the sides bordered by a keel. Clypeus depressed in the middle, flat, the sides raised. Palpi rufo-testaceous, thickly covered with white hair: the apical joint of maxillary black. Thorax smooth and shining: the mesonotum flat. Abdomen twice the length of the head and thorax united: the basal 4 segments closely, coarsely longitudinally striated: the 2 basal longer than wide: the 3rd and 4th almost square; the basal half of 1st roundly convex: the 2nd with a longish, almost smooth depression on the sides near the apex: the 4th with a less distinct depression. There is no area on the base of the 2nd segment: on its base is a small smooth space, dilated obliquely in the middle.

Legs and antennæ thickly covered with stiff black pubescence ; the middle lobe of mesonotum raised, but the furrows not distinctly defined throughout ; calcaria and tarsal spines testaceous ; the recurrent nervure is not quite interstitial ; the 3rd abscissa of radius slightly shorter than 2nd.

Iphiaulax odontoscapus, sp. nov.

Length 10, terebra 5 mm.

This species agrees in colouration with *I. ethiopicus*, but is much smaller : its ovipositor is only half the length of the body ; the striation on the basal 4 abdominal segments is finer and closer, the oral region, front legs, and palpi are entirely black, the 2nd abdominal segment is broader than long, as are also the 3rd and 4th, not longer than broad ; the abdomen is shorter compared with the thorax ; its middle is distinctly broader than the thorax, and more distinctly narrowed towards the base and apex : there is no area on the base of the 2nd segment ; the apical cloud in the fore wings is of the same size, but is straight, not dilated backwards in the middle as in the larger species ; the face is less strongly rugosely punctured, and the apex of the scape of antennæ projects into a distinct stout spine.

This species appears to be closely related to *I. luctuosus*, B  , but it may be known from it by the 2nd abdominal segment, not having a smooth triangular plate at the base.

Iphiaulax 12-fasciatus, sp. nov.

Rufous : the antennæ, head, pronotum, mesonotum with scutellum, the lower part of propleuræ and mesopleuræ largely from close to the bottom, black ; wings fuscous, a large hyaline cloud in the centre of the costal and median cellules, an irregular one extending from the stigma to the opposite side of the wing, where it is narrowed, a small one at the outerside of the 2nd transverse cubital nervure, a cloud at the base of the hind wings, a larger oblique behind, and a wider, more oblique one beyond the middle ; the stigma yellow at the base. Female.

Length 12, terebra 17 mm.

Front and vertex smooth, the middle of front deeply depressed, flat, the centre furrowed ; the sides broadly, roundly raised ; face rugose, irregularly reticulated, its sides depressed ; the oral region and mandibles, except at apex, rufous ; palpi covered with white hair, rufous, black at base. Face sparsely covered with long white

hair. Thorax smooth and shining; the mesonotum flat, its apex flat and transverse; there is a narrow furrow in the centre of the metanotum. Basal 2 segments of abdomen longer than broad; the area on the 2nd segment triangular, its greatest length more than its width at the base; it is sharply pointed, smooth, except for a few irregular striae in the centre; it is surrounded by a broad border of stout striae; the lateral part has a triangular band of oblique, irregular striae at the apex. Sutureform articulation broad, deep, stoutly striated, beyond it the segment is irregularly longitudinally striated; the 3rd segment is closely, irregularly striated, except at the sides and apex; the 4th has a broad striated band in the middle, the sides at the base and the apex being smooth. Recurrent nervure received distinctly behind the transverse cubital. Temples large, not obliquely narrowed, broadly rounded behind. Thorax as long as the basal 3 abdominal segments, the abdomen being longish and of the width of the thorax. Legs slender; the front tarsi twice the length of the tibiae.

Iphiaulax bicolor, Bé.

Mr. O'Neil sends from Dunbrody a species which appears to be the *Bracon bicolor*, Bé. It agrees with the description, except that it has got the hind tibiae from near the base and the hind tarsi black, while from the description these are coloured like the rest of the legs. In the figure, however, (pl. 43, f. 3) these are certainly shown darker coloured than the rest of the legs.

Acanthobracon nigromaculata, sp. nov.

Ferruginous; the centre of vertex broadly, the mark slightly narrowed behind,—the mark continued to the antennae, from which it is expanded to the eyes, mandibles, antennae, the greater part of the pronotum, a mark on the sides of middle lobe of mesonotum, a larger, broader one on the basal two-thirds of lateral lobes and a mark behind the upper part of the eyes, black; wings fuscous, the costal cellule, the 1st cubital cellule and the part below it, almost hyaline; the nervures and stigma black. Female.

Length 11, terebra 5 mm.

