

EXPLANATION OF PLATE XIV.

- Fig. 1. Lower view of the anterior portion of the body of *P. verrucosus*.
 Fig. 2. Anterior view of a single segment of *P. verrucosus*.
 Fig. 3. Lower view of the posterior portion of the body of *P. verrucosus*.
 Fig. 4. Upper view of anterior segments.
 Fig. 5. Upper view of middle segments.
 Fig. 6. Upper view of posterior segments.
 Fig. 7. Antenna.
 Fig. 8. Leg.
 Fig. 9. First pair of feet.
 Fig. 10. The gnathochilarium.
 Fig. 11. The gnathochilarium of *Platydesmus*, after Sausurre.
 Fig. 12. The gnathochilarium of *Delistenus*, after Bertese.

XXIII.—*Descriptions of new Species of Cicadidæ.*

By W. L. DISTANT.

BEING engaged in the preparation of an illustrated monograph of the Oriental Cicadidæ, including those of China and Japan, to be published by the authorities of the Calcutta Museum, I am anxious to obtain all the material possible to make the work moderately complete. I therefore venture to make an appeal to entomologists who may possess specimens from those regions to favour me with an opportunity of examining the same.

The following species will be all subsequently either fully or structurally figured.

Pezilopsaltria Hampsoni, n. sp.

♀. Head luteous; front with a number of black linear markings; vertex with a transverse, narrow, black fascia between the eyes and with a central black spot containing the ocelli. Pronotum greenish ochraceous, the disk with the following black markings:—a central I-shaped spot, on each side of which are some oblique linear markings; the lateral dilated margins are black and the anterior margin is narrowly Mesonotum greenish ochraceous, with the following black spots:—four obconical from anterior margin, of which the central two are smallest; a large, oblong, discal spot, with a small, partly rounded spot on each side of it; the basal cruciform elevation dull reddish ochraceous. Abdomen above black. Body beneath with the face black, marked with luteous transverse lines; sternum somewhat ochraceously

pilose; abdomen beneath black, the segmental margins ochraceous, the anal appendage of the same colour; legs castaneous, streaked or spotted with piceous and luteous. Rostrum black, the basal portion luteous. Tegmina pale hyaline, with the venation brown, the costal membrane greenish, the basal third somewhat opaque, with darker transverse markings and small basal black markings; a double irregular series of dark brown spots cross the tegmina at about centre, a dark brown fascia at bases of upper apical areas, a few small sub-apical spots, and some small marginal spots of the same colour. Wings brownish ochraceous, paler at apex than at base and very pale across centre, with a white marginal spot near anal angle; the venation brown.

The rostrum reaches the basal abdominal segment; the lateral margins of the pronotum are distinctly angulated; the face is robustly gibbous, with a profound central longitudinal sulcation; the posterior tibiæ have three distinct spines on each side of apical half.

♀. Long. excl. tegm. 23 millim.; exp. tegm. 70 millim.

Hab. Nilgiri Hills, northern slopes, 5000 feet (May).

I am indebted for a knowledge of this fine species to G. F. Hampson, Esq., who captured it in the month of May of this year.

Pezilopsaltria senusta, n. sp.

♂. Body dull ochraceous; head with the front and a broad fascia between the eyes black, the last containing the ocelli and two small ochraceous spots; pronotum with two central, discal, somewhat triangular, black spots, the lowermost largest and broadest, on each side of which are three narrow, oblique, black fasciæ, the lateral amplified margins somewhat darker outwardly. Mesonotum with a large, black, central spot on anterior margin connected with the black margin of the basal cruciform elevation; on each side of this central spot is a large, black, obconical spot, which nearly crosses the disk; abdomen above dull castaneous, the segmental margins ochraceous. Head beneath with a broad black fascia between the eyes; face ochraceous, the upper portion black, enclosing an ochraceous spot, the central sulcation and transverse striations bright castaneous; body beneath ochraceous, with darker shadings; legs more or less tinged with castaneous; abdomen beneath as above; opercula brownish ochraceous, with the margins paler; rostrum ochraceous, with the apex pitchy. Tegmina brownish, with the following creamy markings:—a short, macular, transverse fascia near base; a broad, irregular, transverse, macular

fascia near centre; between this fascia and apex are two spots near costa, each divided by a vein, and an outer irregular series of submarginal spots; at the bases of apical areas the transverse veins are shaded with dark castaneous. Wings brownish, some basal streaks and central macular markings ochraceous; marginal fringe very pale ochraceous.

