

THE FAUNA OF BRITISH INDIA,

INCLUDING

CEYLON AND BURMA.

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RHYNCHOTA.—Vol. V.

HETEROPTERA: APPENDIX.

BY

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L O N D O N :

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EDITORS' PREFACE.

THE Editors wish to draw attention to the fact that the current volume completes the Appendix to the Heteropterous portion of the Indian Rhynchota, and Mr. Distant has given us descriptions of a large number of forms which have been collected in various localities in British India since the previous volumes were published. A further volume, which will form an Appendix to the Homoptera, will complete the enumeration of the Indian Rhynchota, with the exception of the families PSYLLIDÆ, APHIDIDÆ, ALEURODIDÆ, and COCCIDÆ.

The thanks of the Author and Editors are due for much help received from various sources in India, amongst which especial mention should be made of the Authorities at the Indian Museum, Calcutta, and the Imperial Entomologist at Pusa.

It may be added that two other volumes of the Series are now in the Printers hands; Canon W. W. Fowler's work on the CICINDELIDÆ, PAUSSIDÆ, and a General Introduction to the Coleoptera; and Dr. N. Annandale's work on the Freshwater Sponges, Polyzoa and Hydrida of India.

A. E. SHIPLEY.

GUY A. K. MARSHALL.

December 1910.

Family CAPSIDÆ. (Vol. II, p. 412.)

As was to be expected the enumeration of this family is largely increased since Vol. II. was published in 1904. This is principally owing to the number of species received from India since that date, chiefly by the willing and great assistance of Dr. Annandale, the Superintendent of the Indian Museum. Other Indian collectors have also considerably helped to swell the list, and their contributions are gratefully acknowledged in the following pages,

I have nothing to add or to qualify in the introductory remarks I wrote to this family (Vol. II, pp. 412-414). They have received strong animadversions from Dr. Reuter, the well-known specialist on the Capsidæ, who seems to regard courteous divergence of taxonomical opinion as a personal matter and to have replied in that spirit. I regret the incident, but have nothing to retract or to withdraw. No one more admires Reuter's life-labour in the elucidation of this difficult family than myself, but this does not constitute a responsibility to follow a classification which I am unfortunately unable to understand adequately.

Genus **EBUTIUS**.

(To follow *Onomaus*, Vol. II, p. 416.)

Ebutius, *Dist. A. M. N. H.* (8) iv, p. 440 (199).

Type, *E. bellus*, *Dist.*

Distribution. Northern India.

Head subequal in length to the pronotum, transversely impressed behind the eyes, which are well separated from the anterior margin of the pronotum, between the eyes distinctly longitudinally sulcate, the disk moderately convex, obtusely attenuated in front of the insertion of the antennæ, where it is a little ridged and excavated on each side; antenniferous tubercles prominent; first joint of the antennæ robust and about as long as the head, second joint slender, nearly three times as long as the first, third and fourth short, together longer than first; rostrum reaching the intermediate coxæ; pronotum transversely constricted before middle, this anterior area somewhat transversely striate at anterior margin and with a distinct moderately transverse tubercle immediately in front of each side of the constriction, posterior area convexly deflected from base, thickly punctate, the lateral margins carinate and oblique, posterior lateral angles subprominent, basal margin a little concave before scutellum, which is somewhat large and triangular, and slightly foveate at each basal angle; hemelytra a little more than twice as long as head and pronotum together, clavus broad, cuneus elongately angulate, membrane

apparently (as seen in spirit-specimens) with a single cell truncate posteriorly; legs slender, the femora slightly but regularly thickened, posterior tarsi with the basal joint almost as long as remaining joints together.

3004. *Ebutius bellus*, *Dist. A. M. N. H.* (8) iv, p. 441 (1909).

Uniformly pale ochraceous as seen in spirit-specimens (possibly virescent in living or fresh examples); scutellum with a linear,

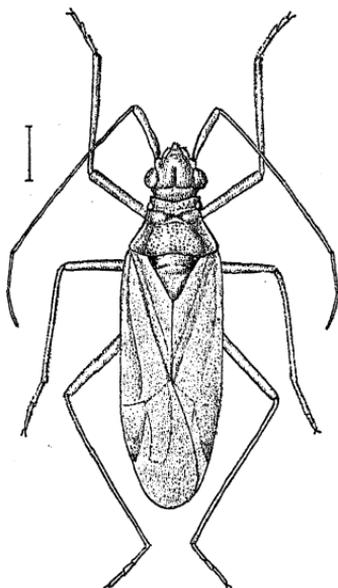


Fig. 126.—*Ebutius bellus*.

foveate, piceous spot on each basal angle; basal joint of antennæ with a few short obscure hairs; other characters as in generic diagnosis.

Length $6\frac{1}{2}$ to 7 millim.

Hab. Sikhim (*Major Roberts*).

The above generic and specific descriptions are based on a few spirit-specimens given to me by the late Col. Bingham.

In this enumeration of the Capsid fauna of British India, *Ebutius* is allied to *Onomaus*, *Dist.*, and is placed in the division *Herdoniaria* of the subfam. *Mirinæ* (vol. ii, p. 414).

Genus **HARPEDONA.** (Vol. II, p. 418.)

3005. *Harpedona sanguinipes*, *Dist. A. M. N. H.* (8) iv, p. 441 (1909).

Head, pronotum, and scutellum black; antennæ black, the basal

joint pale sanguineous; corium piceous, the costal margin narrowly ochraceous; membrane fuscous, the apex paler and the veins darker; head beneath and sternum black, abdomen beneath piceous; femora pale sanguineous, tibiæ and tarsi pale ochraceous; head centrally longitudinally sulcate; second joint of antennæ scarcely more than twice as long as first; pronotum transversely constricted before middle, the anterior lobe distinctly centrally foveate at base, posterior lobe obsoletely punctate.

Length 4 millim.

Hab. Darjiling; Pussumbing, 4700 ft. (*R. H. Mann*).

Allied to the Ceylonese species *H. marginata*, Dist. (vol. ii, p. 419), from which it differs by the different colour of the legs and of the basal joint of the antennæ, posterior lobe of the pronotum much less distinctly punctate, &c.

Genus CINNAMUS.

(To follow *Harpedona*, Vol. II, p. 418.)

Cinnamus, *Dist. A. M. N. H.* (8) iv, p. 441 (1909).

Type, *C. rhinoceros*, Dist.

Distribution. Ceylon.

Vertex convex, anteriorly, centrally, pointedly produced; eyes prominent, contiguous to the anterior margin of the pronotum, but projecting beyond it, the disk centrally longitudinally sulcate; antennæ long, the basal joint moderately robust, sparsely hirsute, about as long as the pronotum, second joint more than twice as long as first and about as long as third and fourth together; rostrum reaching the posterior coxæ; pronotum transversely constricted near middle, the anterior area with a distinct rugose collar, and with a moderate transverse tubercle on each side immediately in front of the transverse impression, posterior area deflected from base, which is concave and thus exposes the mesonotum, the lateral margins oblique; scutellum triangular with a small subbasal central tubercle; corium slightly longer than space between the apices of head and scutellum, clavus moderately raised and deflected on each side, cuneus somewhat broadly triangular, the cuneal fracture distinct; membrane with a short, posteriorly truncate basal cell; legs long and slender, finely spinulose hirsute, femora moderately and evenly thickened, all the tibiæ longer than the femora, basal joint of posterior tarsi short and moderately thickened.

Among the Capsidæ of British India this genus may be located between *Harpedona* and *Claymarius*.

3006. *Cinnamus rhinoceros*, *Dist. A. M. N. H.* (8) iv, p. 442 (1909).

Head, pronotum, mesonotum, and scutellum pale mottled fuscous brown; anterior collar and posterior lobe of pronotum mottled

brownish ochraceous, apex of scutellum ochraceous; antennæ and eyes blackish; clavus pale ochraceous, its basal third and apical area mottled fuscous brown; corium ochraceous, much mottled with fuscous brown and with an oblique transverse piceous fascia

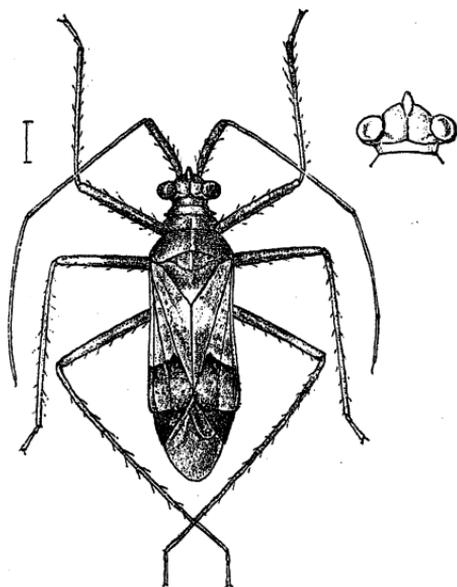


Fig. 127.—*Cinnamomus rhinoceros*.

at about one-third before apex, cuneus shining black; membrane fuscous, blackish on basal area, margins of cell dull greyish; body beneath piceous, mesosternum ochraceous; legs piceous, femora obscurely palely annulate near apices; body above shortly obscurely pilose; mesonotum with a central longitudinal pale line; structural characters as in generic diagnosis.

Length 5 millim.

Hab. Ceylon; Peradeniya (*Green*).

Genus ZALMUNNA.

Zalmunna, *Dist. A. M. N. H.* (8) iv, p. 442 (1909).

Type, *Z. dux*, *Dist.*

Distribution. Ceylon.

Head elongate, almost as long as the pronotum, the central lobe prominent at apex, behind which it is transversely impressed, between eyes shortly longitudinally sulcate; eyes short, somewhat adpressed, contiguous to the anterior margin of the pronotum;

antennæ with the first joint stout, attenuated at its base, about as long as head, remaining joints slender, second more than twice as long as first, third shorter than second, but considerably longer than fourth; rostrum passing the posterior coxæ, first joint robust and as long as head; pronotum moderately declivous from base to apex with a distinct narrow anterior collar, somewhat obscurely transversely impressed before middle, the lateral margins oblique, basal margin truncate; scutellum triangular, slightly longitudinally foveate at each basal angle; hemelytra passing the abdominal apex, corium elongate, the costal margin slightly rounded, cuneus acutely subtriangular, the cuneal fracture distinct; membrane with a prominent posteriorly truncate cell; legs of moderate length, posterior femora incrassated, tibiæ finely spinulose, posterior tibiæ about as long as corium, posterior tarsi with the basal joint almost as long as remaining joints together.

Allied to the S. African genus *Nymannus*, Dist., and in this enumeration of the British Indian Capsidæ to be placed near the genus *Clapmarius*.

3007. *Zalmunna dux*, *Dist. A. M. N. H.* (8) iv, p. 443 (1909).

Reddish ochraceous, shortly finely pilose; antennæ ochraceous, the basal joint brownish ochraceous; head, pronotum, and scutellum with a more or less distinct pale central longitudinal line, the

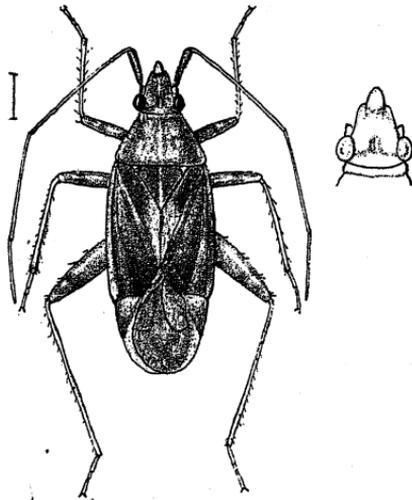


Fig. 128.—*Zalmunna dux*.

scutellum darker and more reddish ochraceous, clavus dark reddish ochraceous on basal half, somewhat dull greyish on apical half; corium dark reddish ochraceous, the costal margin ochraceous, cuneus with the basal margin dull greyish; membrane pale fuscous,

the lateral margin paler; body beneath and legs reddish ochraceous; basal joint of rostrum, basal disk of abdomen, tibiæ, tarsi, and apical annulations to femora pale ochraceous; structural characters as in generic diagnosis.

Length $5\frac{1}{2}$ millim.

Hab. Ceylon; Trincomalee (*Green*).

Genus **MYSTILUS**. (Vol. II, p. 420.)

3008. **Mystilus antrami**, *Dist. A. M. N. H.* (8) iv, p. 443 (1909).

Head, antennæ, pronotum, and scutellum dull black; apex and two spots at base of head and anterior and posterior margins of pronotum pale ochraceous; hemelytra very pale ochraceous, subhyaline, membrane reflecting the dark abdomen beneath; head and abdomen beneath pale ochraceous, the sternum and apex of abdomen black; legs pale ochraceous, the femora (especially the anterior) much mottled with black, more densely so on apical areas, posterior tibiæ black, with a long apical pale ochraceous annulation; rostrum pale ochraceous, its apex black; head deeply longitudinally sulcate between the eyes, which are contiguous to the anterior margin of the pronotum; antennæ much longer than the body, basal joint almost as long as the head and pronotum together; pronotum very coarsely punctate, anterior collar distinct, transversely constricted at about one-third from anterior margin, in front of which are two distinct callosities with a short central longitudinal carinate line between them; cuneus a little longer than broad, concolorous with the pale corium.

Length 4 millim.

Hab. Cachar; Koomber (*Antram*).

3009. **Mystilus manni**, *Dist. A. M. N. H.* (8) iv, p. 444 (1909).

Head black, its apex pale ochraceous, two dull ochraceous spots at base; antennæ black, the basal joint ochraceous, more or less mottled or spotted with black; pronotum ochraceous, the anterior collar dull greyish, the anterior transverse callosities a little darker; scutellum ochraceous; hemelytra stramineous, semihyaline; clavus with the inner margins and the apex of the suture black, cuneus concolorous, membrane reflecting the dark abdomen beneath; head beneath and sternum pale ochraceous, abdomen beneath more or less greyish; legs ochraceous, femora finely mottled or spotted with black, posterior tibiæ black with a long pale ochraceous apical annulation.

Length $4\frac{1}{2}$ millim.

Hab. Cachar; Koomber (*Antram*).

This species is allied to *M. antrami* by the concolorous cuneus, but differs from it in the different colour of the pronotum and scutellum, the absence of the short carinate line between the pronotal callosities, &c.

Genus **MEGALOCERÆA**. (Vol. II, p. 424.)**MEGALOCERÆA ANTENNATA**. (Vol. II, p. 424.)

Since I described this species from Kurseong I have received a number of specimens from the same locality, which afford an opportunity of a more precise diagnosis. In fresh specimens the colour is virescent, not "dull pale ochraceous," which is, however, the hue in older and more dried examples. In fresh specimens the antennæ are castaneous-brown with the basal joint virescent, speckled with sanguineous; the legs are also virescent with the apical halves of the posterior tibiæ and all the tarsi castaneous brown, the tarsal claws black; the basal joint of the antennæ is moderately thickened and strongly hirsute, the remaining joints slender, the second joint twice as long as first and subequal in length to third, fourth joint greyishly pubescent and much shorter than third.

Add: *Hab.* Darjiling, 6000 ft. (*Brunetti*).
"Swept from grass and low herbage."

MEGALOCERÆA DOHERTYI. (Vol. II, p. 425.)

Since describing this species from Tenasserim I have examined a series of fresh specimens from Calcutta. In the latter the colour is pale virescent rather than the pale ochraceous in older and dried examples; antennæ purplish-red, first joint about as long as head, second about or nearly twice as long as first; the exposed mesonotum with a dark spot on each side, black in fresh specimens, brownish in faded examples.

Add: *Hab.* Calcutta, Darjiling, 6000 ft. (*Brunetti*). Orissa; Balighai, near Puri (*Anmandale*). Ceylon; Trincomalee (*Green*).

Genus **LASIOMIRIS** to replace **Matenesius**. (Vol. II, p. 425.)

Lasiomiris, *Reut. Rev. d'Ent.* 1891, p. 130.

Matenesius, *Dist.* (vol. ii, p. 425).

Lasiomiris albopilosus, *Leih. (Miris) Ann. Mus. Civ. Gen.* (2) vi, p. 464 (1888).

Lasiomiris lineaticollis, *Reut. Rev. d'Ent.* 1891, p. 130.

Matenesius marginatus, *Dist.* (vol. ii, p. 426).

Add: *Hab.* Sumatra, Java.

I had consulted Reuter's description of his genus *Lasiomiris*, but had been led astray by the undue prominence given to one character: "body above with hemielytra longly pilose." This may have also been the cause of Reuter redescribing Lethierry's species.

Genus **MEGACÆLUM**. (Vol. II, p. 427.)

I am now able to add the descriptions of eight more species of this genus, though probably the enumeration is still very inadequate.

3010. **Megacælum insignis**, *Dist. A. M. N. H.* (8) iv, p. 444 (1909)

Very pale ochraceous; antennæ with the under surface of the first joint, a central annulation and apex to second joint, and two contiguous annulations and apex to third joint, black; eyes black; narrow lateral margins to pronotum, narrow lateral margins to scutellum (excluding base), narrow margins to the claval suture, a basal subcostal line to corium and three prominent rounded spots—one before costal margin near middle, the other two before basal margin of cuneus—black; apex of rostrum black; head with a fine central longitudinal sulcation between the eyes; first joint of antennæ nearly half as long as second joint, third a little shorter than second (fourth mutilated in typical specimen); rostrum slightly passing the posterior coxæ; corium shortly sparingly palely pilose; membrane considerably passing the abdominal apex; posterior legs mutilated in typical specimen; anterior and intermediate tibiæ spinulose.

Length incl. membr., ♀, 9 millim.

Hab. Mussoorie (*coll. Dist.*).

3011. **Megacælum tibialis**, *Dist. A. M. N. H.* (8) iv, p. 445 (1909).

