

ON SOME NEW GENERA AND SPECIES OF HYMENO-
PTERA (ICHNEUMONIDÆ, CHRYSIDIDÆ, FOSSORES,
AND APIDÆ).

BY P. CAMERON.

(Continued from p. 183.)

CHRYSIDIDÆ.

CHRYSIS (TETRACHRYSIS) LEPCHA, sp. nov.

Viridis, supra late cæruleo; antennis tarsisque nigris; alis fusco-violaceis. Long. 14 mm. ♀.

Hab. Khasia (coll. Rothney).

Antennæ black; the basal three joints bluish above; the base of the scape broadly green; the flagellum, except at the base, covered with a pale down. Head green, tinged with blue; the front brassy in the middle; the ocellar region purple; the apex of the clypeus and the mandibles, except at the base, black. The vertex coarsely and deeply punctured, the punctures larger and deeper at the sides near the eyes; the front closely punctured in the middle; the sides much more strongly punctured; the eyes are bordered by a distinctly defined row of punctures; in the centre of the front above is a shallow depression; the orbits behind are bordered by a sharp distinct keel. Thorax above dark green; the base and a transverse band on the pronotum, and the centre of the meso- and metanotum, broadly purple; the pronotum coarsely and closely rugosely punctured, except a smooth impunctate space in the centre at the base, this space being broadest behind; the mesonotum and the scutellum have the punctures larger and deeper, especially in the middle; the middle of the metanotum is punctured like the scutellum, its sides near the wings depressed; the projecting lateral angles are coarsely punctured at the base; the outer sides at the apex have two slight depressions. The upper part of the propleuræ coarsely punctured; the middle is depressed, and bears a few irregular striæ; below this depression is a deeper narrower longitudinal one; mesopleuræ deeply and largely punctured, the punctures running into reticulations. Mesosternum brassy, closely punctured behind; the sides and middle with stronger punctures. The meta-pleuræ are irregularly longitudinally striated, the striæ being stronger and more widely separated at the base. Legs green, largely mixed with blue; the tarsi black. Wings fuscous, paler towards the apex; the nervures deep black. The basal segment of the abdomen is bluish green; the sides with a distinct brassy tinge; the base and sides are strongly punctured; the centre has the punctures more widely separated and smaller; between the larger punctures are smaller ones. The second segment is closely punctured, the punctuation on the sides being closer and stronger than on the middle, and they have a brassy tint; the third segment is finely and sparsely punctured at the base, the rest of it much more strongly and closely punctured; the apical depression is wide and deep; the foveæ are also deep; the four teeth are large; the outer broader than the inner, and somewhat triangular.

This is considerably larger than any of the other species of this section.

MUTILLIDÆ.

MUTILLA CASIPHIA, sp. nov.

Black; the basal three segments of the abdomen red; the scutellum with a narrow deep furrow down the centre; the area on the median segment reaches to the apex of the truncation, and becomes gradually narrowed; wings violaceous, paler at the base. ♂. Long. 18 mm.

Hab. Borneo.

