

DESCRIPTION OF A NEW GENUS AND SOME NEW
SPECIES OF HYMENOPTERA CAPTURED BY
LIEUT.-COL. C. G. NURSE AT DEESA,
MATHERAN AND FEROZEPORE.

BY

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ANTHOPHILA.

Hatictus matheranensis, sp. nov.

Black, covered with white pubescence ; the apex of the antennæ rufous ; the area on median segment irregularly reticulated ; the apex of the segment keeled round the top and sides ; the wing hyaline, stigma and nervures pale testaceous. ♀.

Length 5 mm.

Habitat.—Matheran.

Antennæ black, the 5 or 6 apical joints rufous beneath ; the scape sparsely haired. The face, clypeus and outer orbits are covered thickly with white hair ; the front and vertex much more sparsely with shorter darker pubescence ; they are opaque, finely rugose ; the clypeus bears round distinctly separated punctures, which are large in the centre at the apex, which is obliquely depressed, and is fringed with long pale golden hair. Mandibles black, broadly bright rufous before the middle. Mesonotum and scutellum closely and uniformly punctured and covered with whitish pubescence ; that on the scutellum is much the longer. Post-scutellum thickly covered with depressed white pubescence. The area on the median segment bears irregularly twisted longitudinal striæ which almost form reticulations, the apical is slightly hollowed, and is bordered at the top and sides by a stout keel ; the keel on the top is narrower, and is bent downwards slightly. The propleura at the top projects into a ridge ; the pronotum above this is thickly covered with depressed white pubescence ; the base of the projection is oblique. The legs are piceous black ; the pubescence is white ; the calcaria white with a faint rufous tinge ; the apices of the tarsal joints rufous, the calcaria bear some dark rufous spines. The abdomen is shining ; the punctuation is only visible with a strong lens ; the base of the segments covered with depressed white pubescence ; the apical ones have also longish white hairs ; the rima is rufous.

Andrena ilerda, sp. nov.

Black ; the basal 3 segments of the abdomen red ; the head and thorax thickly covered with white hair ; the 3rd, 4th and 5th abdominal segments lined with white pubescence at their apices ; the wings clear hyaline, the stigma dark rufous ; the apical half of the clypeus and the labrum rufous. ♀.

Length 13 mm.

Habitat.—Ferozepore.

The basal 3 joints of the antennæ black ; the others dark rufous below, black above. The hair on the head is long, dense and clear white ; the

clypeus is distinctly and closely punctured except at the apex; its top is more closely punctured than the centre; the face is closely punctured; the labrum is rufous; it becomes obliquely narrowed towards the apex; the middle is slightly roundly incised at the apex. The front and vertex are alutaceous, opaque; the former is obscurely longitudinally striated. Mandibles black; the apex and the lower side of the base rufous. The hair on the thorax is long, dense and clear white, the mesonotum is furrowed down the middle at the base and is punctured slightly, as is also the scutellum. The area on the median segment is obscurely obliquely striated on the sides; the middle at the base is irregularly and weakly reticulated. Legs rufous; the coxæ and the 4 anterior femora black; the hair on the femora is long and clear white; on the tibiæ it has a slight fulvous tint; on the metatarsus the fulvous tint is more distinct; the knees are black. Wings clear hyaline; the stigma is fuscous, the nervures blacker in tint. The basal 3 segments of the abdomen are rufous; the base and ventral surface are covered with soft white hair; the apices of the 2nd, 3rd and 4th segments are banded with white hair; the 5th segment above is thickly covered with long sooty black hair; its sides with long white hair; the 6th segment is almost bare in the middle; the sides are thickly covered with long black hair.

The ♂ is similarly coloured; the basal segments of the abdomen may be marked with black in the middle or laterally.

Andrena leaena, sp. nov.

Black; the greater part of the flagellum rufous; the head and thorax covered with white pubescence; the abdominal segments with their apices banded with white pubescence; the anal segment above covered with longish rufous pubescence; the wings hyaline, the stigma testaceous. ♀.

Length 7—8 mm.

Habitat.—Ferozepore, Deesa.