Black, finely shortly greyishly pilose; antennæ with the first joint black, second and third joints ochraceous, base and apex of second joint narrowly black; legs black, apices of anterior and intermediate femora, the anterior and intermediate tibiæ (excluding extreme apices), coxæ, and the tarsi (more or less) ochraceous; head finely, centrally, longitudinally, sulcately impressed between the eyes; antennæ with the first joint moderately thickened, about half as long as second, third distinctly shorter than second (fourth joint mutilated in typical specimen); rostrum piceous and reaching the posterior coxæ; apex of cuneus castaneous; membrane fuscous, reflecting the dark abdomen beneath and moderately passing the abdominal apex; tibiæ finely spinulose, the spinules black; first joint of posterior tarsi a little shorter than second joint.

Length incl. membr., 8 millim.

Hab. Simla Hills, Dharampur, 5000 ft.

3012. **Megacælum pervalidum**, *Dist. A. M. N. H.* (8) iv, p. 445 (1909).

Body and tegmina castaneous brown, somewhat thickly finely palely pilose; costal area of corium widening posteriorly, ochraceous; cuneus pale castaneous; antennæ ochraceous, basal

joint castaneous brown, apical area of second joint piceous; anterior and intermediate femora castaneous brown, their bases and the whole of the tibiæ and tarsi ochraceous, tarsal claws piceous; posterior femora ochraceous, their apical areas and the posterior tibiæ (excluding apex) black; body beneath and coxæ piceous; head finely, linearly sulcate between the eyes; first joint of antennæ about half as long as second joint, third distinctly shorter than second and longer than fourth; rostrum reaching the posterior coxæ; rostrum ochraceous, basal joint castaneous-brown, apex black and reaching the posterior coxæ; pronotum transversely wrinkled; membrane fuscous, somewhat longly passing the abdominal apex; tibiæ spinulose, the spinules black.

Length incl. membr., 9 millim.

Hab. Nepal; Soondrijal and Nagorkote (*Ind. Mus.*). Pussumbing; Darjiling (*Mann*).

In some specimens the margin of the costal area to corium is castaneous brown.

3013. *Megacelum straminipes*, *Dist. A. M. N. H.* (8) iv, p. 446 (1909).

Head brownish ochraceous, eyes black; antennæ with the first joint piceous, second piceous biannulated with ochraceous, third joint fuscous, its base ochraceous; pronotum shining black, the narrow anterior collar and extreme basal margin pale ochraceous; scutellum and corium black, finely pilose, the costal margin of the latter brownish ochraceous; cuneus brownish ochraceous, its outer margin and inner angle black; membrane fuscous, reflecting the dark abdomen beneath; body beneath piceous; legs stramineous, the posterior tibiæ black; head finely longitudinally sulcate between the eyes; antennæ with the basal joint moderately thickened, about half as long as second, third only a little shorter than second (fourth mutilated in typical specimen); pronotum finely transversely wrinkled and with two distinct callosities near anterior margin; membrane considerably passing abdominal apex; rostrum stramineous and reaching the posterior coxæ; tibiæ spinulose, the spinules black.

Length incl. membr., 7 millim.

Hab. Kangra Valley, 4500 ft. (*Dudgeon*).

3014. *Megacelum mussooriensis*, *Dist. A. M. N. H.* (8) iv, p. 446 (1909).

Head black, posterior margins of eyes ochraceous; antennæ black, second joint usually brownish ochraceous except at base and apex; pronotum brownish ochraceous, the anterior collar and extreme posterior margin pale ochraceous, two contiguous transverse black spots near anterior margin and with a blackish suffusion near posterior margin; scutellum piceous or black;

corium piceous brown, shortly, palely, sparingly pilose, the costal margin pale ochraceous, cuneus pale castaneous brown: membrane piceous; body beneath and legs black, the anterior and intermediate tibiæ more or less brownish ochraceous; head narrowly, longitudinally sulcate between the eyes; antennæ with the basal joint moderately thickened, about as long as the pronotum, second joint a little more than twice as long as the first, third joint a little shorter than second and much longer than fourth; scutellum finely transversely striate; corium (including cuneus) about as long as posterior tibiæ, clavus and corium concolorous; rostrum black, with brownish ochraceous suffusions, reaching the posterior coxæ; tibiæ finely spinulose, the spinules black; tarsi more or less ochraceous, their apices black, first and second joints of posterior tarsi subequal in length; membrane largely passing the abdominal apex.

Var. Lateral margins of the pronotum black.

Length 7 to 8 millim.

Hab. Mussoorie (*Brunetti*).

3015. *Megacælum brunettii*, *Dist. A. M. N. H.* (8) iv, p. 447 (1909).

Head black, the base sometimes piceous; antennæ with the basal joint black, second joint brownish ochraceous, piceous at base and more broadly so at apex, third joint pale ochraceous; pronotum black, the narrow anterior collar and narrow posterior margin pale ochraceous; scutellum black; clavus and corium black, the latter with the costal area, widening to cuneus, brownish ochraceous, the extreme costal margin, widest before cuneus, piceous; cuneus pale castaneous, the inner and outer margins black; membrane fuscous, reflecting the dark abdomen beneath; body beneath, trochanters, and coxæ black; legs sanguineous, bases and apices of femora and tibiæ more or less piceous; tarsi ochraceous; head moderately convex, finely longitudinally sulcate between the eyes; antennæ with the first joint moderately thickened and about as long as pronotum, second slightly more than twice as long as first and distinctly longer than third (fourth mutilated in typical specimens); rostrum brownish ochraceous with piceous suffusions, reaching the posterior coxæ; pronotum, scutellum, and corium sparsely, finely, palely pilose; scutellum smooth, not distinctly striate; corium (including cuneus) about as long as posterior tibiæ; the tibiæ finely spinulose, the spinules black; membrane longly passing the abdominal apex.

Length 7 millim.

Hab. Meerut, 750 ft. (*Brunetti*).

3016. *Megacælum marginandum*, *Dist. A. M. N. H.* (8) iv, p. 447 (1909).

Head and antennæ ochraceous, eyes black; pronotum ochraceous, the anterior collar and narrow posterior margin paler, the disk

sometimes more or less suffused with blackish; scutellum and corium dull deep ochraceous, the latter with the costal margin pale ochraceous and sparsely finely pilose, cuneus usually with pale castaneous suffusions; membrane pale fuscous, the margins greyish and the basal area darker by reflecting the abdomen beneath; body beneath and legs pale ochraceous, the lateral areas of the abdomen and sometimes the posterior tibiæ rosy red; head moderately convex, finely longitudinally sulcate between the eyes; antennæ with the first joint moderately thickened and not quite so long as the pronotum, second joint about twice as long as first, scarcely longer than third, which is about twice the length of fourth; scutellum moderately convex; corium (including cuneus) a little longer than posterior tibiæ; membrane longly passing the abdominal apex; legs distinctly paler at basal areas, the tibiæ spinulose, the spinules black; rostrum with its apex black and reaching the posterior coxæ; posterior tarsi with the first and second joints subequal in length.

Length 7 to 8 millim.

Hab. Ceylon; Peradeniya (*Green*); Madulsima, Diyatalawa, 4000 ft., Hakgala (*Bainbrigge-Fletcher*).

3017. *Megacælum patruum*, *Dist. A. M. N. H.* (8) iv, p. 448 (1909).

Head and pronotum obscure ochraceous, somewhat mottled with piceous; antennæ ochraceous, the whole of the first joint, base and apex of second joint, and apical two-thirds of third and fourth joints black; pronotum with the posterior lateral angles narrowly black; scutellum and corium dull pitchy black, the latter with the costal margins ochraceous; cuneus very dark castaneous, its apex pale; head beneath and abdomen more or less brownish ochraceous, the sternum piceous or black; legs stramineous, apical areas of the posterior femora more or less distinctly blackishly biannulate; head finely longitudinally sulcate between the eyes; antennæ with the first joint moderately thickened and about as long as the pronotum, second joint about twice as long as first, second and third subequal in length, third about twice as long as first; scutellum moderately convex; corium (including cuneus) as long as posterior tibiæ; membrane fuscous, longly passing the abdominal apex; rostrum brownish ochraceous, its apex black and reaching the posterior coxæ; tibiæ spinulose, the spinules black.

Var. Basal joint of antennæ brownish, not black.

Length 8 millim.

Hab. Ceylon; Kandy (*Green*), Madulsima (*Bainbrigge-Fletcher*).

MEGACÆLUM BISERATENSIS.

Lygus biseratensis, *Dist.* (Vol. ii, p. 457.)

I originally placed this species in the genus *Lygus*, but have since received better specimens, and find that the head is distinctly longitudinally impressed or sulcate between the eyes.

Genus **PHILOSTEPHANUS.**

Philostephanus, *Dist. A. M. N. H.* (8) iv, p. 449 (1909).

Type, *P. vitaliter*, *Dist.*

Distribution. Northern India.

Head a little longer than broad, deflected anteriorly, centrally longitudinally sulcate between the eyes, which are moderately transversely exserted; antennæ with the basal joint only slightly thickened, about as long as head, second joint twice as long as first (remaining joints mutilated in typical specimen); rostrum reaching the posterior coxæ; pronotum much broader than long, moderately convex, deflected anteriorly, lateral margins oblique, anterior and posterior margins truncate; scutellum somewhat small and convex; corium (excluding cuneus) about twice as long as broad, slightly longer than posterior tibiæ, cuneus triangularly elongate, its apex acute; membrane considerably passing the abdominal apex and with a subquadrate posteriorly subtruncate cell; legs of moderate length, the posterior femora distinctly thickened, tibiæ spinulose, posterior tarsi with the first and second joints subequal in length.

Allied to *Megacœlum*.

3018. *Philostephanus vitaliter*, *Dist. A. M. N. H.* (8) iv, p. 449 (1909).

Head ochraceous, speckled with fuscous; antennæ with the first joint ochraceous speckled with fuscous, second joint piceous,

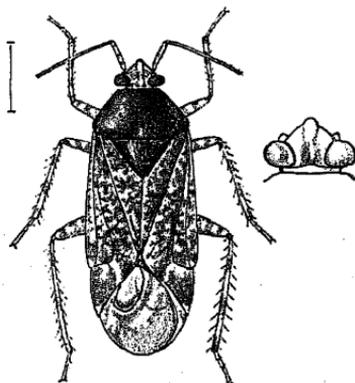


Fig. 129.—*Philostephanus vitaliter*.

centrally paler (remaining joints mutilated in typical specimen); pronotum shining black, posterior margin very narrowly and a short central basal linear spot ochraceous; scutellum shining

black, with a small ochraceous spot at each basal angle; clavus and corium fuscous, largely and somewhat densely mottled with pale ochraceous; cuneus fuscous, its basal area greyish, the extreme apex pale ochraceous; membrane pale fuscous with large greyish suffusions; body beneath and legs ochraceous, a sublateral piceous fascia on each side of sternum, and a similar but narrower and more obscure fascia on each side of abdomen; all the femora and tibiæ annulated with fuscous; head in front of eyes transversely striate, the eyes slightly projecting beyond the anterior margin of the pronotum; other structural characters as in generic diagnosis.

Length $8\frac{1}{2}$ millim.

Hab. Simla.

Genus TANCREDUS.

Tancredus, *Dist.* vol. ii, p. 430 (1904).

Indocelum, *Kirk. Trans. Am. Ent. Soc.* xxxii, p. 138 (1906).

TANCREDUS SANDARACATUS. (Vol. II, p. 430.)

Var. a. Pronotum concolorous, pale stramineous; lateral sanguineous fasciæ absent.

Var. b. Body entirely pale stramineous; all the sanguineous markings absent.

Add: Hab. Bombay (*Dixon*). Calcutta.

TANCREDUS RUBRICATUS. (*Megacoelum rubricatum*, Vol. II, p. 429.)

Indocelum rubricatum, *Kirk. Trans. Am. Ent. Soc.* xxxii, p. 138 (1906).

Var. Lateral areas of pronotum concolorous, not fuscous, the fuscous coloration only appearing as a small spot at the posterior pronotal angles; all the sanguineous coloration much paler, almost obsolete.

Add: Hab. Travancore. Ceylon; Madulsima (*Fletcher*).

Genus STECHUS.

(To be placed near *Tancredus*, Vol. II, p. 430.)

Stechus, *Dist. A. M. N. H.* (8) iv, p. 449 (1909).

Type, *S. libertus*, *Dist.*

Distribution. Ceylon.

Head a little longer than broad, moderately deflected anteriorly, finely longitudinally sulcate between the eyes, which are very large and project beyond the anterior margin of the pronotum; antennæ with the first joint about as long as head and only slightly thickened, second joint three times as long as first and half as long again as third; rostrum reaching the posterior coxæ; pronotum much broader than long, moderately convex and deflected

anteriorly, with a broad transverse callosity near the anterior margin, the lateral margins moderately convex, anterior margin subtruncate, posterior margin a little posteriorly produced at base of scutellum; scutellum moderately convex and subtriangular; corium (excluding cuneus) about twice as long as broad and a little shorter than the posterior tibiæ, cuneus elongately subtriangular, its apex acute, the cuneal fracture distinct; membrane longly passing the abdominal apex, with a subquadrate posteriorly truncate cell; legs of moderate length, femora moderately thickened, the posterior femora more strongly so, tibiæ spinulose, posterior tarsi with first and second joints subequal in length.

3019. *Stechus libertus*, *Dist. A. M. N. H.* (8) iv, p. 450 (1909).

Pale olivaceous-green, inclining to ochraceous in more dried specimens; antennæ black, a subapical annulation to first joint and a subbasal annulation to second joint ochraceous; eyes black; corium and cuneus more olivaceous than the head, pronotum, and

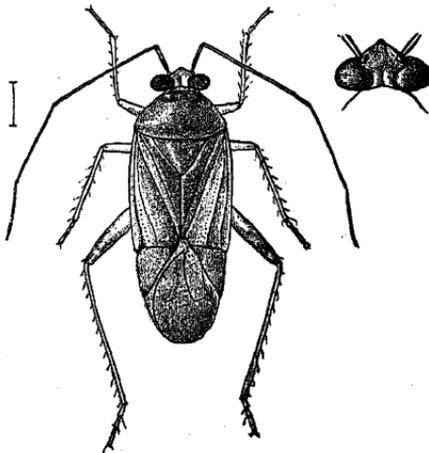


Fig. 130.—*Stechus libertus*

scutellum, the clavus considerably darker, and the inner area of the corium distinctly darker; cuneus pale olivaceous with the apical angle black; membrane pale fuscous; body beneath and legs pale virescent, apical area of posterior femora fuscous brown with a subapical pale annulation; clavus and corium obscurely shortly pilose; structural characters as in generic diagnosis.

Length 5 millim.

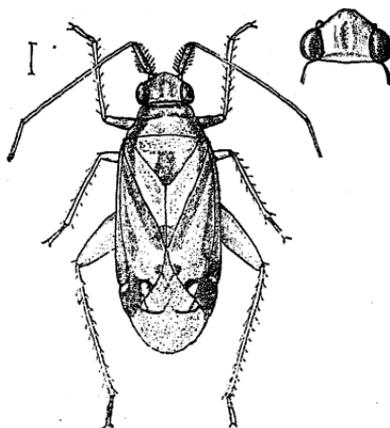
Hab. Ceylon; *Madulsima* (*Bainbrigge-Fletcher*).

Genus **ARETAS**.(Near *Tancredus*, Vol. II, p. 430.)*Aretas*, *Dist. A. M. N. H.* (8) iv, p. 450 (1909).Type, *A. imperatorius*, *Dist.**Distribution.* Ceylon.

Head between eyes as broad as long, very finely centrally longitudinally sulcate, transversely impressed a little before base; eyes longer than broad; antennæ with the basal joint incrassate, spinulose, about as long as head, second joint about three times as long as first, third joint partially mutilated in typical specimen; rostrum reaching the intermediate coxæ; pronotum broader than long, the lateral margins a little concavely sinuate, the anterior margin truncate and ridged, transversely impressed at about one-third before anterior margin, between which and the anterior margin are two transverse callosities, posterior margin subtruncate; scutellum broad, triangular; corium with the costal margin a little convex, excluding cuneus about as long as posterior tibiæ, cuneus somewhat small, subtriangular; membrane passing the abdominal apex; posterior femora strongly incrassate, tibiæ finely spinulose; posterior tibiæ with the first and second joints subequal in length.

3020. *Aretas imperatorius*, *Dist. A. M. N. H.* (8) iv, p. 451 (1909).

Head dull greyish, the eyes black; antennæ stramineous, the

Fig. 131.—*Aretas imperatorius*.

basal joint pale castaneous; pronotum, scutellum, and corium ochraceous; lateral margins of pronotum, a broad central fascia

on apical half of scutellum, base and apex of clavus, costal margin and outside margin of clavus to corium, two small spots before base of membrane, and cuneus (excluding two basal spots) sanguineous; membrane very pale fuscous, the posterior margins of the cells sanguineous; body beneath and legs stramineous, tibial spinules concolorous; rostrum stramineous, apex of basal joint dull sanguineous; structural characters as in generic diagnosis.

Length 4 millim.

Hab. Ceylon; Peradeniya (*Green*).

Genus ELTHEMUS.

Elthemus, *Dist. A. M. N. H.* (8) iv, p. 451 (1909).

Type, *E. conspicatus*, *Dist.*

Distribution. Ceylon.

