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COLEOPTERA.

STAPHYLINIDÆ.—VOL. III.

BY

MALCOLM CAMERON, M.B., R.N., F.E.S.

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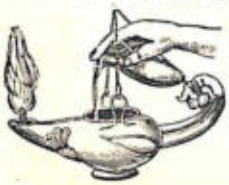

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AUTHOR'S PREFACE.

THIS volume deals with the STAPHYLININÆ, TRICHOPHYINÆ, TERMITODISCINÆ, PYGOSTENINÆ, and TACHYPORINÆ. The figures in the text and the plates are the work of Miss Barbara Hopkins, to whom my best thanks are again due.

I find that the following species was omitted from the previous volume (ii, p. 213) :—

789 *a*. **Scimbalium waageni** Bernh., Ark. Zool. xix, A, 1927, p. 13.

Distinguished by its size and depressed build. Build of *pubipenne* Fairm. [Europe] and allied thereto, but three times larger. Head almost broader than the thorax, longer than broad, parallel-sided, finely and closely punctured on the posterior half, along the middle sparingly punctured, in front smooth, with a few large, unequal punctures. Antennæ very long and slender, the penultimate joints twice as long as broad. Thorax narrower than the elytra, fully as long as broad, the sides straight, retracted behind, the posterior angles rounded, the anterior blunt, exceedingly finely and moderately closely punctured, smooth along the middle, especially towards the base, with a short sulcus a little in front of the scutellum. Elytra longer than the thorax, oblong, with moderately fine and extremely close, distinctly rough puncturation, closely pubescent, dull. Abdomen very finely and very closely punctured and pubescent, dull. Length 9 mm. Colour brownish-red.

Calcutta. Also in Sumatra (the colour in this example is reddish-brown) (ex *Bernhauer*).

M. CAMERON.

March 1932.

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Subfamily VIII. STAPHYLININÆ.

Staphylininæ Sharp, B. C.-A. i. 2, 1882–87 (1884), p. 320; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 375; Reitt., Faun. Germ. ii, 1909, p. 139.

Staphylinini Er., Käf. Mark Brand. i, 1837–39 (1839), p. 418; Gen. Spec. Staph. 1839–40, p. 290 (excl. *Oxyporus*); Kraatz, Naturg. Ins. Deutsch. ii, 1856–58, p. 468; Fauv., Faun. Gallo-Rhén. iii, 1872, p. 366; Lec. & Horn, Class. Col. N. Amer. 1883, p. 94.

Staphylinites Jacq. du Val, Gen. Col. d'Eur. ii, 1857–59, p. 29 (excl. *Oxyporus*).

Staphylinina+*Xantholinina* C. G. Thoms., Skand. Col. ii, 1860, pp. 137, 183.

Staphylinides Lac., Gen. Col. ii, 1854, p. 132.

Staphyliniens+*Xantholiniens* Muls. et Rey, Ann. Soc. Agric. Lyon, (5) viii, 1875, p. 208.

Elongate species. The head behind the eyes nearly always constricted. Antennæ freely inserted on the front margin of the head before the eyes at about the level of the inner border of the base of the mandibles, 11-jointed, sometimes strongly geniculate. Labrum usually bilobed, emarginate or tri-emarginate. Mandibles more or less prominent, usually toothed. Inner lobe of the maxilla with close, long hairs internally, the outer lobe similarly clothed at the apex. Maxillary palpi 4-jointed. Labial palpi 3-jointed, except in *Holisomimus*, where only two joints are present. Tongue short, paraglossæ usually prominent. Gular sutures variable. Prosternum more or less triangular, in front of it in the XANTHOLININI with a transverse horny plate (neck-plate) united by membrane to its anterior margin †, on each side with a small horny plate (clavicle) united externally to the pronotum by a membrane and adjacent to the neck-plate when this structure is present, or to the anterior margin of the prosternum in its absence. Epipleura of pronotum usually narrow, its inner margin (inferior lateral line) variable in relation to the superior lateral line, the epimera usually absent or present as a small triangular plate overlying the spiracle. Anterior coxæ conical, prominent, often as long as the anterior femora, the middle more or less elongate, the posterior short. Tibiæ usually spinose. Tarsi all 5-jointed (except in *Holisomimus*, 4, 4, 5, and *Atanygnathus*, 5, 4, 4).

† In *Platyprosopus* it is fused with it, the union being marked by a suture, but the head in this genus is scarcely constricted behind, and the frontal sulci are absent.

Abdomen with the sides bordered above. Scutellum visible. Elytra not or scarcely extending beyond the metasternum, the epipleura not separated from the dorsal surface by a keel.

Key to the Tribes.

1.	Prosternum with a transverse plate (neck-plate) usually united to it by membrane; sometimes fused with it, but in that case the head is scarcely constricted behind, and the 3rd joint of the labial palpi is dilated towards apex and truncate. Antennæ at base less distant from each other than from the eye, mostly geniculate.	**Xantholinini**, p. 2.
	Prosternum without such plate. Antennæ at base nearer to the eyes than to each other, rarely geniculate	2.
2.	Anterior angles of the pronotum not or scarcely extending beyond the anterior angles of the prosternum; pronotal epipleura moderately reflexed, more or less horizontal. Infra-orbital crest absent or rudimentary	**Staphylinini**, p. 53.
	Anterior angles of the pronotum distinctly produced beyond the anterior angles of the prosternum; pronotal epipleura strongly reflexed, oblique. Infra-orbital crest usually well developed, at least behind ..	**Quediini**, p. 264.

Tribe 1. XANTHOLININI.

Xantholinini Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 446; Casey, Trans. Acad. St. Louis, xvi, 1906, p. 356.
Staphylinini Subtribus i, *Xantholinini* Er., Gen. Spec. Staph. 1839–40, p. 291.
Staphylinides Soustribu i. *Xantholinides* Lac., Gen. Col. ii, 1854, p. 291.
Staphylinites 1. groupe second, *Xantholinites* Jacq. du Val, Gen. Col. d'Eur. ii, 1857–59, p. 30.
Staphylinini 3, Unterabtheilung *Xantholinini* Kr., Naturg. Ins. Deutsch. ii, 1856–58, p. 626.
Xantholinina C. G. Thoms., Skand. Col. ii, 1860, p. 183.
Staphylinini Sect. i. *Xantholini* Fauv., Faun. Gallo-Rhén. iii, 1872, p. 366.
Staphylinini Subtribe 3, *Xantholini* Lec. & Horn, Class. Col. N. Amer. 1883, p. 96.
Xantholiniens Muls. et Rey, Hist. Nat. Col. Fr. Brévip. 1877, p. 1.
Xantholinina Sharp, B. C.-A. i, 2, 1882–87 (1885), p. 466.

Antennæ geniculate, usually strongly so. Space between the insertion of the antennæ less than that between the insertion and the eye. Head without infra-orbital crest; the front usually with two or four sulci or foveæ. Prosternum in front with a transverse plate separated from it by a suture. Abdomen not keeled below at the middle of the base. Many of the species can roll themselves up. They are found throughout the world under stones or animal and vegetable debris.

Key to the Genera.

1.	Suture of the elytra straight, not imbricate; antennæ slightly geniculate	2.
	Suture of the elytra more or less imbricate; antennæ strongly geniculate ..	4.
2.	Neck very thick.....	3.
	Neck slender	Diochus Er., p. 44.
3.	Head scarcely constricted behind; labrum produced and divided into two narrow pointed lobes	[Mannh., p. 47. Platyprosopus
	Head distinctly constricted behind; labrum transverse, emarginate in the middle ...	Othius Steph., p. 41.
4.	Mandibles externally with a sulcus extending from the base nearly to the apex	5.
	Mandibles at the base externally with a short sulcus or small fovea only	9.
5.	Frontal sulci very short, foveate	6.
	Frontal sulci long, more or less parallel ..	7.
6.	5th joint of the posterior tarsi as long as the four preceding together; lateral sulci distinct; anterior tarsi dilated	Metolinus Cam., p. 4.
	5th joint of the posterior tarsi much shorter than the four preceding together; lateral sulci feeble; anterior tarsi simple	[p. 16. Mitomorphus Kr.,
7.	5th joint of the posterior tarsi as long as the four preceding together; posterior tibiæ not spinose	[Motsch., p. 14. Pachycorynus
	5th joint of the posterior tarsi shorter than the four preceding together; posterior tibiæ spinose. Thorax with at least a dorsal row of punctures on each side ...	8.
8.	4th joint of the maxillary palpi stout, conical. Species usually larger and more robust	[p. 22. Xantholinus Serv.,
	4th joint of the maxillary palpi slender, subulate. Species usually smaller and less robust	Leptacinus Er., p. 6.
9.	Fore-parts coarsely and rugosely punctured. Labrum quadri-emarginate. Antennæ strongly approximate at the base	[p. 40. Paratesba, gen. n.,
	Fore-parts not coarsely and rugosely punctured. Labrum tri-emarginate. Antennæ less close at the base	10.
10.	Thorax on either side with a punctured sulcus extending to and including the puncture near the anterior angles. Head parallel or nearly so, with coarse, more or less confluent punctures	[p. 30. Gauropterus Thoms.,
	Thorax without punctured sulcus on each side, the puncture near the anterior angles free. Head usually transversely orbicular or subtriangular, the disc without coarse confluent punctures, either quite smooth or moderately finely punctured	[Heller, p. 33. Indoscitalinus

Genus **METOLINUS** Cam.

Metolinus Cam., E. M. M. lvi, 1920, p. 147.

Facies of *Oligolinus* Cas., but differs from that genus by the dilated anterior tarsi. Parallel, subconvex, elongate. Neck slender, gular sutures fused except in front : suture of elytra imbricate. Head with the median sulci short, parallel, the lateral short and oblique. Antennæ strongly geniculate. Labrum transverse, in the middle of the feebly rounded anterior border with a small arcuate emargination and furnished with long setæ. Mandibles rather stout and pointed, each with a sharp tooth about the middle of the inner margin, the outer margin sulcate from the base nearly to the apex. Maxillary palpi with the 1st joint very small, 2nd short, obconical, 3rd longer, straight, slightly widened towards the apex, 4th subulate, scarcely half as long as the 3rd. Outer lobe of maxilla densely ciliate at the apex ; inner lobe densely ciliate internally. Mentum transverse, trapezoidal, slightly and broadly emarginate in front. Tongue membranous, broad. Paraglossæ well developed, extending to the middle of the 2nd joint of the labial palpi and furnished with long cilia. Labial palpi 3-jointed, the 2nd elongate, slightly widened towards the apex, the 3rd slender, subulate, about half as long as the 2nd. Prosternum broadly emarginate in front and separated from the neck-plate by a suture, deflexed behind and carinate medially. Pronotal epipleura narrow, its outer margin (superior lateral line) not deflexed until the anterior angle, and not fused with the inner margin (inferior lateral line). Mesosternum short, its process short, rounded behind, and extending but little between the coxæ, which are moderately separated. Anterior and middle coxæ long, the posterior short. Tibiæ with some fine setæ externally, scarcely spinose. Anterior tarsi with the first four joints strongly dilated ; the middle as long as the tibia, the 1st and 2nd joints of equal and moderate length, the 3rd and 4th shorter, equal ; the posterior almost as long as the tibia, the last joint shorter than the four preceding together, the 1st and 2nd a little longer than the 3rd and 4th. The species are subcortical in habit, and so far are known only from the Oriental region.

Key to the Species.

1.	Colour uniformly black or pitchy	2.
	Colour in part yellow	*excellens* Bernh., p. 5.
2.	3rd joint of antennæ distinctly transverse : head narrower, as broad as the thorax	*leucocnemis* Kr., p. 5.
	3rd joint of the antennæ a little longer than broad ; head broader, a little broader than the thorax	*differens*, sp. n., p. 5.

836. **Metolinus leucocnemis.**

Metoponcus leucocnemis Kr., Arch. Naturg. xxv, 1859, i, p. 107.
Metoponcus exiguus Kr., l. c. p. 108.

Narrow, elongate, subconvex, shining. Antennæ and palpi reddish. Femora pitchy, tibiæ and tarsi pale yellow, the anterior tibiæ often pitchy. Length 5 mm.

Head as broad as the thorax, oval, the base gently rounded, median sulci very short, deep, the lateral a little oblique, longer and narrower. Eyes small, the disc between them with a pair of larger punctures, towards the sides finely, sparingly punctured, the disc smooth; ground-sculpture fine, transverse, and wavy. Antennæ short, the 2nd joint scarcely longer than broad, the 3rd to 10th transverse, from the 4th strongly so, but not increasing in breadth towards the apex, 11th short, about as long as the two preceding together. Thorax longer than broad, widest at the rounded anterior angles, the sides slightly emarginate and retracted to the rounded posterior angles, on either side of the middle line with a row of six or seven fine punctures, towards the sides with a curved row of six or seven others; ground-sculpture as on the head. Scutellum transversely striate. Elytra as long and as broad as the thorax, parallel, very finely and very sparingly punctured, very sparingly pubescent. Abdomen sparingly but more coarsely punctured than the fore-parts, with rather long, sparing grey pubescence, finely transversely striate.

Ceylon. Nilgiri Hills. Kanara. Dehra Dun. Sikkim. Tenasserim. Widely distributed in the Oriental region.

837. **Metolinus differens,** sp. n.

Very near *M. leucocnemis*, but the antennæ are longer, the 2nd and 3rd joints longer, the latter a little longer than broad, the following less strongly transverse, the head shorter and broader, a little wider than the thorax, with more numerous and slightly larger punctures. The dorsal row of thoracic punctures (seven or eight) are distinctly larger, the elytra at the base and shoulders are narrowly brownish-red, and the puncturation a little more marked; the tibiæ are of a less pale yellow.

Chittagong.

838. **Metolinus excellens.** (Plate I, fig. 1.)

Oligolinus excellens Bernh.*, Ent. Blätt. 1915, p. 253.
Metolinus basalis Cam., E. M. M. lvi, 1920, p. 147.

Black, shining, the elytra with the base rather broadly yellow, the rest of the surface with distinct metallic purple

* An asterisk after the name of a species indicates that a type or co-type has been examined.

reflex. Abdomen with the 1st (visible) segment entirely reddish-yellow, the 2nd and following pitchy, the first of them broadly, the two following more narrowly reddish-yellow behind. Antennæ reddish. Legs testaceous. Length 5·5 mm.

Differs from *leucocnemis* in the colour, the longer, thinner antennæ, broader, shorter, less shining, less sparingly punctured, more strongly coriaceous head, broader thorax, the seven or eight dorsal punctures on each side of the middle line less fine and more irregular, the ground-sculpture less distinct, more shining than the head, the abdomen more sparingly punctured.

Madura: Shembaganur (*Donckier*). Anaimalai Hills, alt. 5500 feet (*T. B. Fletcher*).

Genus **LEPTACINUS** Er.

Leptacinus Er., Käf. Mark Brand. 1837–39 (1839), p. 429; id., Gen. Spec. Staph. 1839–40, p. 333; Jacq. du Val, Gen. Col. d'Eur. ii, 1857–59, p. 32; Kraatz, Naturg. Ins. Deutsch. ii, 1856–58, p. 645; C. G. Thoms., Skand. Col. ii, 1860, p. 192; Fauv., Faun. Gallo-Rhén. iii, 1872, p. 374; Muls. et Rey, Hist. Nat. Col. Fr. Brévip. 1877, p. 99; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 486; Casey, Trans. Ac. St. Louis, xvi, 1906, p. 368, 399.

Xanthophius Motsch., Ét. Ent. viii, 1859, p. 75; Fauv., Rev. d'Ent. xiv, 1895, p. 240.

Xanthophyus Gemm. et Harold, Cat. Col. ii, 1868, p. 607.

Subgen. *Leptacinodes* Cas., Trans. Ac. St. Louis, xvi, 1906, pp. 369, 401.

Biology.—Muls. et Rey, Hist. Nat. Col. Fr. Brévip. 1877, pp. 108, 111; Rey, Ann. Soc. Linn. Lyon, xxxiii, 1886, p. 151.

Mostly small, obscurely coloured, and slender species. Median frontal and lateral sulci well marked (*Leptacinus*, s. str.), the former parallel or slightly converging behind, the latter oblique; or with only the median sulci well developed, the lateral short and more or less obsolete (*Leptacinodes* Cas.). Labrum rather small, transverse, rounded in front, in the midde more or less deeply emarginate, the anterior border furnished with long and strong setæ. Mandibles stout, pointed, each with a small tooth about the middle of the inner border, the outer border sulcate. Maxillary palpi with the 1st joint small, 2nd small, obconical, 3rd oblong, 4th more or less subulate, shorter than the preceding. Maxillæ with the outer lobe densely ciliate at apex, the inner densely ciliate internally. Tongue small, membraneous, emarginate in front. Paraglossæ well developed, extending beyond the tongue, finely toothed internally. Labial palpi with the 1st joint a little longer than broad, 2nd a little longer, the 3rd subulate, almost as long as the preceding. Gular sutures fused except in front, where they diverge. Adjacent to the side margin of the under surface of the head on each side with a longitudinal sulcus (*Leptacinus*, s. str.) or without such sulcus

(*Leptacinodes* Cas.). Neck-plate of the prosternum rounded in front. Prosternum short, truncate behind: pronotal epipleura narrow, the superior lateral line not deflexed until the anterior angles, not joining the inferior lateral line. Mesosternum short, its process short and broad, not much produced between the coxæ, there rather widely separated. Metasternal process long, separated by a suture from the mesosternal process. Anterior and middle coxæ elongate, the posterior small. Tibiæ spinose. Anterior tarsi simple; middle and posterior with the first four joints rather short, the 5th joint shorter than the four preceding together. The species are for the most part smaller than *Xantholinus*; they are found throughout the world under stones, in manure-heaps and vegetable debris; some are associated with ants, probably as simple scavengers.

Key to the Species.

1.	Head strongly widened behind, subtriangular	*trigonocephalus* Kr., [p. 8.
	Head not or but slightly widened behind, oblong or ovate	2.
2.	Thorax on each side of the middle with a row of 5 or 6 punctures (dorsal row)	3.
	Thorax with dorsal row of 8 to 15 punctures.	5.
3.	Larger (5·5–6·5 mm.) and more robust: the lateral sulci of the front long and extending backwards beyond the end of the median	*parumpunctatus* Gyll., [p. 8.
	Smaller (3·5–4 mm.) and narrower: lateral sulci of front short and ill defined, the median long, distinct	4.
4.	Larger (3·75–4 mm.), more brightly coloured, the antennæ longer and stouter.	*gracilis* Fauv., p. 9.
	Smaller (3·5 mm.) and blacker, the antennæ shorter and thinner	*nilamburensis*, sp. n., [p. 10.
5.	Last joint of the antennæ very long and stout, almost as long as the four preceding together	*antennalis*, sp. n., p. 13.
	Last joint of the antennæ of normal size	6.
6.	Larger (7 mm.), black; thorax with dorsal row of about 8 large punctures	*æthiops* Bernh., p. 14.
	Smaller (2·75–5 mm.), more obscurely coloured; thorax with dorsal row of 9 to 15 punctures	7.
7.	Red; head and disc of elytra blackish; thorax with dorsal row of about 15 punctures. Length 5 mm.	*fusciceps* Epp., p. 12.
	Obscurely coloured; thorax with dorsal row of 9 to 12 punctures	8.
8.	7th dorsal segment strongly coriaceous, duller than the others; thorax with dorsal row of 9 or 10 punctures	*notabilis* Cam., p. 11.
	7th dorsal segment not strongly coriaceous; thorax with dorsal row of 10 to 12 punctures	9.

9.	Thorax at the sides irregularly punctured.	10.
	Thorax at the sides with row of 9 to 12 punctures	11.
10.	Larger (4 mm.); median frontal sulci long and distinct	*beesoni*, sp. n., p. 12.
	Smaller (2·75 mm.); median frontal sulci indistinct	*pusillimus* Kr., p. 12.
11.	Larger (4 mm.); head at the sides finely and rather closely punctured; thorax with dorsal row of 12 punctures	*filum* Kr., p. 10.
	Smaller (2·75 mm.); head at the sides finely and sparingly punctured. Thorax with dorsal row of 10 punctures	[p. 11. *serpentarius* Motsch.,

839. Leptacinus trigonocephalus.

Leptacinus trigonocephalus Kr., Arch. Naturg. xxv. 1859, i, p. 109.

Shining; head black, large and triangular; thorax reddish-brown, with dorsal row of eight or nine punctures; elytra yellow, infuscate at the base; abdomen blackish. Antennæ with the first three joints reddish, the following reddish-brown. Legs yellow. Length 4 mm.

From all the Indian species at once recognized by the head being much widened behind (especially in the ♂) and triangular. Head in both sexes broader than the thorax, broader than long, subtriangular, the posterior angles rounded; median sulci long, parallel, the lateral shorter, less developed, punctured; disc smooth, towards the sides with moderate, not very close punctures; ground-sculpture distinct, transverse. Antennæ with the 3rd joint slightly longer than broad, shorter than the 2nd, the 4th to 10th transverse. Thorax elongate, the sides rounded in front, retracted and broadly emarginate behind; dorsal series consisting of eight or nine regular punctures, the sides with eight or nine others; ground-sculpture very indistinct. Scutellum finely transversely striate. Elytra as long and as broad as the thorax, with three rows of superficial punctures, one along the suture and two others more externally. Abdomen sparingly and finely punctured, and with a fine transverse ground-sculpture. The pubescence throughout sparing and more or less erect.

Ceylon: Dikoya, alt. 3800–4200 feet; Bogawantalawa, alt. 4900–5200 feet (*Lewis*). India: Nilgiri Hills (*Andrewes*).

840. Leptacinus parumpunctatus.

Staphylinus parumpunctatus Gyll., Ins. Suec. iv, 1827, p. 481; Er., Gen. Spec. Staph. 1839–40, p. 335; (*Leptacinus*) Kraatz, Naturg. Ins. Deutsch. ii, 1856–58, p. 648; C. G. Thoms., Skand. Col. ii, 1866, p. 193: Fauv., Faun. Gallo-Rhén. iii, 1872, p. 374; Muls. et Rey, Col. Fr. Brévip. 1877, p. 102; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 487; Fauv., Rev. d'Ent. xxii, 1903, p. 155.

Leptacinus amissus Fairm. et Cocq., Ann. Soc. Ent. Fr. (3) viii, 1860, p. 158.
Leptacinus ampliventris Jacq. du Val. Ann. Soc. Ent. Fr. (3) ii, 1854, Bull. p. 37.
Leptacinus breviceps Waterh., E. M. M. xiv, 1877, p. 24.
Leptacinus longicollis Steph., Ill. Brit. Ent. v, 1832, p. 259.
Leptacinus pallidipennis Motsch., Bull. Mosc. xxxi, 1858, ii, p. 206.
Leptacinus papuensis Fauv., Ann. Mus. Civ. Gen. xii, 1878, p. 242.
Leptacinus radiosus Peyr., Ann. Soc. Ent. Fr. (3) vi, 1858, p. 421.
Leptacinus sardous Fiori, Nat. Sic. xiii, 1894, p. 94.
Leptacinus parumpunctatus Gyll., var. *tricolor* Kr., Arch. Naturg. xxv, 1859, i, p. 110.
Leptacinus parumpunctatus Gyll., var. *flavipennis* Kr., l. c. p. 111
Leptacinus parumpunctatus Gyll., var. *rubricollis* Reitt., W. E. Z xviii, 1899, p. 157; Casey, Trans. Ac. St. Louis, xvi, 1906, p. 400.

Shining; head black, thorax reddish-brown or blackish, elytra yellowish-brown, lighter towards the apex, abdomen pitchy, the apex lighter. Antennæ reddish. Legs yellowish. Length 5·5–6·5 mm.

Var. *tricolor* Kr. Thorax reddish, elytra pale yellow, with the base and suture pitchy.

Var. *flavipennis* Kr. Narrower than the type-form, thorax reddish, elytra pale yellow.

Variable in colour and build. Head distinctly widened behind, as broad as the thorax, the posterior angles rounded, the four sulci long and well defined, the lateral ones extending backwards beyond the median, the disc impunctate, the sides covered with coarse, more or less elongate umbilicate punctures: ground-sculpture absent. Antennæ rather stout, the 3rd joint shorter than the 2nd, almost as long as broad, the 4th to 10th transverse, not increasing much in width. Thorax oblong, the sides straight, retracted behind, rounded in front, with a dorsal row on each side of five or six large punctures, externally with a curved row of five or six others; ground-sculpture absent. Elytra as long and as broad as the thorax, with three rows of superficial punctures, one sutural, the others nearer the side; besides these with a few very fine scattered punctures and scattered erect hairs. Abdomen finely and sparingly punctured, sparingly pubescent.

Widely distributed throughout India. Cosmopolitan.

841. **Leptacinus gracilis.**

Leptacinus gracilis Fauv., Rev. d'Ent. xiv, 1895, p. 240.

Shining; head black, thorax and abdomen pitchy-brown, elytra brownish-yellow. Thorax with dorsal series of five or six punctures. Antennæ with the first three joints yellow, the following reddish. Legs yellow. Length 3·75–4 mm.

About the size of *L. filum* Kr. and very similarly coloured, but with shorter antennæ and less numerous punctures in the

dorsal row. Head oblong, as broad as the thorax, the posterior angles broadly rounded, median frontal sulci long, distinct, parallel, the lateral short and indistinct, rather finely and sparingly punctured and without ground-sculpture. Antennæ with the 3rd to 10th joints transverse, gradually increasing in width, the 11th about as long as the two preceding together. Thorax much longer than broad, the sides a little rounded and dilated in front, retracted and broadly emarginate behind, on each side of the middle with a row of five or six rather small punctures, externally with about the same number of similar ones : ground-sculpture absent. Elytra (measured from the base) as long as the thorax, very sparingly and very finely punctured, with a sparing, rather long yellowish pubescence. Abdomen finely and sparingly punctured and pubescent.

Burma : Carin Asciuii Ghécu ; Tenasserim. Nilgiri Hills (*Andrewes*). Assam : Naga Hills (*S. N. Chatterjee*). United Provinces : Dehra Dun (*Cameron*). Also in Java.

842. **Leptacinus nilamburensis,** sp. n.

Closely allied to *L. gracilis*, but a little smaller (3·5 mm.) and blacker, with pitchy elytra ; the antennæ shorter and not so stout, the head more finely and more sparingly punctured.

Madras : Nilambur (*S. N. Chatterjee*).

843. **Leptacinus filum.**

Leptacinus filum Kr., Arch Naturg. xxv, 1859, i, p. 111.

Narrow, elongate, shining ; head black, thorax reddish-brown, with dorsal row of about twelve punctures on each side of the middle ; elytra yellowish-brown, paler behind ; abdomen pitchy, the posterior margin of the 7th and 8th segments yellowish. Antennæ reddish. Legs yellow. Length 3·75 mm.

Head oblong, wider than the thorax, the posterior angles rounded, the median sulci long, slightly converging behind, the lateral short and indistinct, finely and moderately closely punctured at the sides, more sparingly on the disc ; ground-sculpture absent. Antennæ with the 3rd joint fully as long as broad, the 4th to 10th transverse, not increasing much in width. Thorax elongate, the sides retracted and a little emarginate behind, with dorsal and lateral rows each of about twelve punctures. Elytra as long as but broader than the thorax, finely, subserially punctured. Abdomen very finely and very sparingly punctured, pubescence scanty, yellowish.

Ceylon. United Provinces: Dehra Dun, Lachiwala. This insect is found "swarming" on the warm boulders towards evening in the nullahs near Dehra Dun. Also in the Philippines.

844. **Leptacinus notabilis.**

Leptacinus notabilis Cam., Trans. Ent. Soc. Lond. 1926, p. 342.

Narrow, elongate, pitchy-black, the elytra fusco-testaceous. Abdomen black, shining, the apex ferruginous, the 7th segment strongly coriaceous and more opaque. Antennæ with the first three joints testaceous, the following blackish. Legs testaceous. Length 4·5 mm.

Of the average size and the slender build of *L. filum* Kr., but the head is shorter, oval, and a little widened behind the eyes, the antennæ darker, and the 7th abdominal segment strongly coriaceous. Head black, shining, oval, slightly widened behind the eyes, wider than the thorax, frontal furrows parallel, well marked, lateral very short; disc and front broadly impunctate, at the sides with a few moderate punctures, temples finely and sparingly punctured. Antennæ with 3rd joint shorter than 2nd, 4th to 10th transverse, gradually increasing in width. Thorax long and narrow, gradually contracted behind, disc on either side with ten or eleven punctures, at the sides with a curved row of six or seven and one or two behind the anterior angles. Elytra as long as but broader than the thorax, longer than broad, very finely and very sparingly punctured. Abdomen black, shining, very finely, sparingly punctured, and with sparing yellow pubescence, very finely and obsoletely transversely strigose except the 7th segment, which is strongly coriaceous and less shining than the others.

Chakrata district: Sijla Gad, alt. 5000 feet.

845. **Leptacinus serpentarius.**

Xanthophius serpentarius Motsch., Ét. Ent. viii, 1859, p. 76.

Linear, subdepressed, shining, pilose, fusco-testaceous, with the head, thorax, and abdomen in front more or less black; palpi, base of the antennæ, and legs testaceous; head elongate, the anterior sulci deep, the sides sparingly punctured, eyes rather flat, scarcely prominent; thorax elongate, somewhat retracted and slightly sinuate behind, on each side of the middle with a row of ten punctures, and laterally with nine others. Scutellum large, triangular; elytra broader than the thorax, parallel, more or less paler in the middle, the suture and sides infuscate, almost striate-punctate, pubescence yellow. Abdomen scarcely narrower than the elytra, impunctate, with long, sparing pubescence: anus somewhat testaceous. Long. $1\frac{1}{3}$ lin.; lat. $\frac{1}{4}$ lin.

Ceylon (ex *Motschoulsky*).

846. **Leptacinus beesoni**, sp. n.

In size, colour, and build scarcely differing from *L. gracilis*, but the head is a little broader, smooth along the middle, less finely and much more closely punctured elsewhere than in *gracilis*, the thorax has a dorsal row of ten punctures, whilst the sides have about twenty very irregularly placed; the elytra are more infuscate anteriorly.

Dehra Dun: Nim Nadi (*Cameron*). Unique.

847. **Leptacinus pusillimus.**

Leptacinus pusillimus Kr., Arch. Naturg. xxv, 1859, i, p. 112.

Fusco-testaceous, the thorax and elytra paler, the sides of the head and thorax closely punctured, the latter with a dorsal series of about twelve punctures. Length 1½ lin. [3·3 mm.].

A very minute species, readily recognized by the pale coloration and the puncturation. Antennæ longer than the head, rather long and rather stout, testaceous, the 2nd joint almost longer than the two following together, the 3rd almost transverse, the 4th to 10th distinctly broader, the penultimate strongly transverse, the 11th ovate, pointed, longer than the two preceding together. Head as wide as the thorax and almost as long, the base truncate, the posterior angles lightly rounded, somewhat convex, the median sulci but little, the lateral strongly impressed, the sides closely and obviously punctured, smooth along the middle. Thorax a little narrower than the elytra, more than a half longer than broad, moderately narrowed behind, the apex on each side obliquely truncate, the base scarcely rounded, the anterior angles obtuse, the posterior nearly rectangular, subdepressed, the sides closely and obviously punctured, the dorsal series composed of about twelve punctures. Scutellum smooth. Elytra as long as the thorax, closely and distinctly punctured internally, finely pubescent. Abdomen very finely and closely punctured and pubescent, the anterior segments infuscate at the base. Legs pale yellow.

Ceylon. Unique (ex *Kraatz*).

848. **Leptacinus fusciceps.**

Leptacinus fusciceps Epp., D. E. Z. 1895, p. 399.

Sublinear, red, sparingly and finely pubescent, the head, disc of the elytra, and base of the abdominal segments slightly infuscate; base of the antennæ and legs testaceous; head oval, finely and sparingly punctured, smooth along the middle; thorax oblong, with dorsal series of about fifteen fine punctures,

the sides of the thorax and the elytra with numerous irregular punctures. Length 2⅓ lin.

Of rather parallel, flat build; shining red, the head, the disc of the elytra, and the base of the abdominal segments a little infuscate; head ovate, finely and sparingly punctured, smooth along the middle, the median sulci longer than the oblique lateral sulci, but equally distinct. Antennæ brown, with reddish-yellow base, about one-half longer than the head, thickened towards the apex, the 2nd joint about a half longer than the 3rd, the 4th transverse, the following gradually increasing in breadth, the penultimate nearly twice as broad as long, the 11th short, ovate. Thorax scarcely longer than the head, about a half longer than broad, narrower than the elytra, with two dorsal rows of about fifteen fine punctures, the sides finely and irregularly punctured. The elytra scarcely longer than the thorax, irregularly, finely, and sparingly punctured. The abdomen extremely finely and sparingly punctured.

Burma: Pegu (ex *Eppelsheim*).

849. **Leptacinus antennalis,** sp. n.

Shining; head blackish on the disc, the front and sides obscurely rufescent; thorax and abdomen yellowish-red, the latter more or less infuscate on the 4th and 5th (visible) segments; elytra brownish-yellow; thorax with dorsal row of ten or eleven fine punctures. Antennæ yellowish-red. Legs yellow. Length 5 mm.

Immediately distinguished from all the Indian species by the greatly developed terminal joint of the antennæ. Head oblong, slightly narrowed behind, with the eyes (which are rather prominent) a little broader than the thorax; median sulci short, foveate, the lateral short, narrow, and oblique, finely and sparingly punctured; ground-sculpture absent. Antennæ with the 3rd joint much shorter than the 2nd, the 4th to 10th transverse, increasing in breadth, the penultimate about three times as broad as long, the 11th elongate, parallel, the apex rounded, almost as long as the four preceding together. Thorax with the sides retracted and broadly and slightly emarginate behind, with dorsal row of ten or eleven moderate punctures, towards the sides with nine or ten others; ground-sculpture absent; scutellum transversely striate at the apex, with two punctures. Elytra (measured from the base) a little longer and a little broader than the thorax, rather superficially and not very closely punctured, sparingly yellow pubescent. Abdomen finely, rather sparingly punctured with longer yellow pubescence than on the elytra.