Front and vertex smooth and shining; front depressed; the anterior ocellus in the depression; in its centre is a keel which becomes higher, almost spinose at the apex. Face irregularly punctured, almost rugose; the clypeus finely rugose, raised, clearly separated, rounded above. Pro- and mesothorax; propleural

furrow irregularly striated; mesopleural furrow smooth; metanotum, except the apex laterally, closely reticulated and with a keel down the centre; metapleuræ irregularly rugose at the base. First abdominal segment closely, distinctly punctured, its sides at the base and apex smooth; the sides with some irregular striæ; 2nd segment closely longitudinally striated; suturiform articulation roundly curved; at the sides is a curved furrow, which is broad and striated at the base, at the apex it is produced laterally, the whole forming a broadly oval area; its apex is smooth, as are also the apices of the following 2 segments their base being closely striated. The whole abdomen is thickly covered with short white pubescence. The upper spine on the hind coxæ is curved, thin, reaching shortly beyond the middle of the 1st abdominal segment; the lower one is about half its length and thicker and straighter. Palpi fuscous. The 3rd abscissa of radius is twice the length of the 1st and 2nd united; the 1st is very short; the transverse cubital nervures are straight and parallel.

Basal joints of antennæ thickly covered with short stiff black pile, the 3rd joint longer than the 1st; temples wide, rounded, tarsi spinose; base of fore femora distinctly narrowed; the part of the thorax in front of the tegulæ is as long as that behind.

Exotheus tibialis, sp nov.

Luteous, the 3rd and following segments of the abdomen, antennæ and hind tibiæ, calcaria and tarsi, black; wings fuscous, the base to near the transverse median nervure, the fore half of 1st cubital cellule, a small one below the 1st transverse cubital nervure and one on either side of the 2nd, and the hind wings to near the middle, yellow. Female.

Length 15, terebra 10 mm.

Smooth and shining; the head, pleuræ and metanotum thickly covered with longish pale pubescence; apex of clypeus obliquely depressed; mandibles black at apex; the front hollowed, furrowed in the middle, the sides of the furrow raised; mesonotum not lobed; the 1st abdominal segment longer than 2nd, about 3 times longer than wide; the middle broadly roundly convex, its sides furrowed; the 2nd with an area which reaches to the base of the apical third, which is distinctly narrowed and with the segment depressed on either side.

Megalommum flavomaculatum, sp. nov.

Testaceous ; antennæ, mesonotum, except for a yellow mark, with straight base and sides on the apical two-thirds, scutellum, middle of metanotum, lower part of propleuræ, mesopleuræ, except for a triangular yellow mark below the tegulæ, mesosternum and the greater part of metapleuræ, black. Wings hyaline to near the stigma, where there is an irregular cloud on both sides of the transverse basal nervure ; a fuscous mark in the centre of the 2nd discoidal cellule, one beyond it and the apex from the commencement of the radius ; nervures and stigma yellow ; the parastigma, apex and base of stigma black.

Length 9, terebra 3 mm.

Face coriaceous ; the rest smooth and shining ; the vertex more of a paler yellow colour than the face ; tips of mandibles black. Malar space as long as the pedicle of antennæ. Eyes large, distinctly incised on the inner side opposite the antennæ. Temples roundly narrowed, short. Abdomen smooth, as long as the head and thorax united ; 1st segment nearly as long as the 2nd and 3rd united ; it becomes gradually wider to the apex ; the plate on the 2nd segment is large, triangular, its apex produced to near the apex ; the parts surrounding it are depressed and striated stontly ; suturiform articulation crenulated ; it is the only furrow. Wings long ; the radius is curved downwards at the base and upwards at the apex ; the apical abscissa is longer than the basal two united ; 2nd discoidal cellule large, longer than wide, transverse at base, rounded at apex ; the cubitus is roundly curved at the base ; the recurrent nervure is received in the apex of the 1st cubital cellule.

Xanthomicrodus, gen. nov.

Inner spur of hind tibiæ reaching beyond middle of metatarsus. First cubital and discoidal cellules confluent ; areolet triangular, the basal nervure straight, oblique, the outer roundly curved, and without a stump of a nervure ; subdiscoidal nervure in hind wings originating at the middle of discoidal nervure, where there is a completely closed basal cellule : this, with the praebrachial nervure, being the only transverse nervure ; the radius and cubitus extend to the apex of the wing ; the transverse basal and anal nervure in fore wings interstitial. Parapsidal furrows distinct ; uniting at the apex of mesonotum. Scutellums keeled laterally. Median segment regularly areolated. Claws simple. Malar space moderately large ; apical tooth of mandibles

sharply pointed. Occiput margined; mesopleural tubercles large, bordered below by a stout keel; the furrow is smooth, wide, shallow. Abdomen smooth and shining; the 1st segment as long as the 2nd and 3rd united. Ocelli large. Palpi normal.

Comes near to *Crassomicrodus*.

Xanthomicrodus iridipennis, sp. nov.

Luteous, antennæ black, wings hyaline, highly iridescent, the costa and stigma black, the nervures testaceous. Male.

Length 7 mm.