Head a little longer than broad, centrally longitudinally sulcate; eyes transverse, prominent, projecting beyond the anterior margins of the pronotum; antennæ with the first joint thickened, longer than the head, second joint three times as long as first and considerably longer than third, fourth only slightly longer than first; rostrum reaching the posterior coxæ; pronotum much broader than long, narrowed anteriorly, with a short but distinct collar, the lateral margins oblique, posterior margin subtruncate, slightly transversely impressed about one-third from anterior margin, the anterior area with two callosities, in some specimens these callosities are united, the disk (excluding anterior area) finely punctate; scutellum triangular; corium (excluding cuneus) as long as posterior tibiæ and closely finely pilose, cuneus elongately triangular; membrane passing the abdominal apex; legs of moderate length, femora moderately thickened, the posterior femora more strongly so, tibiæ spinulose, posterior tarsi with the first and second joints subequal in length.

Allied to *Tancredus*, *Dist.*, but differing by the greater length of the basal joint of antennæ, the non-prominent pronotal angles, the much larger scutellum, the longer corium, &c.

3021. *Elthemus conspicatus*, *Dist. A. M. N. H.* (8) iv, p. 452 (1909).

Head dull ochraceous, eyes black; antennæ with the first joint blackish, remaining joints brownish; pronotum piceous black, the anterior collar and posterior narrow margin ochraceous; scutellum ochraceous, with piceous suffusions, the most prominent being a more or less distinct basal spot; clavus and corium blackish, the costal area more or less ochraceous, the blackish coloration extending across it near apex as an elongate costal spot; cuneus pale ochraceous, its margins darker; membrane fuscous; body

beneath and legs ochraceous, a broad lateral fascia to sternum and abdomen black, posterior femora annulated with fuscous near apex; structural characters as in generic diagnosis.

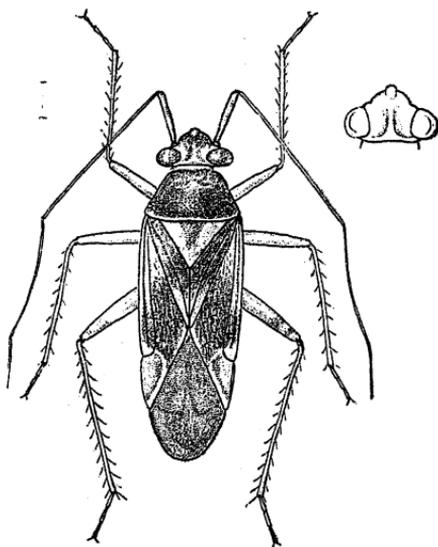


Fig. 132.—*Elthemus conspicatus*.

Length 5–5½ millim.

Hab. Ceylon; Peradeniya (*Green*).

3022. *Elthemus domitus*, *Dist. A. M. N. H.* (8) iv, p. 452 (1909).

Dull ochraceous (perhaps virescent in life), eyes black; pronotum with the collar and narrow posterior margin a little paler, the latter sometimes inwardly margined with piceous; scutellum and corium pale ochraceous, the clavus and inner area of corium brownish ochraceous; membrane pale fuscous, the basal area piceous; body beneath and legs reddish ochraceous, a sublateral fascia to sternum and sometimes a few discal spots to abdomen piceous; femora longitudinally streaked with pale ochraceous; antennæ ochraceous, the basal joint and apex of second joint black or blackish, first joint longer than head, second joint about three times as long as first; head longitudinally sulcate between the eyes; pronotum finely wrinkled and punctate; clavus and corium thickly finely pilose; membrane considerably passing the abdominal apex; posterior femora apically biannulated with brown.

Length 5–5½ millim.

Hab. Ceylon; Peradeniya (*Green*).

Genus **ASERYMUS**, nov., to replace *Zanessa*. (Vol. II, p. 432.)

Type, *A. sanguinolentus*, Dist.

I originally considered that *Zanessa* Kirk., might include only *sanguinolenta* from Ceylon, but more material has altered my opinion. The description given of *Zanessa* (vol. ii, p. 432) and the figure (vol. ii, fig. 278) will suffice, but stress must be laid on the lateral margins of the pronotum which are obliquely straight and not concavely sinuate as in *Zanessa*, the head is also shorter, broader, and not angularly narrowed anteriorly.

ASERYMUS SANGUINOLENTUS.

Zanessa sanguinolenta, *Dist.* vol. ii, p. 432, fig. 278.

Genus **DRUTHMARUS.**

(To follow *Zanessa*, Vol. II, p. 432.)

Druthmarus, *Dist. A. M. N. H.* (8) iv, p. 452 (1909).

Type, *D. magnicornis*, Dist.

Distribution. Ceylon.

Head about as long as broad between eyes, centrally longitudinally sulcate, anteriorly broadly angulate; eyes exserted, large, transverse, projecting far beyond the anterior margin of the pronotum, directed a little backwardly; antennæ with the basal joint short and incrassate, second joint very strongly incrassate,

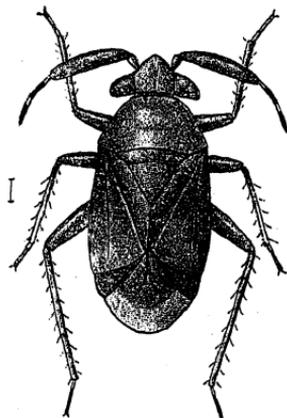


Fig. 133.—*Druthmarus magnicornis*.

about four times as long as first, third and fourth joints short, slender, subequal in length; rostrum reaching the posterior coxæ; pronotum much broader than long, obliquely narrowed to head, moderately deflected anteriorly, and prominently deflected before

base of scutellum; scutellum triangular, about as long as head: corium (excluding cuneus) as long as posterior tibiæ; cuneus short and broad, angularly attenuated inwardly; membrane passing abdominal apex; legs of moderate length, tibiæ spinulose, posterior tarsi with the basal joint shortest.

3023. *Druthmarus magnicornis*, *Dist. A. M. N. H.* (8) iv, p. 453 (1909).

Black; third and fourth joints of antennæ piceous, their bases stramineous; membrane with the apical area fuscous brown, the basal area reflecting the dark abdomen beneath; apical areas of intermediate tibiæ and the tarsi (excluding apices) stramineous; corium faintly shortly palely pilose; structural characters as in generic diagnosis.

Length 3 millim.

Hab. Ceylon; Peradeniya (*Green*).

Genus **PRODROMUS**. (Vol. II, p. 436.)

3024. *Prodromus cuneatus*, *Dist. A. M. N. H.* (8) iv, p. 453 (1909).

Head, pronotum, and scutellum very pale ochraceous; eyes black; antennæ with the basal joint pale ochraceous, second joint piceous, subapically annulated with pale ochraceous, third and

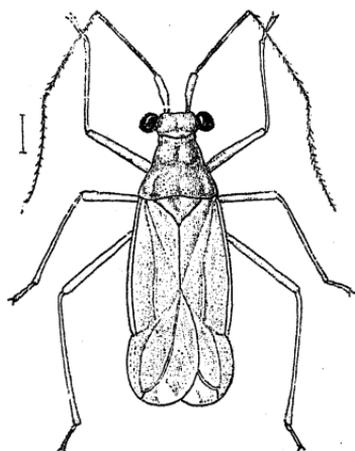


Fig. 134.—*Prodromus cuneatus*.

fourth joints dull greyish; hemelytra hyaline, margins of the clavus and cuneus, costal margin of corium and margins of membranous cell more or less virescent; body beneath very pale ochraceous; legs stramineous, apices of the tarsi black; head

centrally finely medially impressed; eyes prominent, exerted, well separated from the anterior margins of the pronotum; antennæ with the first joint a little longer than head, second more than half as long again as first; pronotum with a narrow anterior collar, transversely constricted before middle and enclosing two callosities, posterior area tumid, thickly somewhat finely punctate; cuneus very long, almost reaching the membranal apex.

Length 5 millim.

Hab. Ceylon; Peradeniya (*Green*).

Distinct from the other described species of *Prodromus* by the length of the cuneus.

Génus APOLLODOTUS.

(To follow *Angerianus*, Vol. II, p. 437.)

Apollodotus, *Dist. A. M. N. H.* (8) iv, p. 454 (1909).

Type, *A. præfectus*, *Dist.*

Distribution. Bengal; Ceylon.

Head half as long as broad, very broad between eyes, anteriorly perpendicularly deflected, medially longitudinally impressed, transversely impressed behind eyes and narrowed to base; eyes small and placed near apex of head and longly removed from base; antennæ with the basal joint thickened, about as long as head, second joint moderately thickened, more than twice as long as first, third longer than fourth, together little more than half the length of second; pronotum about half as long as breadth at base, with a narrow anterior collar behind which are two transverse constrictions enclosing an area which is centrally carinate and contains a smooth callosity on each side, very strongly narrowed from base to head, the lateral margins straightly oblique; scutellum gibbous, shortly acute at upper posterior angle; corium (excluding cuneus) short, broad, about as long as head and pronotum together, the costal margin a little convexly dilated; cuneus short and broad, the cuneal fracture profound; legs of moderate length, the posterior tibiæ as long as corium and cuneus together, posterior tarsi with the first joint longer than second.

Allied to *Angerianus*, *Dist.*, but shorter, broader, head much shorter and less exerted, pronotum much broader and more regularly narrowed, scutellum distinct.

3025. *Apollodotus præfectus*, *Dist. A. M. N. H.* (8) iv, p. 454 (1909).

Head obscure ochraceous, centrally and behind the eyes marked with black; antennæ with the first joint black, second joint ochraceous, with the apical area black, third and fourth obscure ochraceous; pronotum black, coarsely punctate, a central longitudinal line, lateral margins and the apical basal margins more or

less ochraceous; scutellum black; clavus black, with a large dull ochraceous spot near middle; corium subhyaline, with blackish spots, the two largest forming a transverse fascia near middle; cuneus and membranal cells margined with piceous; membrane pale hyaline, longly passing the abdominal apex; body beneath

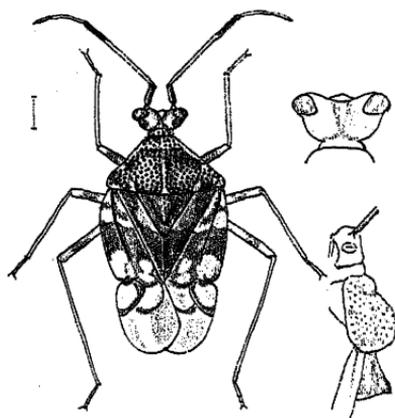


Fig. 135.—*Apollodotus prefectus*.

and legs black, apices of the femora and basal areas of the intermediate and posterior femora ochraceous, tibiæ and tarsi ochraceous; abdomen beneath with two ochraceous spots on each side beyond middle; other structural characters as in generic diagnosis.

Length $3\frac{1}{2}$ millim.

Hab. Bengal; Pusa (*Lefroy*). Ceylon; Eppawala (*Green*).

Genus **HELOPELTIS**. (Vol. II, p. 439.)

3026. *Helopeltis cinchonæ*, *Mann*, *Mem. Dept. Agric. Ind. Ent.* ser. 1, n. 4, p. 328 (1907).

Male.—"Head black, no tubercle at base of antennæ; antennæ with the first joint stramineous-luteous speckled with black, nodulose and incrassated during most of the length (.97 mm.), second joint dark brown with black tip (3.00 mm), third dark brown, extreme base and apical third black, slightly thickened at apex; rostrum ochraceous-luteous, with dark brown tip (1.60 mm.), second joint (.33 mm.), fourth joint (.50 mm.); pronotum of usual generic shape, wholly black above and below; head and pronotum (1.37 mm.?) ; scutellum black, scutellar horn black for about a quarter of the length from the bottom, above this luteous throughout, except for extremely narrow ring just below the tip, as stout as in *H. theivora* (in all specimens yet seen), very slightly bent, (1.27 mm.), the clavate tip is not nearly so large relatively to the

thickness of the horn as with *H. theivora*; hemelytra as in *H. theivora*, but with slight suffusion of black throughout, cuneus with apex and inner portion bright red, extending sometimes into the vein of the membrane; black point at base and tip (2.74 mm.); corium (2.90 mm.), cuneus (1.17 mm.), maximum length (4.70 mm.); "hind wing" extremely like *H. theivora*, one additional diagonal vein, separated, in the inner portion of membrane; posterior legs with dark femur with light coloured ring at base, and with variable quantities of reddish-ochraceous; tibia and tarsus ochraceous, former very hairy towards tip and latter hairy; formation of tarsus as in *H. theivora*; femur (2.50 mm.), tibia (3.13 mm.), tarsus (.57 mm.), intermediate and anterior legs not unlike hind leg but less dark in femur; intermediate femur (2.20 mm.), tibia (2.80 mm.), tarsus (.57 mm.); fore femur (2.00 mm.), tibia (2.63 mm.), tarsus (.57 mm.); thorax entirely black; coxæ luteous; abdomen beneath with a black spot near lateral edge of every segment, tip black, no other segments black; abdomen above with five segments and the tip more or less black right across, most intensely so at sides, general colour of abdomen ochraceous.

Female.—Head generally black, but much mixed with brownish-ochraceous, patches of ochraceous behind bases of antennæ; antennæ with the first joint ochraceous with two narrow dark rings (1.13 mm.), second ochraceous with black tip, thinner than first and not thickened (3.22 mm.), third much shorter than second; rostrum colour as in male; pronotum with the collar ochraceous, the posterior portion dark, disk with a black patch extending two-thirds of the length from posterior margin, crossed by two diagonally longitudinal ochraceous lines, remainder ochraceous; head and pronotum (1.73 mm.); scutellum very dark or black, horn (1.57 mm.); thorax with the anterior portion ochraceous, mesothorax black, metathorax ochraceous-luteous, furrow down middle of pro- and mesothorax; coxæ luteous; abdomen beneath ochraceous to stramineous except tip, segments posterior to origin of ovipositor and ovipositor itself, which are black." (*Mann*.)

Measurements (as sectionally given, *supra*).

Hab. British Bhutan; Munsong; Mungpoo, Darjiling, 2,700 to 4,000 feet.

The characters given as differentiating this species from others of the genus are shortness of the first joint of antennæ, the bright red colour of the apex and inner portion of cuneus, the luteous and erect character of the scutellar horn, together with small size of the clavate head relatively to that of the stalk in both male and female, and the markings on the pronotum of the female.

HELOPELTIS THEIVORA. (Vol. II, p. 440.)

Variation in the sexes of this species has been described by Mr. H. H. Mann (J. and P. A. S. Beng. new ser. ii, no. 5,

1906), from fresh and living specimens, and he remarks:—"The points which settle the sex to a casual observer, are:—

"1. The size of the orange spot on the pronotum and scutellum. In the female it is much bigger than in the male, and in fact in the latter it is often hardly to be seen.

"2. The shape of the abdomen, which is always larger and stouter in the female.

"3. The size of the insect, the female being always distinctly bigger in every respect.

"4. The presence of the ovipositor in the female."

Mr. Mann also states that "the males are always present in much smaller numbers than the females."

When enumerating the species of the genus I placed the *H. febriculosa*, Bergr. as a probable synonym of *H. theivora*, Waterh. (vol. ii, p. 440). Mr. Mann (Mem. Dept. Agr. Ind. Ent. ser. i, no. 4, p. 331, 1907), writes:—"I have shown conclusively that the *H. febriculosa* as described by Bergroth comes well within the variation noticed for *H. theivora*, and that the observations give no indication of the presence of two distinct types under the latter. I should, in fact, be inclined to consider Bergroth's insect as not even a definite variety, but rather as a mere casual and individual variation."

Genus HYALOPEPLUS. (Vol. II, p. 447.)

3027. *Hyalopeplus clavatus*, *Dist. A. M. N. H.* (8) iv, p. 509 (1909).

Head, pronotum, scutellum, and corium bronzy ochraceous; head with three longitudinal black lines, the lateral ones converging anteriorly; antennæ with the basal joint bronzy ochraceous, with a more or less distinct piceous line beneath, second joint black, with its base ochraceous (remaining joints mutilated in typical specimens); pronotal collar with the margins and three longitudinal lines black, the central line more prominent, posterior pronotal margin and the posterior angles black; clavus with the inner and outer margins and the suture black; corium with the costal marginal area paler and bordered on each side with black, veins piceous; membrane pale olivaceous, subhyaline, the basal area reflecting the darker abdomen beneath, the cellular margins black; body beneath, rostrum, and legs ochraceous; antennæ with the basal joint moderately thickened and a little longer than head, second joint slightly thickened and nearly four times as long as first; rostrum reaching the posterior coxæ; pronotum with the anterior area subgranulose, the posterior area transversely striate and centrally longitudinally impressed, posterior angles slightly straightly prominent; scutellum with the disk very finely transversely striate.

Length 10 millim.

Hab. Bengal; Lebong, 5000 ft. (*Lefroy*).

Differs from *H. spinosus*, Dist. (vol. ii, p. 447), by the less produced posterior pronotal angles; and from *H. vitripennis*, Stål (vol. ii, p. 447), by the absence of the linear markings, different colour of antennæ, &c.

Genus **PHYTOCORIS**. (Vol. II, p. 448.)

PHYTOCORIS CRINITUS. (Vol. II, p. 449.)

Originally described from Ceylon we have since received this species from Continental India.

Add: *Hab.* Simla Hills; Phagu, 9000 ft. (*Annandale*). West Bengal; Paresnath (*Annandale*).

One large specimen is $5\frac{1}{2}$ millim. in length.

Genus **EURYCYRTUS** to replace **Paracalocoris**. (Vol. II, p. 449.)

Eurycyrtus, *Reut. Öfv. Finsk. Vet. Soc. Förh.* xxi, p. 34 (1879); *id. Ann. Mus. Petersb.* xii, p. 496 (1908); *id. Acta Soc. Scient. Fenn.* xxxvi, n. 2, p. 38 (1909).

Paracalocoris, *Dist.* (part.) (vol. ii, p. 449).

Reuter has pointed out (*supra*) that his genus *Eurycyrtus* is available for the Oriental and Ethiopian species which I have included in my genus *Paracalocoris* and that the latter should be restricted to the Neotropical species for which I founded it.