Antennæ black, the 6th and following joints of the antennæ rufous; the scape on the underside covered with long white hair. The face, clypeus and front are covered thickly with long white hair; the upper orbits to the hinder ocelli are bordered by a broad band of pale fulvous pubescence; the occiput and outer orbits are covered with long white pubescence. The front and vertex are alutaceous, almost punctured; the hinder part of the vertex is obscurely punctured behind; the clypeus is more distinctly punctured than the face. The labrum has the sides obliquely narrowed towards the apex, which is transverse; the part beneath it is thickly covered with longish rufous hair. The mandibles beneath are rufous, and their lower side, at the base, is fringed with long rufous hair. The hair on the mesonotum is sparser and shorter than it is on the pleuræ; the scutellum is fringed thickly with long hair round the sides and apex and also on the post-scutellum. The area on the median segment is closely punctured; its basal half irregularly longitudinally striated; there is a shallow median furrow on the apical slope. Legs black; the 4 apical joints of the tarsi rufo-testaceous; the hair on the femora and tarsi is

long and white ; on the metatarsus beneath it has a fulvous tinge ; the calcaria are pale. Abdomen shining, closely and minutely punctured ; the basal 5 segments are narrowly banded with white pubescence on the apex ; the 5th is thickly covered with rufous hair.

In Bingham's arrangement (Hymen. of India, p. 442) this species would come into Section B ; but it has no near relationship with the only species (*gracilima*, Cam.) included in it.

Ceratina divisa, sp. nov.

Dark green, the abdomen black, with yellow lines on the 2nd to 4th segments, the 1st 2 lines somewhat widely, the 3rd more narrowly separated, the 4th broader and may be continuous, there may be a narrower 5th line ; the clypeus except for 2 fuscous lines, mandibles except at apex, a line completely round the apex of pronotum, a transverse line at the apex of mesonotum, sides of scutellum, post-scutellum and the greater part of the tegulæ as well as the legs, pale yellow ; the coxæ, trochanters, femora, except at apex, and a line on the outer side of the tibiæ on apical half, black ; wings milky hyaline, the nervures and stigma pale, almost white, the 1st recurrent nervure interstitial with 2nd transverse cubital. ♀

Length 5 mm.

Habitat.—Deesa (April and May).

Underside of scape yellow, of flagellum brown. Metanotal area finely closely punctured, more or less finely transversely striated, not keeled, the apical slope steep. A minute impressed line on basal slope of mesonotum. Pubescence white. 2nd abscissa of radius nearly as long as the 3rd. The size of the yellow markings probably varies.

Ceratina punjabensis, sp. nov.

Head and thorax dark green, the abdomen black, the base of the segments broadly banded with pale yellow, the clypeus except for 2 black lines, mandibles except at apex, underside of antennal scape, the greater part of tegulæ, scutellums, except for a large square mark on the base of centre of scutellum, and the legs, except at the base, pale yellow ; wings clear hyaline, the nervures and stigma pale yellow, the 2nd cubital cellule much narrowed in front ; the 1st recurrent nervure interstitial with 2nd transverse cubital. Pubescence dense and white ; underside of flagellum brown ; metanotal area finely closely punctured, there is no keel on metanotum ; its apical slope somewhat steep. There is a slight impressed line on centre of mesonotum ; there is no keel on the front. Antennal joints not very clearly separated. ♀

The green colour may be somewhat bronzy, the yellow line on the basal segment of abdomen may be absent ; the apical 2 segments of the abdomen may be wholly yellow.

Length 6 mm.

Habitat.—Punjab.

May be known from *divisus*, described above, by being a broader and stouter species, by the apex of the scutellum being white, the black central part not

extending to the apex, by the abdominal yellow lines being broader, occupying the half of the segment, and continuous throughout. The basal abdominal line may be absent.

Ceratina curvilineata, sp. nov.

Viridis, abdomine flavo, nigro balteatus; clypeo, mandibulis, linea late pronoti, scutello, post-scutello pedibusque pallide flavis; alis hyalinis, costa nervisque pallide flavis. ♀

Length 3.5 mm.

Habitat.—Deesa.