Antennæ short, the flagellum opaque; the third joint slightly longer than the fourth, which is of the length of the fifth. Head narrower than the thorax, densely covered with long griseous hair; on the cheeks the hair is longer, denser, and bright silvery in tint. Front and vertex coarsely rugosely punctured; the face and clypeus smooth and shining; on the centre, above the clypeus, is a conical projection, the narrow part being above; the clypeus is depressed below it, and foveate on either side of its apex. Mandibles broad; the apical tooth broad, broadly rounded at the apex, the subapical tooth transverse; at the base, behind the middle, is a large blunt tooth, which projects downwards; the base is thickly covered with grey pile, and with silvery hair; the palpi are black. Pro- and mesothorax closely and strongly punctured; the mesopleuræ and sternum thickly covered with silvery pubescence; the mesonotum thickly with longish blackish hair; the scutellum and post-scutellum with long black hair; there are two furrows on the apical two-thirds of the mesonotum, a smooth flat keel between them, and a shorter one on either side. Scutellum roundly convex, rugosely punctured; there is a furrow in the centre of the apical two-thirds, bordered by flat smooth keels, and there is a flat smooth keel at its base. Median segment coarsely and regularly reticulated; there is a central area which reaches to the top of the truncation; it is wide at the base, and becomes gradually narrowed to the apex, which is not quite one-half the width of the base. Propleuræ closely rugosely punctured, the apex smooth, with some stout striæ behind. Legs thickly covered with white hair; the spurs pale. Wings deep fusco-violaceous, paler at the base; the pale space on the hinder wings more extended than on the front; the third cubital cellule at the top and bottom is distinctly shorter than the second; the apex of the radius is obliquely bent upwards, is straight, and at a different angle from the lower part; the first transverse cubital nervure is rounded, and has an oblique slope; the second is not oblique, and has a broad rounded curve; the third is sharply angled in the middle; both the recurrent nervures are received shortly, but distinctly beyond the middle. The apical half of the first and the whole of the second and third segments are rufous; the basal five segments are covered with white, the apical more thickly with longer black hair; the ventral keel is stout, does not extend beyond the middle, and is roundly but not deeply curved below. The pygidium has an elongated bare space, narrowed at the top and bottom in the centre; the sides on the basal two-thirds are covered with long black hair; the apex is sparsely but not strongly punctured; the hypopygium is flat, covered with long black hair, and not keeled.

MUTILLA AESYCA, sp. nov.

Black; the head and thorax red; the front femora and the basal three-fourths of the four posterior rufous; the lower part of the petiole rufous; a quadrate spot on the centre of the petiole, a broad band on the apex of the third segment, widest in the middle, the apex of the penultimate, and the sides of the last segment covered with silvery pubescence. ♀. Long. 11 mm.

Hab. Borneo.

Antennæ entirely black; the third joint more than double the length of the fourth; the fourth and fifth equal in length. Front and vertex rugosely punctured, and sparsely covered with longish black hair; the front indistinctly keeled down the centre. Antennal tubercles dark rufous, smooth. Mandibles black, rufous at the apex; their base punctured; their apical tooth long, rounded at the apex; the hair on their base long and pale fulvous. The head is broader than long, but is largely developed behind the eyes; the occiput is roundly incised, not transverse or convex. Thorax twice longer than broad; the base and apex almost transverse, with their sides rounded; the outer edge of the mesonotum is irregular; the sides of the apex above bear four stout teeth. The top of the median segment has a rounded slope; it is sparsely punctured, and is keeled down the centre. Pleuræ smooth and shining; the upper part projects. Legs black; the front femora entirely, and the four posterior, except at the apex, rufous; they are covered with long white hair; the tibial spines apparently are few in number, and are black; the spurs are pale; the tarsal spines are rufous; their basal joints are thickly covered with pale pubescence. The abdomen deep black; there is a square mark of silvery pubescence on apex of the petiole, in the middle there is a broad band of similar pubescence, broadest in the middle, on the apex of the second segment; a broader one on the penultimate, and the sides of the pygidium are thickly covered with silvery pubescence; the last segment is punctured at the base; the apical half is smooth, shining, and piceous. The keel on the basal ventral segment does not project much, and is rounded at the base and apex; the second segment is smooth and depressed on the basal half, and is there indistinctly keeled in the middle; the epipygium is closely punctured, and is distinctly bordered laterally. On the side of the second segment is an elongated patch of dark rufous pubescence.

(To be continued.)

A LIST OF TORTRICES TAKEN IN SOUTH ESSEX
BETWEEN 1885 AND 1901.

BY A. THURNALL.

(Concluded from p. 193.)

Catoptria wimmerana, Wilk.—Strictly confined to the salt marshes along the Thames, and on the coast. Wakering, near Shoeburyness, Thames Haven, Fobbing, and Benfleet. Larva in September and October spun up in the tops of *Artemisia maritima*.