EURYCYRTUS BURMANICUS.

Paracalocoris burmanicus, *Dist.* (vol. ii, p. 450).

EURYCYRTUS EREBUS.

Paracalocoris erebus, *Dist.* (vol. ii, p. 450).

EURYCYRTUS LANARIUS.

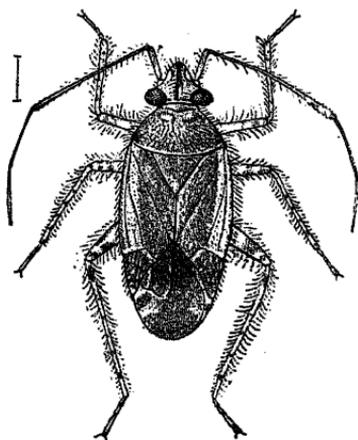
Paracalocoris lanarius, *Dist.* (vol. ii, p. 450).

In the Ceylonese type the legs are practically pale ochraceous, which is evidently a varietal colour, for in specimens since received from the Indian peninsula, those from Bombay agree with the type, while others from Calcutta have the apical areas of the femora more or less infuscate, and in the posterior femora distinctly palely annulate at their apices.

Add: *Hab.* Bombay (*Dixon*); Calcutta (*Incl. Mus.*).

Genus **DIOPHANTUS.**(To precede *Calocoris*, Vol. II, p. 451.)*Diophantus*, *Dist. A. M. N. H.* (8) iv, p. 510 (1909).Type, *D. literatus*, *Dist.**Distribution.* Ceylon.

Head somewhat large, longer than broad, the lateral margins slightly sinuate, centrally slightly longitudinally ridged; eyes large, a little obliquely directed backward; antennæ with the first joint scarcely as long as head, second about three times as long as first, first and second longly pilose, third and fourth slender, third about half the length of second and distinctly longer than fourth; rostrum reaching the posterior coxæ; pronotum nearly twice as broad at base as long, the basal margin convex and about two and a half times as broad as anterior margin, transversely impressed near anterior margin, and behind this impression two transverse callosities, lateral margins oblique; scutellum triangular; corium

Fig. 136.—*Diophantus literatus*.

(including cuneus) a little longer than posterior tibiæ, the costal margin slightly convex; cuneus broad, elongately triangular, the basal margin towards inner apex obliquely deflected to membrane; membrane passing abdominal apex, with a short subquadrate posteriorly subtruncate cell, to which is attached a smaller inner cell; legs of moderate size and length; posterior tarsi with the first and second joints subequal in length; body and legs thickly, more or less longly pilose.

In this Indian enumeration I place the genus near *Eurycyrtus* and *Calocoris*.

3028. *Diophantus literatus*, *Dist. A. M. N. H.* (8) iv, p. 510 (1909).

Body above brownish ochraceous, thickly, somewhat longly pilose; cuneus castaneous, its basal margin ochraceous; head with a central longitudinal line and the eyes black; antennæ ochraceous, apex of second joint and the third and fourth joints piceous; pronotum with the extreme basal margin paler and with a small black spot at each posterior lateral angle; scutellum and the interior area of corium distinctly darker in hue; membrane fuscous, beyond middle mottled with greyish, the basal area reflecting the dark abdomen beneath; body beneath and legs pale ochraceous, mesosternum laterally piceous, legs annulated with fuscous; pronotum finely transversely wrinkled and punctate; scutellum punctate; other structural characters as in generic diagnosis.

Length $5\frac{1}{4}$ millim.

Hab. Ceylon; Ohiya (*Green*).

Genus **CALOCORIS**. (Vol. II, p. 451.)3029. *Calocoris rama*, *Dist. A. M. N. H.* (8) iv, p. 511 (1909).

Above bright, shining, pale olivaceous-green; body beneath and legs paler; antennæ black, the basal joint olivaceous-green; eyes black; membrane fuscous, with a grey spot near apex of cuneus, a little darker on basal area; rostrum ochraceous, its apex black and reaching the intermediate coxæ; antennæ with the basal joint about as long as head, second joint about three times as long as first and obscurely palely annulate near base; head rather elongate anteriorly; pronotum with two small transverse callosities near anterior margin, which is ridged; corium with the costal marginal area a little paler in hue and with cuneus a little longer than posterior tibiæ; tibiæ setose; tarsi apically black.

Length $5\frac{1}{2}$ millim.

Hab. Darjiling.

Genus **MEVIUS**. (Vol. II, p. 453.)

Peritropis, *Popp.* (part.) (*nec Uhler*), *Acta Soc. Scient. Fenn.* xxxvii, n. 4, p. 24 (1910).

Poppius first places my Eastern genus *Mevius* as a synonym of Uhler's North American genus *Peritropis* and then uses it as a distinct subgenus under which he describes species from New Guinea and Singapore.

Genus **LYGUS**. (Vol. II, p. 454.)3030. **Lygus ostensus**, *Dist. A. M. N. H.* (8) iv, p. 511 (1909).

Head and pronotum ochraceous; antennæ and eyes black; scutellum black; clavus and inner area of corium black, base of clavus and costal and lateral areas of corium ochraceous; cuneus castaneous; membrane pale fuscous, subhyaline, the base blackish by reflecting the dark abdomen beneath; head beneath, sternum, and legs ochraceous; abdomen beneath black, with the basal angles ochraceous; femora obscurely annulated with brownish; antennæ with the basal joint about as long as head, second joint about twice as long as first; pronotum with two transverse concolorous callosities behind anterior margin; hemelytra very obscurely shortly pilose; membrane longly passing abdominal apex; apices of tarsi black.

Length $3\frac{1}{2}$ -4 millim.

Hab. Calcutta (*Ind. Mus.*); Chapra (*Mackenzie*); Pusa (*H. L. D.*); Monghyr (*Jenkins*); Kurseong (*Paiwa*); United Provinces; Allahabad.

Allied to *L. pubens*, *Dist.*

3031. **Lygus patrius**, *Dist. A. M. N. H.* (8) iv, p. 512 (1909).

Head, pronotum, scutellum, and corium ochraceous; eyes, apex of clavus, two transverse spots to corium (one before, the other behind middle), and a basal spot and extreme apex to cuneus black or blackish; membrane pale fuscous, subhyaline, the basal area blackish by reflecting the dark abdomen beneath; body beneath and legs ochraceous; intermediate and posterior coxæ and bases of femora and abdomen (excluding apex) black; femora obscurely testaceously annulate, tibiæ obscurely fuscously annulate; antennæ ochraceous, the base and nearly the apical half of second joint black, third and fourth joints very pale fuscous, first joint about as long as head, second about twice as long as first; membrane longly passing the abdominal apex.

Length 4 millim.

Hab. East Himalayas; Kurseong.

3032. **Lygus annandalei**, *Dist. A. M. N. H.* (8) iv, p. 512 (1909).

Head reddish ochraceous, the eyes fuscous brown; antennæ with the first and second joints ochraceous, apical third of second joint black, third and fourth joints pale fuscous; pronotum pale ochraceous, slightly tinged with virescent, the basal area blackish with the exception of the extreme basal margin; scutellum and clavus black; corium very pale ochraceous, subhyaline, the costal membrane a little darker, a transverse dark castaneous spot at inner posterior angle;

cuneus with the lateral and posterior margins and a small spot near its inner base dark castaneous; membrane hyaline, transversely trifasciately mottled with pale fuscous; body beneath and legs pale ochraceous, pro- and mesonota with a sublateral black fascia, abdominal apex castaneous, centrally black; antennæ with the basal joint slightly shorter than head, second joint more than twice as long as first, third little more than half as long as second, but much longer than fourth; pronotum with two transverse callosities near anterior margin; corium shortly obscurely pilose; membrane longly passing the abdominal apex; apices of the tarsi black.

Length $3\frac{1}{2}$ millim.

Hab. L. Bengal; Sonarpur.

3033. *Lygus costatus*, *Dist. A. M. N. H.* (8) iv, p. 512 (1909).

Head ochraceous, the apex and eyes black; antennæ with the first and second joints ochraceous, apical area of the second black, third and fourth joints pale piceous; pronotum ochraceous, the disk frequently discoloured; scutellum ochraceous; corium ochraceous, its disk paler and obscurely greyish; inner claval margin (broadly), margins of claval suture, costal margin, and a spot at base and apex of cuneus black; membrane brownish-ochraceous, with darker mottlings, the basal area darker by the reflection of the abdomen beneath; body beneath and legs ochraceous, disk of mesonotum and a spot at base of abdomen black; basal joint of antennæ about as long or very slightly shorter than head, second joint a little more than twice as long as first; pronotum with two transverse callosities behind the anterior margin; scutellum moderately tumid; corium obscurely, thickly, shortly pilose; membrane considerably passing the abdominal apex; tibial spinules and apices of the tarsi black.

Var.—The black inner margin to clavus occupying the greater part of its area and the costal black margin considerably widened towards apex.

Length 5 millim.

Hab. Nepal; Chonebal, Katmandu (*Ind. Mus.*).

LYGUS DECOLORATUS. (Vol. II, p. 455.)

Add: *Hab.* E. Himalayas; Kurseong, 5000 ft. (*Annandale*); Bhim Tal, 4500 ft., Kumaon. Nepal; Nagorkote, Katmandu. Calcutta.

3034. *Lygus gemellus*, *Dist. A. M. N. H.* (8) iv, p. 513 (1909).

Ochraceous, possibly virescent in living or fresh specimens; eyes black; antennæ greenish ochraceous, apex of the second and the whole of the third and fourth joints pale fuscous; cuneus with

the apical area a little paler and the apical angle black; membrane subhyaline, mottled with pale brownish; femora obscurely annulated with pale brownish near apices; antennæ with the basal joint scarcely as long as head, second joint more than twice as long as first, third considerably shorter than second and longer than fourth; pronotum very finely wrinkled and with two small obscure transverse callosities near anterior margin; scutellum moderately tumid; corium and clavus distinctly finely pilose, corium appearing paler on marginal areas where the abdomen is not reflected beneath; membrane longly passing the abdominal apex; rostrum with the apex black and very shortly passing the posterior coxæ; apices of the tarsi black.

Length 5 millim.

Hab. Kumaon; Bhim Tal (*Annandale*); Darjiling; Pussumbing, 4700 ft. (*Mann*). Bombay; Bassein Fort.

Allied to *L. viridanus*, Motsch. (vol. ii, p. 456).

In some specimens the apical angle of the cuneus is concolorous, not black.

LYGUS BENGALICUS, *Reut.* (Vol. II, p. 457.)

Var. Basal joint of antennæ entirely sanguineous.

Add: *Hab.* Burma; Mandalay (*Annandale*).

3035. *Lygus valerius*, *Dist. A. M. N. H.* (8) iv, p. 514 (1909).

Head reddish ochraceous, its apex and the eyes black; antennæ with the first and second joints black, third and fourth pale brownish, base of third ochraceous; pronotum ochraceous, the

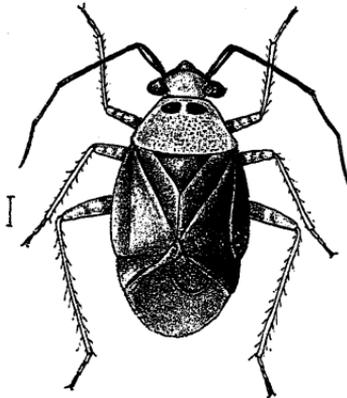


Fig. 137.—*Lygus valerius*.

anterior and lateral margins pale reddish ochraceous, behind the anterior margin two transverse black callose spots; scutellum, corium, and cuneus black; membrane pale fuscous, subhyaline,

basal area darker, reflecting the dark abdomen beneath; body beneath black, lateral areas of the sternum reddish-ochraceous; legs ochraceous, the basal areas and annulations to the apical areas of the femora piceous or black; antennæ with the basal joint about as long as head, second joint about twice as long as first; eyes prominent and projecting beyond the anterior margin of the pronotum; scutellum foveately impressed at base; hemelytra obscurely, shortly, palely pilose; apices of the tarsi black.

Length 3 to $3\frac{1}{2}$ millim.

Hab. Kumaon; Bhim Tal, 4500 ft. (*Annandale*).

Allied to *L. catullus*, Dist.

3036. *Lygus devinctus*, *Dist. A. M. N. H.* (8) iv, p. 514 (1909).

Head ochraceous or pale castaneous, with the apex and the eyes black; antennæ with the basal joint ochraceous or pale castaneous, second joint black, third and fourth fuscous, base of third ochraceous; pronotum pale ochraceous, with two transverse black callose spots behind the anterior margin; scutellum black; corium ochraceous, clavus with an inner black fascia, widened posteriorly, but not occupying the apical angle, corium with a large transverse black spot beyond middle; cuneus black, its basal margin ochraceous; membrane pale fuscous, subhyaline, its basal area blackish by reflecting the dark abdomen beneath; body beneath black; prosternum, rostrum, and legs ochraceous, femora obscurely annulated with brownish, their bases black or piceous, apices of the tibiæ and tarsi narrowly black, in some specimens the anterior tibiæ are centrally obscurely darkly annulate; antennæ with the basal joint as long as head, second joint about twice as long as first; cuneal fracture profound; membrane longly passing the abdominal apex.

Length 4 millim.

Hab. Nepal; Soondrijal (*Ind. Mus.*).

Genus THERMUS.

(To follow *Lygus*, Vol. II, p. 454.)

Thermus, *Dist. A. M. N. H.* (8) iv, p. 514 (1909).

Type, *T. adumbratus*, Dist.

Distribution. Ceylon.

Head a little broader than long, the anterior margin longly pilose; eyes transverse, passing the anterior margin of the pronotum; antennæ with the basal joint slightly thickened, a little longer than head, somewhat longly pilose, second joint four times as long as first, third almost half as long as second and nearly twice as long as fourth; pronotum about twice as broad as long, coarsely punctate, anteriorly declivous, the lateral margins a little roundly oblique; mesonotum exposed; scutellum subtriangular; corium with cuneus about as long as the second joint of the

antennæ; cuneus elongately angulate: membrane longly passing the abdominal apex, with two short, posteriorly truncate cells, the outermost smaller; posterior femora very strongly thickened, shorter than the tibiæ, attenuated towards apices; tibiæ spinulose; rostrum reaching the posterior coxæ, with the first joint shorter than the second.

3037. *Thermus adumbratus*, *Dist. A. M. N. H.* (8) iv, p. 515 (1909).

Head dull ochraceous, with three transverse fasciæ (one basal, one central, and the other apical) and a central longitudinal fascia sanguineous; antennæ ochraceous; pronotum dull ochraceous, a sublateral fascia on each side, a transverse fascia before middle, and a central longitudinal fascia (not reaching base) sanguineous; scutellum dull ochraceous, the lateral margins sanguineous; corium dull ochraceous, with the margins sanguineous, the inner and outer margins preceded by small greyish spots, the apical margin

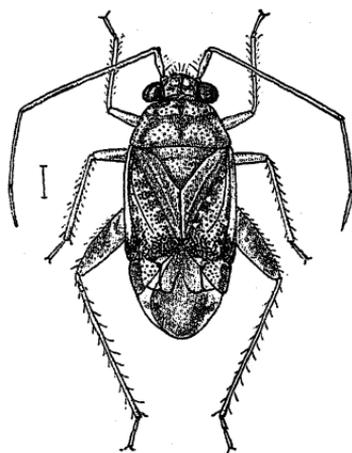


Fig. 138.—*Thermus adumbratus*.

broad, costal margin (excluding apex) pale ochraceous; clavus greyish, thickly spotted with brownish; cuneus pale ochraceous, the outer margin and apex sanguineous and with a small fuscous spot near base; membrane pale fuscous, the margins of the cells sanguineous; body beneath and legs pale ochraceous, lateral areas of the sternum and abdomen moderately infuscate; posterior femora with their apical halves more or less sanguineous; structural characters as in generic diagnosis.

Length 4 millim.

Hab. Ceylon; Maskeliya (*G. B. de Moubray*).

Genus **SAPINNIUS**.

Sapinnius, *Dist. A. M. N. H.* (8) iv, p. 515 (1909).

Type, *S. fidelis*, Dist.

Distribution. Ceylon.

Head somewhat small, perpendicularly deflected, subtriangular, the lateral margins rounded; eyes broad, narrow, transverse, projecting beyond the anterior margins of the pronotum; antennæ with the basal joint moderately thickened, longer than head, second joint more than three times longer than first, third about half as long as second and considerably longer than fourth; rostrum reaching the posterior coxæ; pronotum strongly declivous anteriorly, about twice as broad at base as long, the lateral margins oblique, the posterior margin somewhat convex, the posterior lateral angles subprominent; scutellum triangular, the basal angles a little callose; clavus, corium, and cuneus thickly pilose, corium (excluding cuneus) about as long as second joint of antennæ; cuneus elongately subtriangular; membrane longly passing the abdominal apex and with a basal, slightly curved, posteriorly truncate cell; legs moderate, posterior femora not prominently thickened, posterior tarsi with the basal joint longest.

3038. *Sapinnius fidelis*, *Dist. A. M. N. H.* (8) iv, p. 516 (1909).