The scape of the antennæ bright yellow; the flagellum light brownish, darker on the top. Head greenish-black; the lower part of the face in the centre, the mark transverse below, rounded above, a mark on either side, longer than broad, transverse above, gradually narrowed below, the clypeus and the mandibles pale lemon-yellow; the apex of the mandibles rufous with the teeth black; the head is sparsely punctured and covered with white down; the oral region is fringed with long white hair. Thorax dark metallic blue-green and thickly covered with white hair; the upper edge of the prothorax broadly, the lower more narrowly; the scutellum, post-scutellum, a curved transverse line between the two and extending to the wings and the sides and base of the tegulæ broadly, lemon-yellow. The mesonotum is closely and uniformly punctured and has brassy tints; the scutellums are impunctate; the post-scutellum is covered with long white hair. The median segment is furrowed in the middle; it is more strongly punctured than the mesonotum; on the basal region it bears curved striæ. Wings clear hyaline; the stigma and nervures are pale; both the recurrent nervures are almost interstitial. The coxæ and femora are lemon-yellow like the body; the tibiæ and tarsi are paler and are thickly covered with long white hair; the hinder tibiæ are broadly black on the outer side, and there is a shorter black mark on the outer side of the metatarsus. Abdomen pale lemon-yellow; the basal two segments are banded with black on their apices; the black lines being narrowed at the sides; the 3rd and 4th segments have narrower interrupted black lines; the abdominal segments are broadly brownish-black.

Nomia fulvinerva, sp. nov.

Black: the tarsi and the 4 posterior tibiæ fuscous and thickly covered with pale fulvous hair; the wings hyaline, only very slightly infuscated at the apex; the stigma and nervures testaceous, the stigma darker in tint than the nervures; the vertex smooth and shining on the outer side of the ocelli; the vertex is raised above the level of the inner side of ocelli; the abdominal segments broadly banded on the apex with pale fulvous pubescence. ♀

Length 9 mm.

Habitat.—Deesa.

Antennæ black; the apical two joints rufous beneath; the scape sparsely covered with pale hair; the flagellum more thickly with a microscopic pile. The vertex is distinctly and strongly, but not very closely punctured on either

side of the ocelli ; the space between the ocelli is more closely punctured and is depressed and distinctly furrowed in the middle. Face and clypeus closely rugosely punctured and covered thickly with silvery pubescence ; the apex of clypeus fringed with golden hair. Mandibles black, rufous at the apex. Thorax thickly covered with long white hair ; the hair on the mesonotum, scutellum and post-scutellum is fulvous ; on the mesonotum it is much sparser and paler ; it does not hide the punctuation which is close and strong ; the apex of the pronotum is raised into a thin plate, which is widely and deeply incised in the middle ; the incision is narrowest in the centre. The median segment is rugosely punctured, more finely and closely in the middle than on the sides ; the basal area is irregularly and not very closely longitudinally striated. The hinder tibiæ become gradually thicker towards the apex ; the 2nd joint becomes gradually wider from the top to the bottom ; its upper part projects ; the calcaria are closely covered with stiff hairs, almost pectinated. The basal segments of the abdomen are piceous in the middle, dorsally and ventrally, and have their apices broadly banded with pale bright fulvous pubescence. The pygidial area is densely covered with bright golden pubescence, except on the centre and towards the apex.

Megachile phaola, sp. nov.

Nigra, dense albo-pilosa ; abdominis basi femoribusque posterioribus supra rufis ; alis hyalinis, stigmatibus fuscis. ♂

Length : 6 mm.

Habitat.—Deesa.

Antennæ long, nearly 3 times the length of the head ; the basal two joints black ; the flagellum brownish beneath ; the apical joints are slightly dilated below. The clypeus, face and lower part of the front are densely covered with white hair ; the vertex and upper part of the front sparsely covered with longish fuscous hair ; the lower orbits and the lower part of the head are covered with long white hair. Front and vertex closely, uniformly and strongly punctured. The base of the mandibles is strongly and deeply punctured ; the apex is bidentate : the upper tooth is smooth, depressed and shining ; the lower part is deeply and widely furrowed. Thorax closely punctured and thickly covered with white hair ; the basal area of the median segment is coarsely shagreened, more coarsely at the base than at the apex ; across the base is a wide, not very deep, furrow. Wings clear hyaline ; the stigma is lighter in colour than the nervures, the 2nd recurrent nervure is received nearer the transverse cubital than is the first, but is not interstitial. Tegulæ piceous ; their base is thickly covered with white pubescence. Legs black, thickly covered with white hair ; the 4 hinder femora are for the greater part beneath brownish, as are also the greater part of the basal joint of the tarsi and the apices of the other joints. Abdomen black ; the basal segment, except in the middle at the apex, rufous ; all the segments are fringed at the apex with white pubescence ; they are distinctly, but not very strongly, punctured ; the last segment is widely furrowed in the middle ; the ventral segments are rufous.

