

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 "
Dibru, south	250 "
Sibsagar, south	200 "
Ramrup, 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.

Picromerus spinidens, Fab., is not only recorded from Java, Sumatra, and Borneo, but is also found in Mexico. *Aednus ventralis*, Dall., *Erthesina fullo*, Thunb., and *Dalsira glandulosa*, Wolff, are well-known Chinese species. *Axiagastus rosmarus*, Dall., has hitherto only been received from the Philippine Isles, Celebes, New Guinea, and Siam, while *Eurydema festiva*, Linn., 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. PACHYCORIDÆ.

- ✓ *Solenostethium rubro-punctatum*, Guér.
- ✓ *Cantao ocellatus*, Thunb.
- ✓ *Psocilocoris Hardwickii*, Hope.
- ✓ ——— *Drurii*, Linn.
- ✓ *Scutellera nobilis*, Fab.
- ✓ *Brachyaulax oblonga*, Hope.
- ✓ *Chrysocoris grandis*, Thunb.
- ✓ ——— *patricius*, Fab.
- ✓ ——— *purpureus*, Hope.
- ✓ *Lamprocoris Hoylei*, Hope.
- ✓ ——— *spiniger*, Dall.

- ✓ *Hotea curculionides*, H.-S.

Fam. PODOPIDÆ.

- ✓ *Scotinophora lurida*, Burm.
- ✓ ——— *obscura*, Dall.
- ✓ ——— *tarsalis*, Voll.
- ✓ *Aspidestrophus morii*, Stål.

Fam. PLATASPIDÆ.

- ✓ *Coptosoma duodecimpunctata*, Germ.
- ✓ *Brachyplatys VahlII*, Fab.
- ✓ ——— *Burmeisteri*, n. sp.

Fam. ASOPIDÆ.

- ✓ *Cazira verrucosa*, West.
- ✓ *Cecyrina platyrhinoides*, Walk.
- ✓ *Canthecona tibialis*, n. sp.
- ✓ ——— *binotata*, n. sp.
- ✓ *Picromerus obtusus*, Walk.
- ✓ ——— *spinidens*, Fab.
- ✓ ——— *robustus*, n. sp.

Fam. CYDNIDÆ.

Adriasa, sp. ?

Fam. SCIOCORIDÆ.

- ✓ *Laprius varicornis*, Dall.
- ✓ *Aednus ventralis*, Dall.

Fam. HALYDIDÆ.

- ✓ *Agonoscelis nubila*, Fab.
- ✓ *Erthesina fullo*, Thunb.
- ✓ *Dalpada oculata*, Fab.
- ✓ ——— *clavata*, Fab.
- ✓ ——— *varia*, Dall.
- ✓ *Halys dentata*, Fab.
- ✓ *Astopsis*, nov. gen.
- ✓ ——— *terra*, n. sp.

Fam. PENTATOMIDÆ.

- ✓ *Belopsis*, nov. gen.
- ✓ ——— *unicolor*, n. sp.
- ✓ *Cratonotus*, nov. gen.
- ✓ ——— *coloratus*, n. sp.
- ✓ *Hoplistodera*, sp. ?
- ✓ *Axiagastus rosmarus*, Dall.
- ✓ *Stollia guttigera*, Thunb.
- ✓ *Tolumnia latipes*, Dall.
- ✓ *Halyomorpha picus*, Fab.
- ✓ ——— *scutellata*, n. sp.
- ✓ *Cappæa taprobanensis*, Dall.
- ✓ *Plautia fimbriata*, Fab.
- ✓ *Antestia anchora*, Thunb.
- ✓ *Eurydema festiva*, Linn.

- ✓ *Strachia crucigera*, Hahn.
- ✓ *Catacanthus incarnatus*, Drury.
- ✓ *Nezara viridula*, Linn.
- ✓ *Prionochilus octopunctatus*, Dall.
- ✓ *Menida flavo-varia*, Dall.
- ✓ ——— *varipennis*, Hope.
- ✓ *Prionaca lata*, Dall.
- ✓ ——— ? *exempta*, Walk.
- ✓ *Diplostira valida*, Dall.
- ✓ *Rhynchocoris humeralis*, Thunb.
- ✓ *Sastragala uviguttata*, Don.

Fam. UROSTYLIDÆ.

- ✓ *Urostylis punctigera*, Hope.
- ✓ ——— *gracilis*, Dall.
- *Urolabida*, sp. ?

Fam. EDESSIDÆ.