Head ochraceous, longitudinally pale sanguineous before each eye;

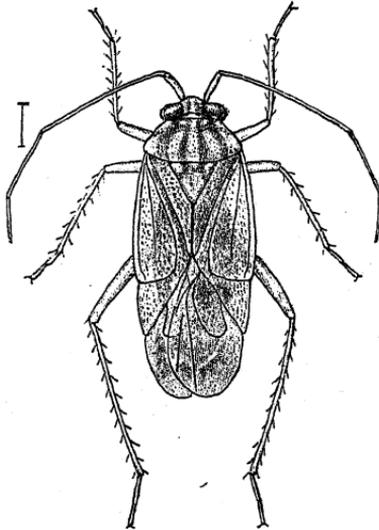


Fig. 139.—*Sapinnius fidelis*.

eyes black; antennæ pale ochraceous; pronotum ochraceous, with

four longitudinal, slightly curved, pale sanguineous fasciæ; scutellum ochraceous, with basal pale sanguineous markings; corium and clavus pale brownish-ochraceous, the corium with the lateral areas irregularly pale ochraceous, cuneus with nearly the inner half pale brownish, the remaining area pale ochraceous; membrane hyaline, at base reflecting the dark abdomen beneath; body beneath pale sanguineous; legs pale ochraceous, posterior femora tinted with pale sanguineous; structural characters as in generic diagnosis.

Length 5 millim.

Hab. Ceylon; Madulsima (*Bainbrigge-Fletcher, Brit. Mus.*).

Genus **PÆCILOSCYTUS**. (Vol. II, p. 458.)

PÆCILOSCYTUS LONGICORNIS. (Vol. II, p. 458, fig. 294.)

In most of the specimens from continental India which I have examined since previously enumerating this species, the central dark annulation to the posterior tibiæ is absent.

Genus **CAMPTOBROCHIS**. (Vol. II, p. 460.)

3039. **Camptobrochis exornatus**, *Dist. A. M. N. H.* (8) iv, p. 516 (1909).

Head pale greenish-ochraceous; eyes and first and second joints of antennæ black (third and fourth joints of antennæ mutilated in typical specimen); pronotum pale greenish-ochraceous, two small spots behind the anterior callosities, a larger spot at each posterior angle, and two subbasal transverse linear streaks black; corium pale greenish-ochraceous, an obscure macular patch on clavus, two small longitudinal linear, and a transverse linear spot at apex of corium, black; cuneus very pale greenish-ochraceous, the inner and outer lateral margins and apical point black; membrane pale fuscous hyaline, with darker mottlings and the basal area black by reflecting the dark abdomen beneath; body beneath and legs pale greenish-ochraceous, femora with two black linear annulations near apex; rostrum with the apex black and reaching the intermediate coxæ; apices of the tarsi black; antennæ with the basal joint almost as long as head, second joint about twice as long as first; pronotum (excepting the anterior transverse callosity) somewhat coarsely punctate; clavus coarsely, corium less coarsely punctate, costal margin impunctate; membrane longly passing the abdominal apex.

Length 6 millim.

Hab. Mussoorie.

3040. *Camptobrochis signatus*, *Dist. A. M. N. H.* (7) xiii, p. 274 (1904).

Ochraceous; apex of second joint of antennæ, eyes, a broad central longitudinal fascia to scutellum (sometimes subobsolete), and a broad fascia at incisural margins of clavus, black; first, third, and fourth joints of antennæ, inner apical area of corium, apical margin to cuneus, central and subapical annulations to posterior femora, apices of tarsi, lateral areas of sternum (sometimes obsolete) and lateral and central areas of abdomen, fuscous; membrane pale brownish ochraceous, hyaline, margins of cells fuscous; first joint of antennæ very slightly thickened and almost as long as head, second joint subequal in length to posterior tibiæ; pronotum somewhat coarsely punctate, the anterior transverse callosity impunctate; clavus and corium more finely punctate, the costal areas of corium impunctate.

Length $4\frac{1}{2}$ millim.

Hab. Calcutta. Ceylon; Peradeniya and Maskeliya (*Green*).—North Queensland; Townsville (*Dodd, Brit. Mus.*).

This is evidently a very widely distributed species; I originally described it from Queensland.

3041. *Camptobrochis qualis*, *Dist. A. M. N. H.* (8) iv, p. 517 (1909).

Head and pronotum ochraceous, head suffused with sanguineous; eyes black; antennæ with the first and second joints ochraceous, extreme apex of second and the whole of third and fourth joints piceous; pronotum with two transverse callosities near anterior margin and a subbasal linear margin sanguineous; rostrum ochraceous; corium ochraceous, the clavus and apical area of corium sanguineous; cuneus sanguineous, its basal margin pale ochraceous; membrane hyaline, the cellular margins a little darker; body beneath, rostrum, and legs ochraceous; mesosternum and apical areas of femora (more or less) sanguineous; abdomen with a sublateral series of small black spots, in a second specimen these are only faintly visible; antennæ with the first joint a little shorter than head, second nearly twice as long as first; pronotum coarsely punctate and slightly wrinkled, anteriorly deflected; clavus thickly punctate, corium punctate, the outer area almost impunctate; membrane longly passing the abdominal apex; rostrum with its apex black and just passing the intermediate coxæ.

Length $4\frac{1}{2}$ millim.

Hab. Simla Hills; Theog, 8000 ft. (*Annandale*).

Genus **PACORUS**.

Pacorus, *Dist. A. M. N. H.* (8) iv, p. 517 (1909).

Type, *P. politus*, *Dist.*

Distribution. North India.

Allied to *Camptobrochis*, but with the first joint of the antennæ considerably longer than the head, second joint about twice as long as first and distinctly setose; pronotum twice as broad at base as long and three times as broad as anterior margin; scutellum broad, the basal margin much longer than the lateral margins; corium very broad, excluding cuneus about as long as posterior tibiæ; cuneus with its posterior margin nearly twice as long as its lateral margin; posterior tarsi with the first and second joints subequal in length.

3042. *Pacorus politus*, *Dist. A. M. N. H.* (8) iv, p. 517 (1909).

Head and pronotum ochraceous, the latter somewhat discoloured on disk and with its posterior margin distinctly paler; eyes piceous; antennæ with the first joint black, the second ochraceous with its apex black (remaining joints mutilated in typical specimen); scutellum stramineous, with a broad, central, longitudinal

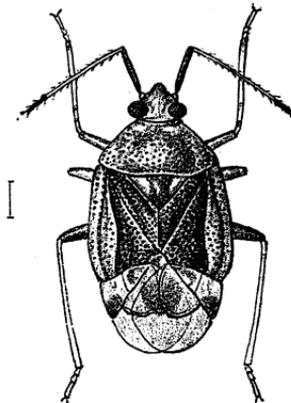


Fig. 140.—*Pacorus politus*.

black fascia; corium black, base of costal margin dull ochraceous; cuneus pale stramineous, its inner angular area and apex piceous; membrane hyaline, slightly fuliginous, cellular margins and basal area (reflecting the dark abdomen beneath) blackish; sternum and abdomen beneath black; head beneath, rostrum, anterior and lateral margins of prosternum, and the legs ochraceous; posterior femora black, tibiæ biannulated with fuscous near base; head

longer than broad; basal joint of antennæ considerably longer than head, second joint about twice as long as first and finely setose; pronotum coarsely punctate, with a transverse anterior callosity; clavus and corium thickly finely punctate; rostrum reaching the posterior coxæ.

Length 5 millim.

Hab. Kurseong.

Genus **LIOCORIDEA** to replace **Gismunda** (Vol. II, p. 463).

Liocoridia, *Reut. Öfv. Finska Vet.-Soc. Förh.* xlv, no. 16, p. 13 (1903).

Liocoridea, *Reut. Ann. Mus. Pétersb.* x, p. 51 (1906).

I gladly accede to Reuter's claim for priority. Though the paper in which his genus was described is attributed to 1903, it was only reported in the 'Zoological Record' as published in 1904, the year in which I described *Gismunda*, and I had not seen it at the time I described the genus and species.

LIOCORIDEA MUTABILIS, *Reut. Öfv. Finska Vet.-Soc. Förh.* xlv, no. 16, p. 14, pl. ii, f. 4 (1903).

Gismunda chelonia, *Dist.* vol. ii, p. 463, fig. 297 (1904).

Add: *Hab.* Thibet; Mou-Pin (*David, Mus. Paris*).

The remarks as to date of publication of the genus (*supra*) apply also to the species involved.

3043. **Liocoridea modesta**, *Dist.* (*Gismunda*) *A. M. N. H.* (8) iv, p. 518 (1909).

Brownish ochraceous; antennæ with the basal joint brownish-ochraceous, second joint ochraceous, with its apical half black and moderately thickened, third joint brownish, its base ochraceous; head strongly deflected in front of eyes; antennæ with the first joint about as long as head, second a little more than twice as long as first, its apical half distinctly incrassate and pilose; rostrum reaching the posterior coxæ*; pronotum short, transverse, strongly deflected, moderately coarsely punctate; scutellum slightly tumid; corium shortly but not prominently pilose, and thickly, finely punctate on about interior half; clavus thickly, coarsely punctate; cuneus broader than long, its apex subacute; membrane pale fuliginous, with darker mottlings, the cellular areas

* In the description of *Gismunda* for "rostrum about reaching the intermediate coxæ" read "posterior coxæ."

pale fuscous, longly passing the abdominal apex; tibiæ finely spinulose.

Length 5 millim.

Hab. Darjiling, 6000 ft.

To be separated from *L. mutabilis* by its unicolorous hue, much less pilose corium, less tumid scutellum, &c.

Division *PILOPHORARIA*.

Pilophoraria, *Reut. Hem. Gymn. Europ.* iii, p. 566 (1883).

Genus *ZARATUS*.

Zaratus, *Dist. Entomologist*, 1909, p. 59.

Type, *Z. repandus*, *Dist.*

Distribution. Nilgiri Hills.

Head subtriangular, obliquely deflected in front of eyes, obscurely centrally longitudinally sulcate on disk; eyes of moderate size but a little projecting beyond the anterior margin of the pronotum; antennæ with the first joint nearly as long as head, second joint more than twice as long as first, third longer than first, fourth mutilated; rostrum not quite reaching the intermediate coxæ, first joint about reaching base of head; pronotum elongate, but a little broader at base than long, transversely constricted a little before anterior margin, posteriorly convexly tumid, anterior and posterior margins truncate, the lateral margins narrowing to apex, angularly sinuate at the transverse constriction, thence straight to anterior margin; scutellum small, subtriangular; clavus long, almost reaching to base of cuneus; corium with the lateral margins strongly concavely sinuate, broadly widened at the cuneal area; membrane slightly passing the abdominal apex; abdomen broad, globose, constricted at base; legs of moderate length, the posterior tibiæ moderately curved and thickened (the posterior tarsi mutilated).

3044. *Zaratus repandus*, *Dist. Entomologist*, 1909, p. 59.

Head, pronotum, and scutellum pale cinnamon-brown; scutellum with an obscure pale concave line and a small basal spot; corium pale cinnamon-brown, an oblique basal spot on each side, which are almost connected with a transverse spot beyond apex of scutellum, and a transverse concave fascia on each side before cuneus whitish, the cuneal suture more obscurely whitish; membrane black, with an obscure pale transverse fascia near base; legs pale

cinnamon-brown; apices of femora and about apical thirds of tibiæ and the tarsi pale stramineous, apices of tarsi black (posterior tarsi mutilated); antennæ pale ochraceous, third joint,

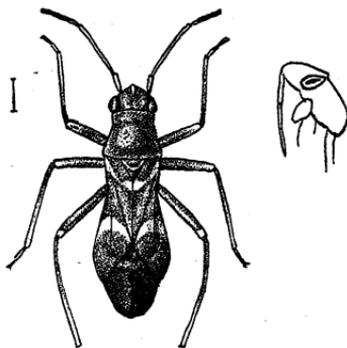


Fig. 141.—*Zaratus repandus*.

excluding base, black; body beneath imperfectly seen in carded specimens.

Length 4 millim.

Hab. Nilgiri Hills; Barwood Estate (*H. Leslie Andrewes*).

Genus **THAUMATURGUS**.

Thaumaturgus, *Dist. A. M. N. H.* (8) iv, p. 518 (1909).

Type, *T. typicus*, *Dist.*

Distribution. India and Ceylon.

Head strongly, almost perpendicularly deflected, subtriangular, the lateral margins a little sinuate, the apex obtusely angulate; eyes moderately projecting beyond and slightly behind the anterior margins of the pronotum; antennæ with the first joint considerably shorter than head, second joint about three times as long as first, its apical area distinctly thickened, third and fourth joints subequal in length and together shorter than second; rostrum not quite reaching the intermediate coxæ; pronotum subquadrate, broader than long, the lateral margins moderately oblique, the anterior margin about one-fourth narrower than the posterior margin; scutellum subtriangular, centrally, longitudinally, irregularly gibbous; corium thickly, shortly pilose, with cuneus a little longer than the posterior tibiæ, the lateral margins concavely sinuate, distinctly broadened at apex; cuneus short and broad; membrane passing the abdominal apex; legs somewhat long and slender, the femora moderately thickened, the posterior tibiæ straight.

Allied to *Pilophorus*, *Hahn*.

3045. *Thaumaturgus typicus*, *Dist. A. M. N. H.* (8) iv, p. 519 (1909).

Black; third joint of antennæ with the basal half pale stramineous; clavus and the corium (excluding apical area) thickly, finely, palely pilose, a short, white, oblique, transverse line near middle of costal area and a continuous, curved, transverse, white line crossing corium and apex of clavus before the apical area of

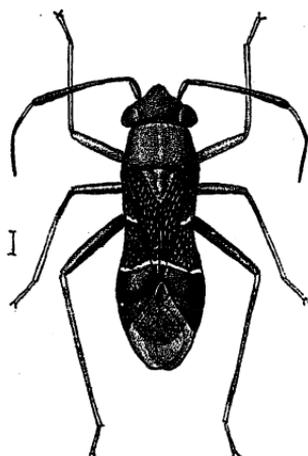


Fig. 142.—*Thaumaturgus typicus*.

corium; membrane fuliginous, the basal area darker by reflecting the abdomen beneath; body beneath black; femora castaneous, tibiæ fuscous, apex of anterior tibiæ, apical half of intermediate tibiæ, and base and apex of posterior tibiæ pale ochraceous; tarsi pale ochraceous, their apices black; structural characters as in generic diagnosis.

Length 3 millim.

Hab. Calcutta (*Ind. Mus.*). Madhupur (*Paiva*). Ceylon; Peradeniya (*Green*).

On chrysanthemum (*C. A. Paiva*).

Genus SILANUS.

(Near *Tyraquellus*, Vol. II, p. 471.)

Silanus, *Dist. A. M. N. H.* (8) iv, p. 519 (1909).

Type, *S. præfectus*, *Dist.*

Distribution. Ceylon.

Head much longer than broad, anteriorly obtusely angularly produced before bases of antennæ; eyes adpressed, their posterior

margins not quite reaching base of head; antennæ with the first joint (excluding base) a little thickened, shorter than head, second about twice as long as first, third and fourth joints short, together about as long as first; rostrum reaching the posterior coxæ; pronotum broader than long, the anterior margin scarcely half as broad as the posterior margin, which is truncately sinuate, exposing the mesonotum, the anterior margin carinate, transversely impressed before middle, the lateral margins concavely sinuate; scutellum triangular, moderately tumid; corium (including cuneus) as long as posterior tibiæ, cuneus small, broader than long; membrane passing the abdominal apex and with a basal, posteriorly truncate cell; legs somewhat long, posterior femora a little curved at base, all the femora distinctly but moderately thickened; posterior tarsi with the first joint shorter than the second.

In this enumeration of the Capsidæ of British India the genus is placed near *Tyraquellus*, Dist.

3046. *Silanus præfectus*, *Dist. A. M. N. H.* (8) iv, p. 520 (1909).

Head, antennæ, thorax, and scutellum black; corium brownish ochraceous, a small marginal spot at base and a larger marginal spot before cuneus ochraceous; clavus darker and more fuscous in

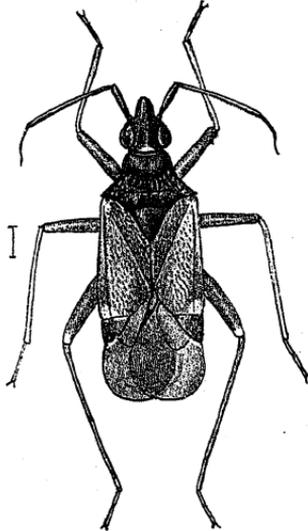


Fig. 143.—*Silanus præfectus*.

hue; cuneus brownish ochraceous, outwardly castaneous; membrane fuliginous; head beneath and sternum black; abdomen beneath piceous; femora black, apices of posterior femora

ochraceous; rostrum, tibiæ, and tarsi brownish ochraceous, apex of rostrum black; head granulose, with a pale, central, longitudinal spot at base; pronotum punctate and shortly, palely pilose; clavus and corium thickly, palely pilose; other structural characters as in generic diagnosis.

Length 4 millim.

Hab. Ceylon; Peradeniya (*Green*).

Genus **NICOSTRATUS**. (Vol. II, p. 475.)

3047. *Nicostratus princeps*, *Dist. Entomologist*, 1909, p. 60.

Brownish ochraceous; a transverse white fascia crossing corium and clavus at apex of scutellum; membrane piceous; head very large and globose, almost circular, about as long as broad, with a transverse rounded incised line between the eyes; antennæ pale ochraceous, apices of second and third joints, and the apical joint excluding base, black, second joint subequal in length to third and fourth together; pronotum strongly transversely constricted before middle, the anterior area or lobe narrow and

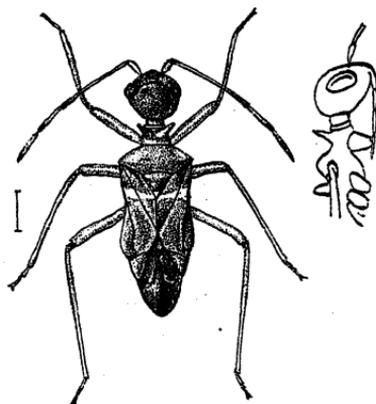


Fig. 144.—*Nicostratus princeps*.

armed with two strong diverging spines, the posterior area or lobe globosely tumid, deflected anteriorly, the lateral angles sub-prominent, the posterior margin very slightly concavely sinuate; scutellum developed into a strong upright semi-acute spine; corium with the lateral margins concavely sinuate, widened and tumid at apices; membrane considerably passing the abdominal apex; legs almost uniformly brownish ochraceous.

