IV.—Hemiptera from the North-eastern Frontier of India.

By W. L. Distant.

The insects enumerated and described in this paper were collected by Mr. A. W. Chennell, of the Indian Topographical Survey, and are the result of some five or six years' entomologizing in the following localities:—

Altitude.

Naga hills 2000 to 6000 ft.
Khasia hills, high ranges 4500 to 6000
North Khasia hills, lower ranges 1500 to 3000
Eastern Garo hills 1500 to 2500
Noa-Dehing valley, south of Brahmaputra 800
Sadia, north of Brahmaputra 350
Dibrú, south 250
Sibsagar, south 200
Rambúp, south 150

I have here only dealt with the tribe Scutata, which is somewhat largely represented in the collection, and propose treating of the remaining Heteroptera in a subsequent paper. As regards the geographical affinities of the species, it will probably be better, in our present knowledge of Indian Hemiptera, to merely point out some of the widest-ranging insects in this part of the collection.

Heterocerus spinipennis, Fab., is not only recorded from Java, Sumatra, and Borneo, but is also found in Mexico. Aedus ventralis, Dall., Erthesia fullo, Thunb., and Dalseira glandulosa, Wolff, are well-known Chinese species. Axiagastus rosarius, Dall., has hitherto only been received from the Philippine Islands, Celebes, New Guinea, and Siam, while Eurydema festiva, Linna., is a common European form. The following is a list of the species; and it will be seen that some families are totally unrepresented:—

Fam. PACHYCERIDÆ

Solenostethus rubro-punctatum, Oeder.
Cantao occulta, Thunb.
Psiloceris Hardwickei, Hope.
Drunk, Linna.
Scutella nobilis, Fab.
Brachyhalus oblonga, Hope.
Chrysocoris granis, Thunb.
Chrysochromius, Fab.

Fam. HYALIDÆ

Hotea curculionoides, H.-S.

Fam. PODOPIDÆ

Scotinopera lurida, Burm.
obscura, Dall.
tarsalis, Vell.
Aspidesthes mordi, Stål.

Fam. PLATAPSIDÆ

Coptosoma duodecimpectinata, Germ.
Brachyhalus Valeh, Fab.
Bourmeisters, n. sp.
with two large whitish spots, one on the outer and the other on the inner border. Abdomen above shining green, very thickly punctured, with a marginal row of three luteous spots, which appear on margins of alternate segments above and below. Body beneath luteous, breast thickly punctured with brassy black. Abdomen with a central, narrow, longitudinal, impunctate area, from which it is sparingly punctate halfway to outer border, which is very thickly punctured with brassy black; a large black subapical spot. Legs luteous, with the spicules of the femora, and bases and apices of intermediate and posterior tibiae brassy black; fore tibiae very widely dilated and strongly punctured, black; fore tarsal black, intermediate and posterior tarsi luteous with apex black; tibiae strongly sulcated.

Long. 17 millims., exp. lat. ang. pronot. 9 millims.
Var. A. Smaller, with the ground-colour brownish instead of brassy black.

Allied to C. farcellata, Wolff, from which it differs principally in the shorter and obtuse lateral angles of the pronotum.

North Khasia hills, 1500 to 3000 feet.

**Canthecona binotata**, n. sp.

Luteous, thickly punctured with brown. Central lobe reaching apex of head, lateral lobes thickly covered with brassy black punctures. Eyes prominent, fuscos, luteous at base. Antennae with second and third joints subequal, fourth rather longest; first and second joints luteous, third and fourth dark fuscos, luteous at base; rostrum luteous, with the tip reddish. Pronotum considerably deflexed from base towards head, with a central raised longitudinal line, which is prolonged through the whole length of the scutellum; lateral edges with an indistinct, obscure, violet submarginal border, and some other indistinct striae of the same colour on disk; lateral angles produced into short, obtuse, black spines, emarginate and luteous at tip. Scutellum somewhat gibbos at base, where it is thickly and darkly punctured, the central longitudinal line becoming broad and impunctate towards apex. Corium with a somewhat triangular subcostral blackish spot situated a little beyond medium. Membrane produced considerably beyond abdomen, black, with the apical half whitish. Abdomen above blackish, with a segmental marginal row of alternate subquadrate green and luteous spots. Body below luteous; breast with three violet streaks on each side; abdomen with the marginal row of subquadrate green spots as above, a submarginal row of narrow, transverse, waved, dark lines,
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situate one on each segment, and a large subapical blackish spot. Legs luteous, pilose; tibiae strongly sulcate; fore tibiae dilated, their apical halves and bases and apices of intermediate and posterior tibiae blackish.