Megachile saphira, sp. nov.

Nigra, dense albo-pilosa, apice femorum, tibiis tarsisque rufo-testaceis ; alis hyalinis, stigmatibus nervisque fuscis. ♂.

Length 6—7 mm.

Habitat.—Matheran.

Antennæ longer than the head and thorax united, black ; the flagellum brownish beneath, bare. Front and vertex closely punctured ; sparsely covered with long white hair ; the lower part of the front, the inner orbits, the face and clypeus densely covered with long white pubescence which hides the sculpture entirely. Mandibles becoming gradually narrowed towards the apex ; their base punctured and covered with short, white pubescence. Mesonotum and scutellum closely and uniformly punctured and moderately thickly covered with white pubescence, which is longest on the scutellum. The latter is broadly rounded behind. The base of the basal area of the median segment is obscurely punctured and finely, irregularly striated ; the apex is shagreened ; the rest of the segment is closely covered with round shallow punctures and is thickly covered with white, longish pubescence. Pleuræ closely punctured and thickly covered with long white pubescence. The apex of the femora, tibiæ and tarsi are reddish-testaceous, the legs are thickly covered with longish white hair ; the tarsi are much more thickly haired than the tibiæ, especially at the base ; the basal 4 joints of the anterior tarsi are broadly dilated. Wings clear hyaline : the stigma is fuscous, the nervures are darker coloured ; the first recurrent nervure is received shortly beyond the transverse cubital ; the 2nd is almost interstitial. Abdomen black ; closely punctured ; the basal segments are narrowly banded with white pubescence ; the apical segment on the lower side is widely and deeply furrowed ; the 2nd and 3rd segments have their bases deeply depressed.

Megachile lefroma, sp. nov.

Nigra, dense albo-pilosa : tarsis anticis rufo testaceis ; alis hyalinis, stigmatibus testaceo, nervis nigris. ♂.

Length 7 mm.

Habitat.—Matheran.

Antennæ nearly as long as the body ; black, the scape punctured and covered with long white hair ; the flagellum almost bare. Front and vertex strongly and closely punctured ; the apex smooth, furrowed in the middle and narrowed gradually towards the apex ; the lower outer part of the head is thickly covered with long white hair. Head and thorax closely and distinctly punctured and sparsely covered with long white hair ; the apex of the scutellum is smooth on the apical slope in the middle ; it has there a broadly rounded slope and does not overhang the post-scutellum which is aciculated, and at the base, obscurely punctured. The basal area of the median segment is aciculated ; the apical slope is steep. Legs black ; the anterior tibiæ and tarsi rufo-testaceous in front ; the pubescence on the under side of the base of the tarsi is rufous. Abdomen closely punctured ; the base of the 2nd segment is

widely depressed ; the apex of the depression has an oblique slope ; the segments are fringed with white pubescence, which is interrupted in the middle on the basal segments. The basal ventral segment is broadly, somewhat triangularly, raised in the middle ; the middle segments are thickly covered with white pubescence.

DIPLOPTERA.

Odynerus deesanus, sp. nov.

Pale yellow with the following black markings : a broad mark covering the ocelli, broadly rounded behind and with 2 short curved lines on the inner side of the hinder ocelli running obliquely beyond the apical, the mark continues laterally as a broad line to each antenna, a mark in centre of occiput obliquely narrowed in the middle behind, a short oblique line behind the top of the eyes, a narrow line round the base and sides of the mesonotum, the line dilated on the base, a broad line, about 4 times longer than wide, narrowed at the apex, nearer the base than the apex, a curved broad line on the sides, triangularly dilated at the base, extending to the scutellum where it unites with a transverse apical line, which is narrowed at the sides, dilated in the centre, a line, roundly narrowed, at the base of scutellum, a line of equal width at the base of post-scutellum, 2 large oblique oval marks on the top of basal slope of 1st abdominal segment, narrowed on the inner side, a broad line on the base of the 2nd, broadly, roundly dilated laterally and with a longer narrower line issuing from the centre, and small obscure spots in the centre of the other segments, as well as a transverse line at the base of the 3rd ventral. Antennal scape yellow, with a black line above, the flagellum rufous. Four hinder femora and tibiae broadly lined with black above. Wings clear hyaline the nervures and stigma black. ♀

Total length 12 mm.