Burma: Ruby Mines (*Doherty*). Unique. In British Museum Collection.

850. **Leptacinus æthiops.**

Leptacinus æthiops Bernh., Arch. Naturg. lxxxiv, 1918, p. 180.

The largest of the genus known to me, and having little in common with the rest of the species. In appearance resembling a *Mitomorphus*, yet by the obviously subulate 4th joint of the maxillary palpi it must be referred to *Leptacinus*. Almost as large as *Xantholinus punctulatus* Payk., and somewhat similar to it in colour. Deep black, the elytra with slight metallic green reflex, the antennæ and legs pitch-black, the palpi reddish-yellow. Head almost broader than the thorax, elongate, almost a third longer than broad, slightly widened behind, on the posterior half and on the sides rather finely and sparingly punctured, the median sulci converging behind, the lateral passing to the anterior border of the eye. Maxillary palpi rather stout, the 4th joint much narrower than the 3rd, subulate, but rather stout and much shorter than the preceding. Thorax narrow, much narrower than the elytra, nearly twice as long as broad, rather parallel, very slightly widened and rounded in front, in the first fifth strongly narrowed in a very flat curve, behind with slightly marked posterior angles, in the dorsal row with about eight strong punctures, at the sides with numerous irregular punctures, some forming a curved row. Elytra shorter than the thorax, finely and sparingly punctured, especially behind, shining and without dorsal rows of larger punctures. Abdomen sparingly, along the middle very sparingly, pubescent. Length 7 mm.

Darjeeling (*Christie*) (ex *Bernhauer*).

Genus **PACHYCORYNUS** Motsch.

Pachycorynus Motsch., Bull. Mosc. xxxi, 1858, iii, p. 204.
Holisomorphus Kr., Arch. Naturg. xxv, 1859, i, p. 100.

Depressed elongate species. Differs from *Leptacinus* in the depressed form, the absence of spines on the posterior tibiæ, longer 5th joint of the posterior tarsi, and the non-emarginate tongue. Antennæ strongly geniculate. Median frontal furrows well marked, long, parallel, the lateral very short, indistinct, oblique from the anterior border of the eye. Neck very slender. Gular sutures fused. Elytra distinctly imbricate. Labrum rather small, transverse, emarginate in the middle and furnished with long setæ. Mandibles stout, pointed, the right with a rather obscure obtuse tooth, the left with a small pointed tooth before the middle, outer margin sulcate from base nearly to the apex. Maxillary palpi with the 1st joint small, 2nd rather short, a little dilated towards the apex, the 3rd distinctly longer, almost cylindrical, 4th slender, subulate, a good deal shorter than the preceding.

Apex of outer and inner margin of the inner lobes of maxilla densely ciliate. Mentum transverse, corneous. Tongue very small, membranous, rounded in front. Paraglossæ well developed, membranous, densely ciliate externally, finely dentate within, extending beyond the 1st joint of the labial palpi. Labial palpi with the 1st joint short, 2nd more than twice as long, slightly curved, cylindrical, 3rd a little shorter than the preceding, subulate. Neck-plate of the prosternum nearly semicircular, emarginate in the middle in front. Prosternum well developed, deflexed behind, this deflexed portion separated by a transverse ridge from the anterior part, angulate in the middle behind and obliquely truncate on each side. Pronotal epipleura narrow, the superior lateral line not deflexed. Mesosternum short, its process short and broad, rounded behind, not much produced between the coxæ, these widely separated. Metasternum long, its process broad and separated from that of the mesosternum by a suture, anterior and middle tibiæ spinose, the posterior with a few setæ only. Tarsi short, the first four joints scarcely differing in length, the 5th about as long as the four preceding together. The genus has a facies recalling the American genus *Holisus* Er. Its habits are subcortical. So far it is only known from the Oriental region. Only two species are known in our fauna.

Key to the Species.

Black species ..... *niger*, sp. n., p. 16.
Elytra yellow, the anterior half blackish .... *dimidiatus* Motsch., [p. 15.

851. **Pachycorynus dimidiatus.** (Plate I, fig. 2.)

Pachycorynus dimidiatus Motsch., Bull. Mosc. xxxi, 1858, iii, p. 205, tab. 1, fig. *n*.
Holisomorphus ceylanensis Kr., Arch. Naturg. xxv, 1859, i, p. 101, tab. 2, fig. 6 *a–c*.
Xantholinus cinctus Walk.*, Ann. Mag. Nat. Hist. (3) ii, 1858, p. 205.

Depressed, subparallel, shining, black, the elytra yellow, with about the anterior half blackish. Antennæ yellowish-red. Legs yellowish-red, the margins of the femora and external margin of the tibiæ often blackish. Length 4·75–5·5 mm.

Head a little broader than the thorax, larger in the ♂, about as long as broad, subquadrate, scarcely widened behind, the posterior angles rounded, the eyes small; median sulci long, parallel, distinct; the lateral short, oblique from the anterior border of the eye, not extending to the level of the posterior end of the median; at the inner margin of the eye and extending back almost to the base with a fine sulcus; median region impunctate, elsewhere with a few moderate umbilicate punctures, ground-sculpture fine, longitudinal.

Antennæ with the 3rd joint almost moniliform, the 4th to 10th strongly transverse. Thorax about one and a half times longer than broad, the sides straight and retracted behind, the anterior angles rounded, the anterior margin on each side oblique to the narrow neck; impunctate along the middle, on each side with two rows each of seven or eight rather fine punctures, near the lateral margin with a few yet finer ones, the punctures all setiferous; ground-sculpture fine, transverse. Scutellum with three or four very fine punctures, finely transversely striate. Elytra as long as but broader than the thorax, finely and rather closely punctured with fine semi-erect yellow pubescence. Abdomen finely and sparingly punctured with fine, rather long, yellowish hairs.

Ceylon: Galle; Kandy. India: Nilgiri Hills; Siwaliks. Widely distributed through the Oriental region and New Guinea.

852. **Pachycorynus niger**, sp. n.

Entirely black; antennæ ferruginous, legs reddish-yellow, the anterior border of the femora and the tibiæ blackish. Length 6 mm.

Larger and more robust than *P. dimidiatus*, the head very slightly widened behind, much more coarsely punctured, the antennæ a little longer and stouter. Thorax less finely punctured, elytra more closely punctured.

Darjeeling: Lopchu, alt. 5000 feet (*J. C. M. Gardner*).

Genus **MITOMORPHUS** Kr.

Mitomorphus Kr., Arch. Naturg. xxv, 1859, i, p. 105.

Distinguished from the other genera of our Fauna by the narrow subcylindrical build and long oval head with short median and obsolete lateral sulci. Labrum small, rounded in front, and furnished with long setæ, in the middle with an acute triangular notch. Mandibles each with a small tooth internally, sulcate throughout externally. Maxillary palpi with 1st joint small, 2nd short, slightly curved and widened towards the apex, the 3rd longer, obconical, the 4th conical, at least as long as the preceding. Maxillæ as in *Leptacinus*. Mentum transverse, corneous. Tongue broad, membranous, feebly emarginate in front. Paraglossæ well developed, ciliate, extending to the level of the apex of the 1st joint of the labial palpi, these with the 1st joint a little shorter than the 2nd, which is cylindrical, 3rd as long as but much narrower than 2nd. Prosternum well developed, carinate in the middle, deflexed behind, its posterior margin angulate in the middle and obliquely truncate on each side.

Pronotal epipleura narrow, the superior lateral line not deflexed until the anterior angles, not uniting with the inferior lateral line. Mesosternum short, its process short and broad, rounded behind and not extending much between the coxæ, these widely separated. Metasternum with long process reaching that of the mesosternum. Tibiæ spinose. Anterior tarsi simple, the first four joints short, subequal, the 5th much shorter than the four preceding together, the middle and posterior longer, the first four joints gradually decreasing in length. The genus is known only from the Oriental region; the species appear to live in damp places amongst vegetable detritus.

Key to the Species.

1.	Head subopaque, very densely and finely punctured	*cribriceps* Cam., p. 21.
	Head very shining, at most with scattered punctures	2.
2.	Species entirely black, without metallic reflex	3.
	Species otherwise coloured, the elytra at least with metallic reflex	4.
3.	Larger (9·5 mm.). Thorax with dorsal row of 14 or 15 small punctures; elytra finely, superficially, and uniformly punctured...	*diabolicus* Cam., p. 20.
	Smaller (5 mm.). Thorax with dorsal row of 6 small punctures; elytra almost impunctate	[p. 18. *nigerrimus* Bernh., *indicus* Kr., p. 19.
4.	Only the elytra with metallic reflex	5.
	Head, thorax, and elytra distinctly metallic.	
5.	Thorax external to the dorsal row of punctures finely, sparingly, and irregularly punctured; head without 4 quadrately placed punctures behind the median sulci.	[p. 20. *purpurescens* Cam.,
	Thorax external to the dorsal row of punctures with another row of similar ones; head with 4 quadrately placed punctures behind the median sulci	6.
6.	Base of femora and tibiæ pitchy; elytra irregularly punctured.....	*cupreolus* Fauv., p. 18.
	Legs entirely yellow or reddish-yellow	7.
7.	Elytra finely, irregularly, moderately closely punctured	*obsoletus* Fauv., p. 19.
	Elytra obsoletely triserially punctured	*nigroæneus* Kr., p. 17.

853. Mitomorphus nigroæneus.

Mitomorphus nigroæneus Kr., Arch. Naturg. xxv, 1859, i, p. 106.

Elongate, subcylindrical, shining; head and thorax black, with marked æneous reflex; elytra obscurely reddish, with well-marked metallic reflex; abdomen black. Antennæ and palpi reddish. Legs yellow. Length 6 mm.

Head oblong-ovate, a little narrowed in front, a little wider and almost as long as the thorax, the posterior angles completely

rounded with the base; median frontal sulci short, parallel, behind them with four quadrately placed punctures, lateral sulci very short and indistinct; at the sides with a fine and very sparing puncturation; ground-sculpture absent. Antennæ with the 3rd joint a little shorter than the 2nd, 4th to 10th transverse, gradually increasing in width, the penultimate strongly transverse, 11th short. Thorax much longer than broad, the anterior angles rounded, the sides straight and retracted behind; dorsal row of seven fine punctures and externally with another row of five parallel to it, near the anterior angles with a single larger puncture; ground-sculpture absent. Elytra as long as but a little broader than the thorax, with three somewhat obscure rows of very fine punctures, one sutural, one subhumeral, and another intermediate. Abdomen sparingly and finely punctured with scanty pubescence.

Ceylon: Dikoya, alt. 3800–4200 feet (*Lewis*).

854. Mitomorphus nigerrimus.

Mitomorphus nigerrimus Bernh., Ent. Blätt. 1915, p. 253.
Mitomorphus ovaliceps Cam., E. M. M. lvi, 1920, p. 147.

Narrow, elongate, black, shining, without trace of metallic reflex. Antennæ reddish. Legs yellow. Length 5 mm.

As compared with *nigroæneus* the head is narrower, not widened behind, long oval in shape and more sparingly punctured, the antennæ shorter and much thicker, the thorax is a little narrower, with dorsal row of six punctures and two others externally, the elytra are scarcely as long as the thorax, and practically impunctate, only traces of the usual three rows of punctures being visible, the abdomen is much more sparingly punctured.

Madura Dist.: Shembaganur. Nilgiri Hills (*Andrewes*).

855. Mitomorphus cupreolus.

Mitomorphus cupreolus Fauv., Rev. d'Ent. xiv, 1895, p. 240.

Somewhat similar in size and facies to *Xantholinus linearis* Ol., distinguished from *M. nigroæneus* Kr. by the larger head with subtruncate base, and the base of the femora, the tibiæ and tarsi somewhat pitchy. Blackish-green or coppery, very shining, the abdomen pitchy; antennæ obscure red, palpi, apex of the 6th and 7th segments, elevated margins of the others, and femora (except the base) testaceous. Antennæ stout, the 2nd and 3rd joints equal; head oblong, the base subtruncate, the posterior angles rounded, behind the frontal sulci on each side with two punctures, the posterior one

the smaller, at the sides with several others. Thorax scarcely twice as long as the width in front, shortly obliquely narrowed to the neck, towards the base with the sides somewhat retracted and emarginate, the disc with a dorsal row of seven and a lateral row of five punctures. Elytra about as long as the thorax, irregularly punctured near the scutellum, the disc with three rows of punctures. Abdomen finely, not very closely punctured at the sides. Elytra closely yellow pubescent. Length 7·5 mm.

Burma : Carin Cheba, Carin Asciuii Ghécu, alt. 900–1500 metres (*L. Fea*) (ex *Fauvel*).

856. **Mitomorphus obsoletus.** (Plate I, fig. 3.)

Mitomorphus obsoletus Fauv., Rev. d'Ent. xxiii, 1904, p. 56.

Shining, head and thorax black, with strong greenish reflex, elytra obscurely reddish, with metallic reflex ; abdomen black, the posterior margin of the last two segments narrowly and obscurely lighter. Antennæ reddish. Legs yellow. Length 5·5–7 mm.

Scarcely differing from *nigroæneus* in colour, but larger, the sides of the head quite parallel, not widened at all behind, the puncturation yet more sparing, antennæ stouter ; thorax with dorsal row of six finer punctures, the lateral of four ; elytra finely and irregularly punctured ; abdomen more finely punctured.

Nilgiri Hills (*Andrewes*).

857. **Mitomorphus indicus.**

Mitomorphus indicus Kr., Arch. Naturg. xxv, 1859, p. 107, tab. 2, fig. 5 *a–b*.

Elongate, subcylindrical, shining ; head and thorax reddish-brown, all the margins of the latter narrowly and indeterminately yellowish ; elytra reddish-brown, with distinct metallic reflex, the scutellum and base narrowly yellowish ; abdomen brown, the posterior margin of the segments rather broadly yellow. Antennæ reddish. Legs yellow. Length 5 mm.

Distinguished from all the others by the colour. As compared with *nigroæneus* the head is less narrowed in front and so more oblong, the puncturation at the sides yet more sparing, the thorax is less narrowed behind and so more parallel, the dorsal row consists of seven punctures, but the lateral of three only, the elytra are scarcely as long as the thorax, practically impunctate, only traces of a sutural and subhumeral row of very fine punctures being visible.

Assam : Naga Hills (*S. N. Chatterjee*).

858. Mitomorphus diabolicus.

Xantholinus diabolicus Cam., Trans. Ent. Soc. Lond. 1926, p. 343.

This species, which I described as a *Xantholinus*, has an emarginate tongue, and must therefore be removed to *Mitomorphus*, which it also resembles in facies.

Entirely black, shining. Thorax with dorsal row on either side of fourteen or fifteen small punctures. Elytra very finely, sparingly, superficially punctured. Antennæ with the first three joints shining ferruginous, the rest opaque, black; palpi reddish-testaceous. Legs reddish-brown. Length 9·5 mm.

Head oblong-ovate, broader but shorter than the thorax, temples and base coarctate; eyes flat; median grooves parallel, the lateral very fine, linear, nearly transverse; the whole surface except the front finely, sparingly punctured, the temples more closely, the middle impunctate, the temples and supra-ocular area finely coriaceous, the rest of the surface without trace of ground-sculpture. Antennæ with the 3rd joint a little shorter than 2nd, 4th to 10th transverse. Thorax (viewed from above) cylindrical, with dorsal row on either side of fourteen or fifteen small punctures, externally with nine or ten others and seven or eight following the lateral margin. Elytra broader but scarcely as long as the thorax, a little longer than broad, moderately finely, not very closely, superficially punctured, yet more finely towards the sides, less shining than the fore-parts. Abdomen practically impunctate along the middle, the sides very finely and rather sparingly punctured with fine transversely strigose ground-sculpture.

Chakrata district: Kanasar, 7050 feet above the sea.

859. Mitomorphus purpurescens.

Mitomorphus purpurescens Cam., Trans. Ent. Soc. Lond. 1926, p. 341.

Shining, head black, with æneous reflex, thorax pitchy-red; elytra black, with purplish-bronze reflex; abdomen brown, darker medially, with greenish reflex, the last two segments black. Antennæ ferruginous. Legs reddish-testaceous. Length 5·5 mm.

Smaller and narrower than *nigroæneus*, with narrower, longer, and parallel-sided head, the four quadrately placed punctures very obsolete, the puncturation yet finer, thorax with seven or eight finer punctures in the dorsal row, the sides sparingly and irregularly punctured, elytra shorter and more convex, more obsoletely punctured. A narrower species than *M. obsoletus* Fauv., the head and elytra similarly coloured, the puncturation of the thorax much finer, the elytra shorter, more convex and almost impunctate. Head oblong, as wide as but shorter than the thorax, the posterior

angles rounded, coarctate with the base; frontal furrows short, parallel, the lateral obsolete, punctiform, puncturation very fine and very sparing even on the sides. Antennæ with the 3rd joint shorter than 2nd, 4th to 10th transverse, the penultimate joints fully twice as broad as long. Thorax much longer than broad, slightly narrowed and sinuate behind, with a row of seven or eight very fine punctures on either side of the middle, laterally very finely and irregularly punctured, behind the anterior angles with two or three larger punctures, the margins all less pitchy and more ferruginous than the disc. Elytra broader but scarcely longer than the thorax, convex, scarcely longer than broad, very sparingly and obsoletely punctured, finely and very sparingly pubescent. Abdomen very finely and very sparingly punctured and pubescent.

Mussoorie district: Arni Gad and Kaligad. At the edges of streams under dead leaves, etc.

860. **Mitomorphus cribriceps.**

Mitomorphus cribriceps Cam., Trans. Ent. Soc. Lond. 1926, p. 341.

Black, head opaque, densely, rather finely punctured; thorax shining; elytra bronze-black, shining. Antennæ ferruginous; femora pale testaceous, tibiæ and tarsi reddish-testaceous. Length 7 mm.

Remarkable by the densely punctured and opaque head, the rest of the insect shining. Head very similar in build to *M. obsoletus* Fauv., but the thorax is narrower and (viewed from above) the sides are practically parallel, and the elytra much shorter. Head as wide as the thorax, oblong-ovate, the posterior angles coarctate with the base; median furrows rather long, sinuate, narrow, ending behind in a setiferous puncture, behind which is another, the space between smooth and shining, the external very fine, oblique; the whole surface opaque and densely punctured, the sides with a few larger obsolete setiferous punctures. Antennæ with 3rd joint a little shorter than 2nd, 4th to 10th transverse, gradually increasing in width. Thorax much longer than broad, shining, viewed from above with the sides practically parallel, on either side of the disc with a row of seven moderate punctures, the first of them on, the second some distance behind, the anterior border, the rest equidistant from each other, externally with a row of four others and a further single puncture some distance behind the anterior angle, and the extreme margin with a row of punctures; antero-externally an irregular space not extending to the sides or anterior angle, or internally beyond the row of four punctures, is finely and closely punctured. Scutellum coriaceous, bipunctate. Elytra wider but shorter

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than the thorax, a little longer than broad, the disc with three rows of fine setiferous punctures, seven sutural, seven humeral, and four intermediate, the 4th of this latter series on a level with the 4th of the sutural series ; reflexed margin with a row of seven similar punctures, otherwise impunctate and without ground-sculpture. Abdomen finely and sparingly punctured and with sparing greyish pubescence, the bases of the segments strongly, the rest slightly, coriaceous.

Siwaliks : Mohan Rau. A single specimen in stream debris.

Genus **XANTHOLINUS** Serville.

Xantholinus Serv., Encyc. Méth. x, 1825, p. 475 ; Er., Käf. Mark Brand. 1837–1839, p. 422 ; id., Gen. Spec. Staph. 1839–40, p. 306 ; Lac., Gen. Col. ii, 1854, pp. 67, 68 ; Kraatz, Naturg. Ins. Deutsch. ii, 1856–58, p. 629 ; Jacq. du Val, Gen. Col. d'Eur. ii, 1857–59, p. 32 ; Fauv., Faun. Gallo-Rhén. iii, 1872, p. 381 ; C. G. Thoms., Skand. Col. ii, 1860, p. 189 ; Muls. et Rey, Col. Fr. Brévip., Xantholiniens, 1877, p. 41 ; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 477 ; Casey, Trans. Ac. St. Louis, xvi, 1906, pp. 367, 384.

Subgen. *Calontholinus* Reitt., Verh. Nat. Ver. Brünn, xlvi, 1908, p. 114.

Subgen. *Gyrohypnus* Mannh., Brach. 1830, p. 7 ; Muls. et Rey, Col. Fr. Brévip. 1877, p. 74 ; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 479 ; Casey, Trans. Ac. St. Louis, xvi, 1906, pp. 367, 386.

Subgen. *Hypnogyra* Casey, Tr. Ac. St. Louis, xvi, 1906, pp. 386, 394.

Subgen. *Megalinus* Muls. et Rey, Col. Fr. Brévip. 1877, p. 45.

Subgen. *Metacyclinus* Reitt., Faun. Germ. ii, 1909, p. 137.

Subgen. *Milichilinus* Reitt., l. c. p. 137.

Subgen. *Notolinopsis* Cas., Trans. Ac. St. Louis, xvi, 1906, pp. 371, 377.

Subgen. *Notolinus* Cas., l. c. pp. 371, 375.

Subgen. *Typhlodes* Shp., E. M. M. x, 1873, p. 1 ; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 479.

Subgen. *Typhlolinus* Reitt., Faun. Germ. ii, 1909, p. 138.

Subgen. *Vulda* Jacq. du Val, Ann. Soc. Ent. Fr. (2) x, 1852, p. 695 ; id., Gen. Col. d'Eur. ii, 1857–59, p. 31 ; Muls. et Rey, Col. Fr. Brévip. 1877, pp. 92, 124 ; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 479.

Subgen. *Xantholinus*, s. str., Muls. et Rey, Col. Fr. Brévip. 1877, p. 45 ; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 479.

Idiolinus Cas., Trans. Ac. St. Louis, xv, 1906, p. 375.

Biology.—Bouché, Naturg. Ins. 1834, pp. 181–182, tab. 8, figs. 9–13 ; Muls. et Rey, Col. Fr. Brévip. 1877, pp. 60, 73 ; Rey, Ann. Soc. Linn. Lyon, xxxiii, 1886, pp. 150, 151 ; id., Sep. Essai d'étud. sur cert. Larv. Col. 1887, pp. 20, 21 ; Rupertsberger, Biol. Lit. Käf. Eur. 1894, p. 123 ; Xambeu, Ann. Soc. Linn. Lyon, xxxviii, 1891, p. 180 ; Mœurs, Metam. Ins. ii, Rev. d'Ent. xix, 1900, p. 39 ; Froggatt, Proc. Linn. Soc. N. S. Wales, 1895, p. 78, tab. 9, figs. 4, 5 ; Chapin, Psyche, xxii, 1915, pp. 157–161 (figs.).

This genus has similar characters to *Leptacinus*, except that the 4th joint of the maxillary palpi is not subulate but conical, and at its base as broad, or nearly as broad, as the 3rd, whilst

the tongue is simply rounded in front without emargination. For the most part they are of larger size and often more brightly coloured than *Leptacinus*. All the species have at least a dorsal row of punctures on each side of the middle line and several have the sides more or less closely punctured. They are found throughout the world under stones and in vegetable and animal debris. In Europe certain species are without eyes and inhabit caves.

Key to the Species.

1.	Elytra bright red	*hypsibathus* Bernh., [p. 29.
	Elytra otherwise	2.
2.	Last abdominal segment bright reddish-yellow	[p. 27. *ruficaudatus*, sp. n.,
	Last abdominal segment at most pitchy or obscure	3.
3.	Species with strong metallic reflex throughout	4.
	Species at most with metallic reflex on the elytra	5.
4.	Thorax with close irregular puncturation at the sides	[p. 27. *assamensis*, sp. n.,
	Thorax with a curved row of 7 or 8 punctures only at the sides	*metallicus* Fauv., p. 26.
5.	Thorax with a dorsal row of 4 to 8 rather large punctures	6.
	Thorax with a dorsal row of smaller, more numerous punctures	8.
6.	Larger (11 mm.). Head distinctly widened behind, the lateral frontal sulci distinct	*niger* Cam., p. 25.
	Smaller (6·5–7·5 mm.). Head not widened behind, the lateral frontal sulci indistinct	7.
7.	Head short, subquadrate, the posterior angles briefly rounded, puncturation closer, more or less elongate, elytra with distinct metallic reflex	*punctulatus* Payk., 24.
	Head oblong, the posterior angles broadly rounded, puncturation less close, not elongate, elytra without metallic reflex	*birmanus*, sp. n., p. 24.
8.	Head and thorax with very distinct transverse ground-sculpture; head very closely punctured at the sides	*coriaceus* Cam., p. 29.
	Head and thorax without ground-sculpture.	9.
9.	Elytra with metallic reflex, very finely and sparingly punctured	*parcus* Epp., p. 26.
	Elytra without metallic reflex, black or pitchy	10.
10.	Black; head rather closely and moderately coarsely punctured	*modestus* Cam., p. 28.
	Pitchy-brown; head rather sparingly and very finely punctured	*piceus* Cam., p. 28.

861. Xantholinus punctulatus.

Staphylinus punctulatus Payk., Mon. Staph. 1789, p. 30; Er., Käf. Mark Brand. 1837–39 (1839), p. 426; id., Gen. Spec. Staph. 1839–40, p. 328; Heer, Faun. Helv. 1838–42, p. 245; Kr., Naturg. Ins. Deutsch. ii, 1856–58, p. 635; Thoms., Skand. Col. ii, 1860, p. 189; ix, 1867, p. 176; Fauv., Gallo-Rhén. iii, 1872, p. 385; Muls. et Rey, Col. Fr. Brévip. 1877, p. 75; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 480.
Xantholinus ater Steph., Ill. Brit. Ent. v, 1832, p. 255.
Staphylinus elongatus Fourc., Ent. Paris, i, 1785, p. 171.
Staphylinus fracticornis Müll., Zool. Dan. Prod. 1776, p. 99.
Xantholinus haroldi Reitt. in Harold, Col. Hefte, xi, 1873, p. 146.
Xantholinus melanarius Fauv., Abeille, viii, 1871, p. 304.
Xantholinus morio Reitt., B. E. Z. xvi, 1872, p. 167.
Xantholinus obscurus Steph., Ill. Brit. Ent. v, 1832, p. 256.
Xantholinus obscurus var. *thomsoni* Schwarz, B. E. Z. xvi, 1872, p. 154; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 480.

Shining, black, the elytra with slight greenish metallic reflex. Thorax with dorsal row of four to eight strong punctures. Antennæ with the 1st joint black, the following dark reddish-brown. Legs blackish, the tarsi reddish-yellow. Length 6·5–7·5 mm.

Head subquadrate, a little longer than broad, a little narrower than the thorax, the eyes moderate, the temples parallel, the posterior angles briefly rounded; median frontal sulci converging behind, the lateral obsolete; middle of the disc nearly smooth, in front very finely punctured, a narrow space extending from the eye along the temple to the posterior angle smooth and shining, the rest of the surface covered with coarse, umbilicate, somewhat elongate punctures closely placed. Antennæ with the 2nd and 3rd joints of equal length, 4th to 10th transverse. Thorax longer than broad, the sides retracted and emarginate behind, smooth along the middle, the dorsal row composed of four to eight (usually five) rather large punctures, externally with eight or nine others curved in the form of a shepherd's crook. Elytra a little longer than the thorax, rather closely, irregularly, and moderately finely punctured externally, towards the side margin with two or three rows of punctures. Abdomen very finely, moderately closely punctured, more sparingly along the middle.

"Ind. or.," without further indication (teste *Kraatz*). I have not seen Indian examples of this insect, which is widely distributed throughout the Palæarctic and Nearctic regions.

862. Xantholinus birmanus, sp. n.

Shining, black; the elytra dark reddish-brown. Thorax with dorsal row of four rather large punctures. Antennæ ferruginous. Legs yellowish-red. Length 7 mm.

Resembling the European *X. rufipennis* Er. in build, but differing in other respects. Head ovate, widest behind, the eyes small ; median frontal sulci distinct, slightly converging behind, the lateral obsolete ; smooth along the middle, at the base and the post-ocular area, elsewhere rather coarsely and rather closely punctured. Antennæ with the 2nd and 3rd joints equal in length, the 4th to 10th transverse. Thorax with the sides retracted and a little emarginate behind and a dorsal row of four rather large punctures, externally with a straight row of five smaller ones placed close together. Elytra as long as the thorax, with a sutural row of about seven small punctures, a humeral of twelve or thirteen, and between it and the sutural with trace of two other rows. Abdomen nearly smooth along the middle, elsewhere very finely and not closely punctured.

Burma : Ruby Mines (*Doherty*). British Museum Collection.

863. Xantholinus niger.

Xantholinus niger Cam., Trans. Ent. Soc. Lond. 1926, p. 343.

Entirely black, shining. Thorax with a dorsal row on either side of seven rather large punctures. Elytra moderately finely, rather superficially subseriately punctured. Antennæ with the first joint black, the rest dark brown. Legs dark brown. Length 11 mm.

In build very similar to *X. metallicus* Fauv., but larger and without trace of metallic reflex, the dorsal row of thoracic punctures larger, the elytra more finely, less closely and subseriately punctured. Head a little wider but shorter than the thorax, a little longer than broad, a little widened behind the eyes and gradually narrowed in front, the posterior angles rather broadly rounded ; median and lateral grooves well marked, not connected ; the base, the space between the median grooves, a broad longitudinal space on the disc reaching from the base to the front, and a narrow space behind the eyes impunctate, the rest of the surface moderately coarsely and not very closely punctured. Antennæ with 2nd and 3rd joints of equal length, the 4th to 10th transverse. Thorax narrowed and sinuate behind, the disc on either side with a row of seven rather larger punctures, externally with a curved row of seven smaller punctures, and two others behind the anterior border on either side. Scutellum alutaceous. Elytra scarcely longer than the thorax, longer than broad, moderately finely, scarcely seriately punctured, the puncturation more confused towards the suture. Abdomen smooth along the middle, the sides very finely and sparingly punctured, with fine, sparing, stiff pubescence.

Siwaliks : Kheri Rau.

864. Xantholinus metallicus.

Xantholinus metallicus Fauv., Rev. d'Ent. xiv. 1895, p. 243.

Shining greenish-coppery bronze, the scutellum pitchy, the extreme apical margin of the 5th and 6th segments reddish-yellow; thorax with dorsal row of eight to twelve rather large punctures. Elytra irregularly punctured. Antennæ pitchy, the apex of the 11th joint obscurely testaceous. Legs pitchy, tarsi reddish. Length 8–8·5 mm.

In size and build very similar to the European *X. hesperius* Er., but with the head a little more widened behind, the eyes much larger, more coarsely punctured, the thorax and elytra more coarsely punctured. Head a little widened behind, the posterior angles rather broadly rounded, the median frontal sulci distinct, the lateral obsolete, smooth along the middle, elsewhere coarsely and rather closely punctured. Antennæ with the 2nd and 3rd joints equal. Thorax longer than broad, the sides straight and retracted behind, on each side of the middle with a row of eight to twelve rather large punctures, at each side with six others, near the anterior angles with three more. Elytra as long as the thorax, rather closely, moderately coarsely punctured. Abdomen very finely punctured, more closely on the first two segments.

Burma: Carin Asciuii Ghécu, alt. 1400–1500 metres (*L. Fea*). Assam: Shugnu, alt. 3000 feet (*S. N. Chatterjee*). Mussoorie and Chakrata districts, alt. 3500–7000 feet (*Cameron*).

865. Xantholinus parcus.

Xantholinus parcus Epp., D. E. Z. 1895, p. 397.

Shining; black, the elytra greenish-black; thorax with dorsal row of eight or nine fine punctures. Antennæ and legs reddish-brown. Length 7·5 mm.

Head ovate, wider behind, the eyes rather small, the median and lateral frontal sulci well marked, smooth along the middle, elsewhere finely and rather sparingly punctured. Antennæ with the 3rd joint slightly longer than the 2nd, the 4th slightly, the following more strongly transverse. Thorax narrow, slightly retracted and feebly emarginate behind, with a dorsal row of eight or nine fine punctures, externally with six or seven others, against the lateral margin with three or four more. Elytra as long as but broader than the thorax, finely, sparingly, and irregularly punctured, the punctures finer than on the thorax. Abdomen almost impunctate along the middle, at the sides very finely and rather closely punctured. The whole insect covered with a fine grey, more or less decumbent pubescence.

Sikkim : Darjeeling (*Christie*). United Provinces : Mussoorie and Chakrata districts (*Cameron*). Burma : Pegu (*v. Waagen*).

866. **Xantholinus assamensis**, sp. n.

Shining ; head and thorax with violaceous and coppery reflex, the elytra coppery, with reddish-yellow humeral angles ; abdomen with coppery reflex. Thorax with dorsal row of about thirteen large, close punctures. Antennæ with the 1st joint pitchy, the rest ferruginous. Legs yellowish-red. Length 8·5 mm.

In size and build very similar to *X. metallicus*, but very different in the sculpture and colour. Head with the median and lateral frontal sulci distinct, smooth along the middle, elsewhere coarsely and closely punctured. Thorax formed as in *metallicus*, smooth along the middle, the dorsal row composed of about thirteen large and closely placed punctures, external to it with a smooth elongate space abbreviated in front and behind, the rest of the surface coarsely and closely punctured. Elytra as long as the thorax, closely but less coarsely punctured. Abdomen extremely finely and not very closely punctured, rather less finely and more closely on the first two segments. Pubescence fine and sparing.

Assam : Naga Hills, Laimatak (*S. N. Chatterjee*).

867. **Xantholinus ruficaudatus**, sp. n.