Long. 15 millims., exp. lat. ang. pronot. 7½ millims.
Allied to the former species, from which, however, it is very distinct.

Naga hills, 2000 to 6000 feet.

*Pieromerus robustus*, n. sp.

Has somewhat the elongated form of *P. spinicola*, but with the thorax robust, much deflexed anteriorly, and body narrowed posteriorly. Luteous, covered regularly and thickly with coarse brown punctures. Central and lateral lobes of the head equal in length; eyes large, prominent, obscure fuscous; rostrum luteous, with the tip pitchy; antennae with the second and third joints subequal, pale luteous, third joint pitchy at apex (remainder mutilated). Pronotum much narrowed in front and widened posteriorly, with an indistinct, central, longitudinal line; a transverse row of four small luteous spots situated a little behind a somewhat obscure transverse ridge; lateral angles produced into long black-pointed spines, toothed behind, which gives them the appearance of being emarginate at apex. Scutellum with a small luteous spot in each basal angle. Corium with purplish reflections towards apex. Membrane fuscous, with a large whitish spot on outer and inner border (size of these spots variable). Body beneath luteous, punctured and mottled with brown; intermediate thighs testaceous, and tibias brownish, with apex and tarsi dark fuscous.

♂, long. 11 millims., exp. lat. ang. pronot. 6½ millims.; ♀, long. 14 millims., exp. lat. ang. pronot. 9 millims.

The ♀ varies in having the luteous spots above much more obscure and the legs luteous.

Sadia, 350 feet.

*Dalpada varia*, Dall.

*Dalpada varia*, Dall. List, i. p. 185. 8 (1861).

In these specimens a certain amount of green pubescence which is seen in the type is rubbed or worn off. Thus exposed, the apex of the scutellum is broadly luteous.

*Estopis*, nov. gen.

Ovate, depressed; head triangular, lateral lobes much longer than central, meeting beyond it, but divided at the apex.

*Estopis terrae*, n. sp.

Brownish luteous; corium with a reddish hue, thickly and somewhat regularly covered with darker punctures. Head very thickly punctured and somewhat darker in hue. Antennae luteous; apical joint black, luteous at base. Pronotum with the punctures thicker and darker along lateral and near anterior margins. Scutellum somewhat rugulose and darker at base. Membrane pale fuscous. Abdomen above pitchy; abdominal margin broad and distinct. Sternum concolorous with upperside of body; underside of abdomen rather darker, with a faint central longitudinal black line. Legs luteous, thighs thickly speckled with black.

Long. 17 millims., lat. pronot. ang. 8 millims.

Khasia hills, 4500 to 6000 feet.

*Belopis*, nov. gen.

Broad-ovate; head triangular, lateral lobes longer than the central, and meeting beyond it, but divided at apex. Antenna five-jointed. Rostrum with the last joint mutilated. Pronotum rather more than twice as broad as long; the lateral angles prominent, subacute, the lateral margins denticulated; deflexed towards head. Scutellum with the length equal to the breadth at base, gradually narrowed for two thirds the length, and then extending nearly straight to apex, which is narrowed and rounded. Membrane with longitudinal nervures. Abdomen dilated above, projecting a little on each side; convex below. Sternum and abdomen unarmad; tibiae moderately sulcate.