Habitat.—Deesa (May).

Closely punctured, the abdomen distinctly, but less strongly than the thorax ; on basal half of the centre of the 2nd ventral segment is a distinct, clearly defined furrow of equal width. Clypeus clearly wider than long, not quite so strongly or so closely punctured as the vertex ; the apex broad, transverse. Base of thorax not quite transverse. Apex of post-scutellum broadly narrowed. Sides of metanotum broadly rounded, the centre not much depressed, transversely striated. First abdominal segment cup-shaped, short, clearly shorter than it is wide at the apex ; the 2nd is longer than wide, its apex slightly, narrowly depressed.

Odynerus xanthus, sp. nov.

Yellow, an irregular mark, wider than long, covering the ocelli, the sides behind projecting, the centre with a Λ -shaped mark between the ocelli, a narrow curved line on the top of the occiput, a triangular mark on the base of mesonotum, an irregular transverse one on the sides, before the tegulae, its inside wider than the outer, a line at the base of scutellum, dilated laterally, the base of 1st abdominal segment narrowly, a mark, rounded and dilated at

the apex, gradually narrowed towards the base, in the centre of the 1st abdominal segment, a narrower, less distinct one on the centre of the 3rd, and irregular, small spots on the sides of the segments, black; antennæ blackish above. Wings hyaline, the apical and outer margin narrowly violaceous, the costa and stigma narrowly yellowish testaceous, the nervures black. ♀

Total length 13 mm.

Habitat.—Deesa (July).

Head and thorax closely, regularly and somewhat strongly punctured all over; the clypeus strongly closely punctured like the vertex; it is longer than wide, transverse in the middle above, the sides broadly rounded, the apex broad and transverse. Base of thorax almost transverse; the sides of the apex broadly rounded, reticulated, the edge serrate, ending below in a distinct tooth, the centre broadly, but not deeply, hollowed. Scutellum large, quadrate, transverse at base and apex; the top of post-scutellum is almost on a level with it, its apex at the top almost serrate, the apical slope steep, its apex bluntly, broadly rounded, clearly separated by a furrow. Abdomen smooth, almost impunctate, the 1st segment cup-shaped, not quite so long as it is wide at the apex.

The above is the description of the lighter coloured form; the black markings may be much more distinct, longer and broader, on the head, abdomen and thorax, the lateral lines on the mesonotum may be united by a narrower line to the scutellar one; there may be a row of 4 black marks on the base of the 1st abdominal segment, its black central mark is in the shape of an elongate triangle and, in addition to the lateral spots on the other segments, there is an outer one in the centre of the 2nd; there may also be spots on the ventral segments. The palpi are sparsely covered with long, stiff hairs.

Eumenes fulvipennis, Cam.*

This appears to be a variable species, as shown by some specimens taken by Col. Nurse at Deesa from July to October. The black line across the ocelli may be broad or very narrow, the mesonotum may be rufous, or pale yellow, with 3 black or rufous lines, of which the central extends from the base to the apex, the lateral commencing near the middle, and there may be also a stripe across the apex; the size of both the reddish and black lines varies. The size of the abdominal lines varies, and they may be either black or red. There may be a black line on the base and near the apex of the 1st abdominal segment; in all the specimens there is a black or transverse line before the middle of the 2nd segment, which varies in width, and it may be united to the base of the segment by a longitudinal one down the middle. The occiput may be for the greater black. The clypeus in the ♀ is broader, though the eyes not converging so much; it is not much longer than its greatest width; the lower narrowed part is almost as long as the upper, while in the ♂ it is distinctly shorter; the antennæ, too, are more widely separated

* Manchr. Mem., XLII, IV, p. 39; pl. 4, f. 3a, 3b.

from the eyes than they are in the ♂; and the ocelli in the latter are closer to the eyes than they are in the ♀. On the apex of the 1st abdominal segment there may be a continuous line (yellow or black) or 2 spots; on the 2nd ventral segment the red may be continuous, transverse at the apex, or the latter may be trilobate; and there may be central or lateral yellow spots. The apex of the clypeus in the ♀ is more transverse than it is in the ♂; in the latter the abdominal petiole is longer than it is in the ♀, being almost as long as the head and thorax united. The affinities of the species appear to be with the African *E. caffra*, *E. lepelleterii* and *E. asina*, and doubtless affords another example of an African element in the Fauna of Western India, of which we have others in *Meria* and *Apterogyna*.