Length, 5 millim.

Hab. Nilgiri Hills; Barwood Estate (*H. Leslie Andrewes*).

Strongly differing from *N. balteatus*, *Dist.*, by the much larger and more strongly developed head, different colour, more acute spine to scutellum, &c.

3048. *Nicostratus diversus*, *Dist. A. M. N. H.* (8) iv, p. 520 (1909).

Head and pronotum fuscous brown, eyes black; antennæ black, basal joint brownish ochraceous, bases of third and fourth joints stramineous; scutellum piceous, with the lateral margins stramineous; corium black, clavus and corium crossed by a transverse white fascia near apex of scutellum; cuneus black, membrane dark piceous; head beneath, sternum and legs brownish ochraceous, intermediate and posterior coxæ and bases of femora whitish, apices of tibiæ and the tarsi pale ochraceous, apices of tarsi black; abdomen beneath black, with the base and a central longitudinal line ochraceous; antennæ somewhat stout, basal joint shorter than head, second about three times as long as first, third longer than fourth, third and fourth together almost as long as second; rostrum passing the anterior coxæ; pronotum globosely tumid, deflected anteriorly, where it is strongly constricted and behind a narrow anterior collar armed with two strong divergent spines; scutellum developed in a strong robust upright tuberculous spine; cuneus posteriorly deflected; membrane considerably passing the abdominal apex.

Length 4 millim.

Hab. Orissa.

Genus ABIBALUS.

Abibalus, *Dist. A. M. N. H.* (8) iv, p. 521 (1909).

Type, *A. regulus*, *Dist.*

Distribution. North India.

Head longer than broad, globose, anteriorly broadly convex; eyes a little exserted, nearer to anterior margin than to base, behind eyes moderately obliquely attenuated; antennæ with the first joint slightly longer than head, second more than twice as long as first, third joint about two-thirds the length of second and a third longer than fourth; rostrum reaching the posterior coxæ; pronotum longer than broad, anterior margin about half the breadth of posterior margin, posterior margin concave, exposing the mesonotum, lateral margins concavely oblique; scutellum small, subtriangular; corium including cuneus very slightly longer than posterior tibiæ, excluding cuneus nearly three times longer than broad; cuneus elongate, much longer than broad; membrane large, about as long as corium without the cuneus, a somewhat long cell on basal area; legs finely spinulose, all the tibiæ subequal in length; posterior tarsi with the basal joint longest.

3049. *Abibalus regulus*, *Dist. A. M. N. H.* (8) iv, p. 521 (1909).

Head, pronotum, and scutellum black; anterior margin of pronotum and a lateral fascia on each side of scutellum pale

ochraceous; corium brownish-ochraceous, a large spot near base, an elongate costal spot before cuneus, and some smaller irregular

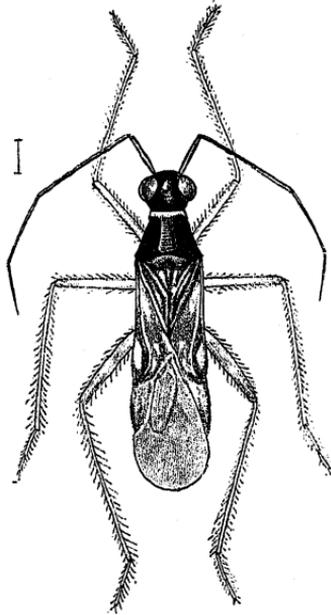


Fig. 145.—*Abibalus regulus*.

spots near membranal margin, greyish-white; clavus darker, with the margins greyish-white; membrane pale fuliginous, the cellular margins darker; body beneath black; legs and rostrum pale ochraceous; apical areas of the femora brownish; structural characters as in generic diagnosis.

Length 4 millim.

Hab. Kurseong.

Genus **ZONODORUS**. (After *Zanchius*, Vol. II, p. 477.)

Zonodorus, *Dist. A. M. N. H.* (8) iv, p. 522 (1909).

Type, *Z. gubernator*, *Dist.*

Distribution. Ceylon.

Head short, broad, convex, not horizontally produced in front of eyes, which are placed somewhat midway between base and apex and thus longly removed from the anterior margin of the pronotum, between the eyes obscurely longitudinally sulcate; antennæ with the first joint moderately thickened and about as long as head, second joint about four times as long as first and a little longer than third, fourth scarcely shorter than

third; rostrum about reaching the posterior coxæ; pronotum much broader than long, narrowed to head, the lateral margins oblique, distinctly transversely impressed a little before middle, the posterior margin concave and exposing the base of the mesonotum; scutellum subtriangular, a little convex; corium (excluding cuneus) considerably shorter than posterior tibiæ; membrane longly passing abdominal apex, with an elongate posteriorly truncate cell; legs somewhat long and slender, the posterior femora distinctly thickened, the posterior tibiæ as long as corium and cuneus together, posterior tarsi with the basal joint longest.

In this enumeration of the Indian Capsidæ I place the genus near *Zanchius*, Dist., to which it is closely allied, but separated by the structure of the head.

3050. *Zonodorus gubernator*, *Dist. A. M. N. H.* (8) iv, p. 523 (1909).

Head, antennæ, pro- and mesonota, scutellum, body beneath, rostrum, and legs stramineous or very pale ochraceous; base of first joint of antennæ and the basal areas of the femora greyish-white; clavus, corium, and cuneus greyish-white, subhyaline,

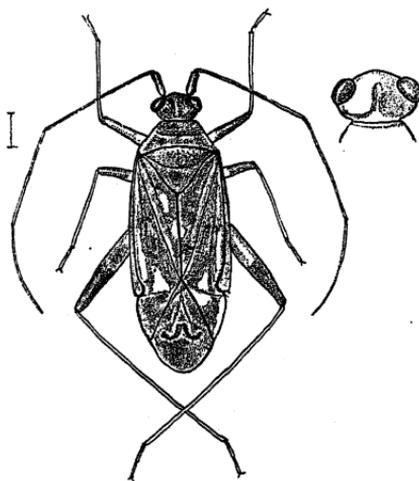


Fig. 146.—*Zonodorus gubernator*.

macularly mottled with pale virescent, the costal area of corium (excluding base) and extreme apex pale ochraceous, the margins of clavus adjoining scutellum also pale ochraceous; membrane very pale brownish-ochraceous, the basal area mottled with pale

virescent and the membranal cells posteriorly margined with the same colour; the upper surface is distinctly, finely, palely pilose; structural characters as in generic diagnosis.

Length 4 millim.

Hab. Ceylon; Peradeniya (*Green*).

Genus ANTIPHILUS.

Antiphilus, *Dist. A. M. N. H.* (8) iv, p. 521 (1909).

Type, *A. amicus*, *Dist.*

Distribution. North India.

Elongate; head about as broad as long, anteriorly deflected; eyes straightly transverse, distinctly removed from base of head; rostrum reaching the posterior coxæ; antennæ pilose, first joint a little longer than head and moderately thickened, second a little more than twice as long as first, third twice as long as fourth, third and fourth together about as long as second; pronotum about twice as broad as long, basal margin twice as broad as

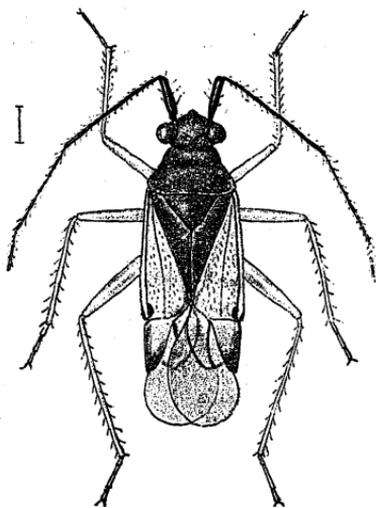


Fig. 147.—*Antiphilus amicus*.

anterior margin, distinctly transversely impressed before middle, and in front of this impression moderately transversely bi-callose, the lateral margins obliquely sinuate, the posterior angles obtuse; scutellum broadly subtriangular; corium (excluding cuneus) almost as long as posterior tibiæ, about two and a half times as long as broad at greatest width; cuneus much longer than broad at base, angularly narrowed at apex; membrane large, its greatest

length equal to that of corium without the cuneus, and with two elongate cellular areas not passing apex of cuneus; legs of moderate length, femora distinctly but not prominently thickened, tibiæ spinulose, posterior tarsi with the basal joint much shorter than the second.

A genus of *Cyllocoraria*.

3051. *Antiphilus amicus*, *Dist. A. M. N. H.* (8) iv, p. 522 (1909).

Head, antennæ, pronotum, scutellum, and clavus black; corium flavous, shortly, darkly, sparsely pilose and with a small black spot near apical angle, cuneus flavous, apically (broadly) and marginally (narrowly) blackish; membrane pale shining fuliginous with iridescent reflections, the cellular margins black; body beneath black; rostrum and legs pale ochraceous, apices of tarsi (especially anterior tarsi) blackish; structural characters as in generic diagnosis.

Length $4\frac{1}{2}$ to 5 millim.

Hab. Darjiling, 6000 ft. (*Ind. Mus.*); Kurseong, East Himalaya, Ukhral, Manipur (*Ind. Mus.*).

Genus AZIZUS.

Azizus, *Dist. A. M. N. H.* (8) v, p. 10 (1910).

Type, *A. basilicus*, *Dist.*

Distribution. Bengal.

Head deflected in front of eyes, longer than broad; eyes large and globose, prominently projecting beyond the anterior margins of the pronotum; antennæ somewhat long and robust, first joint stoutest, a little longer than head, slightly curved, second joint nearly three times as long as first, third about two-thirds the length of second and nearly twice as long as fourth; rostrum passing the posterior coxæ; pronotum nearly twice as broad at base as long and nearly three times as broad as anterior margin, the basal margin concave, transversely constricted near anterior margin, the anterior area with a small tubercle on each lateral margin, the lateral margins oblique, the disk strongly deflected anteriorly; scutellum large, broad at base, moderately deflected posteriorly; corium about three times as long as broad, its apical margins subtruncate, the lateral margins nearly straight; cuneus longer than broad; membrane considerably passing abdominal apex, with an elongate, oblong, posteriorly truncate cell before cuneus and a very small cell at base; anterior and intermediate legs of moderate size, the tibiæ spinulose (posterior legs mutilated in typical specimen).

This genus I include in the division Teratodellaria as used in this Indian enumeration.

3052. *Azirus basilicus*, *Dist. A. M. N. H.* (8) v, p. 11 (1910).

Head, pronotum, and scutellum black, very finely and obscurely palely pilose; antennæ with the first and fourth joints castaneous, the second and third joints ochraceous; clavus and corium dull castaneous brown, distinctly, thickly, finely palely pilose, the extreme costal margin of the latter ochraceous; cuneus pale bright

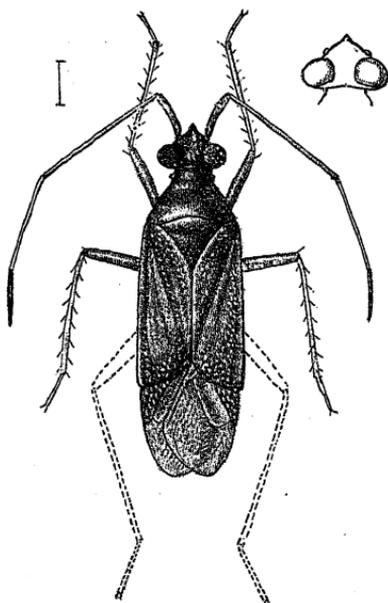


Fig. 148.—*Azirus basilicus*.

castaneous, pilose as on corium; membrane fuscous, with iridescent reflections; body beneath fuscous brown; anterior and intermediate femora castaneous, tibiæ and tarsi pale ochraceous, coxæ and acetabula more or less testaceous (posterior legs mutilated in typical specimen); structural characters as in generic diagnosis.

Length $5\frac{1}{2}$ millim.

Hab. Bengal; Pusa (*Lefroy*).

Mr. Maxwell-Lefroy sent me a single example of this species.

Genus SEREBÆUS.

Serebæus, *Dist. A. M. N. H.* (8) v, p. 11 (1910).

Type, *S. discriminatus*, *Dist.*

Distribution. Ceylon.

Head globose, longer than broad, apically acuminate, anteriorly deflected; eyes small, moderately adpressed, their posterior

margins reaching base of head; antennæ slender, first joint distinctly thickened and inwardly finely spinulose, second about three times as long as first and subequal in length to third, fourth about half as long as third; rostrum reaching the posterior coxæ; pronotum at base twice as broad as long and nearly three times as broad as anterior margin, posterior margin concave, exposing the mesonotum, lateral margins sinuately oblique, a short distinct anterior collar, behind which it is obscurely transversely impressed; scutellum small, tumid, transversely impressed; corium (including cuneus) as long as posterior tibiæ; cuneus a little longer than broad, the apex subacute; membrane considerably passing the abdominal apex; legs somewhat slender, the femora moderately thickened, the posterior tibiæ spinulose, posterior tarsi with the first joint a little longer than second.

In this Indian enumeration the genus has affinity with *Tyraquellus* (vol. ii, p. 471).

3053. *Serebæus discriminatus*, *Dist. A. M. N. H.* (8) v, p. 12 (1910).

Head, pronotum, and scutellum castaneous brown, eyes dull sanguineous; antennæ pale ochraceous, the basal joint castaneous; corium pale greyish, subhyaline, base of clavus and a transverse

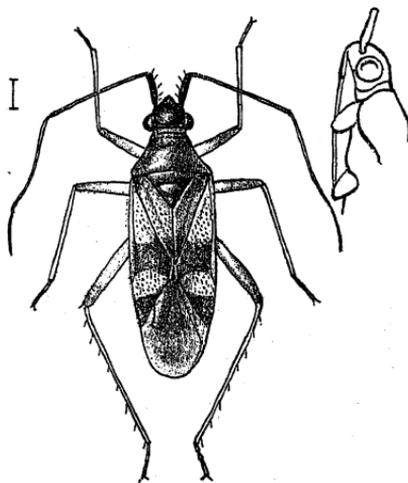


Fig. 149.—*Serebæus discriminatus*.

broad fascia crossing corium and apex of clavus fuscous brown; cuneus bright, pale castaneous; membrane pale fuliginous with iridescent reflections; body beneath sanguineous, legs and rostrum stramineous, spinules to the posterior tibiæ fuscous; first joint of

antennæ longly spinulose interiorly; lateral pronotal margins with a few long hairs; scutellum and corium distinctly palely pilose; structural characters as in generic diagnosis.

Length 4 millim.

Hab. Ceylon; Peradeniya (*Green*).

Genus **FULVIDIUS**.

(To follow *Serebæus*, ante, p. 274.)

Fulvidius, *Popp. Act. Soc. Scient. Fenn.* xxxvii, no. 4, p. 20 (1909).*

Type, *F. punctatus*, Popp.

Distribution. Burma.

“Body rather elongated, on the sides a little rounded, faintly shining, the hemelytra, excepting the membrane, dull; above with very short semi-erect hairs, rather strongly punctured; head broad, broadly pointedly produced, somewhat vertical, seen from the sides with the convex neck-shield evenly arched, about as long as the base with the eyes broad, the “Zügel” narrow, above and beneath sharply margined; eyes large, not extending to the throat; antennæ inserted just before the eyes, first joint with short adpressed hairs, the second clothed with short erect hairs (remaining joints mutilated in type), first joint somewhat produced, very little thickened, extending beyond apex of head, the second half thinner and twice as long; first joint of rostrum indistinctly longer than the head; the front very finely and rather wrinkly punctured; clypeus strongly shining, smooth, the pronotum thickly punctured, the callosities more finely and sparsely, apical structure not developed; the callosities very slightly convex, extending backward rather beyond the middle of the disk, separated from each other by a small longitudinal furrow, the hinder angles rounded, not projecting, basal margin nearly straightly truncated, the sides shallowly sinuous and for the whole length sharply margined; scutellum rather convex, behind base somewhat flatly impressed, thickly punctate; hemelytra in ♀ longer than abdomen, clavus thickly, corium sparsely punctate, cuneus indistinctly defined; membrane with two cells; hind wings with a rudimentary cell-hook; legs with finely adpressed hairs, without spines, tibiæ narrow, first joint of tarsi long.” (*Poppius*.)

3054. *Fulvidius punctatus*, *Popp. Act. Soc. Scient. Fenn.* xxxvii, no. 4, p. 20, fig. 6 (1910).

“Blackish-brown, on middle of pronotum a short narrow longitudinal streak and another broader on each side inside the hinder angles, the latter and the side margin, sides of scutellum (very narrowly), the claval suture broadly (base excepted), outer margin of clavus (narrowly), corium with inner basal half backward to the

* This publication is dated 1909, but it only reached my hands, through the courtesy of Dr. Poppius, in May 1910.

middle interrupted by the inground black spots, two longitudinal dashes on basal outer half, the whole apical margin to the interior base of cuneus and a short longitudinal streak going out from here as well as apical half of cuneus and protopleura beneath, narrowly



Fig. 150.—*Fulvidius punctatus*.

yellow; membrane fuliginous, inside the tip of cuneus pale; antennæ yellowish-brown, second joint at apex rather darker; rostrum and legs brown; apical halves of femora and apices of tibiæ yellow; head about one-third shorter than pronotum with the eyes scarcely narrower than front margin of same; front only a little broader than diameter of eye, in middle very shallowly furrowed; first joint of antennæ about one-fourth shorter than breadth of front with eyes, second joint one-fourth shorter than basal margin of pronotum." (*Poppius*.)