- ✓ *Tessarotoma malaya*, Stål.
- ✓ *Eusthenes cupreus*, Hope.
- ✓ ——— *robustus*, St. Farg. et Serv.
- ✓ ——— *scutellaris*, H.-S.
- ✓ *Eurostus grossipes*, Dall.
- ✓ *Pycanum rubens*, Fab.
- ✓ *Cyclopelta tartarea*, Stål.
- ✓ *Aspongopus brunneus*, Thunb.
- ✓ ——— *janus*, Fab.
- ✓ ——— *ochreus*, Hope.
- ✓ ——— *nigriventris*, Hope.
- ✓ ——— *nepalensis*, Hope.

Fam. PHYLLLOCEPHALIDÆ.

- ✓ *Placosternum taurus*, Fab.
- ✓ *Dalsira glandulosa*, Wolff.
- ✓ *Petroda histeroides*, Fab.
- ✓ *Macrina coccinea*, Walk.
- ✓ ——— *dilatata*, n. sp.
- ✓ *Megarhynchus limatus*, H.-S.

Fam. MEGYMENIDÆ.

- ✓ *Megymenum inerme*, H. S.

NOTES AND DESCRIPTIONS.

- ✓ *Brachyaulax oblonga*, Hope.

Tectocoris oblonga, Hope, Cat. i. p. 14 (1837).

The type as described was from Java. The North-Indian specimens differ in having the large central spots on the scutellum confluent, forming two transverse waved bands.

- ✓ *Chrysocoris purpureus*, Hope.

Callidea purpurea, Hope, Cat. i. p. 15 (1837).

All the specimens of this species collected by Mr. Chennell vary in coloration from purplish to sanguineous above.

Podopinae✓ *Scotinophora tarsalis*, Voll.*Podops tarsalis*, Voll. Faun. Ind.-Neerl. i. p. 42, pl. 3. fig. 8 (1803).

According to Vollenhoven, "les cuisses et les quatre premières jambes sont noires, les postérieures ont la moitié de la jambe d'un brun clair." These specimens, however, agree with the form of the species from Perak in having the legs luteous, punctured with black.

Plataspidae✓ *Brachyplatys Burmeisteri*, n. sp.*Thyreocoris silphoides*, Burm. Handb. ii. p. 384. 3 (1835).

This species was considered by Burmeister as being the *Cimex silphoides*, Fab. Stål's description of that species (H. Fab. i. p. 5. 2) will, however, prevent any confusion. *B. Burmeisteri* can be at once distinguished from *B. Vahlii* and *B. silphoides* by its uniform coloration above, and absence of luteous markings on head and pronotum, as described by Burmeister, "Æneo-niger, margine omni, pedibus abdominalis maculis marginalibus luteis." The luteous abdominal radial streaks are as in *B. radians*, figured by Voll. Faun. Ind.-Neerl. i. pl. iv. f. 7.

Long. 6 to 8 millims.

Noa-Dehing valley, 800 feet; Sadia, 350 feet.

Asopinae✓ *Canthecona tibialis*, n. sp.

Head brassy black, very thickly punctured; central lobe reaching apex of head, with its base obscurely luteous; eyes brown. Antennæ pilose; third and fourth joints longest, subequal; apical joint rather shorter than second, which is brown, the third and fourth blackish with their bases narrowly brown, fifth dark fuscous with basal third luteous. Rostrum luteous, tip blackish. Pronotum brassy black, very coarsely punctate, and lightly and irregularly rugulose, with a slightly raised central longitudinal line and irregular luteous markings, which indicate faintly four longitudinal striae, two on each side of the central line; the crenulated portion of the margin and a small spine behind the eyes luteous; lateral angles produced into short, black, obtuse spines, strongly emarginate at apex. Scutellum with the basal half brassy black, very thickly punctured; apical half paler and more sparingly punctured, with a small central basal spot, a large rounded spot in each basal angle, two small irregular and indistinct markings beneath these, and the apex broadly luteous. Corium luteous, somewhat thickly marked and punctured with black; on the underside at apex is a large reddish spot; membrane fuscous,

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 apices of the femora, and bases and apices of intermediate and posterior tibiae brassy black; fore tibiae very widely dilated and strongly punctured, black; fore tarsi 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. furcellata*, 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, fuscous, luteous at base. Antennæ with second and third joints subequal, fourth rather longest; first and second joints luteous, third and fourth dark fuscous, 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 gibbous at base, where it is thickly and darkly punctured, the central longitudinal line becoming broad and impunctate towards apex. Corium with a somewhat triangular subcostal 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, wavy, dark lines,

situate one on each segment, and a large subapical blackish spot. Legs luteous, pilose; tibiae strongly sulcated; fore tibiae dilated, their apical halves and bases and apices of intermediate and posterior tibiae blackish.

Long. 15 millims., exp. lat. ang. pronot. $7\frac{1}{2}$ millims.

Allied to the former species, from which, however, it is very distinct.