Black, shining, the extreme posterior margin of the 5th and whole of the 6th segments bright yellowish-red. Thorax with dorsal row of eleven or twelve punctures, at the sides with a curved row of about twelve others. Antennæ with the first three joints dark reddish-brown, the following blackish. Legs black, tarsi reddish. Length 13 mm.

Head ovate, wider than the thorax, eyes small and flat ; median and lateral sulci distinct, the former converging behind ; smooth along the middle and along a narrow post-ocular area, elsewhere with moderately fine and moderately close punctures. Antennæ with the 2nd and 3rd joints equal, the 4th to 10th transverse. Thorax longer than broad, the sides retracted and a little emarginate behind, smooth along the middle, with dorsal row of eleven or twelve moderate punctures, externally with about twelve others of similar size arranged in the form of a shepherd's crook. Elytra as long as the thorax, rather closely punctured, the punctures of about the size of those of the thorax. Abdomen almost smooth along the middle, elsewhere very finely and moderately closely punctured. Pubescence throughout scanty.

Darjeeling : Debrepani, alt. 6000 feet (*J. C. M. Gardner*).

868. Xantholinus piceus.

Xantholinus piceus Cam., Trans. Ent. Soc. Lond. 1926, p. 345.

Narrow, elongate, shining, pitchy black. Abdomen brown, the apex blackish. Head oblong ovate, finely sparingly punctured. Thorax with dorsal row on either side of fifteen or sixteen rather fine punctures. Antennæ with the first three joints shining, ferruginous, the rest pitchy-red, opaque. Palpi testaceous. Legs testaceous. Length 5·75 mm.

Head slightly narrowed in front, the temples slightly widened, coarctate with the base, oval oblong, a little broader but shorter than the thorax, the eyes small; frontal furrows fine, short, parallel, the lateral well marked, not united with the former; puncturation fine and rather sparing, broadly impunctate along the middle. Antennæ with the 3rd joint half as long as the 2nd, 4th to 10th transverse, the penultimate about twice as broad as long. Thorax much longer than broad, slightly narrowed and sinuate behind, with a dorsal row on either side of fifteen or sixteen rather fine punctures, the sides rather closely and finely punctured, leaving a narrow impunctate space adjacent to the dorsal row except in front, where the puncturation is more or less confused with the dorsal row. Scutellum bipunctate, transversely strigose. Elytra a little broader but shorter than the thorax, scarcely longer than broad, pitchy-brown, finely, superficially, subserially and moderately closely punctured, the epipleura impunctate. Abdomen very finely, moderately closely punctured, finely pubescent.

Dehra Dun district: Nim Nadi. Siwaliks: Mohan Rau.

869. Xantholinus modestus.

Xantholinus modestus Cam., Trans. Ent. Soc. Lond. 1926, p. 345.

Narrow, elongate, shining black, elytra scarcely metallic; thorax with dorsal row of sixteen or seventeen somewhat irregular punctures on either side of the middle. First joint of antennæ brown, 2nd and 3rd ferruginous, the rest pitchy. Legs reddish-brown. Length 6·4 mm.

Very similar in build to *X. atratus* Heer, but much narrower. Head as broad as the thorax, longer than broad, slightly narrowed anteriorly, the temples slightly rounded and widened, the posterior angles rather broadly rounded, the base truncate; frontal furrows rather wide, slightly converging behind, the lateral short, well marked, not connected with the median, the front and middle of disc broadly impunctate throughout, the rest moderately finely and moderately closely punctured, with longitudinal post-ocular impunctate space. Antennæ with 3rd joint a little shorter than 2nd, 4th to 10th transverse,

the penultimate about twice as broad as long. Thorax distinctly narrowed and sinuate behind, with a row of seventeen or eighteen small punctures, more or less confused in front, externally with narrow longitudinal impunctate space abbreviated in front, the sides closely and moderately finely punctured. Elytra as long and as broad as the thorax, a little longer than broad, with three not very distinct rows of fine superficial punctures, the reflexed sides finely punctured. Abdomen smooth in the middle, the sides very finely and moderately closely punctured.

Chakrata district : Khedar Khud, alt. 7500 feet.

870. **Xantholinus coriaceus.**

Xantholinus coriaceus Cam., Trans. Ent. Soc. Lond. 1926, p. 344.

Entirely black, shining, coriaceous. Thorax with dorsal row of fifteen or sixteen fine punctures on either side. Antennæ with the first two joints reddish-brown, the rest black. Legs brownish-testaceous. Length 7·2 mm.

Readily distinguished by the whole body being finely but distinctly coriaceous. Head oblong, shorter but broader than the thorax, the sides straight, scarcely perceptibly narrowed in front, the posterior angles rounded, the base truncate : median furrows broad, slightly convergent posteriorly, the lateral rather broad, shorter than the median ; the space between the median furrows and extreme base impunctate, the rest of the surface moderately coarsely and rather closely punctured, less closely on the vertex and finely but distinctly coriaceous, especially at the sides. Antennæ with 3rd joint a little longer than 2nd, 4th to 10th transverse. Thorax elongate, narrowed and sinuate behind, the disc on either side with a row of fifteen or sixteen fine punctures, the sides finely, sparingly, and irregularly punctured, with two or three larger punctures behind the anterior angles and finely transversely strigose. Scutellum impunctate. Elytra a little longer and broader than the thorax, much longer than broad. finely, moderately closely punctured, finely coriaceous. Abdomen very finely, sparingly punctured, coriaceous, sparingly pubescent.

Simla Hills : Theog ; Kotgarh, alt. 7000–7600 feet.

871. **Xantholinus hypsibathus.** (Plate I, fig. 4.)

Xantholinus hypsibathus Bernh., Col. Rundsch. 1915, p. 51.

Shining ; black, the elytra red. Thorax and elytra irregularly punctured. Antennæ ferruginous red. Legs yellowish-red. Length 9·5 mm.

In colour similar to the European *X. rufipennis* Er., but

rather larger and more robust, the head a little widened behind, the fore-parts much more closely punctured. Head oval oblong, a little widened behind, the posterior angles rather broadly rounded; median frontal sulci well marked, the lateral obsolete, the whole surface, except along the middle, closely and finely punctured. Antennæ with the 3rd joint distinctly longer than the 2nd, the 4th to 10th transverse. Thorax a good deal longer than broad, the sides straight and gradually retracted behind, smooth along the middle, the rest of the surface rather closely punctured, the punctures somewhat unequal in size, but on the average a little coarser than those of the head. Elytra as long as the thorax, as closely but rather more finely punctured. Abdomen very finely and rather closely punctured.

Kulu, alt. 7000 feet. Simla Hills: Gahan, alt. 7000 feet (*Cameron*). Dehra Dun: Song River (*Cameron*).

Genus **GAUROPTERUS** Thoms.

Gauropterus Thoms., Skand. Col. ii, 1860, p. 187; Muls. et Rey, Col. Fr. Brévip. 1877, p. 36.
Eulissus Epp., Cat. Eur. 1891, p. 105 (nec Mannerheim); Casey, Trans. Ac. St. Louis, xvi, 1906, p. 379.

Biology.—Rey, Ann. Soc. Linn. Lyon, xxxviii, 1886, p. 149; id., Sep. Essai d'étud. sur cert. larv. de Col. 1887, p. 19.

Facies of *Xantholinus*, but differs in the mandibles having only a small fossa at the base externally, not longitudinally sulcate, and the labrum less deeply emarginate; the pronotal epipleura is narrow, as in *Xantholinus*, but the superior lateral line is obliquely deflected below behind the middle and meets the inferior lateral line below the anterior angles; the thorax has also near the side margin a punctured sulcus. But few species of this genus are known; they are found in Europe, N. America, Africa, and India.

Key to the Species.

1.	Elytra entirely or in great part red	2.
	Elytra black, with metallic reflex	*nigroæneus* Cam., p. 32.
2.	Abdomen entirely black	3.
	Abdomen with the 3rd and 4th (visible) segments red	*cinctus* Fauv., p. 32.
3.	Elytra entirely red	4.
	Elytra black or infuscate behind	5.
4.	Larger (9–12 mm.) and more robust; head rather sparingly punctured	*fulgidus* F., p. 31.
	Smaller (7·5 mm.) and narrower; head closely punctured	*rufipennis*, sp. n., p. 31.
5.	Elytra narrowly bordered with black behind	*marginalis*, sp. n., p. 32.
	Elytra infuscate for the posterior third	*birmanus*, sp. n., p. 32.

872. Gauropterus fulgidus.

Staphylinus fulgidus F., Mant. Ins. i, 1787, p. 220; Er., Käf. Mark Brand. 1837–39, p. 423; id., Gen. Spec. Staph. 1839–40, p. 319; Kr., Naturg. Ins. Deutsch. ii, 1856–58, p. 642; Jacq. du Val, Gen. Col. d'Eur. ii, 1857–59, tab. 12, fig. 57; C. G. Thoms., Skand. Col. ii, 1860, p. 188; Fauv., Faun. Gallo-Rhén. iii, 1872, p. 384; Muls. et Rey, Col. Fr. Brévip. 1877, p. 38; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 475; Casey, Trans. Ac. St. Louis, xvi, 1906, p. 380.
Staphylinus angulatus Küst., Käf. Eur. xiii, 1848, no. 7.
Staphylinus intermedius Küst., l. c. no. 8.
Staphylinus pyropterus Gr., Mon. Col. Micr. 1806, p. 102.

Shining; head, thorax, and abdomen black, the elytra red. Antennæ with the 1st joint blackish, the following reddish. Legs brownish-yellow or reddish-brown. Length 9–12 mm.

Head oblong, broader than the thorax, the posterior angles briefly rounded; median sulci rather long, deep, narrow, nearly parallel, the lateral at first oblique from the inner margin of the eye to about the level of the posterior end of the median sulcus, then angulate and longitudinal, extending backwards to about the level of the middle of the head, with two or three punctures in the fundus; externally with a deep punctured sulcus along the inner margin of the eye and extending backwards nearly to the posterior angle; temples with a row of five large punctures, along the base with several rather large close punctures, the vertex with a few large, more or less elongate ones, the frontal region impunctate; ground-sculpture absent; under surface with large elongate punctures. Antennæ with the 3rd joint considerably longer than the 2nd, the 4th to 10th transverse, not increasing much in width. Thorax longer than broad, the anterior angles rounded, the sides very slightly sinuate, gradually retracted behind, from near the anterior angle on each side to the posterior angle with a lightly curved sulcus, the fundus with five or six umbilicate punctures, adjacent to the lateral border with a row of smaller ones, the anterior margin on each side with a large one. Scutellum black, with five or six punctures. Elytra as long and as broad as the thorax, with a sutural and subhumeral row of small, close punctures, between them with a few scattered ones, the reflexed margin finely and rather closely punctured. Abdomen finely, sparingly punctured with sparing long yellowish pubescence.

Ceylon. Widely distributed in Europe and North America.

873. Gauropterus rufipennis, sp. n.

Differs from *fulgidus* in the smaller size (7·5 mm.), narrower build, darker legs, thinner antennæ, much more

closely sculptured head, and more sparingly punctured abdomen.

United Provinces : Dehra Dun, Lachiwala (*Cameron*).

874. **Gauropterus birmanus**, sp. n.

Closely allied to *rufipennis*; of the same size, but with the head a little longer and narrower and less closely punctured at the base, the elytra infuscate for about the posterior third.

Burma : Tavoy (*R. N. Parker*).

875. **Gauropterus marginalis**, sp. n.

Differs from *rufipennis* in the shorter head, slightly dilated behind, with yet coarser sculpture, the posterior margin of the elytra narrowly bordered with black, and the abdomen with slight æneous reflex.

Bengal : E. Duars (*Stevens*). Brit. Mus. Coll.

876. **Gauropterus cinctus.**

Xantholinus cinctus Fauv.*, Rev. d'Ent. xxiii, 1904, p. 56.

Black, shining, the elytra and 3rd and 4th (visible) abdominal segments red. Antennæ reddish. Legs pitchy, tarsi reddish. Length 7·5 mm.

Differs from *fulgidus* in the colour, shorter and thicker antennæ, less parallel-sided head, the lateral and interocular sulci absent, much more closely punctured sides and vertex, shorter, broader thorax, shorter elytra, which are less finely punctured, and rather more finely punctured abdomen.

Nilgiri Hills (*Andrewes*).

877. **Gauropterus nigroæneus.**

Gauropterus nigroæneus Cam., E. M. M. lvi, 1920, p. 146.

Black, shining, with slight metallic green and coppery reflex ; the first two joints of the antennæ and femora reddish-brown ; tarsi pitchy ; palpi reddish-testaceous ; posterior margin of the abdominal segments narrowly and obscurely pitchy. Length 9·2 mm.

Except for the elytra being shorter, this species is exactly similar in build to *fulgidus*, and (apart from the colour) differs only in the following respects : the median frontal sulci are narrower and less deep, the puncturation is less coarse but of similar character, the elytra are shorter than the thorax, more finely and obsoletely punctured ; the abdomen is much more finely and much more sparingly punctured.

Pusa (*T. B. Fletcher*). Brit. Mus. Coll. Unique.

Genus INDOSCITALINUS.

Indoscitalinus Heller, Abh. Mus. Dresd. ix, 5, 1900, p. 5.

General facies of *Xantholinus*, but differs in the absence of a row of punctures on either side of the middle of the thorax, there being only a single puncture on each side in front, the mandibles are not sulcate externally, and the superior lateral line of the thorax is deflexed towards the front, nearly joining the inferior lateral line in front of the coxal cavity. Labrum entirely corneous, transverse, tri-emarginate, the lateral emarginations much larger and deeper than the median (fig. 1) and with four more or less distinct ridges extending backwards from the anterior margin, one on each side of the median emargination and one about midway between this and the lateral emargination, and furnished with several long setæ.

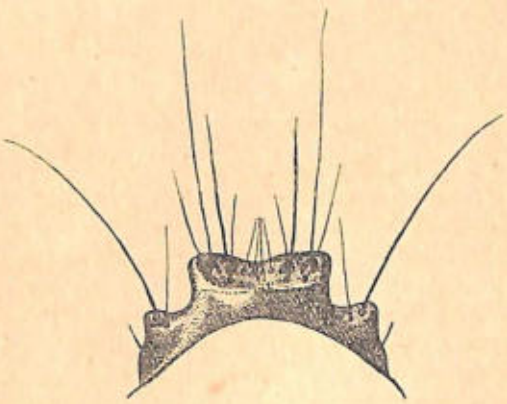

Fig. 1.—*Indoscitalinus anachoreta* Er., labrum.

Mandibles long and stout, pointed, the right with triangular tooth, the left with a bifid one with pointed cusps; externally with a small fovea at the base. Maxillary palpi with the 1st joint very small, 2nd moderate, curved and slightly thickened apically, 3rd a little shorter, 4th a little longer than the 3rd, bluntly pointed. Inner lobe of the maxilla broad, densely ciliate internally, the outer narrower, densely ciliate at apex. Mentum transverse, narrowed towards the front, the posterior part corneous, broadly emarginate in front, the anterior part less chitinised. Labium moderately chitinised, pentagonal. Tongue small, membranous, triangular; paraglossæ large, scarcely extending beyond the tongue, ciliate internally. Labial palpi with the 1st joint moderate, 2nd shorter, 3rd longer, fusiform. Gular sutures fused except in front. Neck rather stout. Thorax more or less

oblong, the sides retracted behind and without dorsal rows of punctures. Neck-plate and clavicles well developed. Prosternum with very short process: superior lateral line of thorax deflexed towards the front and almost meeting the inferior lateral line in front of the coxal cavity; epipleura narrow, the stigma exposed. Mesosternum very short and broad, deeply and broadly emarginate in front, not produced

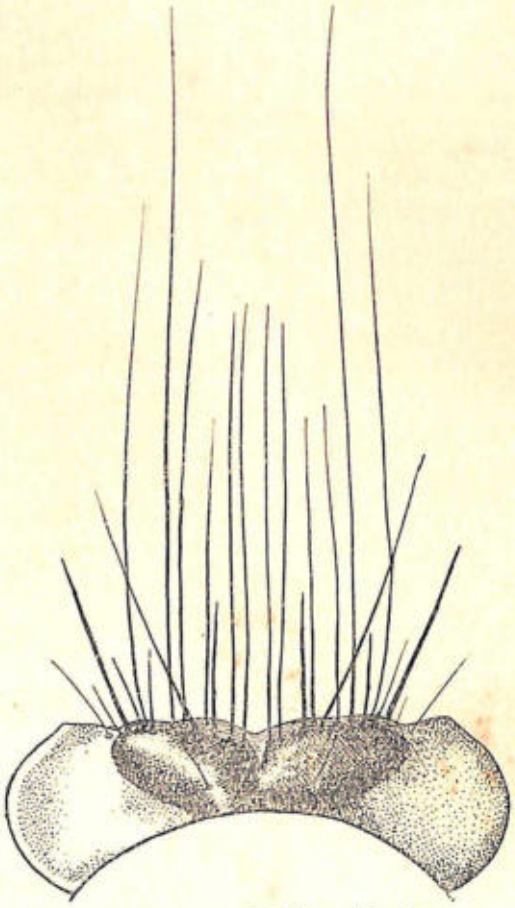

Fig. 2.—*Eulissus chalybæus* Er., labrum.

behind. Metasternum large, its anterior process very long and broad, produced between the widely separated middle coxæ almost to the mesosternum, from which it is separated by a short intersternal piece, the posterior process short and triangular. Abdomen not keeled below at the middle of the base. Anterior and middle coxæ elongate, the posterior short and somewhat conical. Tibiæ strongly spinose. Tarsi with

the first four joints gradually decreasing in length, the 1st joint a little longer than the 2nd. Claws simple. The genus is widely distributed in the Orient; its members are especially found in decaying fruit. The species in our Fauna have

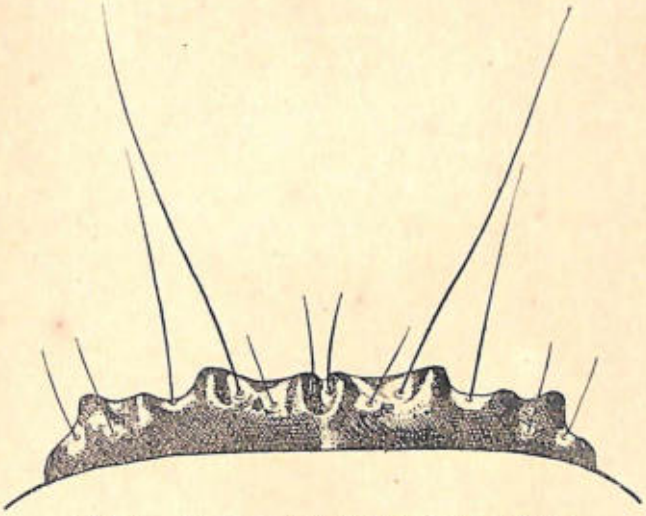

Fig. 3.—*Thyreocephalus lynceus* Er., labrum.

been variously placed in *Xantholinus*, *Eulissus*, and *Thyreocephalus*. The structure of the labrum at once distinguishes it from *Eulissus* and *Thyreocephalus* (figs. 2, 3), and the prosternal structure, etc., from *Xantholinus*.

Key to the Species.

1.	Head and thorax brilliant metallic green or greenish-coppery	*annulatus* Fauv., p. 36.
	Species otherwise coloured	2.
2.	Species entirely black	3.
	Species otherwise coloured	4.
3.	Head, except the front and vertex, rather strongly and closely punctured; elytra with 5 rows of punctures	*indicus* Fauv., p. 37.
	Head finely and sparingly punctured; elytra with 2 rows of punctures	*nigerrimus* Kr., p. 37.
4.	Elytra red	5.
	Elytra in part testaceous or brownish-testaceous	6.
5.	Post-ocular region rugosely punctured	*fœx* Fauv., p. 38.
	Post-ocular region practically impunctate	*rudis* Epp., p. 39.
6.	Head, except between the median sulci and along a narrow post-ocular space, closely and moderately finely punctured	*dispilus* Er., p. 39.
	Head, except for the usual umbilicate punctures, impunctate	*anachoreta* Er., p. 37.

878. **Indoscitalinus annulatus.** (Plate I, fig. 5.)

Xantholinus annulatus Fauv., Rev. d'Ent. xiv, 1895, p. 241.

Shining; head and thorax brilliant metallic green or coppery green; elytra yellowish-red; abdomen with the 3rd and 4th (visible) segments yellowish-red, the rest black, with the posterior margin narrowly yellow. Antennæ with the first five joints pitchy, the rest pale yellow. Mandibles and palpi reddish. Legs reddish-yellow. Length 10·5–15 mm.

Distinct from all the Indian XANTHOLININI by the brilliant coloration. Head in ♂ transversely suborbicular, broader than the thorax, in ♀ much less transverse, as broad as the thorax; eyes rather large, median and lateral frontal sulci distinct, the latter almost transverse; just behind and internal

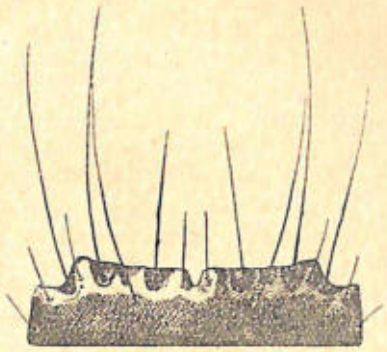

Fig. 4.—*Indoscitalinus annulatus* Fauv., labrum.

to the eye with two large umbilicate punctures and a few others along the base; post-ocular space rather finely, closely punctured, elsewhere with a very fine scattered puncturation. Antennæ with the 3rd joint longer than the 2nd, the 4th to 10th transverse. Thorax slightly longer than broad, the sides retracted and slightly emarginate behind, near the anterior angles with a large umbilicate puncture, very finely, sparingly punctured like the head. Elytra a little longer and broader than the thorax, moderately coarsely and moderately closely punctured on the disc, more finely and closely on the reflexed margins, from the humeral to the postero-external angle with a narrow smooth space. Abdomen rather coarsely and rather closely punctured, less along the middle and with long, erect, yellowish pubescence.

Burma: Bhamo; Carin Cheba; Tenasserim (*L. Fea*). Also in the Malay Peninsula, Sumatra, and Borneo.

879. Indoscitalinus anachoreta.

Xantholinus anachoreta Er., Gen. Spec. Staph. 1839–40, p. 316: Kr., Arch. Naturg. xxv, 1859, i, p. 102.
Xantholinus hongkongensis Redtb., Reise Novara, ii, 1867, p. 28.
Xantholinus morio Motsch., Bull. Mosc. xxxi, 1858, iii, p. 207.

Elongate, black, shining, the elytra varying from brownish-testaceous to pale yellow; abdomen with slight metallic reflex, concolorous or with the last two segments red. Antennæ pitchy or blackish. Legs variable, reddish-brown to blackish. Length 10–12 mm.

Head as broad as the thorax, subtriangular, the eyes moderate, the posterior angles rather broadly rounded; median frontal sulci long, nearly parallel, the lateral punctiform, behind and internal to the eye with a sulcus containing two large umbilicate punctures, along the base with a few others; post-ocular region rather finely and rather closely punctured, otherwise impunctate. Antennæ with the 2nd joint shorter than the 3rd, the 4th to 10th transverse. Thorax a little longer than broad, the sides retracted and a little emarginate behind, the anterior angles obtusely rounded, with a large umbilicate puncture near them and four smaller ones along the anterior margin. Elytra as long and as broad as the thorax, with a sutural row of small close punctures and an oblique subhumeral row of four to six larger ones, externally occasionally with a row of smaller ones near the posterior angle, the reflexed sides rather finely and rather closely punctured. Abdomen nearly smooth along the middle, at the sides moderately finely and rather closely punctured and with long grey pubescence.

Widely distributed throughout India, Ceylon, and the Oriental region to S. China. Also in Mauritius, Réunion, and Madagascar.

880. Indoscitalinus nigerrimus.

Xantholinus nigerrimus Kr., Arch. Naturg. xxv, 1859, i, p. 103.

Shining, black. Head except the front and vertex finely and sparingly punctured. Antennæ and legs black. Length 13 mm.

Very similar to *anachoreta*, but larger and differently coloured, the head more narrowed in front, more subtriangular in the ♂, and, except in front and on the vertex, sparingly and finely punctured, thorax scarcely differing from that of *anachoreta*, the elytra with similar sculpture.

"Ind. or.," without further indication.

881. Indoscitalinus indicus.

Xantholinus indicus Fauv., Rev. d'Ent. xiv, 1895, p. 242.

Shining, black, depressed, the reflexed margin of the elytra with slight bluish reflex. Head rather coarsely and closely

punctured, except in front and on the vertex. Antennæ with the base of the 2nd joint red, the rest black. Palpi and legs pitchy-black. Length 13·5 mm.

Head in ♂ short, transversely subovate, broader than the thorax, in ♀ narrower; eyes large: posterior angles broadly rounded, median frontal sulci deep, the disc behind broadly and slightly impressed, behind and internal to the eye with a pair of umbilicate punctures, along the base with four others, the rest of the surface, except the front and vertex, closely and rather strongly punctured. Antennæ with the 3rd joint longer than the 2nd, the 4th slightly, the following more strongly transverse. Thorax about a fourth longer than broad, the sides retracted and a little emarginate behind, the anterior angles obtuse, the posterior rounded, near the former with a large umbilicate puncture, at the middle of the base with a very fine sulcus occasionally prolonged a little forwards. Elytra a little longer and broader than the thorax, with five rows of punctures, a sutural, two subhumeral extending to the posterior margin, and two others on the disc much shorter; besides these there are some irregular punctures near the suture, the reflexed margin more finely and closely punctured. Abdomen almost smooth along the middle, at the sides and base of the segments rather strongly and rather closely punctured and furnished with long pubescence.

Burma: Carin Ghécu (*L. Fea*). Also in Malacca and Perak.

882. Indoscitalinus feæ.

Xantholinus feæ Fauv., Rev. d'Ent. xiv, 1895, p. 242.

Shining, black, the frontal margin between the antennæ reddish, the elytra reddish-yellow. Palpi reddish. Antennæ pitchy, the base and apex of the 1st joint, and nearly all the 2nd, reddish. Legs reddish. Length 13–17 mm.

A large robust species. Head in the ♂ subtriangular, much wider than the thorax, the posterior angles obtusely subangulate, in the ♀ much smaller, much less widened behind, with the posterior angles scarcely angulate; frontal sulci deep, the lateral united with the interocular sulcus and furnished with an umbilicate puncture, behind and within the eye with a short bipunctate sulcus, the punctures umbilicate; post-ocular region rugosely punctured; middle of the base with a short sulcus, at the posterior angles with two large umbilicate punctures and the usual ones along the base, the disc sparingly, scarcely perceptibly punctured. Thorax about a fourth longer than broad, the sides retracted and a little emarginate behind, the anterior angles obtusely rounded, near them with large umbilicate puncture and four smaller ones near the anterior margin, each in a very short sulcus. Elytra about as long and as broad as the thorax, along the suture rather finely punctured, and with an oblique

subhumeral sulcus furnished with ten punctures, the reflexed margin rather closely and finely punctured. Abdomen at the sides sparingly and rather strongly punctured.

Burma : Carin Cheba, alt. 900–1100 metres (*L. Fea*).

883. **Indoscitalinus rudis.**

Eulissus rudis Epp.*, W. E. Z. xiv. 1895, p. 62 (May).
Xantholinus gestroi Fauv.*, Rev. d'Ent. xiv, 1895, p. 243 (August).
Eulissus eppelsheimi Bernh., Cat. Col. iv. 1914, p. 302.

Elongate, shining, black, the elytra red, the abdomen with slight metallic reflex, the posterior margin of the last two segments narrowly and obscurely reddish. Antennæ reddish-brown, the base and apex of the 1st and the 2nd and 3rd joints reddish. Legs variable reddish or blackish. Length 13–15·5 mm.

Similar in build to *T. anachoreta*, but of different colour, the head shorter and more widened behind, the elytra irregularly punctured. Head ovate, widened behind, almost as broad as the thorax, the eyes small, the posterior angles broadly rounded, the median frontal sulci converging behind, the lateral oblique, internally with an umbilicate puncture, behind and internal to the eye with two umbilicate punctures, along the base with a few others, otherwise impunctate. Antennæ with the 2nd joint shorter than the 3rd, the 4th to 10th transverse. Thorax a little longer than broad, the sides retracted and a little emarginate behind, the anterior angles obtusely rounded and near them with a large umbilicate puncture, the anterior border with two others on each side. Elytra about as long and as broad as the thorax, rather coarsely, not very closely, irregularly punctured, with a more or less evident subhumeral sulcus containing about fourteen punctures, and externally with a variable row, the reflexed margin more finely and more closely punctured. Abdomen moderately coarsely and rather closely punctured at the sides ; pubescence long and grey.

Sikkim. Mussoorie district (*Cameron*). Burma : Carin Cheba ; Carin Ghécu ; Carin Asciuii Ghécu (*L. Fea*).

884. **Indoscitalinus dispilus.**

Xantholinus dispilus Er., Gen. Spec. Staph. 1839–40, p. 317 ; Kr. Arch. Naturg. xxv, 1859, i, p. 104.

Black, shining, the elytra testaceous, with the base and suture blackish, the postero-external angle a little infuscate ; abdomen with the posterior and elevated side margins of the segments reddish-yellow. Antennæ yellowish-red. Legs reddish-yellow. Length 8·5 mm.

Head a little broader than the thorax, subtriangular, the eyes moderate, the posterior angles obtuse ; median frontal sulci long, nearly parallel, the lateral distinct, tripunctate,

almost as long as and nearly parallel to the median ones; behind and internal to the eye with a bipunctate sulcus, along the base with some large umbilicate punctures, from the posterior margin of the eye to the posterior angle with a narrow, smooth, shining space, the whole of the rest of the head, except the spaces between the frontal sulci, closely and moderately finely punctured. Thorax a little longer than broad, the sides retracted and a little emarginate behind, with the usual large umbilicate puncture near the obtusely rounded anterior angles and four others along the anterior margin. Elytra as long and as broad as the thorax, along the suture with a row of small, close punctures and a subhumeral one of about seven larger ones, the reflexed margin with a row of eleven or twelve punctures. Abdomen smooth along the middle, at the sides rather finely and moderately closely punctured and with grey pubescence.

Bengal. Dehra Dun.

PARATESBA, gen. n.

At once recognized from all the Indian XANTHOLININI by the very coarse longitudinally rugose sculpture of the head and thorax, and the antennæ separated by a narrow process of the front. Its nearest ally appears to be the American genus *Tesba* Shp., but in this the thorax is smooth, the labrum differently formed, the 4th joint of the maxillary palpi longer, the middle and posterior tarsi longer, the 1st joint being distinctly longer than in *Paratesba*. Elongate, subconvex. Antennæ very short and stout, geniculate, the front produced and compressed between their insertion. Labrum corneous, produced, truncate in the middle on each side with two triangular teeth. Mandibles rather slender, acute, each with a pointed tooth internally, externally with a short sulcus at the base. Maxillary palpi with 1st joint very short, 2nd and 3rd short, obconical, subequal, 4th but little longer than the 3rd, truncate. Labial palpi short, the 1st joint very small, 2nd short, obconical, 3rd longer, oblong, truncate. Superior lateral line of thorax bifurcate at the junction of the anterior and middle thirds, the upper branch continuing to the anterior angles, the lower crossing the epipleura obliquely to unite with the inferior lateral line in front of the coxal cavity. Mesosternum very short, not produced between the coxæ, broadly rounded behind; metasternal process very long, rather broad, produced nearly to the mesosternum from which it is separated by a short intersternal piece; middle coxæ widely separated. Tibiæ spinose. Anterior tarsi scarcely dilated, the first four joints short and subequal; middle and posterior short; the 1st joint but little longer than the 2nd, the following subequal in length but decreasing in breadth, somewhat flattened.

885. **Paratesba indica.**

Tesba indica Epp.*, D. E. Z. 1895, p. 398.

Elongate, moderately shining, black, the elytra red, the whole of the last and posterior fourth of the preceding segment reddish. Antennæ and legs black. Length 15 mm.

Head as broad as the thorax, scarcely longer than broad, widest behind, a little narrowed in front, the posterior angles rather broadly rounded, the base broadly and slightly emarginate; the eyes small and round, the front produced and compressed; the whole surface above covered with coarse, longitudinally confluent punctures, the interspaces raised, the under surface yet more coarsely and rugosely punctured. Antennæ short and stout, the 1st joint elongate, curved, 2nd very short. 3rd longer than broad, 4th to 10th strongly transverse, gradually increasing in width, the penultimate about three times broader than long, 11th short, conical. Thorax about a third longer than broad, widest at the briefly rounded anterior angles, the sides slightly, broadly emarginate and retracted to the rounded posterior angles; along the middle with a broad, somewhat raised, shining, impunctate space which posteriorly is finely sulcate, the rest of the surface covered with very coarse more or less confluent and rugose sculpture, except for a smooth elongate space about the middle on each side. Scutellum black, with a few fine punctures. Elytra a little longer and broader than the thorax, coarsely, moderately closely punctured, the reflexed sides more finely. Abdomen moderately finely and rather closely punctured throughout. The whole insect is covered with a long and rather close greyish pubescence.

Pegu.

Genus **OTHIUS** Stephens.

Othius Steph., Ill. Brit. Ent. v, 1832, p. 253; Er., Käf. Mark Brand. i, 1837–39, p. 420; id., Gen. Spec. Staph. 1839–40, p. 294; Lacord., Gen. Col. ii, 1854, p. 63; Kraatz, Naturg. Ins. Deutsch. ii, 1856–58, p. 653; Jacq. du Val, Gen. Col. d'Eur. ii, 1857–59, p. 30; C. G. Thoms., Skand. Col. ii, 1860, p. 185; Fauv., Faun. Gallo-Rhén. iii, 1872, p. 367; Muls. et Rey, Col. Fr. Brévip. 1877, p. 3; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 468; Casey, Trans. Ac. St. Louis, xvi, 1906, pp. 422, 423.