SPHEGIDÆ.

Trypoxylon testaceicorne, sp. nov.

Black, the antennæ testaceous beneath, the 4 front knees, the greater part of the 4 front tibiæ and tarsi and the basal third of the hinder tibiæ pallid-testaceous, almost white; the wings clear hyaline, the nervures and stigma black. Metanotum to the spiracular keel closely, irregularly striated, the base irregularly reticulated; the central furrow commences at the apex of this reticulated part, is moderately broad and shallow; the two lateral keels are distinct; the top half of the apical slope is depressed, with the sides oblique and deeply furrowed in the centre. The petiole stout, dilated at the apex, about one-third longer than the 2nd—distinctly shorter than the 2nd and 3rd segments united; the base of the 3rd is pale testaceous. ♀

Length 6 mm.

Habitat.—Deesa (Nurse)

The 3rd joint of the antennæ is not much longer than the 4th. Face and clypeus thickly covered with silvery pubescence. Mandibles rufo-testaceous. Front alutaceous, furrowed in the centre above, finely keeled below. Hinder ocelli separated from each other by double the distance they are from the eyes. Tubercles and tegulæ testaceous. Propleuræ obliquely depressed at the apex; the upper part of the meta- finely striated. The outer furrow on the metanotum is narrow, distinct and obscurely striated.

Cerceris lanata, sp. nov.

Black, the abdomen orange-red; the inner eye orbits from shortly below the ocelli, the ocelli except on the sides above, a line extending from the ocelli to the clypeus, its lower part dilated, a mark on the base of the mandibles, a line on the outer orbits shortly below the top of the eyes, its inner side thicker than the outer and 2 large irregular marks on the apex of the petiole, pale yellow. Legs black; the outer side of the 4 front tibiæ, the base of their tarsi and the greater part of the hinder tibiæ, on the outer side to near the apex and behind to the middle, pale yellow; the hinder femora, tibiæ and tarsi have a brownish tint. Wings smoky, with hyaline patches, the nervures and stigma blackish. ♂

Length 12 mm.

Habitat.—Abu.

Antennæ black ; the flagellum brownish beneath ; the last joint double the length of the preceding, curved, hollowed on the underside. Face and clypeus sparsely, but distinctly, punctured ; the apex of the clypeus broadly roundly projecting, and armed with 3 short, broad teeth ; the sides are rounded and fringed with stiff cream-coloured hair. Front and vertex closely and distinctly punctured ; the lower half of the front depressed and smooth on either side of the yellow line ; between the antennæ is a sharp keel. Thorax closely and distinctly punctured ; the pleuræ, sternum and metanotum covered with long white hair ; the area on the metanotum is closely and distinctly punctured, smooth at the base. The basal half of the petiole is black ; between the two yellow marks on the apex is a triangular brown mark ; the 3rd to 6th segments have a narrow yellow line on the apices ; there is a black mark, narrowed gradually behind, on the apex of the 5th segment ; the last 2 are entirely black. The pygidium is coarsely and closely punctured, and is of equal width ; the hypopygium is not incised.

There are two lines on the pronotum ; the tegulæ are brownish ; the tibial spines white. The hair is longer and denser than usual. Has a superficial resemblance to *C. vigilans*, Sm.

Miscophus nigricans, sp. nov.

Black, densely pruinose, wings hyaline to the outer side of the transverse radial nervure, fuscous beyond, the stigma large, fuscous, the nervures and costa black, the 2nd cubital cellule triangular, the basal nervure rounded, the apical longer, straight, oblique, longer than and bulging out from the pedicle. ♀

Length 5 mm.

Habitat.—Matheran (March).

Opaque, granular, covered with a white pile, which is longer and thicker on the clypeus, apex of clypeus broadly rounded. Anterior ocellus separated from posterior by a distinctly greater distance than these are from each other ; the latter are separated from each other by a greater distance than they are from the eyes. Metanotum long, very finely transversely striated, a longitudinal keel down the middle ; the apical slope has a wide furrow down the middle and is distinctly, but not closely, striated ; the metapleuræ above are finely, obliquely striated.