Naga hills, 2000 to 6000 feet.

Asopinae ✓ *Picromerus robustus*, n. sp.

Has somewhat the elongated form of *P. spinidens*, 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 tibiae brownish, with apex and tarsi dark fuscous.

♂, long. 11 millims., exp. lat. ang. pronot. $6\frac{1}{2}$ 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.

Halcyonae ✓ *Dalpada varia*, Dall.

Dalpada varia, Dall. List, i. p. 185. 8 (1851).

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.

Psithomene
- *Asopinae* ✓ *CESTOPIS*, nov. gen.

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

Antennae four-jointed; first joint robust, not quite reaching apex of the head; second joint a little shorter than the third; third and fourth subequal, the last somewhat thickened. Rostrum reaching posterior coxae; apical joint longest. Pronotum a little longer than head, about twice as broad as long, the lateral margins denticulated, the lateral angles prominent; it is slightly prominent and rounded at base, deflexed towards head. Scutellum a little longer than broad, extending slightly beyond base of membrane, gradually narrowed for two thirds its length from base, when it extends almost straight to apex, which is narrowed and rounded. Membrane with longitudinal nervures. Abdomen dilated, projecting a little on each side, convex below. Abdomen, legs, and sternum unarmed.

The four-jointed antennae, length of the lateral lobes of the head, and general shape of body ally this genus to *Atelocera* and *Memmia*.

✓ *CESTOPIS terra*, 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. *Asopinae*

Broad-ovate; head triangular, lateral lobes longer than the central, and meeting beyond it, but divided at apex. Antennae 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 unarmed; tibiae moderately sulcated.

✓ *Belopis unicolor*, n. sp.

Ochraceous, thickly and finely punctured; punctures somewhat darker on frontal half of pronotum and head. Antennæ 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; ocular part broadest, with the lateral edges somewhat sinuated about the middle; central lobe shorter than the lateral lobes. Eyes prominent; ocelli situated rather nearer the eyes than to each other. Antennæ longer than the head and thorax, five-jointed; second joint slightly shorter than the third, fourth longest. Rostrum robust, just passing posterior coxæ; 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 unarmed. Legs moderately long, tibiæ sulcated.

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

✓ *Cratonotus coloratus*, n. sp.

Brown, somewhat shining, thickly punctured with black; head black, thickly punctured; eyes black, with their bases luteous; antennæ 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 coxæ, and extending

to about the base of the fifth abdominal segment; two obscure marks on disk and a subapical spot pitchy. Legs luteous; apices of femora and tibiæ black, anterior tibiæ punctured with black; tarsi black. Other structural characters as in generic diagnosis above.

Long. 19 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 margins black; eyes pitchy; ocelli brown, shining. Rostrum black, reaching posterior coxæ. Antennæ 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, brunnaceous; the luteous area has a few deep brown punctures, the other brunnaceous portion of the scutellum punctured as on other parts of upper surface. Membrane fuscous, 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; prosternum with some greenish markings behind eyes, a large dull blackish patch near odoriferous apertures, a stigmal row of rounded bluish-black spots, and a large pitchy spot near apex. Legs black; coxæ 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 stigmal spots on underside of abdomen coalescing. Prosternum with a large black spot behind eyes in place of greenish markings.

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

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

Tetraratomidae✓ *Pycanum rubens*, Fab.

Cimex rubens, Fab. Ent. Syst. iv. p. 107 (1794).

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

Oecudoridae✓ *Aspongopus brunneus*, Thunb.

Cimex brunneus, Thunb. Diss. Ent. Nov. Ins. Spec. ii. p. 45 (1783).

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 antennæ a little longer than second. *brunneus*, Thunb.

Abdomen above black.

Second and third joints of antennæ equal *obscurus*, Fab.

✓ *Aspongopus ochreus*, Hope.

Aspongopus ochreus, Hope, Cat. i. p. 25 (1837).

The first four joints of antennæ 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 sinuated, divided at apex, meeting beyond central lobe, which is much shorter. Antennæ 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 coxæ. Pronotum 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 apices 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. Tibiæ sulcated.

♂, 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.

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

This species approaches *M. coccinea*, 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 colour than others.

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

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

Percis Gilliesii.

D. 51. A. 18. L. lat. 70. L. trans. 8½/20.

Length 3¼ times that of the head, which is 3½ times the diameter of the eye, which is 3 times the interorbital space. Præoperculum 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 6¾ inches.

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

Argentina elongata.

D. 10. A. 11. P. 15. V. 12.

The length of the head goes 3¼ 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. Ventrals situated rather behind the middle of the length (caudal not included). Scales without teeth. Yellowish white; a silvery band down each side; a dusky mark above each eye. Total length of the specimen 3½ inches.

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