Cafius Boisd. et Lacord., Faun. Ent. Paris, i, 1835, p. 410.

Othiellus Casey, Trans. Ac. St. Louis, xvi, 1906, pp. 422, 423.

Biology.—Rupertsberger, Biol. Lit. Käf. 1894, p. 122; Xambeu, Rev. d'Ent. xvii, 1898, p. 27.

Elongate species. Head distinctly constricted behind, the neck stout and keeled below on each side. Antennæ not geniculate, rather widely separated at the base; median frontal sulci feeble, the lateral absent; gular sutures separate, converging behind. Labrum corneous, transverse, bilobed and furnished with long setæ. Mandibles stout, the outer

margin sulcate, the inner with a small tooth. Outer lobe of maxilla at the apex densely ciliate, the inner densely ciliate along the internal border. Maxillary palpi with small 1st joint, 2nd lightly curved, widened towards the apex, 3rd as long or a little longer, widened towards apex, 4th shorter and narrower than the preceding, gradually pointed. Mentum corneous, short and broad, narrowed towards the front, the anterior border broadly emarginate. Tongue membranous, short and broad, with rounded anterior border. Paraglossæ free, extending to the apex of the 1st joint of the labial palpi, the inner border closely set with fine, slightly curved spines. Labial palpi with the first two joints of about equal length, the 3rd narrower, nearly twice as long as the preceding. Neck-plate short, transverse, rounded in front, very narrowly emarginate in the middle in front and grooved along the middle. Prosternum deflexed behind, carinate, the posterior margin angulate in the middle; pronotal epipleura narrow, the superior lateral line not at all deflexed, and not united with the inferior. Mesosternum short, its process short, not produced much between the coxæ, these contiguous; coxal cavities long. Metasternum with its anterior process long, sunk between the coxæ, the posterior short and slightly emarginate behind. Anterior and middle coxæ long, the posterior short. Anterior tibiæ without spines, the middle and posterior spinose. Anterior tarsi dilated, the middle and posterior rather short, the 1st joint longer than 2nd, 3rd and 4th a little shorter, the 5th about as long as the two preceding together. Elytra not imbricate at the suture. Abdomen keeled below in the middle of the base. The species are found throughout the world under stones, debris, etc.; some are associated with ants.

Key to the Species.

1.	Elytra reddish-yellow	*flavocaudatus* Cam.,
	Elytra black	2. [p. 42.
2.	Elytra subopaque, densely coriaceous, finely and rather sparingly punctured	*ruficornis* Cam., p. 44.
	Elytra shining, not coriaceous, rather coarsely and closely punctured	*apicalis* Cam., p. 43.

886. **Othius flavocaudatus.** (Plate I, fig. 6.)

Othius flavocaudatus Cam., Trans. Ent. Soc. Lond. 1926, p. 346.

Black, shining, elytra reddish-ochraceous; posterior margin of 7th and whole of 8th segment yellow. Antennæ black; palpi ferruginous. Legs reddish-brown. Length 11–13 mm.

Larger, broader, and more robust than *O. punctulatus* Goeze, with broader and more strongly punctured head and different colour. Head subquadrate, a little longer than broad, as

wide as the thorax, the temples long, parallel, the posterior angles briefly rounded, frontal furrows rather broad, superficial, convergent and bipunctate behind, front and middle of disc broadly impunctate, the rest of the surface rather closely covered with rather large umbilicate punctures. Antennæ with the 3rd joint much longer than 2nd, 4th to 7th equal, scarcely longer than broad, 8th to 10th scarcely transverse. Thorax a little longer than broad, widest just behind the rounded anterior angles, more narrowed and sinuate behind; disc impunctate, near the anterior angles with a group of four punctures, otherwise impunctate except for the punctures along the extreme lateral margins. Scutellum black, impunctate, coriaceous, subopaque. Elytra less shining than the fore-parts, about as long and as wide as the thorax, a little longer than broad, moderately coarsely and closely punctured except for a narrow impunctate space extending from the shoulder to the postero-external angle, the epipleura more finely punctured than the disc and with a row of six or seven larger setiferous punctures. Abdomen finely and moderately closely punctured, finely, sparingly pubescent, the sides and apex setiferous.

Chakrata district: Sijla Gad, alt. 5000 feet.

887. Othius apicalis.

Othius apicalis Cam., Trans. Ent. Soc. Lond. 1926, p. 347.

Black, shining; apical borders of 7th and 8th abdominal segments yellow; head very sparingly punctured. Antennæ with the first two joints pitchy, the rest black. Legs brown. Length 15 mm.

Somewhat of the build of but much larger than *O. punctulatus* Goeze. Head a little longer than broad, slightly narrowed in front, the posterior angles rounded, narrower than the thorax; frontal furrows broad and shallow, with two or three fine punctures posteriorly; disc broadly impunctate, the sides and base with sparing rather coarse punctures. Antennæ with 3rd joint nearly twice as long as 2nd, 4th and 5th slightly longer than broad, 6th to 10th not or scarcely transverse. Thorax longer than broad, the sides (viewed from above) nearly parallel, disc on either side in front with a large puncture and another near the posterior angles and the usual marginal punctures at the sides and along the anterior border. Elytra as long as and scarcely broader than the thorax, slightly longer than broad, rather coarsely and rather closely punctured, the epipleura rather more finely and closely. Abdomen finely and not closely punctured, finely, sparingly pubescent.

Mussoorie district: Arni Gad. Chakrata district: Chulli Khud, alt. 6500 feet.

888. **Othius ruficornis.**

Othius ruficornis Cam., Ann. Mag. Nat. Hist. (10) ii, 1928, p. 561.

Black; head, thorax, and abdomen shining, the elytra subopaque. Antennæ reddish-testaceous, the first joint sometimes pitchy. Legs reddish-testaceous. Length 11 mm.

About the size and build of *O. punctulatus* Goeze, but with larger head. Head a little longer than broad, the sides scarcely dilated behind the eyes, the posterior angles rounded, the front bi-impressed, each impression with three or four setiferous punctures, otherwise impunctate; middle of the disc impunctate, towards the sides and base with some moderately large and rather close punctures, the whole surface finely but distinctly coriaceous. Antennæ with the penultimate joints as long as broad. Thorax cylindrical, near the anterior angles with four or five punctures, otherwise impunctate, ground-sculpture as on the head. Elytra scarcely as long as the thorax, parallel, finely moderately closely punctured, densely and much more strongly coriaceous than the fore-parts. Abdomen finely, moderately closely punctured, finely coriaceous.

Sikkim: Karponang, alt. 10,000 feet, 20. iv. 24. Two ♀ examples.

Genus **DIOCHUS** Er.

Diochus Er., Gen. Spec. Staph. 1839–40, p. 300; Lacord., Gen. Col. ii, 1859, p. 65; Kraatz, Naturg. Ins. Deutsch. ii, 1856–58, pp. 628, 654 (note); id., Berl. Ent. Zeitschr. iii, 1859, p. xxxi; Fauv., Faun. Gallo-Rhén. iii, 1872, p. 366 (note); Sharp, Trans. Ent. Soc. Lond. 1876, p. 184; Lynch, Bol. Ac. Cord. vii, 1884, p. 171; Olliff, Proc. Linn. Soc. N. S. Wales, (2) ii, 1887, p. 472; Casey, Trans. Ac. St. Louis, xvi, 1906, pp. 429, 430.

Rhegmatocerus Motsch., Bull. Mosc. xxxi, 1858, ii, p. 657; id., Étud. Ent. viii, 1859, p. 163.

Facies of a small narrow-headed *Philonthus*, but with the antennæ less distant at the base and with a small neck-plate. Both the median and lateral frontal sulci are wanting, and the elytral suture is not imbricate. Neck narrow, gular sutures converging behind. Labrum with the sides and front coarctate, the middle with a small angular notch. Mandibles moderate, lightly curved, pointed, not sulcate externally, internally each with two small teeth. Apex of outer and inner margin of inner maxillary lobe furnished with close, fine, slightly curved spines. Maxillary palpi with the 1st joint small, 2nd elongate, slightly curved and slightly enlarged towards the apex, the 3rd a little longer, slightly thickened apically, the 4th very small and subulate. Tongue small, membranous, rounded in front and with a small median notch. Paraglossæ long, free, reaching the apex of the 1st joint of the labial palpi, their inner margin furnished with close, fine, slightly

curved spines. Labial palpi with the 2nd joint cylindrical, twice as long as the 1st, the 3rd a good deal shorter than the 2nd, subulate, before the apex with a suture passing obliquely outwards and backwards from the inner to the outer border. Neck-plate small, transverse, rounded in front, with a small notch in the middle and fine groove along the centre. Prosternum large, keeled along the middle, the larger anterior part separated from the deflexed posterior portion by a fine oblique ridge on each side, the posterior margin obtusely angulate in the middle. Pronotal epipleura narrow, the superior lateral line not deflexed, joining the inferior lateral line below the anterior angle. Mesosternum carinate, its process narrow and sharp, extending nearly half the length of the coxæ, these separated in front but contiguous behind. Metasternum with the anterior process sunk between the coxæ, the posterior very small, notched in the middle. Abdomen keeled below at the base. Anterior coxæ elongate, the middle oval, the posterior short. Tibiæ sparingly spinose. Anterior tarsi somewhat dilated, the first four joints short and subequal, middle and posterior longer, the 1st joint moderately long, 2nd to 4th gradually decreasing in length, the 5th about as long as the two preceding together. The species are found throughout the world under debris.

Key to the Species.

1. Entirely reddish-yellow species ..... *ochraceus* Cam., p. 47.
   Entirely black species ..... 2.
2. Antennæ with the 3rd joint distinctly longer than the 2nd, the penultimate joints not transverse ..... 3.
   Antennæ with the 3rd joint not longer than the 2nd, the penultimate joints transverse. *antennatus* Motsch., [p. 46.
3. Larger (5 mm.). Penultimate joints of the antennæ much longer than broad. Thorax distinctly narrowed towards the front, abdomen very finely and very densely punctured and pubescent, sericeous ..... *conicollis* Motsch., [p. 45.
   Smaller (4 mm.). Penultimate joints of the antennæ a little longer than broad. Thorax but little narrowed towards the front, abdomen less finely and less densely punctured and pubescent, scarcely sericeous ..... *punctipennis* Motsch., [p. 46.

889. **Diochus conicollis**

Rhegmatocerus conicollis Motsch., Bull. Mosc. xxxi, 1858, ii. p. 658, tab. *l*, fig. *k*; id., Étud. Ent. viii, 1859, pp. 163, 164; id., Wien. Ent. Monats. v, 1861, pp. 198, 199.
Diochus major Kr.*, Arch. Naturg. xxv, 1859, i, p. 113.

Black, shining, narrowed in front and behind. Antennæ testaceous, more or less infuscate towards the apex. Legs and palpi yellow. Length 5·5 mm.

888. **Othius ruficornis.**

Othius ruficornis Cam., Ann. Mag. Nat. Hist. (10) ii, 1928, p. 561.

Black; head, thorax, and abdomen shining, the elytra subopaque. Antennæ reddish-testaceous, the first joint sometimes pitchy. Legs reddish-testaceous. Length 11 mm.

About the size and build of *O. punctulatus* Goeze, but with larger head. Head a little longer than broad, the sides scarcely dilated behind the eyes, the posterior angles rounded, the front bi-impressed, each impression with three or four setiferous punctures, otherwise impunctate; middle of the disc impunctate, towards the sides and base with some moderately large and rather close punctures, the whole surface finely but distinctly coriaceous. Antennæ with the penultimate joints as long as broad. Thorax cylindrical, near the anterior angles with four or five punctures, otherwise impunctate, ground-sculpture as on the head. Elytra scarcely as long as the thorax, parallel, finely moderately closely punctured, densely and much more strongly coriaceous than the fore-parts. Abdomen finely, moderately closely punctured, finely coriaceous.

Sikkim: Karponang, alt. 10,000 feet, 20. iv. 24. Two ♀ examples.

Genus **DIOCHUS** Er.

Diochus Er., Gen. Spec. Staph. 1839–40, p. 300; Lacord., Gen. Col. ii, 1859, p. 65; Kraatz, Naturg. Ins. Deutsch. ii, 1856–58, pp. 628, 654 (note); id., Berl. Ent. Zeitschr. iii, 1859, p. xxxi; Fauv., Faun. Gallo-Rhén. iii, 1872, p. 366 (note); Sharp, Trans. Ent. Soc. Lond. 1876, p. 184; Lynch, Bol. Ac. Cord. vii, 1884, p. 171; Olliff, Proc. Linn. Soc. N. S. Wales, (2) ii, 1887, p. 472; Casey, Trans. Ac. St. Louis, xvi, 1906, pp. 429, 430.

Rhegmatocerus Motsch., Bull. Mosc. xxxi, 1858, ii, p. 657; id., Étud. Ent. viii, 1859, p. 163.

Facies of a small narrow-headed *Philonthus*, but with the antennæ less distant at the base and with a small neck-plate. Both the median and lateral frontal sulci are wanting, and the elytral suture is not imbricate. Neck narrow, gular sutures converging behind. Labrum with the sides and front coarctate, the middle with a small angular notch. Mandibles moderate, lightly curved, pointed, not sulcate externally, internally each with two small teeth. Apex of outer and inner margin of inner maxillary lobe furnished with close, fine, slightly curved spines. Maxillary palpi with the 1st joint small, 2nd elongate, slightly curved and slightly enlarged towards the apex, the 3rd a little longer, slightly thickened apically, the 4th very small and subulate. Tongue small, membranous, rounded in front and with a small median notch. Paraglossæ long, free, reaching the apex of the 1st joint of the labial palpi, their inner margin furnished with close, fine, slightly

curved spines. Labial palpi with the 2nd joint cylindrical, twice as long as the 1st, the 3rd a good deal shorter than the 2nd, subulate, before the apex with a suture passing obliquely outwards and backwards from the inner to the outer border. Neck-plate small, transverse, rounded in front, with a small notch in the middle and fine groove along the centre. Prosternum large, keeled along the middle, the larger anterior part separated from the deflexed posterior portion by a fine oblique ridge on each side, the posterior margin obtusely angulate in the middle. Pronotal epipleura narrow, the superior lateral line not deflexed, joining the inferior lateral line below the anterior angle. Mesosternum carinate, its process narrow and sharp, extending nearly half the length of the coxæ, these separated in front but contiguous behind. Metasternum with the anterior process sunk between the coxæ, the posterior very small, notched in the middle. Abdomen keeled below at the base. Anterior coxæ elongate, the middle oval, the posterior short. Tibiæ sparingly spinose. Anterior tarsi somewhat dilated, the first four joints short and subequal, middle and posterior longer, the 1st joint moderately long, 2nd to 4th gradually decreasing in length, the 5th about as long as the two preceding together. The species are found throughout the world under debris.

Key to the Species.

1. Entirely reddish-yellow species ..... *ochraceus* Cam., p. 47.
   Entirely black species..... 2.
2. Antennæ with the 3rd joint distinctly longer than the 2nd, the penultimate joints not transverse ..... 3.
   Antennæ with the 3rd joint not longer than the 2nd, the penultimate joints transverse. *antennatus* Motsch., [p. 46.
3. Larger (5 mm.). Penultimate joints of the antennæ much longer than broad. Thorax distinctly narrowed towards the front, abdomen very finely and very densely punctured and pubescent, sericeous ..... *conicollis* Motsch., [p. 45.
   Smaller (4 mm.). Penultimate joints of the antennæ a little longer than broad. Thorax but little narrowed towards the front, abdomen less finely and less densely punctured and pubescent, scarcely sericeous..... *punctipennis* Motsch., [p. 46.

889. Diochus conicollis

Rhegmatocerus conicollis Motsch., Bull. Mosc. xxxi, 1858, ii. p. 658. tab. *l*, fig. *k*; id., Étud. Ent. viii, 1859, pp. 163, 164; id., Wien. Ent. Monats. v, 1861, pp. 198, 199.
Diochus major Kr.*, Arch. Naturg. xxv, 1859, i, p. 113.

Black, shining, narrowed in front and behind. Antennæ testaceous, more or less infuscate towards the apex. Legs and palpi yellow. Length 5·5 mm.

Head narrower than the thorax, oblong, the posterior angles rounded, the eyes small, on each side with a row of five or six fine punctures extending from the antennal tubercle to a little behind the eye, the disc with four larger, more or less quadrately placed setiferous punctures, the base and temples with a few fine punctures; ground-sculpture very fine and transverse; the sides setiferous. Antennæ with the 3rd joint distinctly longer than the 2nd, the following all longer than broad, gradually decreasing in length. Thorax distinctly narrowed in front, longer than broad, all the angles broadly rounded, on either side of the middle line with a row of three punctures converging behind, laterally with two or three others, the sides with long black setæ. Scutellum semicircular, very finely transversely striate. Elytra a little shorter but broader than the thorax, with a sutural and subhumeral row of five or six fine and obsolete setiferous punctures and an intermediate row of two or three more equally obsolete, the sides with long black setæ. Abdomen narrowed behind, very finely and very densely punctured and pubescent, sericeous.

♂: 6th ventral segment triangularly emarginate.

Ceylon. United Provinces: Siwaliks: Mussoorie. Appears to be widely distributed in the Oriental region.

890. **Diochus punctipennis.**

Rhegmatocerus punctipennis Motsch., Bull. Mosc. xxxi, 1858, ii, p. 659.

Colour of *conicollis* but smaller (4 mm.), the head a little shorter and broader, less oblong, the penultimate joints of the antennæ a little shorter, thorax scarcely narrowed in front, elytra with less obsolete punctures, the abdomen less finely and less densely punctured and pubescent, scarcely sericeous.

♂: 6th ventral segment with small triangular excision.

Siwaliks: Nakraunda. Dehra Dun. Mussoorie.

891. **Diochus antennatus.**

Rhegmatocerus antennatus Motsch., Bull. Mosc. xxxi, 1858, ii, p. 659.

Diochus indicus Kr.*, Arch. Naturg. xxv, 1859, i, p. 113.

Colour of the preceding but smaller (3·3 mm.), the head slightly widened behind, antennæ with the 3rd joint as long as the 2nd, the penultimate joints slightly transverse. Thorax but little narrowed in front, the dorsal row of three punctures extremely fine, the elytra with three rows each of five or six punctures, extremely fine. Abdomen with puncturation and pubescence less close.

"Ind. or.," without further indication. I have not seen other Indian examples than the type, but have taken the insect in Penang and the Malay Peninsula.

892. **Diochus ochraceus.**

Diochus ochraceus Cam., Trans. Ent. Soc. Lond. 1926, p. 347.

Shining, reddish-ochraceous : abdomen brown, less shining, the posterior margins of the segments and the whole of the 7th and 8th segments ochraceous. Antennæ and legs testaceous. Length 3·75 mm.

A narrow fragile species, differing from *D. antennatus* Motsch. in the colour, the much shorter antennæ, and the practically parallel-sided thorax and closer abdominal puncturation. Head narrower than thorax, scarcely longer than broad, widest at the rather briefly rounded posterior angles, gradually narrowed in front ; disc with a row of three small punctures on either side, two or three juxta-ocular, and a few fine setiferous ones on the temples. Antennæ short, the 2nd and 3rd joints subequal, 4th and 5th scarcely longer than broad, 6th to 10th slightly transverse. Thorax longer than broad, the sides parallel, the anterior and posterior angles rounded : disc on either side with a row of three fine setiferous punctures converging behind, externally with two others. Elytra shorter and a little broader than the thorax, scarcely transverse, with a few fine punctures along the suture, a row of five or six on the disc, and a similar number along the sides. Abdomen extremely finely and rather closely punctured and pubescent, more sparingly behind.

Siwaliks : Mothronwala.

Genus **PLATYPROSOPUS** Mannerh.

Platyprosopus Mannerh., Brachély. 1830, p. 36 ; Er., Gen. Spec. Staph. 1839–40, p. 292 ; Lacord., Gen. Col. ii, 1854, p. 63 ; Kraatz, Naturg. Ins. Deutsch. ii, 1856–58, pp. 628, 629 ; Lynch, Bol. Ac. Cord. vii, 1884, p. 166 ; Shp., Trans. Ent. Soc. Lond. 1876, p. 101 ; Casey, Trans. Ac. St. Louis, xvi, 1906, p. 363.

Subgen. *Megaprosopus* Reitt., Verh. Naturf. Ver. Brünn, xlvi, 1908, p. 104.

An aberrant genus, and should, perhaps, form a separate tribe—PLATYPROSOPINI. They are elongate species, with the head scarcely constricted behind, the neck thick and inserted into the thorax, the eyes small and feebly facetted. The antennæ are more widely separated at the base than in the other XANTHOLININI, and the median and lateral frontal sulci are absent. The gular sutures are narrowly separated and diverge behind to enclose a triangular transversely ribbed tubercle. Labrum large, corneous behind, and furnished with long setæ, the anterior part membranous and divided into two large, pointed, triangular lobes which are strongly ciliate. Mandibles stout, each internally with a large more or less tricuspid tooth, externally sulcate from the base to the middle. Maxillary palpi with the 1st joint small, 2nd and 3rd

short, obconical, subequal, 4th a little longer than the preceding, narrow, subcylindrical, narrowed at the apex. Mentum transverse, corneous, narrowed in front, the anterior border truncate. Tongue large, membranous, bilobed, with chitinous rod along the middle. Paraglossæ well developed, not extending beyond the tongue, closely set internally with long, slightly curved spines. Labial palpi with the 1st joint short, enlarged towards the apex, 2nd short, stouter than the 1st, 3rd about as long as the two preceding together, narrower at the base and dilated towards the apex, which is truncate. Neck-plate short and broad, fused with the anterior margin of the prosternum and only separated by a suture. Prosternum large, carinate in the middle, the posterior deflexed part separated by an oblique keel on each side, the posterior border acutely angulate in the middle ; pronotal epipleura narrow, horizontal, the superior lateral line not deflexed, the inferior not united with it. Stigma exposed. Mesosternum short, its process short and acute, extending but little between the coxæ, these contiguous, the coxal cavities elongate. Metasternum moderately long, its anterior process very short, the posterior short, rounded at the apex. Abdomen not carinate ventrally at the base. Elytra with straight suture. Anterior coxæ ovate ; middle long, oval ; posterior short. Anterior tibiæ densely ciliate, middle and posterior more or less spinose. Anterior tarsi short, very strongly dilated, the first four joints more or less crescentic ; middle and posterior with the 1st joint longer than 2nd, 2nd to 4th triangular, gradually decreasing in length, 5th rather long.

The genus is found throughout the warmer parts of the Northern Hemisphere and in South America ; their habits are little known, but they are frequently attracted to light.

Key to the Species.

1.	Large species (13–17 mm.)	2.
	Small species (8–10 mm.)	7.
2.	Thorax with dorsal row of 7 or 8 punctures on each side. Length 13–14·5 mm.	*bilineatus* Fauv., p. 50.
	Thorax without such rows, either almost impunctate or uniformly and distinctly punctured	3.
3.	Thorax extremely finely, scarcely perceptibly punctured	4.
	Thorax distinctly punctured	5.
4.	Post-ocular region only coarsely punctured.	*consularis* Fauv., p. 49.
	Post-ocular region and sides of head internal to the eyes coarsely punctured	*indicus* Motsch., p. 49.
5.	Larger (17–18 mm.). Thorax transverse	*elatus* Fauv., p. 49.
	Smaller (11–15 mm.). Thorax longer than broad	6.
6.	Elytra red ; puncturation of head and thorax coarser and deeper	*tamulus* Er., p. 50.

	Elytra brownish-black ; puncturation of head and thorax finer and more superficial.	*fuliginosus* Er., p. 51.
7.	Thorax on each side with dorsal row of 6 or 7 punctures	8.
	Thorax irregularly punctured, the punctures at the sides smaller and closer than on the disc	*fulvicollis* Motsch., [p. 51.
8.	Black, only the elytra ferruginous red.....	*æqualis* Bernh., p. 52.
	Reddish-brown, head infuscate	*biseriatus* Epp., p. 52.

893. Platyprosopus consularis.

Platyprosopus consularis Fauv., Rev. d'Ent. xiv, 1895, p. 239.

Black ; head and thorax shining, elytra and abdomen less shining, the posterior margin of the last two segments reddish. Palpi, 1st joint of the antennæ reddish-brown, the following reddish-brown or blackish. Legs reddish-brown, the femora lighter. Length 13·5–18 mm.

A large and robust species. Head oval, nearly as wide as the thorax, the eyes small, reniform, temples closely, rather coarsely and rugosely punctured, elsewhere extremely finely and sparingly punctured, behind the level of the eyes adjacent to the vertex on each side with a few large punctures. Antennæ slender, all the joints elongate and narrowed at the base. Thorax slightly transverse, the sides almost straight and a little retracted behind, extremely finely and sparingly punctured all over, Elytra as long as but a little narrower than the thorax, closely, moderately finely, roughly punctured, pubescence brownish. Abdomen moderately finely, rather closely punctured with brownish pubescence.

Burma : Pegu ; Palon (*L. Fea*) ; Rangoon ; Tharrawaddy. India : Pusa. Also in Siam and Cochin China.

894. Platyprosopus indicus.

Platyprosopus indicus Motsch., Bull. Mosc. xxxi, 1858, iii, p. 212.
Platyprosopus lævicollis Kr., Arch. Naturg. xxv, 1859, i, p. 114.

This is extremely closely allied to *P. consularis*, and only differs from it in the thorax being as long as broad, and the coarse, rugose puncturation of the post-ocular region extending towards the vertex well within the level of the inner border of the eye ; in all other respects the two insects are similar.

N. India. Bihar : Pusa.

895. Platyprosopus elatus.

Platyprosopus elatus Fauv., Rev. d'Ent. xxiii, 1904, p. 70.
Platyprosopus indicus Kr., Arch. Naturg. xxv, 1859, i, p. 114 (nec Motsch.).

Scarcely differing in size, build, and colour from *P. consularis*, but with less shining thorax, the head scarcely shining, densely and moderately finely reticulately punctured except for

a median oblong impression on the front, which is shining and impunctate, and a trace of a median smooth line at the base; the puncturation is double, the fundus of the larger punctures and the interspaces being finely punctured; the eyes are larger, rounder, not reniform; the antennæ are similarly constructed, reddish, with the last three or four joints lighter. The thorax is a little more finely and less closely punctured than the head, but also presents a yet finer scattered puncturation between, along the middle with a narrow smooth line; the elytra are rather more closely punctured; the legs are similarly coloured, and the pubescence throughout the same. Length 16–18 mm.

Assam: Sonapur. Burma: Tharrawaddy; Pegu.

896. **Platyprosopus bilineatus.**

Platyprosopus bilineatus Fauv.*, Rev. d'Ent. xiv, 1895, p. 239.

Black, head dull, thorax shining, with a dorsal row on each side of six to eight rather small punctures; elytra less shining, obscurely reddish; abdomen nearly opaque, the posterior margin of the segments reddish. Antennæ and palpi reddish-yellow. Legs obscurely reddish, the femora lighter. Length 13–14·5 mm.

A little smaller than *P. consularis*, with dorsal rows of thoracic punctures and obscurely reddish elytra. Head dull, except for a very small shining space on the middle of the front, the vertex scarcely carinate, extremely finely and very closely punctured, and with a fine golden yellow pubescence, the eyes small and flat. Antennæ nearly as long as the head and thorax, all the joints elongate and narrowed at the base. Thorax transverse, with a dorsal row of six to eight punctures on each side of the middle, externally with the sides rather finely and closely punctured, and apart from this an extremely fine and not very close puncturation is seen over the whole surface under a strong lens. Elytra as long as the thorax, less shining, closely and moderately finely punctured. Abdomen finely and densely punctured and pubescent, sericeous.

♂: 6th ventral segment very broadly and very slightly emarginate.

Burma: Bhamo (*L. Fea*).

897. **Platyprosopus tamulus.** (Plate I, fig. 7.)

Platyprosopus tamulus Er., Gen. Spec. Staph. 1839–40, p. 923; Kraatz, Arch. Naturg. xxv, 1859, i, p. 115.

Black; the elytra and last abdominal segment red, the penultimate reddish posteriorly; thorax more shining, closely punctured. Antennæ and legs reddish. Length 11–15 mm.

Head oblong, nearly as wide as the thorax, moderately shining, the eyes moderate, reniform; puncturation close, reticulate, denser at the sides and base (except for a more or less distinct narrow median line), and a very fine puncturation in the fundus of the larger punctures and on the interspaces; pubescence fine and yellow. Antennæ shorter than the head and thorax, all the joints longer than broad, gradually decreasing in length, the penultimate obconical. Thorax a little longer than broad, the sides scarcely rounded in front, straight and distinctly retracted behind, with similar but less close puncturation to that of the head, along the middle with rather narrow median line, from which the larger punctures are absent. Elytra about one-third longer than the thorax, but scarcely broader, densely, finely, roughly punctured, finely yellow pubescent. Abdomen densely and yet more finely punctured, finely and closely yellow pubescent.

♂: 6th ventral segment with broad and shallow emargination.

Bihar: Pusa. Burma: Rangoon. Also in Indo-China.

898. **Platyprosopus fuliginosus.**

Platyprosopus fuliginosus Er., Gen. Spec. Staph. 1839–40, p. 923; Kraatz, Arch. Naturg. xxv, 1859, i, p. 115.
Platyprosopus orientalis Motsch., Bull. Mosc. xxxi, 1858, iii, p. 212.

Very closely allied to *P. tamulus*, but the elytra are shorter, brownish-black, and less finely punctured; the puncturation of the head and thorax is distinctly finer and more superficial.

Bihar: Chapra; Pusa.

899. **Platyprosopus fulvicollis.**

Platyprosopus fulvicollis Motsch., Bull. Mosc. xxxi, 1858, iii, p. 212.
Platyprosopus linearis Kr., Arch. Naturg. xxv, 1859, i, p. 115.

Head subopaque, blackish-brown; thorax shining, reddish; elytra reddish, less shining; abdomen reddish, the base of the segments more or less infuscate. Antennæ red. Legs reddish-yellow. Length 9 mm.

Head oblong, as wide as the thorax, the eyes semicircular, in front with a small, smooth, median space and indistinct smooth median line, the rest of the surface very closely, moderately finely punctured, finely yellow pubescent. Antennæ reaching the middle of the thorax, all the joints longer than broad, gradually decreasing in length, the penultimate obconical. Thorax a little longer than broad, the sides almost straight and a little retracted behind, the posterior angles rounded, at the sides very closely and more coarsely

a median oblong impression on the front, which is shining and impunctate, and a trace of a median smooth line at the base; the puncturation is double, the fundus of the larger punctures and the interspaces being finely punctured; the eyes are larger, rounder, not reniform; the antennæ are similarly constructed, reddish, with the last three or four joints lighter. The thorax is a little more finely and less closely punctured than the head, but also presents a yet finer scattered puncturation between, along the middle with a narrow smooth line; the elytra are rather more closely punctured; the legs are similarly coloured, and the pubescence throughout the same. Length 16–18 mm.

Assam: Sonapur. Burma: Tharrawaddy; Pegu.

896. **Platyprosopus bilineatus.**

Platyprosopus bilineatus Fauv.*, Rev. d'Ent. xiv, 1895, p. 239.

Black, head dull, thorax shining, with a dorsal row on each side of six to eight rather small punctures; elytra less shining, obscurely reddish; abdomen nearly opaque, the posterior margin of the segments reddish. Antennæ and palpi reddish-yellow. Legs obscurely reddish, the femora lighter. Length 13–14·5 mm.

A little smaller than *P. consularis*, with dorsal rows of thoracic punctures and obscurely reddish elytra. Head dull, except for a very small shining space on the middle of the front, the vertex scarcely carinate, extremely finely and very closely punctured, and with a fine golden yellow pubescence, the eyes small and flat. Antennæ nearly as long as the head and thorax, all the joints elongate and narrowed at the base. Thorax transverse, with a dorsal row of six to eight punctures on each side of the middle, externally with the sides rather finely and closely punctured, and apart from this an extremely fine and not very close puncturation is seen over the whole surface under a strong lens. Elytra as long as the thorax, less shining, closely and moderately finely punctured. Abdomen finely and densely punctured and pubescent, sericeous.

♂: 6th ventral segment very broadly and very slightly emarginate.

Burma: Bhamo (*L. Fea*).

897. **Platyprosopus tamulus.** (Plate I, fig. 7.)

Platyprosopus tamulus Er., Gen. Spec. Staph. 1839–40, p. 923; Kraatz, Arch. Naturg. xxv, 1859, i, p. 115.

Black; the elytra and last abdominal segment red, the penultimate reddish posteriorly; thorax more shining, closely punctured. Antennæ and legs reddish. Length 11–15 mm.

Head oblong, nearly as wide as the thorax, moderately shining, the eyes moderate, reniform; puncturation close, reticulate, denser at the sides and base (except for a more or less distinct narrow median line), and a very fine puncturation in the fundus of the larger punctures and on the interspaces; pubescence fine and yellow. Antennæ shorter than the head and thorax, all the joints longer than broad, gradually decreasing in length, the penultimate obconical. Thorax a little longer than broad, the sides scarcely rounded in front, straight and distinctly retracted behind, with similar but less close puncturation to that of the head, along the middle with rather narrow median line, from which the larger punctures are absent. Elytra about one-third longer than the thorax, but scarcely broader, densely, finely, roughly punctured, finely yellow pubescent. Abdomen densely and yet more finely punctured, finely and closely yellow pubescent.

♂: 6th ventral segment with broad and shallow emargination.

Bihar: Pusa. Burma: Rangoon. Also in Indo-China.

898. **Platyprosopus fuliginosus.**

Platyprosopus fuliginosus Er., Gen. Spec. Staph. 1839–40, p. 923; Kraatz, Arch. Naturg. xxv, 1859, i, p. 115.
Platyprosopus orientalis Motsch., Bull. Mosc. xxxi, 1858, iii, p. 212.

Very closely allied to *P. tamulus*, but the elytra are shorter, brownish-black, and less finely punctured; the puncturation of the head and thorax is distinctly finer and more superficial.