"Length 4.5, lat. 2 millim."

Hab. Burma; Karenni (*Fea*), *vide* Poppius.

I have not seen this species which is stated to be founded on a female specimen. I have reproduced the description and figure of Poppius, between which there appear to be some slight discrepancies.

Genus **THAUMASTOMIRIS**. (Vol. II, p. 473.)

3055. *Thaumastomiris piceatus*, sp. n.

Sanguineous; antennæ, eyes, clavus (excluding base) and inner area of corium (excluding base) piceous or black; membrane fuliginous with the veins darker; head vertically depressed in front of eyes, strongly transversely impressed between the eyes; pronotum with a distinct anterior collar and behind which the transverse callosities are prominent and medially well separated, the posterior disk very finely granulate; corium very finely and indistinctly granulate and obscurely shortly pilose, the costal

margin prominent and reflexed; membrane in some lights with prismatic reflections; tarsi fuscous, the base paler.

Length $4\frac{1}{2}$ to 5 millim.

Hab. Bengal; Ganges Delta, Sorabkatti (*Jenkins*), Khulna distr., Gurhalee and Shela F. S. (*Jenkins*), R. Hooghly, Fultah (*Jenkins, Ind. Mus. & Coll. Dist.*).

Mr. J. T. Jenkins took many of these specimens "at light."

Genus **DIOCLERUS**.

Dioclerus, Dist. A. M. N. H. (8) v, p. 12 (1910).

Type, *D. præfectus*, Dist.

Distribution. Ceylon.

Head strongly deflected anteriorly, viewed from above short and broad; eyes prominent, oblique, considerably extending beyond the anterior margins of the pronotum; antennæ with the first joint a little longer than pronotum, slightly thickened near base, second joint twice as long as first, third a little more than half the length

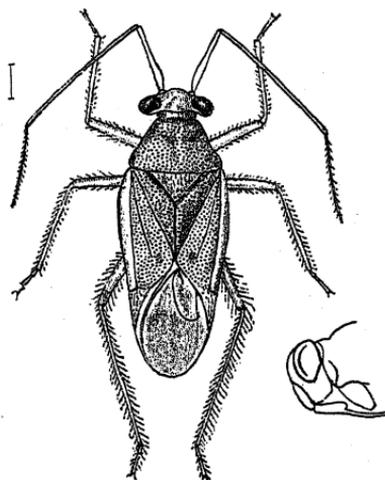


Fig. 151.—*Dioclerus præfectus*.

of second; rostrum reaching the posterior coxæ; pronotum thickly punctate, at base about one-third broader than long, and three times broader than anterior margin, a distinct narrow anterior collar; behind which it is transversely impressed, and on the anterior area centrally longitudinally sulcate, basal and anterior margins truncate, the lateral margins oblique; scutellum small, broadly subtriangular, finely obscurely pilose; corium (including unguis) subequal in length to posterior tibiæ, excluding costal area

and including clavus distinctly thickly punctate and subpilose, the costal margin moderately convex, narrowing to apex, cuneus slender, longer than broad, pilose; membrane almost as long as corium (excluding cuneus), and with a longitudinal posteriorly curved cell on basal area; legs of moderate length, setose.

In this Indian enumeration the genus may be placed between *Cyrtorrhinus* and *Zanchius* (vol. ii, pp. 476 & 477).

3056. *Dioclerus præfectus*, *Dist. A. M. N. H.* (8) v, p. 13 (1910).

Head, pronotum, scutellum, clavus, and body beneath golden-yellow; corium, cuneus, membrane, and legs pale stramineous; eyes and an apical spot to abdomen black; antennæ fuscous-brown, the basal joint obscure stramineous; apices of femora slightly infuscate, tarsal claws black; corium with a small dark spot on each side of claval apex, the costal area impunctate and thus appearing paler in hue; other characters as in generic diagnosis.

Length 4 millim.

Hab. Ceylon; Peradeniya (*Green*).

Genus DORTUS.

(Near *Cyrtorrhinus*, Vol. II, p. 476.)

Dortus, *Dist. A. M. N. H.* (8) v, p. 13 (1910).

Type, *D. primarius*, *Dist.*

Distribution. Tenasserim.

Head longer than broad between eyes, but very strongly deflected in front of eyes, which are large and prominent and extend beyond the anterior margins of the pronotum; antennæ longly pilose, first joint about as long as head, scarcely thickened, second more than twice as long as first, third and fourth together shorter than second; rostrum passing the intermediate coxæ; pronotum at base much broader but not twice as broad as long, but more than twice broader than anterior margin, a very narrow anterior collar, transversely impressed before anterior margin, and thus enclosing two transverse callosities, with the exception of which the surface is thickly punctate, lateral margins sinuately oblique, lateral posterior margins oblique, truncate before scutellum; scutellum moderately tumid, subtriangular; corium (excluding cuneus) about as long as posterior tibiæ; clavus and corium (excepting costal area) thickly punctate, cuneus nearly as broad at base as long, and longly pilose; membrane considerably passing the abdominal apex, its greatest length equal to that of corium (excluding cuneus); legs of moderate length, strongly setose, femora only moderately thickened, the posterior femora slightly more so.

3057. *Dortus primarius*, *Dist. A. M. N. H.* (8) v, p. 13 (1910).

Head pale brownish ochraceous, centrally longitudinally darker in hue, eyes black; antennæ ochraceous, pilose, apex of the second joint black, third and fourth joints fuliginous, base of third ochraceous; pronotum pale brownish ochraceous, thickly punctate, the lateral margins somewhat broadly piceous, the transverse anterior callosities smooth; scutellum pale brownish ochraceous, with a central longitudinal piceous fascia and faintly transversely

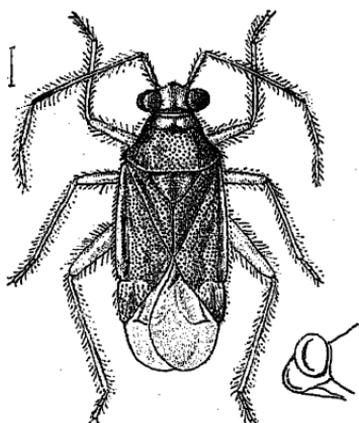


Fig. 152.—*Dortus primarius*.

wrinkled; clavus and pronotum pale brownish ochraceous, thickly, more darkly punctate, the costal area paler and impunctate, cuneous ochraceous, the apical area piceous, somewhat longly pilose; membrane pale fuliginous; body beneath and legs ochraceous, lateral margins of sternum and abdomen and apical area of abdomen broadly piceous; other characters as in generic diagnosis.

Length 5 millim.

Hab. Tenasserim; Myitta (*Doherty*).

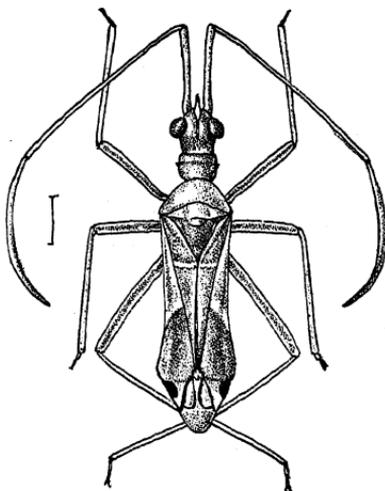
Genus **GALLOBELICUS**. (Vol. II, p. 477.)

GALLOBELICUS CRASSICORNIS. (Vol. II, p. 478.)

Add: *Hab.* Bengal; Pusa (*Lefroy*). Calcutta. Nepal. Ceylon; Peradeniya (*Green*).

Genus **ARMACHANUS**. (Vol. II, p. 478.)3058. *Armachanus nilgiriensis*, *Dist. Entomologist*, 1909, p. 60.

Pale brownish ochraceous, a transverse linear white fascia crossing clavus near apex of scutellum, and an oblique similar fascia near middle of corium; before the latter the lateral area is also more or less greyish white; cuneus with a prominent black basal spot; membrane very pale fuliginous; body beneath and legs unicolorous. Somewhat closely allied to *A. monoceros*, *Dist.*, but a more slender and attenuated species, the posterior pronotal area shorter, the anterior area longer, narrower, and moderately narrowed at base, thus bringing the two areas or lobes into more

Fig. 153.—*Armachanus nilgiriensis*.

divisional character and into greater contrast; the head is more elongate, and has a median longitudinal darker line; the scutellum, clavus, and central area of corium are not darker in hue as in *A. monoceros*, but concolorous with the general pale brownish ochraceous coloration.

Length 6 millim.

Hab. Nilgiri Hills; Barwood Estate (*H. Leslie Andrewes*).

Genus **SOHENUS**. (After *Armachanus*, Vol. II, p. 478.)

Sohenus, *Dist. A. M. N. H.* (8) v, p. 14 (1910).

Type, *S. proditus*, *Dist.*

Distribution. Ceylon.

Head considerably longer than broad, tumid, eyes somewhat small and adpressed and placed about midway between base and

apex, the apical area strongly deflected in front of eyes, the basal area moderately attenuated from eyes to posterior margin; antennæ rather long, first joint shorter than head, second three times as long as first, third almost as long as second and half as long again as fourth; rostrum reaching the intermediate coxæ; pronotum much broader at base than long and more than twice broader than anterior margin, three transverse impressions before anterior margin, the basal area gibbous and deflected to the first transverse impression, and the lateral margins to that impression a little convexly oblique, remaining lateral margins to apex distinctly dislocated at the remaining impressions, posterior margin angularly concave; scutellum about as long as broad at base, strongly deflected posteriorly and transversely impressed near middle, the lateral margins moderately concavely sinuate; corium (including cuneus) as long as head, pronotum, and scutellum together, the costal margin strongly concavely sinuate, apex of clavus almost reaching base of cuneus, which is a little broader than long; membrane about half the length of corium (including cuneus); legs long, posterior tibiæ about as long as hemelytra, posterior tarsi with the first joint a little longest.

Allied to *Armachanus*, *Dist.* (vol. ii, p. 478), but with the head longer and with no special spinous protuberance, &c.

3059. *Sohenus proditus*, *Dist. A. M. N. H.* (8) v, p. 14 (1910).

Pale cinnamomeous; eyes black; corium with a somewhat

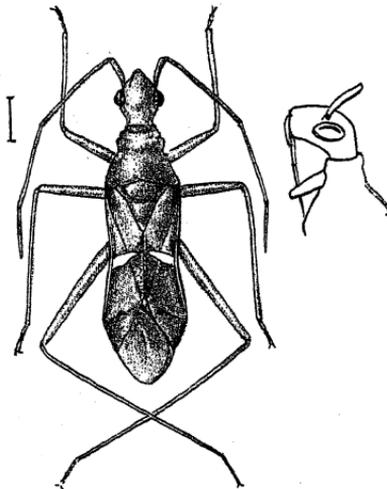


Fig. 154.—*Sohenus proditus*.

oblique white fascia crossing it and greater part of clavus a little

beyond middle, apical inner area of corium somewhat infusate, membrane fuliginous; antennæ with the first, second, and fourth joints pale fuscous brown, third joint pale ochraceous; scutellum darker and a little more castaneous in hue; head, pronotum, and scutellum very finely obscurely punctate; head beneath, rostrum, sternum, and legs ochraceous; abdomen beneath (excepting base) piceous; other characters as in generic diagnosis.

Length $5\frac{1}{2}$ millim.

Hab. Ceylon; Peradeniya (*Green*).

Division CAMPTOTYLARIA.

(To precede the LABOPARIA, Vol. II, p. 479.)

Camptotylaria, *Reut. Het. Gymn. Europ.* iv, p. 7 (1891).

Genus BADEZORUS.

Badezorus, *Dist. A. M. N. H.* (8) v, p. 15 (1910).

Type, *B. tyrianus*, *Dist.*

Distribution. N. India.

Head robust, subtriangular, about as long as broad, centrally moderately arched, obscurely transversely striate; antennæ with the first joint moderately thickened, shorter than head, second joint three times as long as first, third and fourth joints subequal in length and together little more than the length of second; rostrum not quite reaching the intermediate coxæ; pronotum at base about twice as long as broad and less than twice as broad as anterior margin, moderately deflected anteriorly, the lateral margins oblique, the posterior angles obtusely rounded; scutellum broad, subtriangular; corium (including cuneus) as long as posterior tibiæ, cuneus broad, at base considerably broader than long; membrane passing abdominal apex, its greatest length almost equalling that of corium (excluding cuneus); legs of moderate length, longly spinulose, the posterior femora distinctly thickened, posterior tarsi with the first and second joints subequal in length.

This genus seems to be clearly located in the division Camptotylaria, *Reut.*

3060. *Badezorus tyrianus*, *Dist. A. M. N. H.* (8) v, p. 15 (1910).

Head dull greyish; antennæ obscure ochraceous, the first joint (more or less) and the base of the second joint piceous; pronotum and scutellum virescent, sparsely palely pilose; corium dull greyish, the clavus virescent, the costal area strongly palely pilose, cuneus dull greyish, darkly pilose, at the internal angle with a small black punctate spot; membrane dull greyish, with

pale fuscous mottlings; body beneath and legs pale ochraceous, posterior femora apically black, tibiæ spotted with black, and from

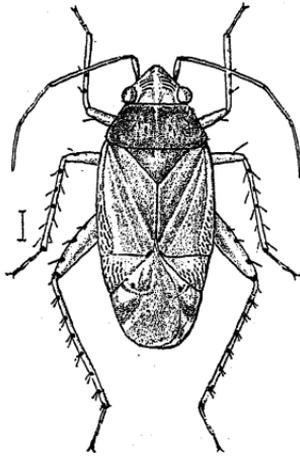


Fig. 155.—*Badesorus tyrianus*.

these spots on the posterior tibiæ the spinules arise in pairs, all the spinules black, apices of tarsi black; other characters as in generic diagnosis.

Length 3 millim.

Hab. Punjab; Lahore (*Annandale*).

Genus **ACRATHEUS**.

Acratheus, *Dist. A. M. N. H.* (8) v, p. 16 (1910).

Type, *A. nocturnus*, *Dist.*

Distribution. Bengal.

Head about as long as broad, strongly depressed anteriorly, a little centrally foveately impressed between the eyes, which are of moderate size, reach the base of head, and obliquely slightly project beyond the anterior margins of the pronotum; antennæ slender, first joint almost as long as head, second twice as long as first, third and fourth subequal in length, each a little shorter than second; rostrum robust, reaching the intermediate coxæ; pronotum anteriorly deflected at a short distance from base, thickly strongly punctate, the lateral margins acute, at base twice as broad as long and about one and a half times as broad as anterior margin, anterior and posterior margins truncate, the lateral margins oblique, posterior lateral angles subprominent; scutellum small, broad, subtriangular, a little longitudinally elevate and on lateral areas punctate; corium (including cuneus) as long as posterior tibiæ, including clavus thickly punctate, posteriorly

widened and rounded, cuneus very much broader than long, interiorly transversely angulate, cuneal fracture profound; membrane longly passing the abdominal apex, its greatest length almost equalling that of corium without cuneus; legs of moderate length, not spinulose.

To be placed in the division Laboparia and by the profound cuneal fracture near *Bilia*, Dist. (vol. ii, p. 480).

3061. *Acratheus nocturnus*, *Dist. A. M. N. H.* (8) v, p. 16 (1910).

Head orange-yellow, eyes black; antennæ stramineous, apical joint infuscate; pronotum, scutellum, and corium black; cuneus greyish white, with the basal marginal area black; membrane pale fuscous, with a large greyish white spot on lateral margin; head

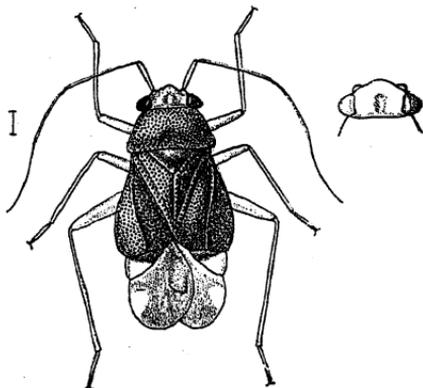


Fig. 156.—*Acratheus nocturnus*.

beneath orange-yellow or pale reddish; sternum and abdomen black; legs and rostrum pale stramineous; apices of tarsi black; structural characters as in generic diagnosis.

Length 3 millim.

Hab. Bengal; Bhogaon, Purneah Distr. (*Paiva*), Calcutta (*Ind. Mus.*). Kumaon, Bhim Tal, 4500 ft. (*Anmandale*).

Genus ARISTOBULUS.

Aristobulus, *Dist. A. M. N. H.* (8) v, p. 16 (1910).

Type, *A. filius*, Dist.

Distribution. N. India.

Head about as broad as long, strongly deflected in front of eyes, which are situate at base of head and project beyond the anterior margin of the pronotum; antennæ pilose, with the first joint a little shorter than head and with a few long hairs, second more than twice as long as first, gradually moderately thickened on apical half, where it is also more strongly pilose, third twice

as long as fourth and together as long as second; rostrum almost reaching the posterior coxæ; pronotum at base about one and a half times as broad as long and about one-third longer than anterior margin, the lateral margins rather roundly oblique, the anterior area transversely bi-callose, the posterior area transversely striate; scutellum triangular, transversely constricted near base; corium covering about two-thirds of the abdomen, longitudinally ridged, apical and lateral margins a little rounded, cuneus and membrane undeveloped; abdomen widened posteriorly, deflected on its apical area and pilose; legs of moderate length; tibiæ pilose.

Somewhat allied to the Palearctic genus *Euryopicoris*, Reut.

3062. *Aristobulus filius*, *Dist. A. M. N. H.* (8) v, p. 17 (1910).

