

classification and index of the examples of mimicry quoted (383-479). One of the notable mechanical features in the text is the copious index of 85 pp.

British lepidopterists will probably be interested in Newcomb's detailed observations on the habits of a United States *Chrysophanus* (13). Maxwell-Lefroy discusses at some length the Castor Silkworm, *Attacus ricini* (which is probably the domesticated form of *A. cyathia*). The larvæ differ from all other silk-producing Indian larvæ in that they do not feed on mulberry, but on castor leaves; the cocoon is not closed and is not reel-able in the same way as other kinds. On the other hand, the cocoons do not require to be killed to prevent the egress of the moth, as one end is closed only with converging loops of silk (14).

ON TWO NEW GENERA AND SEVEN SPECIES OF CHALCIDIDÆ (EUCHARINÆ) FROM BORNEO.

BY P. CAMERON.

DIV. INSECTA

ANCYLOTROPUS, gen. nov.

♂. Antennæ twelve-jointed, the joints elongated, pilose. Parapsidal furrows distinct, complete. Scutellum large, triangular, the apex prolonged into a broad spine, two-thirds of the length of the basal part, keeled down the centre, the apex slightly incised. Thorax rugose. Abdominal petiole long, cylindrical, as long as the rest of the abdomen, flat above, the sides margined. The right mandible with four teeth, the basal not so distinct as the others; the outer tooth less, but dilated at the base. Abdomen projecting upwards. Stigmal branch short, thick. Face raised in the centre, the raised part narrowed into a keel below; the clypeus with a large fovea on either side above. The head is broader than it is long, and is a little wider than the thorax.

In the table of Ashmead (Mem. Cairn. Mus. i. 269) this genus runs to near *Psilogaster*, which has the antennæ eighteen jointed, and the apex of the scutellum is rounded. The form of the scutellum in *Ancylotropus* is pretty much as in *Saccharissa*, but that genus has the antennæ eighteen-jointed.

Ancylotropus cariniscutis, sp. nov.

Head and dilated part of abdomen black, the thorax dark blackish blue, with coppery and violaceous tints, the antennal scape, pedicel, palpi, tegulæ, and legs, except the coxæ, yellowish testaceous, the flagellum of antennæ dark testaceous at the base, the apical joints blackish; wings hyaline, the nervures testaceous. ♂. Length, 4 mm.

Kuching, Borneo (John Hewitt, B.A.).

Basal two joints of antennæ bare, the rest densely covered with long fuscous pubescence. Face and clypeus smooth, the vertex and front longitudinally striated, the striæ stout and clearly separated. Mesonotum and scutellum somewhat strongly reticulated, the scutellum more widely than the mesonotum; the centre, and, less strongly, the sides of scutellar spine keeled, the space between the keels with a few transverse striæ. Metanotum coarsely irregularly reticulated. Propleuræ coarsely reticulated, the mesopleuræ more finely obliquely reticulated; the metapleuræ strongly regularly reticulated and densely covered with white pubescence. Sides of abdominal petiole with two or three stout longitudinal striæ. The mesopleuræ less densely covered with white pubescence than the metapleuræ. Wings shortly, closely ciliated. The metapleuræ are broadly rounded at the apex.

ELTOLADA, gen. nov.

Antennæ eleven-jointed, simple in the male, the joints elongated, cylindrical, pilose; longer than the body, in female not much longer than the head and thorax united, the basal joint elongated, as long as the following two united. One mandible edentate, the other with a long apical followed by two short teeth. Parapsidal furrows distinct. Scutellum large, almost semicircular, the apex prolonged into a process which is as wide as long at the base, followed by two roundly curved forks. Abdominal petiole as long as the thorax, and longer than the rest of the abdomen in both sexes, narrow, cylindrical, of equal width; the dilated apical part is turned upwards. Marginal and post-marginal vein thickened, the latter half the length of the former and narrowed towards the apex, stigmal vein short, sessile, as long as thick.

The simple, non-flabellate antennæ might ally this genus with *Psilogaster*, which, however, may easily be known from it by the scutellum not being bidentate. The simple antennæ in the male separate it from *Stibula* and *Schizaspidia*; from the latter it may further be known by the very much longer abdominal petiole, and by the thickened marginal and post-marginal nervures, and the very short, thick, stigmal vein.

Eltolada trimaculata, sp. nov.

Head blue, the mandibles and palpi yellowish testaceous, the basal three joints of the antennæ and the apical two testaceous, the apical more rufous in tint than the basal. Thorax yellowish testaceous, a large blue and violaceous mark, almost semicircular, but longer than wide, on the basal half of the central lobe, a smaller oblique one, longer than wide, its base rounded, the apex straight and oblique on the two lateral, a line on the apex, touching the scutellum, a small triangular mark on the apex of the scutellum. Length, 5 mm.

Kuching, Borneo; May (John Hewitt).

Sides of the head, from the base of the ocelli to the middle of the front, longitudinally striated, the striæ strong and clearly separated, the centre, immediately under the antennæ, with three curved transverse striæ. Malar space to near the bottom stoutly obliquely

striated. Clypeus triangular, bordered by wide deep furrows. There are some striæ between the ocelli. Thorax coarsely reticulated, the metanotum more widely than the rest. Mesopleuræ smooth, with a broad band of stout longitudinal striæ at the base. The reticulations on the metapleuræ are long and narrow, and, at the base, are in three rows, the basal having the reticulations longer than the others. There is a crenulated furrow, with stout raised edges, down the centre of the scutellum. The apical forks of the scutellum are straight, obliquely diverging, and are as long as the basal part.