Bihar: Chapra; Pusa.

899. **Platyprosopus fulvicollis.**

Platyprosopus fulvicollis Motsch., Bull. Mosc. xxxi, 1858, iii, p. 212.
Platyprosopus lineatus Kr., Arch. Naturg. xxv, 1859, i, p. 115.

Head subopaque, blackish-brown; thorax shining, reddish; elytra reddish, less shining; abdomen reddish, the base of the segments more or less infuscate. Antennæ red. Legs reddish-yellow. Length 9 mm.

Head oblong, as wide as the thorax, the eyes semicircular, in front with a small, smooth, median space and indistinct smooth median line, the rest of the surface very closely, moderately finely punctured, finely yellow pubescent. Antennæ reaching the middle of the thorax, all the joints longer than broad, gradually decreasing in length, the penultimate obconical. Thorax a little longer than broad, the sides almost straight and a little retracted behind, the posterior angles rounded, at the sides very closely and more coarsely

punctured than the head, yet more coarsely and much more sparingly towards the middle, the punctures obscurely biseriate on each side of the broad, median, impunctate area. Elytra as long and as broad as the thorax, very finely and closely punctured, finely yellow pubescent. Abdomen very finely, closely punctured, finely yellow pubescent.

Bihar : Pusa.

900. Platyprosopus biseriatus.

Platyprosopus biseriatus Epp., D. E. Z. 1895, p. 400.

Brownish-red, head, elytra, and abdomen rather dull, thorax shining. Head infuscate, the abdominal segments at the base more or less infuscate. Thorax with dorsal row of six punctures on each side. Antennæ and palpi reddish. Legs reddish-yellow. Length 10·5 mm.

In colour similar to *P. fulvicollis*, larger and broader, the antennæ longer and more slender, the thorax broader and differently punctured. Head oval, dull, as wide as the thorax, the eyes small and flat, in the middle in front with a very small shining space, on the vertex between the eyes with a larger one, and extending backwards from it a very fine, slightly raised, shining line, the middle of the base also shining, the rest of the surface closely covered with flat punctures, the interspaces and the fundus of the punctures themselves with a very fine puncturation ; pubescence rather close, yellow. Antennæ nearly as long as the head and thorax, all the joints longer than broad and narrowed at the base. Thorax shining, as long as broad, the sides straight and slightly retracted behind, on each side of the middle with a row of six rather large punctures, at the sides with a sculpture very similar to that of the head but finer, the rest of the surface with a very fine, somewhat irregular, but on the whole rather close puncturation, easily seen under a good lens. Elytra rather dull, about a third longer than the thorax, very finely, closely, and roughly punctured and pubescent, and also with traces of some larger punctures on the disc. Abdomen rather dull, very finely and very closely punctured, finely yellow pubescent.

♂ : 6th ventral segment broadly and feebly emarginate.

Calcutta. Burma : Rangoon ; Tharrawaddy.

901. Platyprosopus æqualis.

Platyprosopus æqualis Bernh., Cat. Col. Staph. iv, p. 320.
Platyprosopus parallelus Bernh., Ent. Blätt. vii, 1911, p. 86.

Black, opaque, thorax very shining, elytra ferruginous red, antennæ, palpi, and legs reddish-testaceous ; thorax with

dorsal series of seven or eight regular punctures, the sides very closely punctured, otherwise very smooth and shining. Length 8 mm.

Amongst the small species readily recognised by the sculpture of the thorax. Black, the elytra ferruginous red, the antennæ, palpi, and legs reddish-yellow. Head elongate, as broad as the thorax, moderately finely and very closely punctured except for the narrow middle line evanescent behind. Antennæ elongate, all the joints much longer than broad. Thorax as broad as the elytra, about a fourth longer than broad, not much narrowed behind, on the sides moderately finely and very closely punctured, the disc smooth and shining, with two dorsal rows of about seven moderately large punctures diverging in front. Elytra shorter than the thorax, very finely and very closely, roughly punctured. Abdomen very finely and very closely punctured and closely pubescent.

In the collection of the Indian Museum and in mine.

N. Bengal: Katihar, Purneah district, 13. x. 07 (*C. A. Paiva*) (ex *Bernhauer*).

Tribe 2. STAPHYLININI.

Staphylinini Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 412; Reitt., Faun. Germ. ii, 1909, p. 716; Subtrib. ii, *Genuini* Er., Gen. Spec. Staph. 1839–40, p. 339; 2. Unterabt. *genuini* Kr., Naturg. Ins. Deutsch. 1856–58, p. 524; Sect. ii, *Staphylini* Fauv., Faun. Gallo-Rhén. iii, 1872, p. 393; Lec. & Horn, Subtrib. *Staphylinini genuini*, Class. Col. N. Amer. 1883, p. 95.

Staphylinina, Subtrib. *Staphylinides* C. G. Thoms., Skand. Col. ii, 1860, p. 139.

Staphyliniens, 1re branche *Staphylinaires* Muls et Rey, Ann. Soc. Agric. Lyon, (4) viii, 1875, p. 212.

Staphylinaria Lynch, Bol. Ac. Cord. vii, 1884, p. 125.

Staphylinina+Xanthopygina Shp., B. C.-A. i, 2, 1882-87 (1885), pp. 370, 342.

This tribe is distinguished by the insertion of the antennæ being nearer the eye than to its fellow and by the straight frontal margin, the anterior angles of the thorax (pronotum) not or scarcely extending beyond the anterior angles of the prosternum, which is without a neck-plate, the more or less horizontal pronotal epipleura, and the rudimentary or entirely absent infra-orbital crest. The antennæ are very rarely geniculate (*Paratolmerus*). The tarsi are all 5-jointed except in *Holisomimus*, in which the formula is 4, 4, 5, the labial palpi are 3-jointed except in the last-mentioned genus, in which only two distinct joints are visible; this genus, therefore, has affinities with the Bolitocharini, but the insertion of the antennæ is definitely Staphylinine. It is divided into three subtribes.

Key to the Subtribes.

1. Superior lateral line of thorax deflexed and united to the inferior lateral line before reaching the anterior angle ..... *Staphylini*, p. 54.
   Superior lateral line not deflexed, either not united with the inferior or meeting it under the anterior angle ..... 2.
2. Pronotal epipleura crossed by an oblique line which unites the superior and inferior lateral lines ..... *Craspedomeri*, p. 248.
   Pronotal epipleura without such line..... *Xanthopygi*, p. 251.

Subtribe 1. *STAPHYLINI.*

Besides the character given above, all the tarsi are 5-jointed, the labial palpi 3-jointed, and only in one genus (*Paratolmerus*) are the antennæ strongly geniculate.

Key to the Genera.

1. Antennæ strongly geniculate; facies of *Tolmerinus* ..... [p. 169. Paratolmerus, gen. n.,
   Antennæ not geniculate ..... 2.
2. 2nd joint of antennæ dilated; prosternal epimera present; facies of small *Philonthus* ..... Actobius Fauv., p. 59.
   2nd joint of antennæ not dilated .... 3.
3. 3rd joint of labial palpi securiform .. 4.
   3rd joint of labial palpi cylindrical or pointed ..... 8. [p. 246.
4. Posterior tibiæ not spinose externally Wasmannellus Bernh.,
   Posterior tibiæ spinose ..... 5.
5. 4th joint of the maxillary palpi much longer than the 3rd ..... [p. 245. Barygnathus Bernh.,
   4th joint of the maxillary palpi not longer than the 3rd ..... 6.
6. Anterior tibiæ spinose; cylindrical species ..... Physetops Mannh., p. 244.
   Anterior tibiæ not spinose; subdepressed species ..... 7. [Tasgius.
7. Mandibles with a tooth ..... Staphylinus, subg.
   Mandibles edentate ..... Staphylinus, subg. Ocypus.
8. All the tibiæ pubescent, without spines ..... 9.
   At least the posterior tibiæ spinose .. 10.
9. Labrum very large, much produced anteriorly, bilobed; 1st joint of the posterior tarsi longer than the two following together ..... [p. 223. Rhyncocheilus Shp.,
   Labrum smaller, only slightly produced anteriorly, bilobed; 1st joint of the posterior tarsi shorter than the two following together. Anterior tibiæ strongly clavate .... Eucibdelus Kr., p. 217.
10. Anterior tibiæ very strongly dilated, clavate or spatulate ..... 11.
    Anterior tibiæ normally dilated, not clavate ..... 14.

11. Labrum triangularly produced in the middle, narrowly divided into two large subtriangular lobes ..... [p. 233. TRICHOCOSMETES Kr.,
Labrum not produced, bilobed, the lobes rounded ..... 12.
12. Mandibles bidentate ..... 13.
Mandibles tridentate, the 4th joint of the maxillary palpi cupuliform in ♂, cylindrical and truncate in ♀ ..... MENŒDIUS Fauv., p. 239.
13. 4th joint of maxillary palpi cylindrical and truncate ..... [p. 235. PARAPALÆSTRINUS Bernh.,
4th joint of maxillary palpi cupuliform ..... PALÆSTRINUS Er., p. 238.
14. Tongue simple ..... 15.
Tongue emarginate or more or less bilobed ..... 20.
15. Superior lateral line of thorax strongly deflexed, the large anterior setiferous puncture distant from it ..... 16.
Superior lateral line of thorax but slightly deflexed, the large anterior setiferous puncture on or near it ... PHILONTHUS Curt., p. 62.
16. Mesosternal process narrow and pointed, the middle coxæ contiguous or but narrowly separated ..... 17.
Mesosternal process broad, rounded or truncate behind, the middle coxæ widely separated..... 19.
17. 1st joint of the posterior tarsi longer than the last ..... 18.
1st joint of the posterior tarsi not longer than the last ..... NEOBISNIUS Ganglb., p. 56.
18. Anterior tibiæ not spinose externally. PHUCOBIUS Shp., p. 178.
Anterior tibiæ spinose externally .... CAFIUS Steph., p. 154.
19. Palpi elongate; 2nd joint of labial palpi twice as long as the 1st; 2nd joint of maxillary palpi elongate, very slightly thickened towards apex; 1st joint of posterior tarsi elongate, longer than the two following together. Convex species. HESPERUS Fauv., p. 156.
Palpi short; 2nd joint of labial palpi scarcely longer than the 1st; 2nd joint of maxillary palpi shorter, thickened towards apex; 1st joint of posterior tarsi not longer than the two following together. Depressed species ..... [p. 170. BELONUCHUS Nordm.,
20. Head quadrate, the base deeply and broadly emarginate; mandibles stout, the right with bicuspid, the left with an obtuse, tooth; facies somewhat resembling *Staphylinus*, the sculpture coarse and rugose.... NADDIA Fauv., p. 241.
Head variable, the base at most a little emarginate ..... 21.
21. Mesosternum keeled ..... 22.
Mesosternum not keeled..... 24.
22. Tomentose species ..... 23.
Species not tomentose ..... SANIDERUS Fauv., p. 177.

23.	Anterior angles of thorax prominent.	Ontholestes Ganglb., [p. 209.
	Anterior angles of thorax completely rounded	Bernh., p. 213. Thoracostrongylus
24.	Neck very narrow, about one-third as broad as the head	Tolmerinus Bernh., p. 163.
	Neck broad	25.
25.	Mandibles sulcate externally	Staphylinus L., p. 179.
	Mandibles not sulcate; facies of *Hesperus*	Stevensia, gen. n., p. 162.

Genus **NEOBISNIUS** Ganglb.

Neobisnius Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 464.
Bisnius Thoms., Skand. Col. ii, 1860, p. 168; Muls. et Rey, Ann. Soc. Agric. Lyon, (4) viii, 1875, p. 583 (nec Steph.).
Erichsonius Fauv., Faun. Gallo-Rhén. iii, 1872, p. 427 (ex parte) (nec Westwood).
Actobius Fauv., l. c., Suppl. 1874, p. 72 (ex parte).

In build somewhat resembling a small *Lathrobium*. In most points agreeing with *Philonthus*, but the superior lateral line of the thorax is so deflexed that the large setiferous side-puncture is widely separated from it, whilst in *Philonthus* this puncture is on or immediately adjacent to it; the punctuation of the thorax is likewise irregular, whilst in *Philonthus* it is in regular rows except in *P. eustilbus*, but this insect is very much larger than any known *Neobisnius*. In our species the abdomen at the base of the anterior segments is coarsely and closely punctured. From *Actobius*, which it much resembles in facies, it differs in the undilated 2nd antennal joint and the absence of membranous prosternal epimera. Head more or less quadrate, the neck stout, gular sutures united behind and diverging in front. Labrum strongly transverse, bilobed, setiferous. Mandibles acutely pointed, the left with a small tooth. Maxillary palpi with the 1st joint small, 2nd rather short, curved, and widened towards apex, 3rd about as long, obconical, 4th a little longer, broad at the base, and rather rapidly narrowed from the middle to the apex. Inner margin of the inner and apex of the outer lobe of maxilla densely ciliate. Tongue very small, membranous, rounded in front. Paraglossæ large, extending beyond the tongue, densely ciliate. Labial palpi with the 1st joint rather short, narrower than the 2nd, which is oval and a little longer than the preceding, the 3rd a little longer and narrower than the 2nd, pointed. Prosternum bluntly carinate, its deflexed part acutely angulate in the middle behind. Pronotal epipleura narrow. Mesosternum simple, its process narrow and acute, extending about half the length of the coxæ, these narrowly separated. Metasternum in front separated from the mesosternum by a fine transverse suture. Abdomen scarcely carinate below at the base. Tibiæ sparingly

spinose. Anterior tarsi short, the first three joints dilated (at least in ♂), middle and posterior rather short, the 1st joint slightly longer than the 2nd, 2nd to 4th short, subequal, the 5th not much longer than the 1st. The genus is found throughout the world on the edges of streams, marshes, etc.

Key to the Species.

1.	Elytra red	*rufipennis* Cam., p. 58.
	Elytra otherwise coloured	2.
2.	Larger (5 mm.) and darker	*cameroni* Wend., p. 58.
	Smaller (4 mm.) and more brightly coloured	*prælongus* G. & H., p. 57.

902. **Neobisnius prælongus.**

Philonthus prælongus Gemm. et Har., Cat. Col. ii, 1868, p. 591.
Philonthus longulus Kr.*, Arch. Naturg. xxv, 1859, i, p. 99.

Narrow, elongate, shining; head black, thorax pitch-black, elytra pitchy, the suture, apical and reflexed margins narrowly but distinctly reddish-yellow; abdomen with the posterior margin of the segments narrowly rufescent. Antennæ with the first three joints reddish-yellow, the following reddish-brown. Palpi and legs yellow. Length 4 mm.

Head subquadrate, a little broader than the thorax, the posterior angles rounded, the eyes large, about as long as the temples, the front and a longitudinal median area impunctate, the rest of the surface moderately closely covered with rather small umbilicate punctures and with a sparing yellow pubescence; ground-sculpture absent. Antennæ a little shorter than the head and thorax, the 2nd and 3rd joints subequal, 4th scarcely longer than broad, the 5th to 10th gradually more transverse. Thorax longer than broad, the sides almost straight and distinctly retracted behind, the anterior angles obtusely rounded, the posterior coarctate with the base, along the middle with broad impunctate area, the rest with very similar puncturation on the disc to that of the head, gradually finer and less close towards the sides. Scutellum with a few fine punctures. Elytra a little longer and broader than the thorax, finely and not very closely punctured, finely yellow pubescent. Abdomen with the base of the first three segments transversely impressed and closely and rather coarsely punctured, less coarsely and less closely elsewhere.

♂: anterior tarsi more strongly dilated. 6th ventral segment with arcuate emargination.

Bihar: Pusa. Assam: Naga Hills. United Provinces: Dehra Dun. Also in Penang, Singapore, Java, and the Philippines.

903. **Neobisnius cameroni.**

Neobisnius cameroni Wend., D. E. Z. 1928, p. 298.
Neobisnius fraternus Cam., Trans. Ent. Soc. Lond. 1926, p. 349 (præocc.).

Narrow, elongate, black, shining; elytra dark brown, the suture very narrowly and obscurely rufescent; abdomen coarsely and closely punctured. Antennæ brown, the first three joints testaceous. Legs reddish-testaceous. Length 5 mm.

Very similar in build to *N. prælongus* G. & H., but larger and more robust, the head longer, the elytra a little more closely punctured, the abdomen more coarsely punctured, and the colour darker. Head a little broader than the thorax, subquadrate, the temples very slightly convergent to the rounded posterior angles and very finely punctured, the disc, except the smooth central area, less finely and moderately closely punctured, front impressed in the middle, which is impunctate. Antennæ with the 2nd and 3rd joints of equal length, 4th slightly longer than broad, 5th to 10th transverse, gradually increasing in breadth. Thorax much longer than broad, narrowed behind, the centre smooth, the sides rather finely and not very closely punctured. Scutellum with a few very fine punctures. Elytra as long as, but a little broader than, the thorax, longer than broad, finely and moderately closely punctured. Abdomen parallel, the first four (visible) segments strongly transversely impressed at their bases and very coarsely and closely punctured, the apices and the whole of the 5th and 6th segments much more finely and less closely punctured.

Dehra Dun. In stream shingle.

904. **Neobisnius rufipennis.**

Neobisnius rufipennis Cam., E. M. M. lv, 1919, p. 252.

Black, shining, the elytra red; antennæ brown, the first two joints testaceous; legs testaceous, the intermediate and posterior tibiæ, and sometimes the femora, a little infuscate. Length 4·75–5 mm.

Head black, shining, almost square, the eyes moderately large, their diameter considerably less than the length of the temples, which are rounded posteriorly; the front and a broad space extending the length of the vertex impunctate, the rest of the upper surface with large scattered punctures, the temples finely and sparingly punctured; pubescence yellow, rather long and scanty. Antennæ with the 2nd joint shorter than the 3rd, the 4th slightly longer

than broad, the 5th to the 7th as long as broad, the 8th to the 10th scarcely transverse, 11th oval. Thorax narrower than the head, a little longer than broad, the anterior angles obtuse, the sides gradually convergent to the rounded posterior angles; disc with a broad impunctate median space throughout and externally with large and scattered puncturation; pubescence scanty and moderately long. Elytra red, as long as but broader than the thorax, longer than broad; puncturation fine, by no means close; pubescence scanty, moderately long. Abdomen elongate, black, the apex pitchy, the bases of the first four visible segments especially, coarsely and closely punctured, more finely and sparingly punctured posteriorly; pubescence moderately long and scanty.

Ceylon: Nuwara Eliya, alt. 6230–8000 feet (*G. Lewis*).

Genus **ACTOBIUS** Fauv.

Actobius Fauv., Faun. Gallo-Rhén. iii, Suppl. 1874, p. 72; Horn, Trans. Amer. Ent. Soc. xi, 1884, p. 223; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 465.
Remus C. G. Thoms., Skand. Col. ii, 1860, p. 167; Muls. et Rey, Ann. Soc. Agric. Lyon, (4) viii, 1875, p. 597 (nec Holme).
Erichsonius Fauv., Faun. Gallo-Rhén. iii, 1872, p. 427 (ex parte) (nec Westwood).

Very closely allied to *Neobisnius*, but with the 2nd joint of the antennæ shorter and dilated towards apex, and the pronotal epipleura furnished with membranous tongue-shaped epimera. Also the abdomen (at least in our species) is without coarse puncturation at the base of the anterior segments, the sculpture being finer and uniform. In all other respects with the structure of *Neobisnius*.

Found throughout the world in the vicinity of streams, etc.

Key to the Species.

1. Elytra as shining as the fore-parts, sparingly pubescent ..... 2.
   Elytra much less shining than the fore-parts, densely pubescent ..... 3.
2. 2nd to 5th joints of the antennæ distinctly infuscate; puncturation of the thorax coarser, elytra more closely punctured .. *basalis* Motsch., p. 60.
   2nd to 5th joints of the antennæ scarcely infuscate; puncturation of the thorax much finer, elytra more sparingly punctured ..... *flavicornis* Fauv., [p. 61.
3. Antennæ yellowish-red; eyes a little shorter than the temples ..... *affinis* Cam., p. 61.
   Antennæ blackish; eyes as long as the temples ..... *assamensis*, sp. n., [p. 61.

905. **Actobius basalis.**

Philonthus basalis Motsch., Bull. Mosc. xxxi, 1858, ii, p. 664.
Philonthus castaneipennis Kr., Arch. Naturg. xxv, 1859, i, p. 96.
Philonthus castaneipennis Kr., var. *humeralis* Cam., E. M. M. lvi, 1920, p. 214.

Shining; head black, thorax black or pitchy, elytra (in typical form) brown or reddish-brown, with the suture and apical margin narrowly reddish-yellow, the base sometimes more or less reddish. Abdomen brown, less shining, the posterior margin of the segments rufescent. Antennæ reddish-yellow, the 2nd to 5th joints infuscate. Legs yellow, the tibiæ infuscate. Length 4 to 4·5 mm.

Var. *humeralis*. Elytra pitchy, the shoulders and suture (very narrowly) reddish.

Var. Elytra entirely reddish or entirely pitchy-black.

Very variable in the colour of the elytra, but every combination occurs between the different forms.

Head as broad as the thorax, subquadrate, the posterior angles rounded, the eyes large, about as long as the temples, in front and along the middle with broad impunctate space, the rest with moderately close, larger and smaller punctures; ground-sculpture very fine, transverse. Antennæ shorter than the head and thorax, 2nd joint shorter than the 3rd and enlarged towards the apex, 4th to 10th all longer than broad, gradually decreasing in length, the penultimate only slightly longer than broad, the 11th nearly as long as the two preceding together. Thorax a little longer than broad, the sides in front a little rounded, retracted, and slightly emarginate behind, the angles all rounded, along the middle with impunctate area, on each side with a row of seven or eight moderate punctures, at the sides irregularly and not very closely punctured, the punctures finer near the margin; ground-sculpture as on the head. Elytra a little longer and broader than the thorax, finely and rather closely punctured, finely yellow pubescent. Abdomen very finely and closely punctured and pubescent, more sparingly on the last segment, and with distinct ground-sculpture.

♂: anterior tarsi dilated. 6th ventral segment with small arcuate emargination.

Ceylon: Bogawantalawa, alt. 4900–5200 feet. S. India: Nilgiri Hills. United Provinces: Siwaliks: Mussoorie and Chakrata districts, alt. 3500–6000 feet. The forms with unicolorous elytra appear to be the commonest in the United Provinces. Also in the Oriental region generally.

906. **Actobius flavicornis.**

Actobius flavicornis Fauv., Rev. d'Ent. xiv, 1895, p. 261.

Very near *A. basalis*, of the colour of the type form, but with the 2nd to 5th joints of antennæ scarcely infuscate, the punctures of the thorax much finer and the elytra much more sparingly punctured, the abdomen rather less closely punctured. Length 4–4·5 mm.

Burma : Carin Asciuii Ghécu (*Fea*). Also in Java.

907. **Actobius assamensis**, sp. n.

Black : head and thorax moderately shining, elytra and abdomen opaque. Antennæ blackish, the 1st joint reddish below. Legs reddish-yellow, the middle and posterior tibiæ infuscate. Length 5 mm.

Very similar to the European *A. cinerascens* Gr., the antennæ similarly constructed, but the head is broader, the eyes larger, the puncturation closer, without a smooth space on the vertex, the thorax more closely punctured and without ground-sculpture ; also very near *A. affinis* but a little narrower, antennæ differently coloured, head and thorax less shining, head narrower, more finely punctured, eyes larger, thorax more finely and more closely punctured, elytra a little longer, more finely punctured. Head subquadrate, as broad as the thorax, the posterior angles rounded, the eyes rather large, as long as the temples, the front margin smooth, the rest very closely covered with moderately fine punctures. Antennæ with all the joints longer than broad, gradually decreasing in length, the penultimate not much longer than broad. Thorax longer than broad, the sides a little rounded in front, retracted and a little emarginate behind, along the middle with rather broad smooth space, elsewhere moderately but less closely punctured than the head and without ground-sculpture. Elytra about a third longer and distinctly broader than the thorax, very finely and very closely punctured and pubescent. Abdomen very finely and very closely punctured and pubescent.

Assam : Naga Hills, alt. 5000 feet (*S. N. Chatterjee*).

908. **Actobius affinis.**

Actobius affinis Cam., Trans. Ent. Soc. Lond. 1926, p. 350.

Head and thorax black, shining ; elytra and abdomen opaque, densely and finely punctured and pubescent. Antennæ and legs reddish-testaceous, the middle and posterior tibiæ infuscate. Length 4·75–5 mm.

Near *assamensis*, but broader, the head broader, more shining, with smooth space on vertex, not quite so closely and

rather less finely punctured, thorax less finely and less closely punctured, elytra less finely punctured.

Very similar to *A. cinerascens* Grav., but differing in the following respects: the antennæ are a little longer and differently coloured, the head broader and more shining, the posterior angles more briefly rounded, the puncturation is distinctly coarser and ground-sculpture is wanting, the thorax more shining and without ground-sculpture; the sculpture and pubescence of the elytra and abdomen scarcely differs from that of *A. cinerascens*.

♂: 6th ventral segment feebly crescentically emarginate.

Dehra Dun and Mussoorie districts.

Genus **PHILONTHUS** Curtis.

Philonthus Curtis, Brit. Ent. xiii, 1825, tab. 610; Steph., Ill. Brit. Ent. v, 1832, p. 226; Er., Käf. Mark Brand. 1837–39, p. 445; id., Gen. Spec. Staph. 1839–40, p. 426; Lacord., Gen. Col. ii, 1854, p. 80; Kraatz, Naturg. Ins. Deutsch. ii, 1856–58, p. 565; Jacq. du Val, Gen. Col. d'Eur. ii, 1857–59, p. 35; Fauv., Faun. Gallo-Rhén. iii, 1872, p. 433; id., Rev. d'Ent. x, 1891, pp. 110, 113; Horn, Trans. Amer. Ent. Soc. xi, 1884, p. 177; Lynch, Bol. Ac. Cordoba, vii, 1884, p. 146; Sharp, B. C.-A. i, 2, 1882–87 (1885), p. 395; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 437; Gridelli, Bull. Soc. Ent. Ital. li, 1920, p. 49, tab. 1; id., Ann. Mus. Civ. Gen. xlix, 1920, p. 115, tab. 3; id., Att. Ac. Ven. Trent. Istr. xi, 1920, p. 15; id., Bull. Soc. Ent. Ital. lx, 1928, p. 41.

Cheilocolpus Sol. in Gay, Hist. Chile, iv, 1849, p. 320; Kr., B. E. Z. 1859, p. 5.

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A large and polymorphic genus approaching *Hesperus* and *Belonuchus* in some forms. More or less elongate, the head and thorax usually shining. Head constricted behind, exserted,

very variable in shape, the neck rather stout, the gular sutures united behind and diverging in front; on the front between the eyes with a transverse row of four punctures (interocular punctures). Labrum transverse, more or less deeply bilobed, membranous in front and furnished with setæ. Mandibles variable, long and slender or short and stout, usually with a tooth internally, the outer border more or less longitudinally sulcate. Maxillæ with the apex of the external and inner margin of the internal lobe densely ciliate. Maxillary palpi with the 1st joint small, 2nd elongate, curved, slightly thickened towards the apex, the 4th narrowed at base and apex, as long as the 3rd (subg. *Rabigus*) or longer. Mentum transverse, narrower in front. Tongue small, membranous, rounded in front. Paraglossæ well developed, extending a little beyond the tongue, densely ciliate internally. Labial palpi with the first two joints of about equal length, the 3rd as long or longer than the preceding, and scarcely narrower or much narrower (subg. *Gabrius*). Thorax variable, parallel-sided, narrowed in front or behind, the side-margin (superior lateral line) not strongly bent out and deflexed in front, so that the large setiferous puncture which is situated a little behind the anterior angle is found on or very near it. On each side of the middle usually with a dorsal row of two or more punctures (more rarely without a row or with numerous irregular punctures on each side) and a curved row externally of three to five others. Scutellum triangular. Elytra not extending much beyond the metasternum. Abdomen not keeled below at the base, above with a raised transverse line at the base of the anterior segments, which is sometimes angulate backwards in the middle. Prosternum somewhat tumid in the middle, the posterior deflexed portion separated by an oblique keel on each side from the anterior. Pronotal epipleura rather narrow, its inner border (inferior lateral line) united to the superior lateral line before the anterior angle. Mesosternum short, with a transverse arcuate keel, its process either short and acute, not much produced between the middle coxæ, these contiguous behind, or rounded behind, the coxæ moderately separated by an intersternal piece. Metasternum without anterior process, limited by a curved line at the level of the posterior ends of the coxal cavities; the posterior process small, triangular, emarginate at apex and more or less impressed. Anterior coxæ elongate, the middle small, oval, the posterior conical. Tibiæ spinose. Anterior tarsi either simple or with the first three joints dilated in both sexes or only dilated in the ♂; middle and posterior with the 1st joint moderate, the 2nd to 4th gradually shorter. The genus is found throughout the world, and is of very varied habits, many in dung, carrion, or vegetable

debris, others in marshes or stream banks, and yet others beneath the bark of decayed trees. The species are conveniently divided into groups in accordance with the number of punctures in the dorsal thoracic row; occasionally, however, the rows are not uniform in number on each side, either an additional puncture being present or one being absent; in the former case this is placed as a rule out of the line, and in the latter a wider interval is found between the punctures. I have followed Erichson's notation of the punctures, and include in the dorsal series the puncture placed on the anterior margin itself and usually a little external to the rest of the line. Fauvel and Eppelsheim, however, did not include this in the dorsal series, which must be remembered when consulting the descriptions of these authors. Below is a Key to the Subgenera as represented in our fauna, but I have not used these divisions in the Key to the Species:—

Key to the Subgenera.

1.	3rd joint of labial palpi much narrower than the 2nd; head narrow oblong, the temples fully twice as long as the eyes. Dorsal row of 5 or 6 punctures	GABRIUS Steph.
	3rd joint of labial palpi scarcely narrower than the 2nd; head and dorsal row of punctures variable	2.
2.	Last joint of maxillary palpi fusiform, longer than the 3rd	PHILONTHUS, s. str.
	Last joint of maxillary palpi conical, scarcely as long as the 3rd	RABIGUS Muls. et Rey.

Key to the Species.

1.	Thorax with dorsal row of 2 punctures...	2.
	Thorax with dorsal row of more than 2 punctures	3. [p. 74.
2.	Elytra more finely punctured; legs black.	*bipunctatus* Bernh.,
	Elytra less finely, more rugosely punctured; legs pitchy	*pubipennis* Cam., p. 75.
3.	Thorax with dorsal row of 3 punctures	4.
	Thorax with dorsal row of more than 3 punctures	10.
4.	Elytra with a sutural and humeral row of punctures, with very distinctly coriaceous ground-sculpture	5.
	Elytra without rows of punctures, not coriaceous	6.
5.	Larger (8·5 mm.). Antennæ reddish; elytra pitchy-black, the suture reddish, the apical and reflexed margins reddish-yellow	*notabilis* Kr., p. 76.
	Smaller (5·5 mm.). Antennæ black; elytra pitchy-black, the suture reddish, an elongate mark at the shoulder yellow...	[p. 76. *quediiformis*, nom. n.,
6.	Elytra of a beautiful metallic purple red..	*porphagus* Cam., p. 79.
	Elytra greenish-bronze or coppery	7.
7.	Antennæ reddish; elytra coppery	*cinctulus* Kr., p. 77.
	Antennæ black; elytra greenish-bronze ..	8.

8. Abdomen closely punctured	9.
Abdomen sparingly punctured	*industanus* Fauv., p. 78.
9. Elytra brassy ; post-ocular region sparingly punctured	*donckieri* Bernh., p. 78.
Elytra with obscure greenish-bronze reflex; post-ocular region closely punctured....	[(ab.), p. 74. *bipunctatus* Bernh.
10. Thorax with dorsal row of 4 punctures ..	11.
Thorax with dorsal row of more than 4 punctures	50.
11. Thorax red or reddish-brown	12.
Thorax black or metallic	13.
12. Thorax red ; abdomen entirely black, very closely and finely punctured and pubescent throughout	[p. 100. *assamensis*, sp. n.,
Thorax reddish-brown ; abdomen black, with the posterior margin of the segments rufescent, finely punctured at the base of the segments	*castaneus* Motsch., p. 99.
13. Penultimate joints of the antennæ distinctly longer than broad	14.
Penultimate joints of the antennæ as long as broad or transverse	19.
14. Legs black	15.
Femora in greater part yellow	17.
15. Head and thorax with strong cyaneous reflex ; elytra brilliant blue	[p. 86. *cyanelytrius* (♂) Kr.,
Head and thorax black or bronze-black ; elytra otherwise coloured.....	16.
16. Elytra brilliant brassy ; 1st joint of posterior tarsi longer than the last. Larger (10 mm.).....	*tractatus* Epp., p. 82.
Elytra bronze-black, only slightly metallic ; 1st joint of posterior tarsi as long as the last. Smaller (8 mm.)	*kempi* Cam., p. 89.
17. Last two joints of the antennæ clear yellow	*peliomerus* Kr., p. 87.
Last two joints of the antennæ concolorous, dark	18.
18. Larger (8 mm.) and more robust ; elytra strongly metallic, brassy	*congruens*, sp. n., p. 89.
Smaller (7 mm.) and narrower ; elytra black, with slight metallic reflex	*maindroni* Fauv., p. 88.
19. Antennæ ferruginous red ; larger (11–12 mm.) ; elytra brassy	[*drewesi* Cam., p. 77. *cinctulus* Gr., ab. *an-*
Antennæ entirely or in greater part black or blackish	20.
20. Head and thorax with strong metallic reflex	21.
Head and thorax black, at most with feeble metallic reflex	27.
21. Head and thorax with blue or greenish-blue reflex	22.
Head and thorax brassy or bronze.....	24.
22. Head and thorax blue ; elytra bright blue ; abdomen rather sparingly punctured	23.
Head and thorax greenish-blue ; elytra greenish-blue ; abdomen closely punctured.....	*æger* Epp., p. 83.