Belopis unicorpus, n. sp.

Ochraceous, thickly and finely punctured; punctures somewhat darker on frontal half of pronotum and head. Antennae reddish; second joint longer than first, shorter than fourth, third and fifth longest, subequal. Scutellum with the central portion punctured, rather darker, lateral edges concolorous with other parts of upper surface; membrane ochraceous. Underside of body and legs concolorous, the former thickly and finely punctured.

Long. 14 millims., lat. pronot. ang. 10 millims.
Khasia hills, 4500 to 6000 feet.

*Cratonotus*, nov. gen.

Head broad and elongated; occular part broadest, with the lateral edges somewhat situated about the middle; central lobe shorter than the lateral lobes. Eyes prominent; ocelli situated rather nearer the eyes than to each other. Antennae longer than the head and thorax, five-jointed; second joint slightly shorter than the third, fourth longest. Rostrum robust, just passing posterior coxae; second joint longer than third; apical joint shortest. Pronotum twice as wide as long, raised and rounded at base, deflexed in front, angles obtusely prominent; lateral margins deeply sinuated, with their anterior portion crenulated. Scutellum reaching a little beyond base of membrane, gradually narrowed for two thirds its length from base, when it is straightened to apex, which is moderately broad and rounded; width at base about equal to length. Membrane with longitudinal nervures. Abdomen widened above, projecting a little on each side, convex beneath; abdomen and sternum armed. Legs moderately long, tibiae sulcated.

This genus should be placed near *Durmia*, Stal.

*Cratonotus coloratus*, n. sp.

Brown, somewhat shining, thickly punctured with black; head black, thickly punctured; eyes black, with their bases luteous; antennae luteous; rostrum brownish; pronotum with the basal half rugulose and very coarsely punctured, lateral margins narrowly luteous, pronotal angles pitchy. Scutellum transversely rugulose, with a large irregular patch at base and apex broadly luteous; membrane pitchy, shining. Margins of abdomen above and body beneath luteous, the last with a broad green stripe on each side, extending narrowly along underside of head, widened at anterior coxae, and extending to about the base of the fifth abdominal segment; two obscure marks on disk and a subapical spot pitchy. Legs luteous; pedes of femora and tibiae black, anterior tibiae punctured with black; tarsi black. Other structural characters as in generic diagnosis above.

Long. 15 millims., lat. pronot. ang. 11.
North Khasia hills, 1500 to 3000 feet.

Halyomorpha scutellata, n. sp.

Brunneous, thickly and strongly punctured. Head with frontal and lateral margina black; eyes pitchy; ocelli brown, shining. Rostrum black, reaching posterior coxae. Antennae black; second joint much shorter than third, fourth joint rather longer than fifth, both of which are pilose. Pronotum with the lateral margins narrowly reflexed, bordered with black, with the extreme edge sanguineous for about two thirds the length from apex; base rugulose, a somewhat triangular space enclosed by pale impunctate lines situated on each side of frontal border behind eyes; lateral angles prominent. Scutellum bright luteous, with two dots at base, two small parallel lines on disk, and lateral margin, very narrowly at base and broadly towards apex, brunneous; the luteous area has a few deep brown punctures, the other brunneous portion of the scutellum punctured as on other parts of the upper surface. Membrane fuscos, with strong longitudinal nervures. Abdomen above sanguineous, with a marginal row of bluish-black spots situated conjointly in pairs at base and apex of each segment both above and below. Underside of body sanguineous; prothorax with some greenish markings behind eyes, a large dull blackish patch near odoriferous apertures, a stigmatic row of rounded bluish-black spots, and a large pitchy spot near apex. Legs black; coxae sanguineous, bases of femora dull reddish.

Long. 16 millims., lat. pronot. ang. 9 millims.
North Khasia hills, 1500 to 3000 feet.

Var. a. Scutellum without the two brown lines on disk, marginal and stigmatic spots on underside of abdomen coalescing. Prothorax with a large black spot behind eyes in place of greenish markings.