Related to *M. difficilis*, Nurse, from Baluchistan ; that has the antennal scape, tibiæ and tarsi red.

Astutus interstitialis, sp. nov.

Black, an irregular mark on the top of the vertex enclosing the anterior ocellus, wider than long, almost touching the eyes above, below rounded and with a squarish incision in the middle, the tegulæ, except at the apex (where they are fuscous) and the tubercles cream-white, a broad brownish band across the base of 2nd abdominal segment ; the knees and base of fore femora white

or pale ; wings clear hyaline, the costa whitish, as are also the basal nervures, the others and the stigma fuscous. Head, pleuræ and breast covered with white pubescence. Base of mandibles brown. Basal half of mesonotum punctured and striated ; the metanotum opaque, closely, finely, irregularly, transversely striated ; the top of the apical slope raised in the centre, bordered below by a semi-circular depression. The 1st recurrent nervure is interstitial with the 1st transverse cubital, the 2nd is received shortly beyond the middle ; the front half of the 1st transverse cubital is straight and obliquely bent towards the 2nd, which is straight and only slightly oblique, the 3rd is roundly curved outwardly to shortly below the middle, where there is a longish stump of a nervure, below which it is straight and bends towards the base of the wing. Tibiæ and tarsi spinose, the latter almost fuscous in colour. Mesopleural furrow narrow, but distinct. The anterior ocellus is not much larger than the posterior ; there is a furrow on the lower half of the front, its top projecting into the white frontal mark. Antennæ stout, the basal 3 joints of flagellum thinner than the others, the 3rd shortly, but distinctly, longer than the 4th. Allied to *A. nigricans*, Cam.

Length 7 mm. ♀

Habitat.—Deesa.

ICHNEUMONIDÆ.

PANISCINI.

Paropheltes, gen. nov.

Mandibles with a long, gradually narrowed upper tooth and an indistinct subapical one. Clypeus broad, its apex transverse. Eyes large, slightly incised on the inner side ; parallel, below reaching to the base of the mandibles. Temples moderately wide, rounded behind. Occiput transverse. Ocelli large, placed in a triangle, the outer placed close to the eyes. Third joint of antennæ distinctly longer than the fourth. Scutellum not margined. Areolet triangular, the recurrent nervure interstitial with the 2nd transverse cubital nervure ; disco-cubital nervure slightly broken ; the transverse median nervure received beyond the transverse basal ; the transverse median nervure in hindwings broken clearly above the middle. Fore claws (the others are broken) simple.

This genus can only be confounded with *Opheltes* from which it may be known by the undernoted characters :—

Mandibles broad, with 2 equal teeth, cheeks and temples broad, sides of middle breast divided by a deep transverse line in 2 parts.....*Opheltes*, Holm.

Mandibles not broad, with a long upper and an indistinct lower tooth ; cheeks and temples not broad ; mesosternum not divided by a transverse line.....*Paropheltes*.

Paropheltes flavolineatus, sp. nov.

Luteous, the 3rd and following segments of the abdomen and the sheaths of the ovipositor blackish ; the head, except the occiput and the outer edge of the outer orbits, apex of prothorax, 2 broad lines on the mesonotum, sides of scutellum broadly, the tubercles, a broad curved mark on the base of the

mesopleuræ, narrow above, gradually widened below, a mark on the apex below and the lower side of the metapleuræ, whitish-yellow; wings clear hyaline, iridescent; the stigma pale yellow, the costa darker coloured, the nervures triangular; the areolet oblique, triangular; the recurrent nervure interstitial. Tarsi closely spinose; the tibiæ with a few weak spines. Smooth, shining, impunctate, almost bare. The eyes have a greenish tint. ♀

Length 8 mm.

From the large size of the eyes and more particularly of the ocelli and from the pale colouration I have no doubt that the species is nocturnal like *Paniscus*.

Habitat.—Ferozepore (March) (Nurse).



Cameron, Peter. 1907. "Description of a new genus and some new species of Hymenoptera captured by Lieut.-Col. C.G. Nurse at Deesa, Matheran and Ferozepore." *The journal of the Bombay Natural History Society* 17, 1001–1012.

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