23. Antennæ entirely black ..... ♀ [p. 86.
Antennæ with the last four joints pale yellow ..... *cyanelytrius* (♀) Kr., [sp. n., p. 87.

24. Elytra blue ..... *distincticornis* (♀),
Elytra brassy or bronze ..... *azuripennis* Cam., p. 81.

25. Larger (11 mm.). Penultimate joints of antennæ as long as broad ..... [p. 82.
Smaller (5·5–8 mm.). Penultimate joints of antennæ transverse ..... *proximatus* Schub.,

26. Fore-parts strongly metallic; elytra more finely and closely punctured..... [p. 94.
Fore-parts much less metallic; elytra more coarsely and less closely punctured ..... *semiœnescens* Bernh.,

27. Thorax with distinct and moderately close puncturation ..... *diversus* Schub., p. 95.
Thorax without such puncturation ..... [p. 84.

28. Legs entirely or in great part yellow .... *rotundicollis* Men.,
Legs black or pitchy ..... 28.

29. Elytra pitchy-black, the suture, apical margin, and humeral spot reddish-yellow. 29.
Elytra with metallic reflex, without markings ..... 33.

30. Abdomen with the base of the anterior segments more coarsely and more closely punctured than elsewhere ..... *delicatulus* Boh., p. 98.
Abdomen not more coarsely and closely punctured at the base of the anterior segments ..... 30.

31. Elytra finely and sparingly punctured ... 31.
Elytra finely and closely punctured ..... *fimetarius* Gr., p. 92.

32. Antennæ black..... 32. [p. 87.
Antennæ with the last two joints yellowish-red ..... *bengalensis* Bernh., *nitens* Kr., p. 96.

33. Large (10·5–12 mm.) and robust species . [p. 96.
Small (6–8 mm.) and less robust species .. *singhalensis*, sp. n.,

34. Elytra distinctly metallic..... 34.
Elytra black ..... 38.

35. Basal abdominal lines angulate in the middle ..... 35.
Basal abdominal lines straight ..... 37.

36. Abdomen more closely punctured; ground-sculpture of the fore-parts less distinct.. *chalceus* Steph., p. 80.
Abdomen less closely punctured; ground-sculpture of the fore-parts well marked ..... 36.

37. Abdomen closely and finely punctured ... *donckieri* Bernh., p. 78.
Abdomen very sparingly and finely punctured ..... *carbonarius* Gyll., p. 81.

38. Penultimate joints of antennæ distinctly transverse ..... *birmanus* Fauv., p. 85.
Penultimate joints of antennæ about as long as broad ..... *concolor* Kr., p. 85.

39. Antennæ with the 1st joint and base of 2nd yellow ..... 39.
Antennæ black..... 44.

40. Subdepressed species, the thorax distinctly narrowed behind ..... *tamulus*, sp. n., p. 91.
Subconvex species, the thorax parallel ... 40.

41.
42.

41. Larger (6 mm.). Elytra with strong greenish-bronze reflex and more coarsely punctured ..... *gardneri*, sp. n., p. 101.
Smaller (5 mm.). Elytra with feeble bronze reflex and more finely punctured. *adversus* Bernh., p. 106.
42. Head and thorax with distinct ground-sculpture; elytra more closely punctured. 43.
Head and thorax without ground-sculpture; elytra more sparingly punctured. *sordidus* Gr., p. 93.
43. Larger (7–8 mm.) and more robust; elytra less coarsely punctured ..... *protenus* Schub., p. 95.
Smaller (6·75 mm.) and narrower; elytra more coarsely punctured ..... [p. 94. *kashmiricus*, sp. n.,
44. Head with the frontal region closely punctured; subdepressed species, with the thorax distinctly narrowed behind.. 45.
Head in front without puncturation other than the usual interocular punctures .. 46.
45. Head closely and finely punctured at the sides and base ..... *puncticeps* Cam., p. 90.
Head less closely and more coarsely punctured at the sides and base ..... *punctifrons* Cam., p. 89.
46. Abdomen very finely and very sparingly punctured ..... [p. 97. *hindostanus* Schub.,
Abdomen normally punctured ..... 47.
47. Thorax distinctly narrowed in front; head round; facies of *delicatulus* ..... *incultus*, sp. n., p. 98.
Thorax not or scarcely narrowed in front. 48.
48. 1st joint of posterior tarsi distinctly shorter than the last ..... 49.
1st joint of posterior tarsi fully as long as the last ..... *batotensis*, sp. n., p. 99.
49. More robust; antennæ longer; the intermediate joints distinctly longer than broad ..... *riparius* Cam., p. 91.
Narrower; antennæ shorter, the intermediate joints slightly longer than broad. *lidarensis*, sp. n. p. 94.
50. Thorax with dorsal row of 5 punctures..... 51.
Thorax with dorsal row of more than 5 punctures ..... 118.
51. Head and thorax with fine scattered puncturation ..... [p. 84. *rotundicollis* Mén.,
Head and thorax without such puncturation ..... 52.
52. Thorax bright red (see also *circumductus* and *vagus* (81 and 82))..... 53.
Thorax black or brown, sometimes with slight metallic reflex ..... 58.
53. Abdomen black, at most with the posterior margin of the segments reddish ..... 54.
Abdomen in great part red ..... 56. [Epp., p. 113.
54. Larger (8–9 mm.); elytra greenish-blue .. *æneipennis* var. *cliens*
Smaller (3–4 mm.); elytra otherwise .... 55.
55. Elytra pitchy, the base, suture, reflexed and apical margins reddish-yellow; abdomen black ..... *speciosus* Cam., p. 122.
Elytra pitchy, the apical margin red; abdomen with the posterior margin of the segments reddish ..... *pulchellus* Kr., p. 136.

56. Larger (8 mm.); elytra blue	*pæderoides* Motsch.,
Smaller (5 mm.); elytra bicolorous.....	57. [p. 114.
57. Posterior margin of the thorax infuscate; first three (visible) abdominal segments red	[p. 121. *madurensis* Bernh.,
Thorax unicolorous, red; first four (visible) abdominal segments red.....	*rufiventris* Cam., p. 122.
58. Elytra red, the base occasionally infuscate. Base of the anterior abdominal segments not more coarsely and closely punctured than elsewhere	59.
Elytra otherwise	61.
59. Penultimate joints of antennæ transverse.	60.
Penultimate joints of antennæ as long as broad	*quisquiliarius* Gyll., var. *inquinatus* Steph., [p. 123.
60. Head orbicular; 11th joint of antennæ orange-red	*fraternus* Cam., p. 121.
Head oval, narrow; antennæ with 11th joint concolorous	*pamirensis* Shp., p. 127.
61. Elytra concolorous, black with metallic reflex	62.
Elytra otherwise	76.
62. Antennæ ferruginous, the 2nd and 3rd joints infuscate; head and thorax with metallic reflex; abdomen with the posterior margin of the segments distinctly rufescent. Larger (7 mm.)	*dohertyi*, sp. n., p. 102.
Antennæ otherwise	63.
63. Abdomen with metallic reflex; antennæ black.....	64.
Abdomen without metallic reflex	66.
64. Penultimate joints of the antennæ distinctly longer than broad; 1st joint of posterior tarsi shorter than the last	65.
Penultimate joints of antennæ about as long as broad; 1st joint of posterior tarsi distinctly longer than the last	[p. 109. *convalescens* Epp.,
65. Femora clear yellow, the extreme apex and the tibiæ black. Head larger	*aberrans*, sp. n., p. 111.
Femora brownish-yellow, tibiæ infuscate. Head smaller	[p. 109. *kotgarhensis*, sp. n.,
66. Penultimate joints of antennæ distinctly transverse	67.
Penultimate joints of antennæ slightly transverse, or as long as or longer than broad	68.
67. Larger (7 mm.) and more robust; antennæ entirely black; legs pitchy ..	[p. 106. *signifrons* Schub.,
Smaller (5·5 mm.) and narrower; antennæ with the base pitchy; femora yellow...	[p. 135. *disjunctus* Bernh.,
68. Legs black or pitchy	69.
Femora at least yellow	74.
69. 1st joint of posterior tarsi longer than the last; abdomen not more coarsely punctured at the base of the segments than elsewhere	70.
1st joint of posterior tarsi not longer than the last; abdomen more coarsely punctured at the base of the anterior segments	72.

70. Penultimate joints of antennæ slightly transverse. Length 9 mm.	*obsoletus* Epp., p. 106.
Penultimate joints of antennæ fully as long as broad	71.
71. Larger (9 mm.). Antennæ longer	*frontalis* Schub., p. 107.
Smaller (7 mm.). Antennæ shorter	*aliquatenus* Schub., [p. 107.
72. Elytra less shining, more closely and more finely punctured	*humilis*, sp. n., p. 106.
Elytra more shining, less closely and less finely punctured	73.
73. Eyes larger and flatter; antennæ longer and stouter	*dejectus*, sp. n., p. 108.
Eyes smaller and more convex; antennæ shorter and thinner	*subjectus*, sp. n., p. 108. [p. 108.
74. Elytra rather coarsely and sparingly punctured	*kuluensis* Schub.,
Elytra more finely and closely punctured.	75.
75. Elytra more finely and closely punctured; head more transverse.....	*flavipes* Kr., p. 110.
Elytra less finely and less closely punctured; head narrower	*æneipennis* Boh..p.113.
76. Elytra black, with reddish markings or largely red	77.
Elytra concolorous, black, pitchy or brown	94.
77. Elytra black, the apical margin concolorous, the disc with red markings ...	78.
Elytra otherwise	80.
78. Elytra with a large reddish spot on each disc near the suture posteriorly; legs black.....	[p. 130. *cruentatus* Gmel.,
Elytra with an oblique reddish humeral spot.....	79.
79. Head larger, suborbicular; larger (7·3 mm.)	*maculatus* Cam., p. 130.
Head small, oval; smaller (6 mm.)	*varians* Payk., p. 131.
80. Elytra quadrate, with the base broadly red, the suture and apical margin narrowly reddish-yellow	81.
Elytra otherwise	83.
81. Elytra closely punctured; abdomen black, the posterior margin of the segments scarcely reddish; thorax black; occasionally with the elytra red, with more or less distinct black marking behind	*gentilicius* Cam., p. 120.
Elytra much more sparingly punctured ..	82.
82. Head larger, transversely subquadrate; elytra and abdomen less sparingly punctured. Thorax sometimes reddish.	[p. 118. *circumductus* Fauv.,
Head smaller, suborbicular; elytra and abdomen very sparingly punctured. Thorax sometimes reddish	*vagus* Fauv., p. 119.
83. Elytra pitchy, longer than broad, the shoulders and suture obscurely reddish; the apical margin narrowly reddish-yellow	[p. 119. *fauvelianus* Bernh.,
Elytra otherwise	84.
84. Elytra with the suture, apical and reflexed margins reddish or reddish-yellow.....	85.
Elytra otherwise	92.

85.	1st joint of posterior tarsi longer than the last; penultimate joints of antennæ fully as long as broad	86.
	1st joint of posterior tarsi not longer than the last	87.
86.	Larger (8 mm.) and more robust; thorax scarcely narrowed in front; elytra and abdomen less finely punctured	*geminus* Kr., p. 103.
	Smaller (5–7 mm.) and narrower; thorax distinctly narrowed in front; elytra and abdomen more finely punctured	*minutus* Boh., p. 132.
87.	Antennæ entirely reddish-yellow, the penultimate joints strongly transverse .	*discoideus* Gr., p. 116.
	Antennæ dark, with lighter base	88.
88.	Abdomen with the posterior third of the 7th and whole of the 8th segments reddish-yellow	*leucopygus* Kr., p. 118.
	Abdomen otherwise coloured	89.
89.	Penultimate joints of the antennæ strongly transverse, the suture and apical margin of the elytra more broadly reddish-yellow	[p. 116. *flavocinctus* Motsch.,
	Penultimate joints of the antennæ less transverse, the suture and apical margin of the elytra more narrowly and obscurely reddish	90.
90.	Larger (6–7 mm.), more depressed species .	91.
	Smaller (3·75–4·5 mm.), less depressed species	[p. 117. *cinctipennis* Fauv.,
91.	Eyes shorter than the temples	*productus* Kr., p. 105.
	Eyes longer than the temples	*duplex* Bernh., p. 105.
92.	Elytra with the sutural and apical margins reddish-testaceous	93.
	Elytra with the apical margin only reddish-testaceous	[p. 117. *apicipennis*, sp. n.,
93.	Posterior margin of the abdominal segments narrowly but distinctly reddish; elytra less shining, more roughly punctured; antennæ a little longer, the penultimate joints slightly longer than broad	[p. 104. *explorator*, sp. n.,
	Posterior margin of the abdominal segments scarcely perceptibly reddish; elytra more shining, less roughly punctured; antennæ shorter, the penultimate joints not longer than broad	*tardus* Kr., p. 103.
94.	Elytra brownish-yellow, the scutellary region often darker	95.
	Elytra black or pitchy	97.
95.	Thorax, abdomen, and scutellary region black.....	*lincifrons* Cam., p. 135.
	Thorax reddish-brown, scutellary region scarcely infuscate; abdomen with the posterior margin of the segments reddish	96.
96.	Head oval, thorax narrowed in front, eyes as long as the post-ocular region	[p. 133. *ingratulus*, sp. n.,
	Head oblong, thorax parallel; eyes shorter than the post-ocular region	[p. 134. *thermarum* Aubé,

97. Abdomen extremely finely and extremely densely punctured and pubescent, sericeous; basal lines of segments acutely angulate in the middle ..... *idiocerus* Kr., p. 101.
Abdomen much less closely punctured, not sericeous; basal lines straight .... 98.
98. Abdomen with a small fovea on each side of the middle of the base of the first two segments ..... *gemellus* Kr., p. 124.
Abdomen without such foveæ 99
99. Penultimate joints of antennæ transverse. 100.
Penultimate joints of antennæ at least as long as broad ..... 107.
100. Elytra with a row of larger punctures extending from the shoulder to the posterior margin parallel to the outer border. Large species (11 mm.) ..... *modestus*, sp. n., p. 102.
Elytra without such punctures. Smaller species ..... 101.
101. Antennæ with the last joint entirely black ..... 102.
Antennæ with at least the apex of the last joint yellow ..... 103.
102. Antennæ entirely black; head large, transverse, the abdomen sparingly punctured ..... *indicus* Cam., p. 111.
Antennæ with the 1st joint reddish-yellow; head small, suborbicular, the abdomen closely and finely punctured . *ventralis* Gr., p. 124.
103. Penultimate joints of antennæ strongly transverse ..... 104.
Penultimate joints of antennæ slightly transverse ..... 105.
104. Elytra finely and uniformly punctured, the last joint of antennæ entirely yellow. 106.
Elytra more finely and more sparingly punctured behind, the apex of the last joint yellow ..... [Har., p. 133. *distinctus* Gem. et
105. 1st joint of antennæ reddish-yellow; abdomen finely and closely punctured.. *consors*, sp. n., p. 112.
1st joint of antennæ pitchy-black; abdomen finely and sparingly punctured.... *chatterjeei* Cam., p. 115.
106. Larger (5 mm.) and more robust; head and thorax with strong ground-sculpture, more iridescent ..... *acroleucus* Kr., p. 115.
Smaller (3·5–3·8 mm.) and narrower; head and thorax with less distinct ground-sculpture, less iridescent ..... [p. 114. *crassicornis* Fauv.,
107. Thorax distinctly narrowed in front .... 108.
Thorax with parallel sides ..... 114.
108. Legs, including the coxæ, black ..... 109.
Anterior coxæ at least in part yellow.... 111.
109. Larger (10–11 mm.). Antennæ longer .. 110.
Smaller (5 mm.). Antennæ shorter .... *nigricoxis* Cam., p. 129.
110. Head narrow, oval; elytra more sparingly punctured ..... [p. 126. *kashmiranus* Bernh.,
Head orbicular; elytra closely punctured. *fœtidus*, sp. n., p. 129.
111. Thorax reddish-brown, shorter and broader, the sides more rounded ..... [p. 129. *suspiciosus*, sp. n.,
Thorax black, longer, the sides straighter. 112.

112.	Head narrow, oval	*peregrinus* Fauv.,
	Head broader and shorter	113. [p. 133.
113.	Larger (9 mm.). Abdomen much less finely and closely punctured; penultimate joints of antennæ shorter	*anepsius* Cam., p. 128.
	Smaller (6·5–7·5 mm.). Abdomen closely and finely punctured; penultimate joints of antennæ longer	[p. 127 *longicornis* Steph.,
114.	Abdomen very finely and very closely punctured and pubescent, subsericeous.	*densus* Cam., p. 125.
	Abdomen much less closely punctured and pubescent	115. [*atus* Cam., p. 103.
115.	Larger (8–9 mm.)	*tardus* Kr., var. *inorn-*
	Smaller (5·5–6·5 mm.)	116. [p. 123.
116.	Femora at least yellow	*quisquiliarius* Gyll.,
	Legs black or pitchy	117.
117.	5th puncture of the dorsal thoracic series distant from the 4th; abdomen much less finely punctured	*remotus* Fauv., p. 110.
	Dorsal row of punctures equidistant; abdomen very finely and obsoletely but closely punctured	*beesoni* Cam., p. 126.
118.	Thorax with dorsal row of 6 punctures	119.
	Thorax with dorsal row of more than 6 punctures	148.
119.	Head and thorax with fine scattered puncturation	[p. 84. *rotundicollis* Mén.,
	Head and thorax without such puncturation	120.
120.	Thorax reddish; head black or pitchy; elytra brown	121.
	Thorax black, sometimes with metallic reflex	122.
121.	Larger (5 mm.); elytra more densely punctured; abdomen less finely punctured and darker	[p. 141. *rubricollis* Motsch.,
	Smaller (4·5 mm.); elytra less densely punctured; abdomen more finely punctured and more reddish	*fuscatus* Kr., p. 141.
122.	Head, thorax, and elytra with strong metallic green reflex; antennæ yellowish-red. Small species	*excelsus*, sp. n., p. 147.
	Head and thorax not metallic	123.
123.	Elytra with metallic reflex	124.
	Elytra not metallic	135.
124.	Penultimate joints of antennæ longer than broad	125.
	Penultimate joints of antennæ not longer than broad	128.
125.	1st joint of antennæ black	*persimilis* Cam., p. 138.
	1st joint of antennæ yellow	126.
126.	Penultimate joints of antennæ much longer than broad, the last two yellow	*oculatus* Bernh., p. 143.
	Penultimate joints of antennæ not much longer than broad	127.
127.	Head suborbicular; antennæ with the first and last two joints reddish-yellow.	[p. 137. *siwalikensis* Cam.,
	Head narrow, oval; antennæ black	*acuminatus* Kr., p. 142.
128.	Head oval; penultimate joints of antennæ slightly transverse	129.
	Head subquadrate or suborbicular	130.

129. Larger (7 mm.) : legs pitchy ..... *asiaticus* Bernh., p. 143.
Smaller (6 mm.) ; femora yellow ..... *autumnalis*, sp. n., p. 145.
130. Elytra metallic blue ..... *himalayicus* Bernh., 131. [p. 144.
Elytra green or bronze-green .....
131. Femora and tarsi yellow; tibiæ infuscate; elytra greenish-black ..... *deceptor*, sp. n., p. 146. 132.
Legs pitchy .....
132. Elytra brilliant green ; abdomen at the sides more thickly pubescent than elsewhere ..... [p. 147.
Elytra less brilliant ; abdomen more uniformly pubescent ..... *humidulus*, sp. n., 133.
133. Abdomen subopaque, very finely and very closely punctured and pubescent..... *lapidicola*, sp. n., p. 145.
Abdomen shining, much less densely punctured and pubescent ..... 134.
134. Abdomen more closely punctured ; head larger, antennæ stouter ..... *parkeri*, sp. n., p. 146.
Abdomen more sparingly punctured ; head narrower, antennæ thinner ..... *gratellus*, sp. n., p. 146.
135. Penultimate joints of antennæ as long as or longer than broad ..... 136. 139.
Penultimate joints of antennæ transverse.
136. Penultimate joints of antennæ much longer than broad..... *rivularis*, sp. n., p. 138.
Penultimate joints of antennæ as long as or slightly longer than broad ..... 137. [p. 144.
137. Antennæ entirely black ; legs pitchy ; narrower species ..... *almorensis*, sp. n., 138.
Antennæ with base reddish-yellow ; legs reddish-yellow .....
138. Larger (8 mm.). Head oval oblong .... *turbidus* Er., p. 141.
Smaller (3·75 mm.). Head oblong ..... *nigrituloides*, sp. n., [p. 148.
139. Antennæ reddish, the intermediate joints infuscate ..... 140. 141.
Antennæ dark .....
140. Larger (9 mm.) and more robust ; head large, transverse, subquadrate ..... *atkinsoni*, sp. n., p. 136.
Smaller (5 mm.) ; head small, oval ..... *imitator* Fauv., p. 149. [p. 140.
141. Elytra more closely pubescent at the base.... ..... *basipilosus* Schub., 142.
Elytra uniformly pubescent .....
142. Legs entirely dark ; black species ..... *perniger* Bernh., p. 142.
Legs at least in part reddish-yellow..... 143.
143. Abdomen very finely and closely pubescent, subsericeous ..... 144.
Abdomen less closely pubescent, not subsericeous ..... 145.
144. Broader. Head subquadrate, 1st joint of antennæ pitchy ; elytra uniform reddish-brown ..... *christici* Bernh., p. 139.
Narrower. Head orbicular, 1st joint of antennæ yellow ; elytra brown, the apical margin narrowly yellow ..... *differens*, sp. n., p. 141.
145. 5th abdominal segment scarcely less punctured than the preceding, these very closely and finely punctured ..... *furtivus*, sp. n., p. 149.
5th abdominal segment distinctly less closely punctured than the preceding, these much less closely punctured .... 146.

146.	Elytra more strongly punctured, brown.	147.
	Elytra more finely and obsoletely punctured	148.
147.	1st joint of antennæ yellow; head narrow, oblong	*nigritulus*, Gr., p. 147.
	1st joint of antennæ pitchy: head broader, subquadrate	*fluviatilis*, sp. n., p. 140.
148.	Broader; elytra black	*vicinus*, sp. n., p. 149.
	Narrower; elytra pitchy-brown	*confusus*, sp. n., p. 148.
149.	Thorax with dorsal row of 7 punctures..	*leptocerus* Fauv., [p. 150.
	Thorax multipunctate, smooth along the middle	150.
150.	Abdomen black or pitchy above, sometimes strongly iridescent	151.
	Abdomen with the anterior segments red above; last two or three joints of antennæ yellow	153.
151.	Abdomen with the first three ventral segments red; last five joints of antennæ yellow	*leucotus* Er., p. 152.
	Abdomen concolorous; antennæ with the last one or two joints at most obscurely lighter	152.
152.	Larger (6–8 mm.); penultimate joints of antennæ distinctly longer than broad; abdomen strongly iridescent	*eustilbus* Kr., p. 150.
	Smaller (6·5 mm.); penultimate joints of antennæ distinctly transverse; abdomen scarcely iridescent	*paradoxus*, sp. n., p. 151.
153.	Red, only the last three segments of abdomen black; last three joints of antennæ yellow	[p. 153. *hesperiformis*, sp. n.,
	Otherwise coloured; last two joints of antennæ yellow	*amabilis* Kr., p. 152.

909. Philonthus bipunctatus.

Philonthus bipunctatus Bernh.*, Ent. Blätt. vii, 1911, p. 90.

Black, shining; the elytra obscure greenish-bronze, the abdomen slightly iridescent. Dorsal thoracic row of two (occasionally three) punctures. Antennæ and legs black. Length 10–12 mm.

Near *P. cinctulus*, but differs in the greenish, more finely and more closely punctured elytra, black antennæ and legs. Head transversely subquadrate, almost as wide as the thorax in both sexes, the eyes large, the temples short, with the posterior angles briefly rounded; median interocular punctures widely separated, the post-ocular region with a few punctures. Antennæ moderate, the 3rd joint longer than the 2nd, 4th and 5th about as long as broad, 6th to 10th moderately transverse. Thorax about as long as broad, slightly narrowed in front, with dorsal row of two punctures, the first just behind the anterior margin, occasionally with a third situated behind the middle, externally with four others. Elytra as long as the thorax, rather closely and

rather finely punctured, grey pubescent. Abdomen with straight basal lines, rather finely and not very closely punctured and pubescent.

♂: anterior tarsi dilated. 6th ventral segment with acute triangular excision.

Nepal: Chitlong. Simla. Dehra Dun. Berars: Chikalda.

910. **Philonthus pubipennis.**

Philonthus pubipennis Cam., E. M. M. lv, 1919, p. 253.

Black, shining; elytra pitchy, very obscurely greenish-bronze; thorax with dorsal row of two punctures situated before the middle; antennæ black, the legs pitchy. Length 12 mm.

Build of *P. cinctulus* Gr., but the thorax a little broader, the antennæ longer and entirely dark, the elytra more finely punctured and more obscurely coloured, the abdomen without iridescence and more finely punctured. Very near *bipunctatus*; the antennæ similar, the head similarly punctured but broader, the elytra less finely, more rugosely punctured, the pubescence longer and differently coloured; the abdomen more finely punctured on the 5th segment and the legs lighter. Head large, transversely subquadrate, as broad as the thorax, with the median interocular punctures widely separated, and seven or eight large punctures behind the eyes, which are large but not prominent. Antennæ with the 3rd joint a little longer than the 2nd, the 4th scarcely longer than broad, the 5th to the 10th as long as broad and not increasing in breadth. Thorax scarcely transverse, the sides nearly straight in front, a little narrowed and slightly sinuate posteriorly; disc with a row of two punctures † on either side, the hindmost situated well before the middle; the sides with three punctures, and near the anterior angles are two or three others. Scutellum pretty closely and asperately punctured. Elytra as long as and a little broader than the thorax, scarcely transverse, rather finely and fairly closely punctured, with a fine, rather close, brownish pubescence. Abdomen parallel, entirely black, scarcely iridescent, very finely and moderately closely punctured and pubescent throughout. Anterior tarsi dilated in ♂ (♀ unknown); the first joint of the posterior tarsi as long as the last.

♂: 6th ventral segment with rather deep, nearly semicircular excision.

Ceylon: Kitulgala, alt. 1700 feet (*G. Lewis*).

† There is also a very small puncture on the anterior margin itself, as in *bipunctatus*, but it is doubtful whether it should be included in the dorsal series.

911. **Philonthus notabilis.** (Plate I, fig. 8.)

Philonthus notabilis Kr., Arch. Naturg. xxv, 1859, i, p. 79.
Quedius taprobanus Cam., E. M. M. liv, 1918, p. 171.

Head and thorax black, shining; elytra less shining, pitchy-black, the suture broadly reddish, the apical and reflexed margins reddish-yellow; abdomen black, slightly iridescent, the posterior margin of the segments rufescent. Thorax with dorsal row of three punctures. Antennæ reddish. Legs reddish-yellow. Length 8·75 mm.

In the very large eyes and the sculpture of the elytra recalling *Quedius* subgen. *Quedionuchus*. Head narrower than the thorax, suborbicular, the eyes very large, the temples very small, dentiform; median interocular punctures widely separated, close to the lateral; post-ocular region with two or three punctures. Antennæ rather short, the 5th to 10th joints a little transverse. Thorax a little broader than long, slightly narrowed in front, with dorsal row of three punctures, the 3rd situated behind the middle, externally with one or two others. Scutellum finely, obsoletely punctured. Elytra as long as and a little broader than the thorax, with an extremely fine and close puncturation and two rows of larger superficial punctures, one along the suture and one near and parallel to the lateral margin, each of two or three punctures. Abdomen finely, rather sparingly punctured, and with fine yellowish pubescence. Anterior tarsi dilated in both sexes.

♂: anterior tarsi more dilated. Head a little larger. 5th and 6th ventral segments very feebly, broadly emarginate. Common throughout India and Ceylon. Also in the rest of the Oriental region, in dung.

912. **Philonthus quediiformis,** nom. n.

Quedius nilgiriensis Cam., E. M. M. lvi, 1920, p. 219.

Black, shining; thorax with dorsal row of two punctures, the first of them placed considerably behind the anterior margin, the marginal puncture absent; elytra with a row of four large punctures, the shoulders, suture, and apical margin reddish-testaceous. Antennæ stout, the 1st joint and the legs reddish-testaceous. Length 5·5 mm.

Head short, oval, a little longer than broad (measured from the constriction of the neck to the anterior border of the front); the eyes a little longer than the temples; impunctate except for the juxta-ocular punctures and one or two others on the temples. Labrum bilobed; palpi pitchy-testaceous. Antennæ with the 2nd and 3rd joints but little longer than broad, equal, the 4th as long as broad, the 5th to the 10th transverse, gradually increasing in breadth, the 11th scarcely as long as the two preceding together. Thorax longer than

broad, distinctly narrowed in front, the sides posteriorly often obscurely pitchy-brown ; disc with two widely separated punctures on either side, the posterior of them placed more externally a little behind the middle, the sides with two punctures, one of which is placed at the anterior angle. Scutellum very finely and very sparingly punctured. Elytra as long as and broader than the thorax, scarcely as long as broad, black, an elongate spot reaching from the shoulder along the side of the disc parallel to the lateral margin to about its middle (but sometimes extended, though more or less interrupted, to the postero-external angle), the suture and apical margin (very narrowly) reddish-testaceous ; sculpture consisting of four large punctures, the first at the shoulder, the fourth near the postero-external angle ; two others adjacent to the scutellum on either side, and another close to the suture about the middle, and an exceedingly fine, close, and superficial puncturation, almost glabrous. Abdomen black, scarcely iridescent, the posterior margins of the segments scarcely pitchy, finely and not very closely punctured and pubescent, more sparingly behind.

♂ : 6th ventral segment triangularly excised.

Nilgiri Hills (*H. L. Andrewes*).

913. **Philonthus cinctulus.**

Staphylinus cinctulus Gr., Col. Micr. Brunsv. 1802, p. 167; Er., Gen. Spec. Staph. 1839–40, p. 432 (*Philonthus*).
Ab. *andrewesi* Cam., E. M. M. lvi, 1920, p. 214.

Shining ; head and thorax black, with metallic reflex ; elytra greenish or coppery bronze ; abdomen black, iridescent. Thorax with dorsal row of three punctures. Antennæ ferruginous, the first four joints more or less infuscate. Legs yellowish-red. Length 11–12 mm.

Ab. *andrewesi* differs from the type form in the presence of an additional puncture in the dorsal thoracic row and the margins of the abdominal segments being narrowly but distinctly reddish.

Very similar in size and build to *P. chalceus*, but with the thorax distinctly narrower, the antennæ much longer, the coloration different, etc. Head in the ♂ large, transversely subquadrate, fully as broad as the thorax, in the ♀ smaller and less transverse ; eyes large, the post-ocular region much shorter than their length, the posterior angles rounded ; median interocular punctures widely separated, at the inner margin of the eye behind with two large umbilicate punctures, along the base with some others, the post-ocular region more finely and closely punctured ; ground-sculpture very fine. Antennæ nearly as long as the head and thorax, the 3rd joint a little longer than the 2nd, 4th and 5th about as long

as broad, the following slightly transverse. Thorax about as long as broad, widest about the middle, a little retracted in front and behind, on each side with a row of three punctures of which the 3rd is remote from the 2nd behind the middle, the interval between occasionally with one or two smaller punctures, externally with three others, and nearer the lateral margin with two more; ground-sculpture as on the head. Scutellum black, closely punctured. Elytra a little longer but scarcely broader than the thorax, closely and moderately finely punctured. Abdomen with straight basal lines, closely and rather finely punctured. Elytra and abdomen with rather close grey pubescence.

♂: anterior tarsi dilated. 6th ventral segment with acute triangular impression, the base of which is slightly and obtusely emarginate.

Widely distributed throughout India and Ceylon in cattle dung. Also in Annam.

914. **Philonthus industanus.**

Philonthus industanus Fauv., Rev. d'Ent. xxii, 1903, p. 158.

Near *P. cinctulus*, but with the mouth, antennæ, head and thorax black, the elytra green, scarcely coppery, the punctures behind the eyes stronger and more sparing, the thorax a little shorter, the posterior puncture of the dorsal row placed much further forwards near the middle; elytra more finely and a little more closely punctured; abdomen much less pubescent, the pubescence blackish and obviously more strongly and three times more sparingly punctured, the anterior ventral segments with a few punctures placed transversely across the middle. Length 10 mm.

♂: 7th [6th] ventral segment more broadly and more deeply excised. The sparing puncturation of the abdomen, especially below, readily distinguishes this species.

Coonoor. Kurseong. Sikkim. Paris Museum and my collection (ex *Fauvel*). In an example from Perak (determined by Fauvel) the basal line of the abdominal segments is straight.

915. **Philonthus donckieri.**

Philonthus donckieri Bernh., Ent. Blätt. 1915, p. 254.
Philonthus tripunctatus Cam., E. M. M. lv, 1919, p. 253.

Black, shining, with slight metallic reflex; the elytra brassy-bronze, the abdomen iridescent. Thorax with dorsal series of three or four punctures. Antennæ black. Legs black, the femora pitchy. Length 9·5–11 mm.