Ettolada leucopoda, sp. nov.

Head and thorax blue, the blue on the mesonotum tinged with green and darker coloured, the blue on the pleuræ slightly tinged with violaceous, the scutellum black, tinged with green. Abdomen black, the ventral surface brown. Antennæ testaceous, tinged slightly with rufous; the legs whitish yellow, the coxæ blackish to near the apex. Scutellum large, the basal part forming a semicircle; the basal part of the spine longer than the apical forks, which are roundly curved, and are for the greater part brownish. Wings hyaline, with a fuscous cloud, longer than wide and rounded at the apex, at the stigma, the apex is faintly clouded, the nervures black. ♂. Length, 4-5 mm.

Kuching, Borneo (John Hewitt, B.A.).

Antennæ densely covered with longish fuscous pubescence. Sides of the face to below the middle obliquely striated; the depressions at the sides of the clypeus large, deep. The face in the centre above with curved, transverse striæ; malar space stoutly closely obliquely striated. Ocellar region longitudinally, the occiput transversely, striated. Thorax, except the centre of mesopleuræ, reticulated; the metathorax more and the mesopleuræ less strongly than the rest, the scutellum not so strongly as the mesonotum. Abdominal petiole longer than the rest of the abdomen.

Schizaspidia cæruleiceps, sp. nov.

Dark green, the head and the dilated part of the abdomen blue, the occiput green, the antennæ and legs testaceous, the femora and hind tibiæ infuscated; wings hyaline, the nervures testaceous. Scutellum larger, longer than it is wide at the base, narrowed towards the apex, which is not quite half the width of the base; the apical forks wide, curved, narrowed towards the apex, which reaches close to the base of the apical fourth of the abdomen; it is longitudinally reticulated, the transverse keels finer than the longitudinal, the reticulations on the apical forks finer and more irregular than on the basal part. Mandibles testaceous. ♂. Length, 4.5 mm.

Kuching, Borneo (John Hewitt, B.A.).

Head smooth, the sides of vertex widely, weakly striated, the malar space finely, irregularly striated. Pro- and mesonotum transversely reticulated, the transverse striæ stronger than the lateral. There is a transverse furrow at the apex of the mesonotum; a deep curved depression at the base of the scutellum. The lower part of the projecting apex of the scutellum reticulated; the metanotum is more

rutilus resulted. Unfortunately a severe winter ended the experiment. I can vouch for the truth of this statement, having had it described by Mr. Newnham, who showed me the series of specimens about the year 1898.—RALPH RYLANDS; Highfields, Bidston Road, Birkenhead, July 5th, 1909.

PERONEA VARIEGANA AND ABERRATIONS IN DURHAM.—In 1908, whilst staying at Bishop Auckland, in Durham, during early July, I found a few larvæ of *Peronea variegana* between leaves of a pear-tree growing up the end wall of a house. Among the seven or eight moths reared therefrom, only more or less greyish specimens and one example of ab. *asperana* occurred. About the middle of July last I was able to visit the same town again, and on this occasion secured a nice lot of larvæ of the species from the pear-tree. The majority of those attained the winged state, the bulk of the specimens were of the blackish marked grey form known as *cirrana*, and it is curious to note that the first moth to emerge (Aug. 5th), as well as the last (Aug. 27th), are of this form. The typical form, and also. ab. *asperana*, are well represented, together with modifications of each of those forms and of the *cirrana* form. In addition there were seven beautiful white specimens of ab. *albana*, Westw., four of which emerged on August 12th, two others on the 15th of that month, and one on the 22nd. The original description of *albana* runs as follows:—"Measures 7 lines in expanse; fore wings silky white, with a few white tufts of elevated scales on the disc, the costal margin slightly brunnescens, as well as the apical fringe; hind wings pale brown. Closely allied to *P. treueriana*, but that species has the costa destitute of the slender brunnescens margin, and the disc has a few black scales scattered about near the tip." (Westw. & Humph. 'Brit. Moths,' ii. 162 (1851).)

I may mention that, although I refer my white specimens to *albana*, they differ from the type, which is in the National Collection, and from the above description, in having the costa of fore wings more distinctly marked with brownish; most of them are rather larger in expanse and the wings appear broader.—RICHARD SOUTH.

THE PERPENDICULAR DISTRIBUTION OF THE PAPILIONIDÆ IN THE HIMALAYAS.—I shall be obliged if any readers of the 'Entomologist' will supply further information respecting the approximate range of altitude of all Papilionides occurring in the North-western Himalayas, in order to fill up some of the gaps in the table on pp. 205-6. The following errata require correcting:—Page 197, line 2, for twenty-five read *seventy-five*. Page 199, line 12, also page 205, line 8, for *P. didoneus* read *P. aidoneus*. Page 205, line 4, for Papilionidæ read Papilioninæ; line 21, for *A. polyctor* read *Sarbaria polyctor*.—W. HARCOURT-BATH; August 16th, 1909.

ENTOMOLOGICAL CLUB.—A meeting was held on July 5th, 1909, at the 'Hand and Spear' Hotel, Weybridge, Mr. G. T. Porritt in the chair. Other members present were Messrs. R. Adkin, Donisthorpe, Rowland-Brown, and Verrall. The additional guests were twelve in number, including two honorary members—Messrs. A. H. Jones and Sich.