♂. Long. excl. tegm. 18 millim.; exp. tegm. 55 millim.

Hab. Chusan (Calc. Mus.).

The rostrum about reaches the apex of the first abdominal segment; the opercula are angularly rounded, do not overlap, are separated from each other, and just reach the base of the first abdominal segment; the face has a central, deep and broad, longitudinal sulcation extending through its lower two thirds, and it is also transversely striated to that extent.

Leptopsaltria nilgirisensis, n. sp.

♀. Body above olivaceous green. Head with the front broadly margined with black, the vertex with a streak behind the eyes, some irregular markings in front, and the area of the ocelli black. Pronotum with the following black markings.—two central fasciæ, rounded and joined posteriorly, and laterally curved and produced on each side anteriorly; on each side of these fasciæ are three discal irregular spots and a large semicircular spot near each lateral margin. Mesonotum with the following black markings:—a central longitudinal line with a shorter curved and outwardly convex line on each side, followed by a small spot on anterior margin and by a sublateral curved and broken fasciæ, and a spot in front of each anterior angle of the cruciform elevation. Abdomen above with the segmental margins narrowly black and two black spots at base, and a smaller spot at apex of anal appendage. Body beneath pale olivaceous green; anterior margin and two central fasciæ (joined posteriorly) to face, some irregular spots on cheeks, segmental margins, the claspers and apex of anal appendage black. Legs olivaceous green; apices of the femora, tibiae, and tarsi more or less pitchy. Rostrum olivaceous, with the apex black. Tegmina pale hyaline, with violaceous reflexions, the venation alternately black and ochraceous, a few obscure black markings at base; the costal membrane ochraceous; an ochraceous spot at base of upper tibial area and the transverse veins at bases of the three upper apical areas broadly infuscated. Wings with the venation similar to tegmina, but spotless.

♀. Long. excl. tegm. 16 millim.; exp. tegm. 57 millim.

Hab. Nilgiris, northern slopes, 5000 feet, June (G. F. Hampson, Esq.)

The lateral margins of the pronotum are biangulated, the face is large and tumid, the rostrum reaches the third abdominal segment, and the body is more or less greyish and pilose.

This species much resembles the *Dumdabia? clio*, Walk.; but it can be separated at once from that species by the very much shorter upper apical area to the tegmina &c.

Leptopsaltria lactea, n. sp.

♂. Head and pronotum ochraceous; head with the front, the area of the ocelli, and a transverse streak in front of eyes reddish ochraceous. Pronotum with the whole disk reddish ochraceous, with an indistinct, central, longitudinal fasciæ, on each side of which are two oblique excavated lines; the margins pale ochraceous. Mesonotum obscure ochraceous, with two obscure and mostly castaneous, central, obconical spots, on each side of which is a curved broken fasciæ of the same colour, and a large spot in front of the cruciform basal elevation. Abdomen above ochraceous, with a broad, central, castaneous fasciæ, which is notched and channelled outwardly; stigmata also castaneous. Body beneath and legs ochraceous; apices of the femora, bases and apices of the tibiae, the tarsi, a spot on apical segment of abdomen, and apex of the rostrum castaneous. Tegmina and wings pale hyaline, with a strong milky-white suffusion or reflexion. Tegmina with the veins alternately ochraceous and castaneous; the costal membrane and a small costal spot at base of upper ulnar area ochraceous; transverse veins at bases of apical areas more or less infuscated, and a marginal row of pale fuscous spots placed on the apices of the veins. Wings with the venation dark castaneous and unspotted.

♂. Long. excl. tegm. 30 millim.; exp. tegm. 80 millim.

Hab. Sumatra (*Forbes*), February.

The body is long and gradually tapering towards apex; the lateral margins of the pronotum are concavely sinuate, not angulated. The face is broad and tumid, the central sulcation small and only distinct on apical half; the transverse ridges prominent. The rostrum extends a little beyond posterior coxæ. The opercula are small, only reaching the basal segment of the abdomen; they are outwardly oblique, broadly convex at apices, and again obliquely directed inwardly and upwardly.

Cosmopsaltria padda, n. sp.