Very closely allied to *P. bipunctatus* Bernh., but differing in the following respects: the more strongly transverse penultimate joints of the antennæ, which are nearly twice

as broad as long; the rather broader thorax, the disc of which carries three or four rather small punctures, and the more finely and more densely punctured abdomen and less finely punctured elytra. Head transverse, subquadrate, as broad as the thorax in the ♂, a little narrower in the ♀, the median interocular punctures much further apart from one another than from the lateral ones; the eyes large, their diameter much greater than the length of the temples; post-ocular punctures three in number, and a single puncture on either side at the base. Antennæ black, the 1st joint pitchy beneath, the 2nd and 3rd joints of equal length, the 4th as long as broad, the 5th to the 10th transverse, gradually increasing in breadth, the penultimate nearly twice as broad as long, the 11th short. Thorax about as long as broad, the sides rounded in front, a little sinuated behind the middle; disc with a row of three or four rather small punctures—one on the anterior margin, the 2nd and 3rd separated by a space of the same length as that between the 1st and 2nd, the 3rd situated a little before the middle of the thorax; externally with two small obliquely placed punctures close together, and one or two near the anterior angles. Scutellum rather coarsely and closely punctured. Elytra as long as and a little broader than the thorax, transverse, shining, brassy, moderately finely and somewhat closely punctured, but not so finely as in *P. bipunctatus*; pubescence short and scanty. Abdomen parallel, black, iridescent, but less so than in *P. bipunctatus*, and more finely and closely punctured throughout than in that species, finely pubescent. Legs black, the femora dark pitchy, the first joint of the posterior tarsi as long as the last; anterior tarsi strongly dilated in ♂, slightly in ♀.

♂: 6th ventral segment with acute triangular emargination, the edges bevelled; 5th ventral segment with a small rounded emargination.

Madura Dist.: Shembaganur (*Donckier*). Siwaliks: Asarori (*Cameron*). Ceylon: Dikoya, alt. 3800–4200 feet (*G. Lewis*).

916. Philonthus poëphagus.

Philonthus poëphagus Cam., Ann. Mag. Nat. Hist. (10) ii, 1928, p. 562.

Shining, black; the thorax with a dorsal row of three punctures on each side, the elytra brilliant metallic magenta. Antennæ and legs black. Length 11 mm.

Scarcely differing from *P. chalceus* Steph. in build, except that the posterior angles of the head, though rounded, are more evident and the eyes are smaller; the antennæ are shorter, but similarly constructed. The thorax has on either side of the middle a series of three equidistant punctures,

the first of them on the anterior border, externally with a curved row of three or four more. Both the head and thorax have an extremely fine, scarcely perceptible puncturation, but no ground-sculpture. Scutellum finely and closely punctured, black. Elytra as long as the thorax, rather finely but much less closely punctured than in *chalceus*, with traces of two rows of larger punctures. Abdomen on the anterior segments with straight basal line, rather finely, moderately closely punctured, with black pubescence.

♂: anterior tarsi dilated. 6th ventral segment with a small triangular excision.

Tibet: Rongshar Valley, alt. 15,000 feet, 2. vii. 1924; Ling-ka, 14,000 feet. Kampa Dzong, 14,500 feet, 29. iv. 1924. In yak dung (*Hingston*). In the single example from the last place, the elytra are coppery with traces of purple reflex, their puncturation not so fine, and the rows of punctures scarcely visible.

917. Philonthus chalceus.

Philonthus chalceus Steph., Ill. Brit. Ent. v. 1832, p. 227; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 444.
Philonthus carbonarius Er., Käf. Mark Brand. i, 1837–39, p. 448; id., Gen. Spec. Staph. 1839–40, p. 437; Kraatz, Naturg. Ins. Deutsch. ii, 1856–58, p. 577; Muls. et Rey, Ann. Soc. Agric. Lyon, (4) viii, 1875, p. 373.
Philonthus nigritus Runde, Brach. Hal. 1835, p. 7.
Philonthus proximus Kr.*, Arch. Naturg. xxv, 1859, i, p. 80; Fauv., Faun. Gallo-Rhén. iii, 1872, p. 441.
Philonthus succicola Thoms., Skand. Col. ii, 1860, p. 157; Rye, Ent. Ann. 1864, p. 55.

Black, shining, with greenish metallic reflex on the fore-parts, especially on the elytra. Thorax with dorsal row of four large punctures. Abdomen with straight basal lines. Antennæ and legs black, the last joint of the former sometimes reddish. Length 11–12 mm.

A large robust species. Head large, strongly transverse, in the ♂ broader, in the ♀ a little narrower than the thorax; eyes rather large but shorter than the post-ocular region; median interocular punctures widely separated, before the base with four punctures, behind and internal to the eye with two others placed obliquely, the post-ocular region with a few small punctures. Antennæ rather short, the 3rd joint a little longer than the 2nd, 4th and 5th slightly longer than broad, the 6th to 10th transverse, gradually increasing in width. Thorax transverse, widest about the middle, from thence slightly and equally narrowed in front and behind, at each side with a slight oblique impression; dorsal row composed of four large punctures, externally with three others. Scutellum very finely and closely punctured. Elytra a little

longer and broader than the thorax, closely, moderately finely punctured. Abdomen with straight basal lines, closely and finely punctured, more sparingly behind. Anterior tarsi strongly dilated in the ♂, less strongly in the ♀. First joint of posterior tarsi longer than the last.

♂: 6th ventral segment acutely excised, the edges bevelled.

Simla Hills. Widely distributed in Europe and Siberia. In dung.

918. Philonthus carbonarius.

Staphylinus carbonarius Gyll., Ins. Suec. ii, 1810, p. 319; Thoms., Skand. Col. ii, 1860, p. 157; ix, 1867, p. 146; x, 1869, p. 315; Rye, Ent. Ann. 1869, p. 29; Fauv., Faun. Gallo-Rhén. iii, 1872, p. 443; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 445 (*Philonthus*).
Philonthus punctiventris Janson, Ent. Ann. 1862, p. 82.
Philonthus tenuicornis Muls. et Rey, Opusc. Ent. ii, 1853, p. 71; Scriba, Berl. Ent. Zeitschr. x, 1866, p. 293; Muls. et Rey, Ann. Soc. Agric. Lyon, (4) viii, 1875, p. 381.

Closely allied to *P. chalceus*, very similar in colour, but with the legs usually more pitchy. The head is smaller, less transverse, narrower than the thorax in both sexes, and with the post-ocular region more punctured, the antennæ longer and thinner, the penultimate joints not or scarcely transverse, the abdomen less closely punctured, the anterior tarsi scarcely dilated in the ♂. Length 9–10 mm.

♂: 6th ventral segment obtusely excised, the edges bevelled.

Sikkim: Darjeeling. Also in North and Middle Europe.

919. Philonthus azuripennis.

Philonthus azuripennis Cam., Ann. Mag. Nat. Hist. (10) ii, 1928, p. 563.

Shining, head and thorax bright bronze-green, the latter with a dorsal series of four punctures on either side; elytra blue or greenish-blue; abdomen black. Antennæ, palpi, and legs black. Length 9 mm.

In build scarcely differing from *P. chalceus* Steph., but the head not quite so broad, the colour different, the antennæ longer, the basal line on the anterior abdominal segments straight, and the ♂ characters different.

♂: head transverse, subquadrate, the posterior angles rather broadly rounded, not quite so broad as the thorax, the front with feeble median impression, and the usual four interocular punctures; post-ocular region rather more closely punctured than in *chalceus*, the ground-sculpture similar. Antennæ reaching the base of the elytra, the penultimate joints fully as long as broad. Thorax as in *chalceus*. Scutellum black, more sparingly punctured than in *chalceus*. Elytra as long as the thorax, closely and rather finely punctured. Abdomen rather closely punctured, pubescence black, 5th

ventral segment with a small crescentric emargination; 6th with acute triangular impression and deep, acute, triangular excision. Anterior tarsi strongly dilated.

♀: unknown.

Sikkim: Tangu, 14,000 feet (27. iv. 1924); Dentang, 15,000 feet (27. iv. 1924). Tibet: Gantsa, alt. 13,000 feet (5. iv. 1924); Jelap La, 12,000 feet (1. iv. 1924).

920. Philonthus proximatus.

Philonthus proximatus Schub., D. E. Z. 1908, p. 616.

Shining, bronze-black, the elytra brassy bronze; abdomen moderately iridescent. Antennæ, palpi, and legs black. Thorax with dorsal row of four punctures. Length 11 mm.

Near *P. chalceus*, but with narrower head, longer, thinner antennæ, more brassy elytra, more strongly and less closely punctured abdomen. Head in ♂ strongly transverse, as broad as the thorax, the post-ocular region rounded to the neck, about as long as the eye; median interocular punctures widely separated; post-ocular region with a few large punctures; in ♀ head less transverse, smaller, narrower than the thorax. Antennæ slender, the 4th to 7th joints longer than broad, gradually decreasing in length, the 8th to 10th fully as long as broad. Thorax scarcely transverse, the sides almost straight and parallel, with dorsal row of four punctures and three externally placed triangularly. Scutellum closely punctured. Elytra a little longer and broader than the thorax, closely, moderately finely punctured. Abdomen with straight basal lines, moderately finely and moderately closely punctured in front, more sparingly behind. Anterior tarsi dilated in both sexes, more strongly in the ♂. First joint of the posterior tarsi longer than the last.

♂: 6th ventral segment with rather broad but acute triangular excision, the edges broadly membranous.

Kulu. Chakrata and Mussoorie districts, alt. 6000–8000 feet. In dung.

921. Philonthus tractatus.

Philonthus tractatus Epp.*, W. E. Z. xiv, 1895, p. 61.
Philonthus cupreipennis Cam., Trans. Ent. Soc. Lond. 1926, p. 350.

Black, shining. Elytra shining, brassy or copper-bronze. Abdomen iridescent. Thorax on either side with dorsal row of four punctures. Antennæ black, long and slender, the penultimate joints distinctly longer than broad. Legs black. Length 12–14 mm.

Near *P. proximatus* Schub., but the head and thorax without metallic reflex, the antennæ distinctly longer and more slender,

and the elytra more brilliant and more finely punctured. Head (♂ and ♀) transverse, suborbicular, narrower than thorax, smaller in the ♀, the temples shorter than the eyes, median interocular punctures much nearer the lateral than each other, the disc posteriorly on either side with a row of three large punctures (the first of them juxta-ocular) and four others behind the eye. Antennæ with the 3rd joint distinctly longer than 2nd, 4th to 10th all distinctly longer than broad, 11th long, oval, longer than 10th. Thorax about as long as broad, slightly narrowed in front, feebly sinuate before the obtuse posterior angles; disc with four rather large punctures on either side, equidistant from each other, externally with three others and two more near the anterior angles. Scutellum black, closely, finely punctured. Elytra as long as and a little broader than thorax, finely and rather closely punctured. Abdomen moderately finely and moderately closely punctured throughout, finely pubescent, the transverse line at the bases of the anterior segments not angled.

♂: anterior tarsi strongly dilated. 6th ventral segment rather broadly triangularly emarginate, the edges broadly bevelled.

Simla. West Almora: Dhauli Ganga, alt. 9520 feet, in *Polyporus* (*R. N. Parker*). Tibet: Rongshar Valley, alt. 11,000 feet (*Hingston*).

922. **Philonthus æger.**

Philonthus æger Epp., W. E. Z. xiv, 1895, p. 59.

Shining; the fore-parts greenish-blue or bluish-green, scutellum and abdomen black. Thorax with dorsal row of four punctures. Antennæ and legs black. Length 11–15 mm.

♂ resembling in build *P. chalceus* Steph., ♀ more like *atratus* Gr., but quite different in other respects. Head in ♂ large, strongly transverse, suborbicular, as broad as the thorax, in ♀ smaller, much less transverse, narrower than the thorax; eyes about as long as the post-ocular region; median interocular punctures widely separated, the post-ocular region with some large punctures. Antennæ slender, the 4th to 7th joints a little longer than broad, gradually decreasing in length, the following about as long as broad. Thorax transverse, the sides almost straight, scarcely more retracted in front than behind; dorsal row of four large punctures, externally with three others triangularly placed. Scutellum closely punctured. Elytra a little longer and broader than the thorax, rather closely and moderately coarsely punctured. Abdomen with straight basal lines, moderately finely and rather closely punctured in front, more sparingly behind.

First joint of posterior tarsi about as long as the last. Anterior tarsi simple in both sexes.

♂: 6th ventral segment with small, shallow, arcuate emargination with bevelled edge.

Simla and Chakrata districts, alt. 6000–8000 feet. In dung.

923. Philonthus rotundicollis.

Philonthus rotundicollis Ménét., Cat. rais. 1832, p. 145; Fauv., Faun. Gallo-Rhén. iii, 1872, p. 456; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 446.
Philonthus duplopunctatus Motsch., Bull. Mosc. xxxiii, 1860, ii, p. 567; Hochh., Bull. Mosc. xxxv, 1862, iii, p. 53.
Philonthus scutatus Er., Gen. Spec. Staph. 1839–40, p. 438; Kraatz, Naturg. Ins. Deutsch. 1856–58, ii, p. 580; Thoms., Skand. Col. ii, 1860, p. 156; ix, 1867, p. 146; Muls. et Rey, Ann. Soc. Agric. Lyon, (4) viii, 1875, p. 389.
Philonthus sinuatocollis Motsch., Schrenck's Reise, 1860, p 121, t. 8, fig. 6.
Philonthus sinuatocollis Motsch., var. *formaneki* Roub., Act. Soc. Ent. Boh. viii, 1911, p. 6.
Ab. *incompletus* Roub., l. c. p. 7.

Shining, bronze-black, with slight greenish reflex on the foreparts. Head and thorax very finely and rather closely punctured all over, the latter with dorsal row of four to six punctures. Antennæ black. Legs brownish or blackish, the tarsi lighter. Length 8–11 mm.

Build of the European *P. laminatus* Creutz., but smaller, with less distinct metallic reflex, thinner antennæ, etc. Head suborbicular, narrower than the thorax, the eye about as long as the post-ocular region, which is rather closely punctured; median interocular punctures nearer the lateral than to each other, behind and internal to the eye with three large punctures placed obliquely, the whole surface with fine and usually rather close puncturation. Antennæ rather slender, the penultimate joints scarcely transverse. Thorax slightly transverse, widest about the middle, the sides almost straight and more retracted in front than behind; dorsal row or four to six punctures, externally with four others, besides the one near the anterior angle and the usual marginal ones, the whole surface finely punctured, like the head. Elytra distinctly longer and a little broader than the thorax, moderately finely and rather closely punctured and pubescent. Abdomen with straight basal lines, moderately finely and closely punctured and pubescent throughout. Anterior tarsi slightly dilated in both sexes.

♂: 4th ventral segment produced behind in the middle into a plate underlying the 5th; 6th rather deeply emarginate. The ground-puncturation of the head and thorax varies considerably in distinctness.

Pamirs: Yarkand. Widely distributed in the Palæarctic region.

924. Philonthus birmanus.

Philonthus birmanus Fauv.*, Rev. d'Ent. xiv, 1895, p. 261.

Black, shining; abdomen slightly iridescent. Thorax with dorsal row of four rather large punctures. Abdomen finely and closely punctured. Antennæ black. Legs black, femora pitchy. Length 10·5 mm.

Somewhat resembling the European *P. atratus* Gr., but the head larger, less punctured behind, antennæ a little thicker, thorax longer and parallel-sided, elytra and abdomen more closely punctured. Head slightly transverse, suborbicular, as broad as the thorax, the eyes rather large, but shorter than the post-ocular region; median interocular punctures widely separated, before the base with four large punctures and behind and internal to the eye with another, the post-ocular region with a few very fine punctures. Antennæ with the 3rd joint longer than the 2nd, the 4th to 10th gradually decreasing in length, the penultimate about as long as broad. Thorax longer than broad, the sides straight and parallel, with dorsal row of four rather large punctures, externally with two others. Scutellum finely punctured except at the base and apex. Elytra a little longer and broader than the thorax, rather closely and moderately finely punctured. Abdomen with the basal lines of the segments angulate in the middle, finely and rather closely punctured, more sparingly behind. Anterior tarsi dilated in both sexes. First joint of posterior tarsi longer than the last.

♂: 6th ventral segment with semi-oval excision, its margins bevelled.

Burma: Carin Cheba, alt. 900–1100 metres (*Fea*). Assam: Naga Hills, Laimatak (*S. N. Chatterjee*). United Provinces: Mussoorie district, alt. 6000–7000 feet (*Cameron*). The species is found in damp places near streams.

925. Philonthus concolor.

Philonthus concolor Kr.*, Arch. Naturg. xxv, 1859, i, p. 80.

Black, shining, the elytra with slight bronze reflex. Thorax with dorsal row of four fine punctures. Antennæ black, the last joint reddish. Legs blackish. Length 9 mm.

Near the European *P. atratus* Gr., but more depressed, the elytra longer, more sparingly punctured, the abdomen with straight basal lines and much more finely and sparingly punctured. Head nearly suborbicular, a little narrower than the thorax, the eyes small, the post-ocular region long, rounded with the base, median interocular punctures nearer the lateral than to each other, at the sides behind the eyes

with a few punctures; ground-sculpture distinct. Antennæ with the 3rd joint scarcely longer than the 2nd, the 6th to 10th moderately transverse. Thorax a little longer than broad, widest about the middle, from thence slightly narrowed in front and behind, the angles rounded; dorsal row consisting of four fine punctures and about five others externally and a group of four more behind the anterior angle; ground-sculpture as on the head. Scutellum finely punctured, finely transversely striate. Elytra a little longer and broader than the thorax, moderately finely, not very closely punctured. Abdomen narrowed behind, the segmental lines not angulate, finely and sparingly punctured. First joint of the posterior tarsi not longer than the last.

♂: unknown.

Ceylon. Unique.

226. **Philonthus cyanelytrius.** (Plate I, fig. 9.)

Philonthus cyanelytrius Kr., Arch. Naturg. xxv, 1859, i, p. 80.

Shining; head and thorax blue-black, elytra brilliant blue, abdomen black, slightly iridescent. Thorax with dorsal row of four punctures. Antennæ and legs black. Length 13 mm.

Near the Palæarctic *P. cyanipennis* F., but differently coloured, the thorax narrower and with straighter sides, the elytra less finely and less closely punctured, the abdomen more sparingly and less finely punctured. Head in the ♂ large, transversely suborbicular, as broad as the thorax, in the ♀ smaller, less transverse, scarcely as broad as the thorax; eyes large; rather longer than the post-ocular region; median interocular punctures distant, at the sides behind the eyes with some large umbilicate punctures; ground-sculpture very fine, transverse. Antennæ elongate in the ♂, with the penultimate joints a little longer than broad, in the ♀ as long as broad. Thorax about as long as broad, the sides almost straight and parallel, with dorsal row of four rather large punctures, three others externally placed triangularly and one near the anterior angles. Scutellum black, closely punctured. Elytra about as long and as broad as the thorax, moderately finely and rather closely punctured. Abdomen moderately finely punctured, more closely at the bases of the segments. 1st joint of the posterior tarsi shorter than the last.

♂: anterior tarsi simple. 6th ventral segment acutely triangularly excised, the edges of the excision bevelled; 5th broadly and feebly emarginate.

Simla Hills, alt. 7000–8000 feet.

927. Philonthus distincticornis, sp. n.

In size, build, colour, and antennal structure scarcely differing from *cyanelytrius* ♀, but the last four joints of the antennæ are pale yellow (the extreme apex of the 11th infuscate) and the elytra are more closely and rugosely punctured.

♂ : unknown.

Sikkim : Tonglo (*Stevens*).

928. **Philonthus peliomerus.**

Philonthus peliomerus Kr.*, Arch. Naturg. xxv, 1859, i, p. 82.
Philonthus flaviterminatus Woll.*, Col. Sanct. Helen. 1877, p. 26.

Black, shining : elytra greenish-bronze. Thorax with dorsal row of four punctures. Antennæ black, the last two joints bright yellowish-red. Femora yellow, tibiæ and tarsi infuscate. Length 7–7·5 mm.

Head suborbicular, larger and more transverse in the ♂, a little wider than the thorax, in the ♀ smaller, less transverse, about as wide as the thorax ; eyes large, as long as the post-ocular region in the ♂, a little longer in the ♀ ; median inter-ocular punctures widely separated, post-ocular region with a few punctures. Antennæ long, all the joints longer than broad. Mandibles prominent. Thorax a little longer than broad, the sides parallel, scarcely emarginate behind, the dorsal row consisting of four moderate punctures, externally with two or three others besides the usual marginal punctures. Scutellum finely and closely punctured. Elytra about as long as but broader than the thorax, rather closely and rather finely punctured. Abdomen closely and rather coarsely punctured at the base of the first three segments, elsewhere very finely and sparingly. Elytra and abdomen with fine greyish pubescence. First joint of posterior tarsi a little shorter than the last.

♂ : anterior tarsi dilated. 6th ventral segment with rather broad and deep acute excision, with bevelled edges ; 5th with the posterior margin broadly and very slightly emarginate, and at about the middle of the segment with a small transverse patch of fine, closely placed setæ.

Ceylon. Nilgiri Hills. Siwaliks. Mussoorie. Assam : Naga Hills. Also in Java, Seychelles, and St. Helena. It frequents rotting fruit.

929. **Philonthus bengalensis.**

Philonthus bengalensis Bernh.*, Ent. Blätt. 1911, p. 91.

Shining, black ; the elytra bronze-green, thorax with dorsal row of four punctures. Antennæ with the 1st joint yellow,

occasionally infuscate above, the 10th and 11th orange-yellow (but very variable). Legs (except the coxæ) reddish-yellow, the tibiæ and tarsi scarcely infuscate. Length 6·5–7·5 mm.

Near *P. peliomerus*, but the head more orbicular, more rounded behind, about as broad as the thorax (in both sexes), antennæ a little shorter, thorax broader and shorter, elytra a little shorter, abdomen more closely punctured, tibiæ and tarsi scarcely infuscate. Typically the 10th and 11th antennal joints are orange-yellow, frequently, however, only the 11th; examples also occur in which one or both of these joints are orange on one antenna and black on the other, or black on both. First joint of the posterior tarsi shorter than the last.

♂: anterior tarsi a little dilated. 6th ventral segment with acute triangular excision which is entirely filled in with membrane; 5th very slightly and broadly emarginate.

Bengal: Parasnath. Madras: Nilambur. Nilgiri Hills. Sikkim. Mussoorie and Dehra Dun. At the margins of streams.

930. **Philonthus maindroni.**

Philonthus maindroni Fauv., Rev. d'Ent. xxii, 1903, p. 158.
Philonthus annandalei Cam., Rec. Ind. Mus. xxvi, 1924, p. 118.

Black, shining; the elytra bronze-green. Thorax with dorsal row of four punctures. Antennæ black. Femora yellow, the extreme apex and the coxæ, tibiæ, and tarsi blackish. Length 6·5–8 mm.

Near *P. bengalensis*, but differs from it in the entirely black antennæ and darker legs. Head in the ♂ transversely sub-orbicular, slightly broader than the thorax, in the ♀ smaller, subquadrate, slightly transverse, as broad as the thorax; eyes large; median interocular punctures widely separated, the post-ocular region with a few punctures. Antennæ with all the joints longer than broad. Thorax rather narrow, parallel, a little longer than broad, with dorsal row of four punctures and three others externally. Scutellum finely and closely punctured. Elytra a little longer and broader than the thorax, finely and rather closely punctured, finely pubescent. Abdomen closely and moderately coarsely punctured at the base of the first three segments, much more finely and sparingly elsewhere. First joint of the posterior tarsi a little shorter than the last.

♂: anterior tarsi slightly dilated. 6th ventral segment of the abdomen with acute triangular excision, the apex rounded, the edges narrowly bevelled.

Nilgiri Hills: Coonoor (type). Assam: Garo Hills (Siju Cave). Dehra Dun. Mussoorie and Chakrata districts.

931. Philonthus kempi.

Philonthus kempi Cam., Rec. Ind. Mus. xxvi, 1924, p. 118.

Black, shining; the elytra shining bronze-black. Antennæ, tibiæ, and tarsi black, femora brown. Thorax with dorsal row of four moderate punctures. Length 7·5–8·5 mm.

In build and antennal structure very similar to *P. maindroni*, and allied thereto. Head large, subquadrate, as broad as the thorax (♂ and ♀), the median interocular punctures well separated; antennæ rather slender, the 2nd joint shorter than the 3rd, 3rd to 11th all longer than broad, gradually decreasing in length, the penultimate only slightly longer than broad, the 11th a little longer than the 10th; mandibles prominent, the apices reddish; maxillary palpi brown. Thorax longer than broad, viewed from above parallel-sided, the disc with four moderate punctures on either side, three externally and two or three behind the anterior angles. Elytra as long as but broader than the thorax, scarcely broader than long, finely and rather closely punctured, finely pubescent. Scutellum black, very finely and densely punctured. Abdomen finely and closely punctured at the bases of the first three segments, much more finely and sparingly elsewhere, especially posteriorly; basal lines not angulate.

♂: anterior tarsi dilated. 6th ventral segment with a small arcuate emargination, the edges narrowly bevelled.

Assam: Garo Hills (Siju Cave). Mussoorie district. Type in the Indian Museum, co-type in my collection.

932. Philonthus congruens, sp. n.

Shining, black; the elytra greenish-bronze, thorax with dorsal row of four punctures. Antennæ black. Femora yellow, the extreme apex, tibiæ, and tarsi black. Length 8·5 mm.

Near *peliomerus*, but larger and more robust, the head in ♂ yet larger and more strongly transverse, suborbicular, broader than the thorax, longer, entirely black antennæ, broader thorax, rather more finely punctured elytra, and darker tibiæ and tarsi.

The ♂ characters are similar to those of *peliomerus*, except that the 5th ventral segment is not furnished with a patch of thicker pubescence.

♀: unknown.

Mussoorie district: Arni Gad. On the stream margins.

933. Philonthus punctifrons.

Philonthus punctifrons Cam., Trans. Ent. Soc. Lond. 1926, p. 352.

Black, shining, subdepressed; elytra green-bronze. Head closely and rather finely punctured across the front, the disc

with a curved row of eight large punctures between the eyes. Thorax with dorsal row of four punctures on either side. Antennæ black; femora brown, tibiæ and tarsi pitchy. Length 7 mm.

About the size and build of *P. cephalotes* Gr., but more depressed, with quite differently punctured head, the antennæ rather more slender, the scutellum coarsely punctured, the abdomen a little more closely punctured. Head subquadrate, depressed, about as broad as long, a little broader than the thorax, post-ocular region rounded with the base, much longer than the eye, moderately finely and moderately closely punctured, the front behind the impunctate anterior border closely and rather finely punctured, between the eyes with a semicircular backwardly curved row of eight rather large punctures, between these and the punctured front impunctate, the median interocular punctures distant from each other. Antennæ with the 3rd joint longer than 2nd, 4th to 6th slightly longer than broad, 7th to 10th as long as broad. Thorax subdepressed, longer than broad, narrowed behind and distinctly sinuate when viewed from the side, anterior and posterior angles rounded, the disc on either side with four rather large punctures, the 3rd and 4th a little further apart than the 2nd and 3rd, externally with two or three others, and behind the anterior angles with two or three more. Scutellum coarsely and closely punctured. Elytra broader than but scarcely as long as the thorax, about as long as broad, rather finely and rather closely punctured and finely pubescent. Abdomen finely and closely punctured and finely pubescent, a little more sparingly behind. First joint of posterior tarsi shorter than the last.

♂: 6th ventral segment with a small triangular excision, with broadly bevelled margin. Anterior tarsi simple.

Mussoorie district: Keyarkuli. Chakrata district: Chulli Khud, alt. 8000 feet. In stream debris.

934. **Philonthus puncticeps.**

Philonthus puncticeps Cam., Trans. Ent. Soc. Lond. 1926, p. 352.

Black, shining, subdepressed; elytra green-bronze. Head rather closely, finely, irregularly punctured, without conspicuous curved row of large punctures. Thorax with dorsal row of four punctures on either side. Antennæ black. Femora brown, tibiæ and tarsi pitchy. Length 7 mm.

Very similar to *punctifrons*, but of rather narrower build, the head similarly punctured across the front, but the base, post-ocular region, and sides of the disc moderately finely and moderately closely punctured, with on either side two or three larger punctures, the median impunctate area smaller than

in the preceding species. The scutellum and elytra are more finely punctured, the abdomen is slightly iridescent, more finely and closely punctured. First joint of posterior tarsi shorter than the last.

♂: unknown.

Simla Hills: Gahan, alt. 7000 feet.

935. **Philonthus riparius.**

Philonthus riparius Cam., Trans. Ent. Soc. Lond. 1926, p. 351.

Black, shining, elytra green-bronze; head suborbicular, median interocular punctures widely separated; thorax with dorsal row of four punctures. Antennæ, palpi, and legs black. Length 7·5–8·5 mm.

Very similar in build to *P. cephalotes* Grav., but the head is a little smaller, the antennæ distinctly longer, the puncturation of the elytra finer, that of the abdomen much more sparing. Head suborbicular (in the ♂ larger), a little broader than long, slightly wider infront of the eyes than behind, scarcely narrower than the thorax in the ♂, a little narrower in the ♀, the posterior angles rounded, the temples a little shorter than the diameter of the eyes, the inner interocular puncture much nearer the outer than to its fellow, temples finely and closely punctured, between the base and the eye with four or five punctures. Antennæ rather long, the 3rd joint a little longer than 2nd, 4th to 10th distinctly longer than broad, gradually decreasing in length, 11th as long as 10th. Thorax slightly longer than broad, very feebly narrowed in front, the sides nearly parallel, the disc on either side with four rather large punctures, the three posterior equidistant, externally with four others. Scutellum black, finely and closely punctured. Elytra broader than but as long as the thorax, as long as broad, moderately finely and moderately closely punctured, finely pubescent. Abdomen moderately finely closely punctured at the bases of the first three segments, much more finely and more sparingly elsewhere, finely and rather sparingly pubescent. First joint of posterior tarsi shorter than the last.

♂: head broader; anterior tarsi slightly dilated. 6th ventral segment with a small triangular excision, the margins impressed.

Mussoorie district: Mossy Falls; Kolhu Khet. Chakrata district: Mohna; Binal Gadh; Manjgaon; Chulli Khud. Simla Hills; Kotgarh; Gahan, alt. 5500–8000 feet. In stream shingle.

936. **Philonthus tamulus**, sp. n.

Shining, black. Thorax with dorsal row of four punctures; elytra finely and sparingly punctured. Abdomen with the

basal lines obtusely angulate. Antennæ black, the 1st joint and base of the 2nd yellow, the 11th rufescent. Legs pitchy-brown, the tibiæ darker. Length 7 mm.

Somewhat similar to *P. cephalotes* Gr., but with shorter, broader head, much larger eyes, shorter, stouter antennæ, much more finely and much more sparingly punctured elytra, etc. ♂: head large, short, transverse, distinctly broader than the thorax, the eyes large and a little prominent, fully as long as the post-ocular region, which is broadly rounded to the neck; median interocular punctures a little further from each other than from the lateral; within and behind the eye with two punctures placed obliquely, and more internally with two others similarly arranged, along the base with four punctures; ground-sculpture entirely absent. Antennæ with the 3rd joint a little longer than the 2nd, 4th and 5th slightly longer than broad, 6th square, 7th to 10th transverse. Thorax a little longer than broad, the sides straight and a little retracted behind; dorsal row of four moderate punctures and two others externally; ground-sculpture absent. Scutellum extremely finely and rather sparingly punctured. Elytra a little longer and broader than the thorax, finely and sparingly punctured, and with several long black setæ. Abdomen with basal lines obtusely angulate, finely and sparingly punctured and pubescent. Anterior tarsi dilated. First joint of posterior tarsi a little longer than the last.

♂: 6th ventral segment with arcuate emargination, the edge bevelled.

♀: unknown.

Nilgiri Hills (*H. L. Andrewes*).

937. **Philonthus fimetarius.**

Staphylinus fimetarius Gr., Col. Micr. Brunsv. 1802, p. 210; Er., Käf. Mark Brand. 1837–39, p. 460 (*Philonthus*); id., Gen. Spec. Staph. 1839–40, p. 456; Kraatz, Naturg. Ins. Deutsch. ii, 1856–58, p. 592; Thoms., Skand. Col. ii, 1860, p. 159; ix, 1867, p. 148; Fauv., Faun. Gallo-Rhén. iii, 1872, p. 466; Muls. et Rey, Ann. Soc. Agric. Lyon, (4) viii, 1875, p. 430; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 450.

Philonthus interpunctatus Motsch., Bull. Mosc. xxxiii, 1860, ii, p. 566; xxxv, 1862, iii, p. 57.

Philonthus longulus Motsch., Bull. Mosc. xxxi, 1858, ii, p. 662.

Staphylinus rigidicornis Gr., Col. Micr. Brunsv. 1802, p. 23.

Philonthus stenoderus Reiche, Ann. Soc. Ent. Fr. (4) i, 1861, p. 204.

Philonthus xanthomerus Kr., Arch. Naturg. xxv, 1859, i, p. 83.

Shining, black; the elytra with greenish metallic reflex, often brownish towards the suture; thorax with dorsal row of four punctures; abdomen slightly iridescent, the posterior margin of the segments sometimes narrowly and obscurely reddish. Antennæ black. Legs brownish-yellow, the tibiæ sometimes infuscate. Length 5·5–6·5 mm.

Head suborbicular, as broad as the thorax in the ♂, a little narrower in the ♀. Eyes rather small, much shorter than the nearly impunctate post-ocular region, the front often with a median impression; median and lateral interocular punctures close together, at the base and the sides with a few large punctures. Antennæ rather slender, the penultimate joints about as long as broad. Thorax a little longer than broad, the sides straight, slightly retracted in front; dorsal row of four rather large punctures, externally with three others, besides the usual marginal punctures. Elytra longer and a little broader than the thorax, moderately finely and rather closely punctured, finely pubescent. Abdomen finely and not very closely punctured, more sparingly behind, finely pubescent. Anterior tarsi simple in both sexes; first joint of the posterior tarsi scarcely as long as the last.

♂: 6th ventral segment very slightly arcuately emarginate.

Northern India. Widely distributed in Europe. In dung.