Head, pronotum, scutellum, and corium shining piceous black; abdomen above and body beneath shining jet-black; legs pale

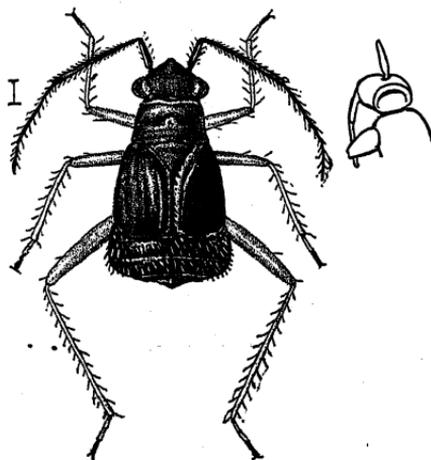


Fig. 157.—*Aristobulus filius*.

ochraceous; body shortly, finely, greyish pilose; structural characters as in generic diagnosis.

Length 3 millim.

Hab. Darjiling, 6000 ft.

Genus **SAMPSIGERAMUS**.

Sampsigeramus, *Dist. A. M. N. H.* (8) v, p. 17 (1910).

Type, *S. pilosulus*, Dist.

Distribution. Ceylon.

Head broader than long, anteriorly deflected; eyes small, situate at base of head, scarcely projecting beyond the anterior

margins of the pronotum; antennæ moderately slender, first joint shorter than head, second about three times as long as first, third shorter than second, but considerably longer than fourth; rostrum distinctly passing the posterior coxæ; pronotum at base more than twice as broad as long and about half as broad again as anterior margin, deflected on anterior half, very obscurely transversely callose on anterior area, anterior and posterior margins truncate, lateral margins a little roundly oblique, the posterior angles obtusely rounded; scutellum subtriangular; corium (excluding cuneus) about as long as posterior tibiæ, including clavus twice as long as broad; cuneus about as broad at base as outwardly long; membrane considerably passing abdominal apex, its greatest length as long as intermediate tibiæ; head, pronotum, scutellum, corium, and cuneus densely pilose; legs spinulose, the tibiæ more thickly and strongly so, the femora, especially the posterior, distinctly thickened; posterior tarsi with the basal joint longest.

The position of this genus is near the Palæarctic *Plagiotylus*, Scott.

3063. *Sampsigeramus pilosulus*, *Dist. A. M. N. H.* (8) v, p. 18 (1910).

Head obscure dull ochraceous, thickly pilose; antennæ piceous black, the second joint centrally broadly annulated with dull ochraceous, eyes black; pronotum thickly strongly pilose and darkly granulose, dull ochraceous, the disk more or less discoloured and darker in hue; scutellum somewhat

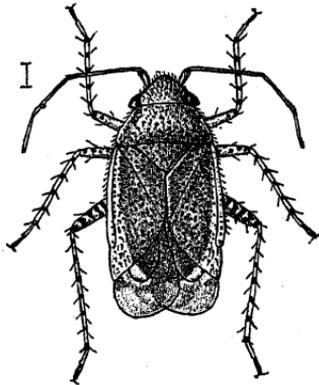


Fig. 158.—*Sampsigeramus pilosulus*.

palely piceous, thickly strongly pilose and darkly granulose; corium somewhat palely piceous, the costal area and cuneus pale ochraceous, strongly, thickly, darkly pilose; membrane very pale fuliginous with paler mottlings, especially at the apices of the cells; body beneath black, finely pilose; legs ochraceous,

annulated with black, the posterior femora much more distinctly so than the anterior or intermediate femora, tibial spinules long, black, placed in pairs at the black annulations, apices of the tarsi black; structural characters as in generic diagnosis.

Length 3 millim.

Hab. Ceylon; Hakgala (*Green*).

On *Anaphalis oblonga*, D. L. (*E. E. Green*).

Genus **RAGMUS**.

Ragmus, *Dist. A. M. N. H.* (8) v, p. 18 (1910).

Type, *R. importunitas*, *Dist.*

Distribution. India, Ceylon.

Head as long as broad, deflected anteriorly, eyes globular, of moderate size, placed at base of head, scarcely projecting beyond the anterior margins of the pronotum; antennæ with the first joint shorter than head, slightly thickened and with two spinules, second joint more than three times as long as

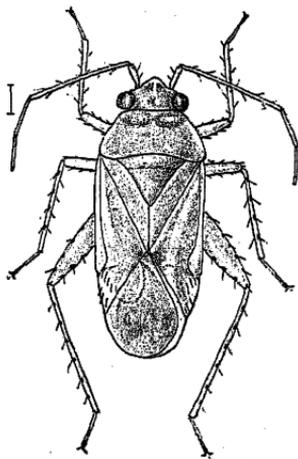


Fig. 159.—*Ragmus importunitas*.

first and spinulose; rostrum reaching the intermediate coxæ; pronotum at base more than twice as broad as long and less than twice as broad as anterior margin; posterior margin concave, exposing the mesonotum, two transverse callosities before anterior margin, the lateral margins oblique; scutellum subtriangular; corium (including cuneus) only slightly longer than posterior tibiæ; cuneus as broad at base as outwardly long and distinctly longly sparsely pilose; membrane considerably passing the abdominal apex; legs of moderate length, anterior and intermediate femora slightly, posterior femora much more distinctly spinulose, tibiæ distinctly, longly spinulose; posterior tarsi with the basal joint longest.

3064. *Ragnus importunitas*, *Dist. A. M. N. H.* (8) v, p. 18 (1910).

Pale ochraceous, probably more virescent in living specimens; eyes and third and fourth joints of antennæ pitchy black; head with two transverse darker impressions in front of eyes and a more or less distinct central foveation near base; cuneus distinctly, more or less darkly, sparsely pilose; membrane hyaline; body beneath and legs pale ochraceous, anterior and intermediate femora slightly, posterior femora more distinctly spotted with black, tibiæ (the anterior less prominently so) spotted with black, the spinules black and placed near the black spots, apices of the tarsi black; other characters as in generic diagnosis.

Length $3\frac{1}{2}$ millim.

Hab. Ceylon; Peradeniya (*Green*).

Punctures leaves of *Crotalaria verrucosa* and *C. incarna* (*E. E. Green*).

3065. *Ragnus pellucidus*, *Dist. A. M. N. H.* (8) v, p. 19 (1910).

Allied to *R. importunitas*, but smaller, paler, and somewhat uniformly greyish ochraceous; antennæ concolorous, the third and fourth joints not pitchy black; legs more obscurely spotted with black.

Length 3 millim.

Hab. Simla Hills; Dharampur, 5000 ft. (*Annandale*). Punjab; Lahore (*Annandale*). Malabar; Cochin State, Ernakulam (*Annandale*).

This species seems to be quite distinct from its Ceylonese ally, which is perfectly constant in a long series sent to me by Mr. Green.

Genus PSALLUS. (Vol. II, p. 482.)

3066. *Psallus kurseongensis*, *Dist. A. M. N. H.* (8) v, p. 19 (1910).

♂. Black, thickly palely pilose; lateral margins of the corium narrowly ochraceous; cuneus sometimes pale castaneous, its basal and apical margins more or less distinctly pale ochraceous; membrane fuliginous, the cellular and apical margins paler; body beneath black, greyishly pilose; legs ochraceous, apices of anterior and intermediate femora, posterior femora (excluding basal areas), bases of anterior and intermediate tibiæ, macular annulations to posterior tibiæ, and the apices of the tarsi black; first and second joints of antennæ black, third and fourth palely fuscous, first joint as long or nearly as long as head, second joint more than twice the length of first; rostrum ochraceous, about reaching the intermediate coxæ; pronotum with a transverse foveate impression on each side of anterior area; tibiæ spinulose, the spinules on the posterior tibiæ inserted at the black

spots; femora moderately but distinctly thickened, the posterior femora more distinctly so.

Length $3\frac{1}{2}$ to 4 millim.

Hab. E. Himalayas; Kurseong, 5000 ft. (*Ind. Mus.*).

Genus **IDATIUS.**

(To follow *Psallus*, Vol. II, p. 482.)

Idatius, *Dist. A. M. N. H.* (8) v, p. 20 (1910).

Type, *I. priscillianus*, *Dist.*

Distribution. Northern India.

Head about as long as broad, not foveately sulcate between the eyes, which project considerably beyond the anterior margins of the pronotum; antennæ with the first and second joints moderately thickened, the first distinctly shorter than head, second four times the length of first, third and fourth slender but together not so long as second; rostrum robust, reaching the intermediate coxæ; pronotum at base twice as broad as long and about twice as broad as at anterior margin, deflected anteriorly, the lateral margins a little roundly oblique, the posterior margin subtruncate; scutellum somewhat large and triangular, moderately transversely impressed before middle; corium (excluding cuneus) considerably longer than second joint of antennæ; cuneus with the basal and outer margins subequal in length; membrane considerably passing the abdominal apex, with a distinct basal cell; posterior femora moderately thickened, posterior tibiæ spinulose.

3067. *Idatius priscillianus*, *Dist. A. M. N. H.* (8) v, p. 20 (1910).

Black; eyes black; antennæ with the basal joint brownish

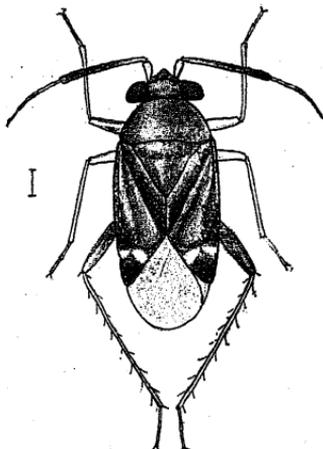


Fig. 160.—*Idatius priscillianus*.

ochraceous, second joint black, with its basal area brownish ochraceous, third and fourth joints palely fuscous, basal area of third

ochraceous; cuneus with two greyish spots near base; membrane pale fuliginous; body beneath black; legs ochraceous, posterior femora castaneous, the spinules to the posterior tibiæ and the apices of the tarsi black; pronotum and scutellum shining black, faintly transversely striate; corium obscurely pilose and finely punctate; other structural characters as in generic diagnosis.

Length 3 millim.

Hab. Bengal; Paresnath, 4000 to 4500 ft. (*Annandale*). Simla Hills; Dharampur, 5000 ft. (*Annandale*). Nicobar Islds. (*vide Hewter*).

Genus SEJANUS.

Sejanus, *Dist. A. M. N. H.* (8) v, p. 20 (1910).

Type, *S. funereus*, *Dist.*

Distribution. Ceylon.

Head about as long as broad, deeply, broadly, roundly, foveately sulcate between the eyes, which are large and project beyond the anterior margins of the pronotum; antennæ with the first and second joints moderately thickened, the second more robust than the first, which is short and about the length of the eyes, second

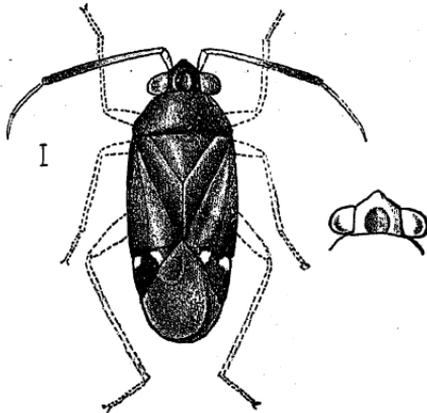


Fig. 161.—*Sejanus funereus*.

joint about five times the length of first, third and fourth slender, third about twice as long as first, fourth as long as first; rostrum robust and reaching the posterior coxæ; pronotum twice as broad as long, the lateral margins oblique, posterior margin subtruncate; scutellum somewhat large and triangular; corium (excluding cuneus) about as long as second joint of antennæ, cuneus with the basal and outer margins subequal in length, angularly narrowed at apex; membrane considerably passing the abdominal apex, with a single basal cell; legs mutilated in typical specimen.

This genus is founded on a single specimen sent to me by Mr. Green from Ceylon, and although wanting the legs cannot be left out of the enumeration of the Capsidæ of British India.

3068. *Sejanus funereus*, *Dist. A. M. N. H.* (8) v, p. 21 (1910).

Black; eyes castaneous brown; antennæ with the basal joint brownish ochraceous, the second joint black, with its basal area brownish ochraceous, third and fourth joints stramineous; cuneus with two basal greyish spots; membrane fuscous, the margins paler; rostrum black, its basal area brownish ochraceous; body beneath black; corium shortly, finely, palely pilose; structural characters as in generic diagnosis.

Length $2\frac{1}{2}$ millim.

Hab. Ceylon (*Green*).

This species was contained in some miscellaneous sweepings kindly collected for me by our helpful friend Mr. E. E. Green.

Genus **SABACTUS**.

(Near *Campylomma*, Vol. II, p. 483.)

Sabactus, *Dist. A. M. N. H.* (8) v, p. 21 (1910).

Type, *S. institutus*, *Dist.*

Distribution. Ceylon.

Head about as long as broad, deflected and narrowed in front of eyes, which are transverse and strongly project beyond the

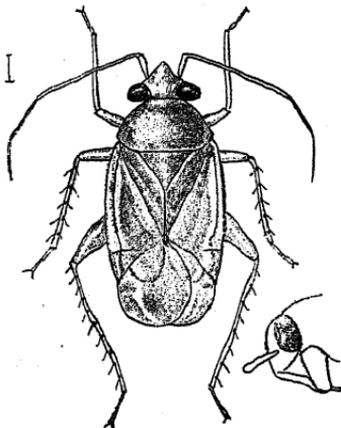


Fig. 162.—*Sabactus institutus*.

anterior margins of the pronotum; antennæ slender, first joint shorter than head, second about four times as long as first, third longer than fourth and together distinctly shorter than second;

rostrum reaching the posterior coxæ; pronotum at base twice as broad as long and about two and a half times as broad as anterior margin, moderately convex, deflected anteriorly, the basal margin before scutellum truncate, oblique towards posterior angles; scutellum subtriangular; corium (excluding cuneus) as long as second joint of antennæ, including clavus and cuneus twice as long as broad, cuneus considerably broader than long; posterior femora moderately thickened, intermediate and posterior tibiæ spinulose.

A genus to be placed near *Campylomma*, Reut.

3069. *Sabactus institutus*, *Dist. A. M. N. H.* (8) v, p. 21 (1910).

Brownish ochraceous; eyes, a small spot at apex of claval suture, and the apex of cuneus black; antennæ ochraceous, third and fourth joints palely fuscous; lateral areas of corium and the cuneus pale ochraceous; membrane pale fuliginous, the margins pale ochraceous; body beneath and legs ochraceous, intermediate and posterior tibiæ finely spotted with black, the spinules black; structural characters as in generic diagnosis.

Length 3 millim.

Hab. Ceylon; Peradeniya (*Green*).

Species which are likely to be found in the Fauna of British India.

LOPUS CINGULATUS.

Cimex cingulatus, *Fabr. Mant. Ins.* ii, p. 307. 287 (1787); *id.* (*Miris*) *Syst. Rhyng.* p. 255. 13 (1803); *Reut. (Lopus)*, *Hem. Gymn. Europ.* v, p. 316, Tab. x, f. 3 (1896).

Dr. Bergroth has drawn my attention to this species. He writes: "The type specimen of *Lopus cingulatus*, Fabr. was described from 'India Orientalis,' where it was found by Schlan[gen]busch, who sent many insects to Fabricius. It is not mentioned in your Indian Fauna, but as it is a common south Palæarctic species it may really be distributed as far as to India."

FULVIUS BREVIORNIS, *Reut. Ent. Tidskr.* 1895, p. 188; *Popp. Act. Soc. Sci. Fenn.* xxxvii, no. 4, p. 44 (1910).

Poppius includes in the localities for this species:—Burma; Bhamo. W. Africa. France; Rouen. West Indies and Venezuela.

Subfamily ISOMETOPINÆ. (Vol. II, p. 483.)

Genus JEHANIA, nov.

(To follow *Turnebus*, Vol. II, p. 485.)

Body broadly ovate; head (including eyes) considerably narrower than the pronotum, about as long as broad at base; ocelli a little behind middle and between the eyes, which are somewhat long and

prominent; antennæ slender, basal joint not passing eyes, second and third joints subequal in length, fourth short and moderately thickened; pronotum transverse, about three times broader at base than long, centrally transversely impressed, the anterior angles rounded, lateral margins convex, posterior margin sub-concavely sinuate; mesonotum exposed; scutellum longer than broad at base, angularly attenuated from base; corium broad, costal margin moderately convex, cuneus broad, a little broader than long; membrane passing the abdominal apex, with a single narrow cell at base; rostrum long, a little passing the posterior coxæ; femora distinctly thickened.

3070. *Jehania mahal*, sp. n.

Obscure greyish, spotted and marked with black; head pale ochraceous, with a central black fascia, bifurcating anteriorly, before the ocelli; antennæ brownish ochraceous, more than apical half of second joint (excluding extreme apex), third joint and base of fourth pale fuscous; pronotum obscure yellowish grey with a broad central longitudinal fascia branching off laterally on each side, black; mesonotum black, its lateral margins narrowly



Fig. 165.—*Jehania mahal*.

yellowish grey; scutellum black, its lateral margins (excluding base and apex) yellowish grey; corium, clavus, and cuneus yellowish grey, a small spot at base and two large spots on disk of corium and a transverse spot on cuneus, black; membrane greyish, finely spotted with piceous, the base reflecting the dark abdomen beneath, the dark basal cell outwardly palely margined; sternum and legs pale ochraceous; a spot near anterior and intermediate coxæ and subapical annulation to femora black.

Length 3 millim.

Hab. E. Himalayas; Kurseong, 4,700 ft. (*Annandale, Ind. Mus.*).

“Among lichen on tree-trunk.” (*N. Annandale.*)