Antennæ longer than the body, the scape covered sparsely with long pale hair; the flagellum densely with stiff black pubescence. Face punctured, thickly covered with white pubescence; an oblique furrow runs from between the ocelli. Mesonotum closely punctured; the furrows deep, smooth; the pubescence thick, fuscous. Post-scutellum with a furrow down the middle. The central basal area of metanotum is clearly defined, longish, its base sharply pointed, reaching to the apex of the basal depression; its apex transverse reaching to the top of basal slope; there are 2 areæ on its sides, the lower sharply pointed on the outer side; there are 5 large areæ on the apical slope; the spiracular area is large, clearly defined. Legs thickly covered with pale pubescence.

Microdus bipustulatus, sp. nov.

Black, shining; pro- and mesothorax and 4 front legs rufous: the clypeal, foveæ, palpi and mandibles, except at the apex, of a duller red; wings uniformly fuscous-violaceous, with black nervures and stigma. Male.

Length 11 mm.

Face and clypeus closely and somewhat strongly punctured; thickly covered with black pubescence; a curved furrow with a raised border on its outer side, runs from the hinder ocelli. Middle lobe of mesonotum largely raised. Scutellum with a keel on the base and apex; the apical higher and more curved than the basal. Post-scutellum depressed, its sides bordered, and there is a keel in the middle. Metanotum obliquely, deeply depressed at the base; the basal central area is wider than long, transverse at the apex, the base slightly, obliquely dilated at the middle; it is

bordered by a longer, narrow area, which, at the apex, extends beyond it; the apical slope forms one area, which is squarely narrowed at the base to the size of the basal one. Pleuræ smooth; there are 6 depressions, bordered by stout keels on the lower side of the meso-: the penultimate is as long as the preceding 2 united. Legs densely pilose; the areolet is almost square: the stump of a nervure on the 2nd transverse cubital is at the base.

EVANIIDÆ.

Gasteruption dunbrodyense, sp. nov.

Rufo-ferruginous; the front, greater part of vertex, greater part of thorax above, a large triangular mark (the narrowed part below) on the base of mesopleuræ, the greater part of their apex below, the metapleuræ, except narrowly at the base and apex, metanotum, greater part of metapleuræ and the apical segments of the abdomen above, black. Legs similarly coloured: the hind tibiæ broadly white at the base below. Wings clear hyaline. Antennæ dark rufous, the basal 4 joints black. Female.

Length 13, terebra 14 mm.

Antennæ short, stout: the 3rd joint as long as the scape and pedicle united; the 4th slightly longer than the 3rd. Malar space as long as the pedicle of antennæ; the middle of clypeus separated from the face by a distinct furrow. Temples long, roundly narrowed to the vertex, which is almost transverse. Pronotum longer than its width at the apex. Mesothorax irregularly rugose, its base rounded: the apical depression of mesopleuræ striated, except above the middle: metanotum irregularly transversely reticulated, its centre with a raised longitudinal line. The whole thorax is thickly covered with silvery pubescence. The 4 anterior tibiæ and tarsi are white in front. Hind coxæ smooth. Hind ocelli separated by the length of antennal scape. Hind ocelli placed distinctly behind the eyes.

Comes near to *G. punctulatum*: that species may be separated by the hind ocelli being placed in front of the hinder edge of the eyes, by the shorter temples and shorter 3rd joint of antennæ.

CYNIPIDÆ.

Anacharoides, gen. nov.

Scutellum large, obliquely raised from the base to the apex : on the apical three-fourths is a depression, rounded behind, bordered by a distinct keel, the apex with a semi-circular depression, the basal foveæ large, separated from the mesonotum by a transverse keel : parapsidal furrows distinct, except at the apex. Post-scutellum with a triangular area—the narrow part at the base—in the centre, the keels bounding it smooth and shining. Metanotum with 2 widely separated keels in the centre. Abdominal petiole as long as the hind coxæ. Radial cellule open at fore margin and at the base : the basal abscissa of radius broadly rounded, not clearly separated from the subcostal nervure. Temples sharply margined, striated.

The peculiar shape of the scutellum forms a well-marked feature with this genus of *Anacharine*.

Anacharoides striaticeps, sp. nov.

Black : the head for the greater part piceous ; the antennæ yellowish-testaceous ; the vertex finely rugose, bordered by a keel which runs from the anterior ocellus. Pronotum large, dark rufous : propleuræ closely, minutely, indistinctly, obliquely striated. There is an oblique furrow on the mesopleuræ, running from the hind wings to the lower base of the wing ; the part above this and the metapleuræ rugosely punctured. Median segment alutaceous, covered with a white pubescence. Legs black, the joints piceous ; the 4 front tarsi testaceous. Wings clear hyaline, the nervures pale testaceous-yellow ; the margins of both wings shortly ciliated. Female.

Length 3 mm.

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Temples narrowed above, stoutly, closely striated, except close to the eyes : occiput striated closely, the striæ curved.