Note. Specimens from Bombay have the upper surface bluish instead of brunneous, have typical scutellar markings, but undersides as in var. a.

The *Urotakida*, sp., is evidently an undescribed form allied to *U. Grayii*, White; but, in its mutilated condition, I have abstained from any diagnosis.
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ascaridoidae

Pycnanthus rubens, Fab.


In this collection all the representatives of this species are of a uniform ochreous color above.

Dermcdiidae

Aspongopus brunneus, Thunb.


This species is closely allied to and commonly confounded with Cimex obscurus, Fab. The two species, however, seem to be thus easily differentiated:—

Abdomen above red.

Third joint of antennae a little longer than second. brunneus, Thunb. Abdomen above black.

Second and third joints of antennae equal . . . . obscurus, Fab.

Aspongopus ochreus, Hope.

Aspongopus ochreus, Hope, Cat. i. p. 25 (1817).

The first four joints of antennae are black; they are described (L. c.) in error as "fuscis." I have examined the type with Prof. Westwood.

Macrina dilatata, n. sp.

Broad, ovate. Rufous. Head broad, triangular, moderately covered with deep dark punctures; lateral lobes slightly sinuate, divided at apex, meeting beyond central lobe, which is much shorter. Antennae with the third joint shortest; fourth rather longer, fifth longest, black, with the base rufous (the first four joints vary in different specimens from rufous to luteous). Rostrum reaching anterior coxae. Promont with the base slightly rugulose, somewhat crescent-shaped in front, where it is bordered with a pale luteous band between the lateral angles, which are produced into two stout spines directed forwards; spinal spines black. Anterior portion of the pronotum abruptly deflexed to head, transversely costate, moderately punctured with brown; lateral borders denticulated. Scutellum reaching beyond base of membrane, with five longitudinal, indistinct, somewhat catenulate elevated ridges, which are sprinkled with luteous, the centre ridge generally most indistinct. Membrane pale fuscous, extending beyond apex of abdomen. Underside of body and legs concolorous, thickly and finely punctured with brown. Tibiae sulcate.

♂, long. 16 millims., lat. at base of corium 8 millims., exp. pronot. ang. 11 millims.; ♀, long. 17 millims., lat. at base of corium 8½ millims., exp. pronot. ang. 12 millims.

On two new Fishes from New Zealand.

Naga hills, 2000 to 6000 feet; North Khasia hills, 1500 to 3000 feet.

This species approaches M. coecina, Walk., but prominently differs from that and all other species of the genus by its much greater breadth. I have placed it provisionally in the genus Macrina.

Some specimens are much darker in color than others.

V.—Descriptions of two new Fishes from New Zealand.

By Prof. F. W. Hutton, of the Otago University.

Poros Gilliesii.


Length 3½ times that of the head, which is 3½ times the diameter of the eye, which is 3 times the interorbital space. Preoperculum entire. Operculum with one spine. Spinous portion of the dorsal lower than the soft; the fifth dorsal spine the longest. Caudal fin square.

Pale reddish, with a narrow longitudinal black band, which is below the lateral line on the anterior portion, and above it on the posterior portion. Above this band is a row of black spots, and another somewhat similar one below it. Dorsal white, the base with black spots. Total length of the specimen 6½ inches.

Brighton, near Dunedin (R. Gillies, Esq.).

Argentina elongata.


The length of the head goes 3½ times into the total (with caudal). Height of the body goes 9 times into the same. Diameter of the eye goes 3½ times into the length of the head; it is less than the length of the snout. Maxillary does not extend halfway to the eye. No teeth in the jaws, nor on the palate and vomer (?). Tongue with a series of curved teeth on each side. Ventralis situated rather behind the middle of the length (caudal not included). Scales without teeth. Yellowish white; a silvery band down each side; dusky mark above each eye. Total length of the specimen 3½ inches.

Cape Campbell (Mr. C. H. Robson).