♂. Head olivaceous; front with the margins and a central

fascia black; vertex with three black fasciæ, one on each side behind the eyes, and one central containing the ocelli and a small angulated black marginal spot near bases of antennæ; eyes dull castaneous. Pronotum olivaceous green, with a central longitudinal ochraceous fascia margined with black, a black submarginal fascia, and the extreme margin ochraceous. Mesonotum olivaceous green, with five longitudinal black fasciæ all more or less margined with ochraceous, situate one central and longest extending right across disk and attenuated anteriorly, on each side of this is a shorter fascia extending from anterior margin to about centre, followed again by a long and broader fascia a little before each lateral margin; a small black spot in front of the anterior angles of the cruciform elevation, which is also more or less olivaceous. Abdomen above piceous, more or less clothed with fine greyish pilosity, the tympana and some lateral shadings olivaceous. Head beneath and sternum olivaceous, frontal margin between the eyes black; sternum more or less greyishly pilose; legs olivaceous, an apical annulation to anterior femora, the under surfaces of intermediate and posterior femora, more than apical half of anterior tibiæ, and about apical third of intermediate and posterior tibiæ, and the tarsi black. Opercula olivaceous, the inner margin and about apical two thirds (not quite reaching outer margin) black. Abdomen beneath piceous, more or less greyish pilose. Tegmina pale hyaline, narrowly olivaceous at extreme base, the venation alternately brownish olivaceous and piceous, the costal membrane olivaceous, two subapical piceous spots situate on the transverse veins at bases of the two upper apical areas, and some minute submarginal piceous spots. Wings pale hyaline, narrowly olivaceous at extreme base, the costal margin ochraceous for about half its length.

♂. Long. excl. tegm. 34 to 38 millim.; exp. tegm. 94 to 103 millim.

Hab. Penang (*Rev. L. C. Biggs*).

The opercula about, or almost, reach the base of the last abdominal segment, are concavely narrowed near base, and amplified and rounded towards apex; the face is narrowly sulcated for about half its length and possesses strong transverse ridges; the anterior femora are armed with three spines beneath, one near centre, two near apex, the apical one smallest.

Pomponia promiscua, n. sp.

♂. Body above greenish ochraceous. Head with two small fuscous spots at apex of front and two wider apart at

base of front, the ocelli also surrounded with fuscous; the head is also mottled with very pale ochraceous, and the eyes are dark castaneous. Pronotum with the margins pale ochraceous, an indistinct central fascia margined with ochraceous, with an obscure castaneous spot on each side, and four oblique incisions on disk, two on each side of central fascia. Mesonotum with two obscure central obconical spots margined with greenish, the lateral margins and the basal cruciform elevation also of the same colour. Abdomen with the stigmata and the segmental margins castaneous. Body beneath ochraceous; apex of the rostrum, basal and apical annulation to tibiæ, apices of the tarsi, and penultimate abdominal segment castaneous. Tegmina pale hyaline, with talc-like reflexions; venation alternately ochraceous and fuscous; costal membrane and a small costal spot at base of upper uhar area ochraceous, basal claval area greyish opaque; transverse veins at the bases of the second and third apical areas slightly infuscated. Wings as tegmina, but unspotted.

♂. Long. excl. tegm. 25 millim.; exp. tegm. 65 millim.

Hab. Sumatra (*Forbes*), March.

The body is moderately robust; the abdomen broad, narrowed at apex. The lateral margins of the pronotum are slightly sinuated. The face is broad and tumid, with a central and very obscure levigate carina, but not sulcated; transverse ridges not extending to apex. Rostrum just passing the posterior coxæ. Opercula very small, obliquely rounded, not reaching the basal segment of the abdomen.

This is one of a series of small species of *Pomponia* found in the Eastern islands. It is probable that the colour is, or often is, green, and not ochraceous, during life.

XXIV.—On the Blood-corpuses of the *Cyclostomata*.

By Professor D'ARCY W. THOMPSON, Dundee.

It is commonly stated in the text-books, for example in Huxley's 'Anatomy of the Vertebrata' (p. 100), that the blood of the Cyclostomes differs from that of all other fishes in the *round* instead of *oval* shape of its red corpuses. Gulliver, on whose authority most of the text-book statements concerning the size and shape of blood-corpuses rests, says, in his edition of Hewson's works (p. 234), "In the Cyclostomes the corpuses are of the same figure as those of Man, and only slightly larger." Accordingly I was more than a little surprised, on examining some living *Myxine* lately, to