938. Philonthus sordidus.

Staphylinus sordidus Gr., Col. Micr. Brunsv. 1802, p. 176; Er., Käf. Mark Brand. i, 1837–39, p. 459 (*Philonthus*); id., Gen. Spec. Staph. 1839–40, p. 456; Kr., Naturg. Ins. Deutsch. ii, 1856–58, p. 591; Thoms., Skand. Col. ii, 1860, p. 159; Fauv., Faun. Gallo-Rhén. iii, 1872, p. 448; Ann. Mus. Civ. Gen. xiii. 1878, p. 82; Muls. et Rey, Ann. Soc. Agric. Lyon, (4) viii, 1875, p. 434; Horn, Trans. Amer. Ent. Soc. xi, 1884, p. 209; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 451.
Philonthus chilensis Solier in Gay, Hist. Chile, iv, 1849, p. 315.
Philonthus chloropterus Solier, l. c. p. 319.
Philonthus impressifrons Broun., Man. New Zeal. Col. i, 1880, p. 110.
Philonthus longipennis Provancher, Pet. Fn. Ent. Canada, p. 730.
Philonthus pachycephalus Nordm., Symb. 1837, p. 82 (♂).
Philonthus placidus Er., Gen. Spec. Staph. 1839–40, p. 458 (part.).
Philonthus sparsus Lucas, Expl. Algier., Zool. ii, 1849, p. 112, tab. 12, fig. 4.
Philonthus brouni Duviv., Cat. Staph. 1883, p. 145.
Philonthus sordidus Gr., var. *coloripennis*, Bernh., Ent. Blätt. vi, 1910, p. 257.

Black, shining; the elytra with greenish-bronze or sometimes brassy reflex: thorax with dorsal row of four punctures. Antennæ and legs black, femora and tarsi sometimes pitchy. Length 5–6 mm.

Very near *P. fimetarius* Gr., but with the penultimate joints of the antennæ distinctly transverse, the legs usually darker, and the elytra much more coarsely and sparingly punctured. Head suborbicular, in the ♂ as broad as, in the ♀ narrower than the thorax, the post-ocular region longer than the eye, the median interocular punctures a little nearer to the lateral ones than to each other, behind and internal to each eye with three others placed obliquely. Antennæ with the 3rd joint a little longer than the 2nd, 4th and 5th a little

longer than broad, the 6th to 10th transverse. Thorax a little longer than broad, the sides parallel, the dorsal row consisting of four punctures and externally with two or three others. Both the head and thorax are without ground-sculpture. Elytra a little longer and broader than the thorax, coarsely and rather sparingly punctured. Abdomen finely and moderately closely punctured. Anterior tarsi simple in both sexes. Posterior tarsi with the first joint as long as the last.

♂: 6th ventral segment triangularly excised, the apex rounded.

Northern India: Chakrata district, alt. 3500–9300 feet. Widely distributed throughout Europe and America, also in New Zealand and Australia. Chiefly found in dung.

939. **Philonthus kashmiricus**, sp. n.

Very near *sordidus*, and only differing in the shorter antennæ, the 2nd and 3rd joints of equal length, the 4th and 5th about as long as broad, the penultimate more transverse, the thorax and the head showing a fine, wavy, more or less transverse ground-sculpture which is not found in *sordidus*, the elytra a little more closely punctured, Anterior tarsi simple in the ♀. ♂ unknown. Length 6·75 mm.

Kashmir: Sindh Valley, Haran Plantation (*Beeson*).

940. **Philonthus lidarensis**, sp. n.

Near *sordidus*, of similar colour, but the antennæ longer and stouter, the thorax shorter and broader, the punctures of the dorsal row larger, ground-sculpture of the head and thorax distinct, elytra more finely and more closely punctured. First joint of the posterior tarsi shorter than the last.

♂: anterior tarsi dilated. 6th ventral segment with acute triangular excision, the apex rounded, the edges bevelled.

♀: unknown.

Kashmir: Lidar Valley, Liderwat, alt. 9000 feet (*B. M. Bhatia*).

941. **Philonthus semiænescens.**

Philonthus semiænescens Bernh., Arch. Naturg. lxxxiv, A, 1918, p. 182.

Shining; head, thorax, and elytra bronze-green, scutellum and abdomen black. Thorax with dorsal row of four large punctures. Antennæ and palpi black. Femora yellowish-brown, tibiæ and tarsi black. Length 7 mm.

Near *P. sordidus* Gr., but at once distinguished by the strongly metallic fore-parts, longer and more strongly punctured thorax, more closely punctured elytra, and much more

sparingly punctured abdomen. Head suborbicular, as wide as the thorax, the post-ocular region longer than the eye and gently rounded to the neck, the median interocular punctures a little nearer to one another than to the lateral, before the base on each side with a large puncture, and two, obliquely placed, behind and internal to the eye, the post-ocular region with two or three fine punctures. Antennæ with the penultimate joints scarcely transverse. Thorax distinctly longer than broad, the sides almost parallel, the anterior and posterior angles rounded; dorsal row of four large punctures, externally with three smaller ones triangularly placed. Elytra longer and broader than the thorax, moderately closely and moderately finely punctured. Abdomen very finely and sparingly punctured.

♂: anterior tarsi simple. 6th ventral segment with a small arcuate emargination.

Punjab: Murree, alt. 7500 feet. Chakrata and Mussoorie districts, alt. 6500–9000 feet. In dung.

942. Philonthus diversus.

Philonthus diversus Schub.*, D. E. Z. 1906, p. 382.

Shining; head, thorax, and elytra black, with greenish reflex, abdomen black. Thorax with dorsal row of four punctures. Antennæ, palpi, and legs black. Length 5·5–8 mm.

Near *P. semicænescens*, but the fore-parts much less strongly metallic, the head longer, more oval, punctures of the head and thorax smaller, elytra shorter, only as long as the thorax and much less closely punctured, abdomen yet more sparingly punctured.

Kashmir: Sintan (*Rost*); Shishram Nag, Lidar Valley, alt. 12,000 feet (*B. M. Bhatia*).

943. Philonthus protenus.

Philonthus protenus Schub.*, D. E. Z. 1906, p. 382.
Philonthus simlaensis Bernh.*, Ent. Blätt. vii, 1911, p. 90.
Philonthus yatungensis Cam., Ann. Mag. Nat. Hist. (10) ii, 1928, p. 564.

Shining, black; the elytra with dark greenish metallic reflex. Thorax with dorsal row of four punctures. Antennæ black. Legs pitchy. Length 7–8 mm.

In build rather like *P. sordidus* Gr., but larger and with thicker antennæ, etc. Head in the ♂ large, slightly transverse, subquadrate, as broad as the thorax, the front with small impression, in the ♀ smaller, suborbicular, a little narrower than the thorax; eyes much shorter than the post-ocular region, interocular punctures equidistant, two other on each

side placed obliquely behind and internal to the eye, before the base with four punctures. Antennæ rather short, the 3rd joint longer than the 2nd, 4th slightly longer than broad, 5th square, 6th to 10th transverse, gradually increasing in width, the 11th half as long again. Thorax as long as broad, in the ♂ with parallel sides, in the ♀ a little narrowed in front; dorsal row of four moderate punctures, externally with a row of three others. Scutellum closely and finely punctured, except at the apex. Elytra a little longer and broader than the thorax, moderately coarsely and moderately closely punctured. Abdomen with straight basal lines, finely and moderately closely punctured. Anterior tarsi simple in both sexes. First joint of posterior tarsi shorter than the last.

♂: 6th ventral segment with acute triangular impression, the base of which is arcuately emarginate.

Kashmir: Songam; Sind Valley. Simla Hills; Mussoorie; Chakrata, alt. 5500–8000 feet.

944. **Philonthus nitens.**

Philonthus nitens Kr., Arch. Naturg. xxv, 1859, i, p. 82.

Very shining, black; the elytra with greenish-metallic reflex. Thorax with dorsal row of four punctures. Antennæ black. Femora testaceous, the tibiæ and tarsi pitchy. Length 7 mm.

Head ovate, scarcely narrower than the thorax, the median and lateral interocular punctures close together, the sides with a few punctures. Antennæ as long as the head and thorax together, the penultimate joints about as long as broad. Thorax a little longer than broad, the sides straight and retracted in front and with a dorsal row of four rather large punctures. Scutellum sparingly punctured. Elytra a little longer and broader than the thorax, finely and sparingly punctured, sparingly pubescent. Abdomen rather closely punctured at the base of the first three segments, almost impunctate elsewhere. Anterior tarsi slightly dilated in the ♂.

♂: 6th ventral segment with a small subtriangular notch.

Ceylon.

945. **Philonthus singhalensis**, sp. n.

Black, shining; the elytra with greenish-metallic reflex; abdomen iridescent. Thorax with dorsal row of four punctures. Antennæ black, the 1st joint yellow, infuscate above, the last one or two joints reddish-yellow. Length 7·5 mm.

Head slightly transverse, suborbicular, as wide as the thorax, the eyes large and flat, longer than the post-ocular region, the median and lateral interocular punctures close

together, behind the eye with three obliquely placed punctures. Antennæ with the 4th to 10th joints gradually decreasing in length, the penultimate about as long as broad. Thorax slightly longer than broad, the sides straight and parallel; dorsal row of four punctures, externally with two others. Scutellum finely and closely punctured. Elytra a little longer and broader than the thorax, convex, finely and rather sparingly punctured, with fine, rather long and sparing pubescence and numerous long black setæ. Abdomen rather closely and moderately finely punctured at the base of the anterior segments, much more sparingly and finely elsewhere. First joint of the posterior tarsi as long as the last.

♂: anterior tarsi dilated. 6th ventral segment with almost semicircular emargination.

Ceylon: Dikoya, alt. 3800–4200 feet. Bogawantalawa, alt. 4900–5200 feet.

946. **Philonthus hindostanus.**

Philonthus hindostanus Schub.*, D. E. Z. 1911, p. 23.
Philonthus madurensis Fauv., *in litt.*

Shining, black; the elytra bronze-green. Thorax with dorsal row of four punctures; abdomen smooth along the middle, sparingly punctured at the sides. Antennæ and legs black, tarsi pitchy. Length 6·5 mm.

In build not unlike *P. ventralis* Gr., but otherwise quite different. Head suborbicular, slightly broader than long, narrower than the thorax, the post-ocular region a little longer than the eye and gently rounded to the neck; median interocular punctures widely separated, behind and internal to the eye with three large punctures obliquely placed, the post-ocular region with a few fine punctures. Antennæ with the 3rd joint a little longer than the 2nd, 4th to 8th a little longer than broad, gradually decreasing in length, the 9th and 10th slightly transverse. Thorax slightly longer than broad, narrowed towards the front, with dorsal row of four moderate punctures and two others externally; ground-sculpture distinct, as on the head. Scutellum with a few fine punctures. Elytra longer and broader than the thorax, moderately finely and moderately closely punctured. Abdomen almost impunctate along the middle, finely and sparingly punctured at the sides, pubescence long and scanty; the basal lines straight. Anterior tarsi dilated in both sexes. First joint of the posterior tarsi as long as the last.

♂: 6th ventral segment with moderately deep arcuate excision, the edge narrowly bevelled.

Shembaganur (*Donckier*). Nilgiri Hills (*H. L. Andrewes, G. F. Hampson*).

947. **Philonthus delicatulus.**

Philonthus delicatulus Boh., Eugen. Resa, 1858, p. 29.
Philonthus lativentris Motsch., Bull. Mosc. xxxi, 1858, ii, p. 663.
Philonthus subirideus Kr.*, Arch. Naturg. xxv, 1859, i, p. 81.

Black, shining; the elytra with the sutural region distinctly, the posterior margin often narrowly and obscurely, the reflexed margin near the shoulder (more rarely entirely) reddish. Abdomen iridescent; the posterior margins of the dorsal segments very narrowly and obscurely, those of the ventral segments more broadly and distinctly reddish. Antennæ reddish-brown, the 1st joint yellow. Legs reddish-yellow Length 6–7 mm.

Head suborbicular, narrower than the thorax, the eyes large and flat, as long as the post-ocular region; median interocular punctures very near the lateral; along the base with four large punctures and two others within and behind the eye, the post-ocular region scarcely punctured. Antennæ rather slender, the 2nd and 3rd joints subequal, the 4th to 10th gradually decreasing in length, the penultimate about as long as broad. Thorax about as long as broad, distinctly narrowed in front, with dorsal row of four moderate punctures, externally with two others. Elytra scarcely as long as but a little broader than the thorax, closely and finely punctured, yellow pubescent. Abdomen closely and finely punctured, more sparingly behind, yellow pubescent. First joint of posterior tarsi longer than the last.

♂: anterior tarsi simple. 6th ventral segment with feeble, acutely triangular impression, the base of the impression with slight arcuate emargination.

Ceylon. Widely distributed in India and the Oriental region as far as China. In dung.

948. **Philonthus incultus, sp. n.**

Shining, black. Thorax with dorsal row of four punctures. Antennæ black. Legs pitchy, the femora lighter. Length 8 mm.

Much resembling *P. longicornis* Steph., but with shorter thorax which is more narrowed in front, with four dorsal punctures only and entirely black anterior coxæ. Head very slightly longer than broad, suborbicular, much narrower than the thorax, the post-ocular region as long as the eye; median interocular punctures widely separated, the sides behind the eye with a few punctures; ground-sculpture distinct. Antennæ with the 3rd joint a little longer than the 2nd, 4th to 10th all a little longer than broad, gradually decreasing in length. Thorax scarcely longer than broad, the sides straight and strongly retracted in front, dorsal

row of four moderate punctures and two others externally. Scutellum finely and moderately closely punctured. Elytra about as long as but a little broader than the thorax, moderately finely, closely punctured (much as in *longicornis*), at the sides with a few long setæ. Abdomen finely and rather closely punctured and finely pubescent throughout. First joint of posterior tarsi longer than the last. Anterior tarsi simple in the ♀.

♂: unknown.

Chakrata district: Bodyar, alt. 8300 feet (*Cameron*).

949. **Philonthus batotensis**, sp. n.

Shining, black; the elytra with dark green metallic reflex; thorax with dorsal row of four punctures. Antennæ and legs black. Length 6·75 mm.

In size and build much resembling the European *immundus* Gyll., but with shorter antennæ, larger eyes, much less coarsely punctured elytra, etc. Head orbicular, narrower than the thorax, the eyes large, as long as the post-ocular region; median interocular punctures widely separated, nearer the lateral than each other; ground-sculpture very feeble. and absent in places. Antennæ with the 4th to 6th joints slightly longer than broad, gradually decreasing in length, 7th about as long as broad, 8th to 10th a little transverse. Thorax scarcely longer than broad, a little narrowed in front, dorsal row of four rather large punctures, ground-sculpture as on the head. Elytra about as long as the thorax, finely and closely punctured. Abdomen finely and rather closely punctured. First joint of posterior tarsi longer than the last.

♂: 6th ventral segment acutely triangularly impressed, the base of the impression with arcuate emargination. Anterior tarsi dilated.

♀: unknown.

Kashmir: Udhampur division, Batote, alt. 5500 feet (*Beeson*). In dung.

950. **Philonthus castaneus.**

Philonthus castaneus Gemm. et Har., Cat. Col. ii, 1868, p. 586.
Philonthus badius Motsch., Bull. Mosc. xxxi, 1858, i, p. 661.

Very near *P. discoideus* Gr., but a little smaller and more brightly coloured. Head, terminal joints of the antennæ, and last segments of the abdomen blackish, thorax, elytra, and margin of the abdominal segments brownish or yellowish, mouth-parts, palpi, base of the antennæ, and legs testaceous. Head small, elongate, with four punctures on the occiput and as many between the eyes. Thorax broader than the head, elongate, the sides nearly parallel, with dorsal row of four punctures and laterally with four others. Elytra broader

and shorter than the thorax, somewhat transverse, strongly punctured like the scutellum, and covered with long greyish pubescence. Abdomen finely punctured at the base of the segments with similar pubescence to that of the elytra.

" Ind. or." (without further indication) (ex *Motschoulsky*).

P. discoideus is 5 mm. long.

951. **Philonthus assamensis,** sp. n.

Shining ; head and abdomen black, thorax and elytra red, the former with dorsal row of four punctures. Antennæ with the first three joints reddish-yellow, the following blackish. Legs reddish-yellow, the tibiæ infuscate. Length 5 mm.

In build very similar to the European *P. fuscus* Gr., but a little smaller, differently coloured, the head less quadrate, the antennæ longer and thinner, the elytra a little, the abdomen much more closely punctured. Head suborbicular, narrower than the thorax, the eyes rather large, almost as long as the post-ocular region. Antennæ with the 4th to 6th joints a little longer than broad, the penultimate as long as broad. Thorax as long as broad, narrowed towards the front, with dorsal row of four moderate punctures. Elytra a little longer and broader than the thorax, closely and finely punctured and pubescent. Abdomen closely and finely punctured throughout, closely pubescent, less shining than the fore-parts. First joint of the posterior tarsi longer than the last.

Assam : Manipur. In British Museum Collection.

952. **Philonthus adversus.**

Philonthus adversus Bernh., Cat. Col. Staph. iv, 1914, p. 327.
Philonthus misellus Fauv.*, Rev. d'Ent. xiv, 1895, p. 262 (præocc.).

Shining , black ; the elytra with greenish-metallic reflex. Thorax with dorsal row of four large punctures. Antennæ black, the 1st or 1st and 2nd joints pitchy. Legs brownish-yellow, the tibiæ darker. Length 5 mm.

A small, rather depressed species, somewhat of the facies of the genus *Belonuchus*. Head large, quadrate, a little broader than the thorax, the posterior angles rounded, the eyes rather small ; front in the middle with slight longitudinal impression ; median interocular punctures widely separated, behind and internal to the eye with a group of three others ; ground-sculpture distinct. Antennæ with the 2nd and 3rd joints subequal, the 4th to 10th transverse, gradually increasing in width. Thorax longer than broad, rather strongly narrowed behind, with dorsal row of four rather large punctures and two others externally, the ground-sculpture as on the head. Scutellum finely and sparingly punctured. Elytra a little

longer and distinctly broader than the thorax, rather closely and rather finely punctured. Abdomen very finely and closely punctured, more sparingly behind. Anterior tarsi simple in both sexes. First joint of the posterior tarsi shorter than the last.

♂: 6th ventral segment with small arcuate emargination, its edge furnished with fine, closely placed setæ; 5th broadly feebly emarginate.

Burma: Carin Cheba, alt. 900–1100 metres (*Fea*). Assam: Naga Hills (*S. N. Chatterjee*). Bengal: Darjeeling, Lopchu, alt. 5000 feet (*J. C. M. Gardner*).

953. **Philonthus gardneri**, sp. n.

Closely allied to *adversus* but larger (6·3 mm.), the head longer, slightly longer than broad, as broad as the thorax, the elytra longer, more strongly metallic and more coarsely punctured, the abdomen much more sparingly punctured.

Bengal: Darjeeling, Rangirum, alt. 6000 feet (*Gardner*).

954. **Philonthus idiocerus**.

Philonthus idiocerus Kr.*, Arch Naturg. xxv, 1859, i, p. 85.

Black, the fore-parts shining, the abdomen opaque, sericeous; thorax with dorsal row of five punctures. Antennæ black, the 1st joint reddish-yellow, often infuscate above. Legs reddish-yellow, the tibiæ blackish. Length 9·5 mm.

From all the species of this section at once recognized by the extremely finely and densely punctured sericeous abdomen. In build similar to the European *sanguinolentus* Gr. Head transversely subquadrate, the posterior angles rounded, in the ♂ larger, as broad as the thorax, in the ♀ a little narrower; eyes large, about as long as the post-ocular region; median interocular punctures very widely separated, on each side of the vertex behind with two punctures placed obliquely, the post-ocular region with two or three punctures; ground-sculpture absent. Antennæ long and slender, all the joints longer than broad, the 3rd joint longer than the 2nd, the following gradually decreasing in length, 11th as long as the 10th. Thorax as long as broad, scarcely narrowed in front, on each side with five rather large punctures, the 1st and 5th more remote from the 2nd and 4th respectively, externally with two others; ground-sculpture absent. Scutellum very finely and closely punctured. Elytra a little longer and broader than the thorax, closely and finely punctured, finely and rather closely pubescent, the sides with some setæ. Abdomen extremely finely and extremely densely punctured and pubescent, sericeous, the basal lines of the first three

visible segments strongly and acutely angulate in the middle. First joint of the posterior tarsi as long as the last. Anterior tarsi dilated in both sexes, more strongly in the ♂.

♂ : 6th ventral segment acutely excised, the margins rather broadly bevelled.

Ceylon. India : Nilgiri Hills ; Dehra Dun ; Naga Hills. Burma (without further indication).

955. **Philonthus modestus**, sp. n.

Of the size and build of *carbonarius*, but entirely black, without metallic reflex, the thorax with dorsal row of five punctures, the penultimate joints of the antennæ a little more transverse, the intermediate slightly serrate, the elytra a little less closely punctured and with a row of six or seven large punctures on the disc, extending from the shoulder to the posterior margin, parallel to the outer border; the abdomen much more finely and much more closely punctured; the basal lines are feebly arcuate in the middle. First joint of the posterior tarsi longer than the last. Length 11 mm.

♂ : anterior tarsi dilated. 6th ventral segment with broad arcuate excision.

India (without further indication). In British Museum Collection.

956. **Philonthus dohertyi**, sp. n.

Shining ; head pitchy-black, thorax dark brown, with dorsal row of five punctures, both with slight metallic reflex ; elytra with coppery and violaceous reflex. Abdomen pitchy-black, the posterior margin of the segments distinctly reddish. Antennæ ferruginous red, the 2nd and 3rd joints blackish. legs reddish-yellow, the tibiæ infuscate. Length 7·5 mm.

♂ : in build and colour somewhat resembling *P. cinctulus*, but much smaller, the eyes smaller, antennæ shorter, the penultimate joints more transverse, elytra less brassy, more coppery and violaceous, abdomen more closely punctured. Head distinctly transverse, subquadrate, as broad as the thorax, the posterior angles rounded, the eye shorter than the post-ocular region ; median interocular punctures a little more distant from each other than from the lateral; on either side of the vertex with a row of three punctures converging behind, the post-ocular region with a few punctures ; ground-sculpture fine. Antennæ with the 3rd joint a little longer than the 2nd, 4th and 5th slightly longer than broad, 6th to 10th transverse. Thorax as long as broad, the sides a little retracted in front, with dorsal row of five moderate punctures, externally with three others ; ground-sculpture as on the head. Scutellum closely punctured. Elytra as long as the thorax, rather coarsely and rather closely punctured. Abdomen finely and

rather closely punctured and pubescent throughout. First joint of the posterior tarsi as long as the last. Anterior tarsi dilated. 6th ventral segment with acute, smooth, triangular impression, the base of which is arcuately emarginate.

♀: unknown.

Burma: Tavoy (*Doherty*).

957. **Philonthus tardus.**

Philonthus tardus Kr.*, Arch. Naturg. xxv, 1859, i, p. 84.
Philonthus curtipennis Bernh., D. E. Z. 1902, p. 26.
Philonthus tardus Kr., var. *inornatus* Cam., E. M. M. lvi, 1920, p. 215.

Black, shining; elytra with the suture and apical margin narrowly reddish; abdomen slightly iridescent, the posterior margin of the segments scarcely reddish. Antennæ black, the 1st joint yellowish-brown. Legs reddish-yellow, the tibiæ and tarsi infuscate. Length 8–9 mm.

In the form *curtipennis* the suture and apical margin of the elytra are more obscurely reddish, whilst in *inornatus* the elytra are uniformly dark: every intermediate form is met with. Head (♂ and ♀) narrower than the thorax, transverse, in the ♂ more quadrate, in the ♀ suborbicular; eyes very large, longer than the post-ocular region; median interocular punctures very widely separated and close to the lateral; behind the eye with two large punctures, the post-ocular region with a few fine ones; ground-sculpture very fine. Antennæ moderate, the 3rd joint a little longer than the 2nd, 4th and 5th slightly longer than broad, the following about as long as broad, the 5th to 8th very slightly serrate. Thorax as long as broad, slightly narrowed in front, with dorsal row of five rather large punctures and two others externally; ground-sculpture as on the head. Scutellum closely and finely punctured, with long yellowish pubescence. Elytra as long as the thorax, closely and finely punctured and with long yellow pubescence, the sides with some long black setæ. Abdomen rather finely and not closely punctured, the pubescence yellow, the basal lines straight. First joint of the posterior tarsi longer than the last.

♂: anterior tarsi simple. 6th ventral segment with acute triangular impression, its base acutely excised.

Widely distributed in India and Ceylon. Also in the Oriental region as far as Southern China. In dung.

958. **Philonthus geminus.**

Philonthus geminus Kr.*, Arch. Naturg. xxv, 1859, i, p. 87.

Black, shining; elytra with the suture rather broadly reddish, the extreme reflexed margin narrowly reddish-yellow; abdomen slightly iridescent. Antennæ brown,

the first joint and base of second reddish-yellow. Legs reddish-yellow, the tibiæ more or less infuscate. Length 8 mm.

In build and colour very similar to *delicatulus*, but with dorsal row of five punctures; from *tardus* it differs in the thinner antennæ, narrower thorax, less finely and less closely punctured elytra, the reflexed sides of which are narrowly yellowish. Head (♂ and ♀) narrower than the thorax, in the former suborbicular, with short median sulcus, the eye about as long as the post-ocular region; in the latter smaller, subovate, the eye a little longer than the post-ocular region; median interocular punctures widely separated, close to the lateral; ground-sculpture distinct, transverse. Antennæ moderate, the penultimate joints as long as broad. Thorax as long as broad, the sides straight, scarcely retracted in front, with dorsal row of five rather large punctures and two others externally; ground-sculpture as on the head. Scutellum finely punctured, yellow pubescent. Elytra as long as the thorax, moderately finely and moderately closely punctured and with rather long yellow pubescence, the sides with a few black setæ. Abdomen moderately finely and closely punctured in front, more finely and more sparingly behind. First joint of the posterior tarsi longer than the last.

♂: anterior tarsi simple. 6th ventral segment with very small, acute, triangular impression, its base scarcely emarginate.

Widely distributed in India and Ceylon. Also in the Oriental region as far as Southern Japan. In dung.

959. **Philonthus explorator**, sp. n.

Black, shining; elytra pitchy, less shining, the suture and apical margins narrowly but distinctly reddish-yellow; abdomen with the posterior margin of the segments narrowly reddish. Antennæ black, the first joint brownish-yellow below. Legs reddish-yellow, the tibiæ infuscate. Length 7·5–8 mm.

♂ and ♀: in size and build scarcely differing from *geminus* ♂, but the head not sulcate in front, the antennæ with darker 1st joint, the penultimate joints a little longer, the elytra more finely, closely, and roughly punctured, less shining, the posterior margin rather sharply reddish-yellow; abdomen more finely punctured, the posterior margin of the segments narrowly reddish. From *tardus* it differs in the colour of the elytra, which are also less shining and more finely, closely, and roughly punctured, longer antennæ, and the posterior margin of the abdominal segments narrowly but distinctly reddish.

♂: anterior tarsi dilated. 6th ventral segment with acute triangular impression, its base distinctly arcuately emarginate.

Nilgiri Hills.

960. **Philonthus productus.**

Philonthus productus Kr.*, Arch. Naturg. xxv, 1859, i, p. 89.

Black, shining; the head and thorax slightly sericeous, the elytra with the suture, apical, and reflexed margins narrowly and sometimes obscurely reddish-yellow. Thorax with dorsal row of five punctures. Abdomen with the posterior margin of the segments narrowly reddish. Antennæ black, the first, and sometimes the second, joint more or less reddish-yellow. Legs reddish-yellow, the tibiæ infuscate. Length 6 mm.

Facies of the ♂ somewhat resembling a *Belonuchus*, the ♀ more like *P. discoideus* in build. Head in both sexes as broad as the thorax, in the ♂ transversely subquadrate, with broadly rounded posterior angles, in the ♀ less transverse; eyes a good deal shorter than the post-ocular region; the median inter-ocular punctures more distant from each other than from the lateral, in the ♂ with broad and deep median frontal sulcus, in the ♀ with a smaller and narrower one; on each side of the vertex behind with two large punctures placed obliquely, the post-ocular region with a few punctures; ground-sculpture fine. Antennæ shorter than the head and thorax, the 3rd joint a little longer than the 2nd, the 4th about as long as broad, the 5th to 10th slightly transverse, scarcely increasing in width, the 11th short. Thorax very slightly longer than broad, the sides parallel, the anterior angles briefly, the posterior broadly rounded; dorsal row consisting of five moderate punctures, of which the 1st and 5th are respectively more remote from the 2nd and 4th, externally with two others; ground-sculpture as on the head. Scutellum closely and moderately coarsely punctured. Elytra a little longer and broader than the thorax, moderately finely and not very closely punctured, with a rather long yellow pubescence. Abdomen rather closely and rather finely punctured, more sparingly behind; pubescence yellow, rather long. Anterior tarsi simple. First joint of posterior tarsi as long as the last.

♂: 5th ventral segment obtusely produced behind, at the middle of the base with a small tubercle; 6th with a very small arcuate emargination largely filled in by membrane.

Ceylon. India: Dehra Dun. Also in the Malay Peninsula and S. China.

961. **Philonthus duplex.**

Philonthus duplex Bernh., Arch. Naturg. lxxxiv, A, 1918, p. 182; Fauv., *in litt.*

Closely allied to *productus*, but of darker colour, the suture only obscurely lighter, the head longer, roundish, almost as long as broad, less strongly rounded behind, eyes much

larger, the temples much shorter than their length, terminal joints of the antennæ lighter. Thorax more convex, the punctures of the dorsal row finer. Elytra yet more sparingly punctured. Abdomen more sparingly punctured, more coarsely at the base of the segments. First joint of the posterior tarsi distinctly longer than the last.

Length 6–7 mm.

"Ostindien" (without further indication) (ex *Bernhauer*).

962. **Philonthus humilis**, sp. n.

♂ : in size and build very similar to *congruens*, but with the head smaller, only as broad as the thorax, this with a dorsal row of five punctures, of which the 2nd and 5th are more remote from the 1st and 4th respectively, the elytra less brightly metallic, less finely punctured, the legs black, and the penultimate joints of the antennæ slightly shorter. First joint of the posterior tarsi shorter than the last. Anterior tarsi dilated. 6th ventral segment with semi-oval excision, the edges bevelled.

♀ : unknown.

Tehri Garhwal State : Aglar River.

963. **Philonthus signifrons.**

Philonthus signifrons Schub.*, D. E. Z. 1908, p. 618.

Shining, black ; elytra with dark green metallic reflex ; thorax with dorsal row of five punctures. Legs blackish. Antennæ black. Length 7 mm.

Scarcely differing from *protenus* in colour, build, punctuation and antennal structure, but the thorax has a dorsal row of five punctures. It is, perhaps, an aberration of *protenus*.

Kulu, alt. about 2000 metres.

964. **Philonthus obsoletus.**

Philonthus obsoletus Epp.*, W. E. Z. xiv, 1895, p. 61.

Shining, black ; the elytra with slight greenish-metallic reflex. Thorax with dorsal row of five moderate punctures. Antennæ and legs black. Length 8·5 mm.

In build and antennal structure somewhat resembling the European *immundus* Gull., but larger, the thorax shorter and broader and differently coloured. Head suborbicular, a little narrower than the thorax, the post-ocular region a good deal longer than the eye, the median interocular punctures widely separated, nearer the lateral than to each other, behind and internal to the eye on each side with three obliquely placed punctures, ground-sculpture very fine. Antennæ moderate, the 3rd joint a little longer than the 2nd, 4th to 7th a little

longer than broad, gradually decreasing in length, the 8th to 10th about as long as broad. Thorax about as long as broad, the sides a little retracted in front and slightly emarginate, the angles rounded, with a dorsal row of five punctures, of which the 2nd and 5th are more distant from the 1st and 4th respectively, externally with two others placed obliquely. Scutellum black, moderately finely, superficially punctured. Elytra as long as the thorax, rather finely and moderately closely punctured. Abdomen with straight basal lines, finely and rather closely punctured, more sparingly on the last two segments. First joint of the posterior tarsi longer than the last

♂ : anterior tarsi dilated. 6th ventral segment triangularly excised, in front of the excision deeply triangularly impressed.

Sikkim. Tibet : Rongshar Valley, alt. 11,000 feet (*Hingston*).

965. Philonthus frontalis.

Philonthus frontalis Schub.*, D. E. Z. 1908, p. 616.

Shining, black ; the elytra with greenish-metallic reflex. Thorax with dorsal row of five punctures. Antennæ black, tarsi pitchy. Length 9 mm.

Head (♂ and ♀) orbicular, narrower than the thorax, the eyes large, about as long as the post-ocular region, median interocular punctures widely separated, the front with a small impression, behind and internal to the eye with three large punctures placed obliquely, the post-ocular region with a few punctures ; ground-sculpture distinct. Antennæ rather slender, the 3rd joint a little longer than the 2nd, 4th to 7th longer than broad, gradually decreasing in length, the 8th to 10th about as long as broad. Thorax as long as broad, the sides straight and slightly retracted in front, with dorsal row of five moderate punctures, the 2nd and 5th respectively more remote from the 1st and 4th, externally with two others parallel to the median row. Elytra a little longer than the thorax, moderately finely and moderately closely punctured. Abdomen closely and finely punctured in front, more sparingly behind. First joint of the posterior tarsi a little longer than the last.

♂ : anterior tarsi dilated. 6th ventral segment with acute triangular impression, the base arcuately emarginate.

Kulu, alt. 2000 metres. Simla and Chakrata districts, alt. 6000–9000 feet. In dung.

966. Philonthus aliquatenus.

Philonthus aliquatenus Schub.*, D. E. Z. 1908, p. 618.

Very near *P. frontalis*, of the same build but smaller (7 mm.), the antennæ similarly constructed, the puncturation of the

elytra scarcely differing, the abdomen less closely punctured, especially behind.

The ♂ characters are similar.

Kulu, alt. 2000 metres. Simla and Chakrata districts, alt. 6000–7000 feet. In dung.

967. Philonthus subjectus, sp. n.

Colour, size, and build of *aliquatenus*, but with much smaller eyes, distinctly shorter than the post-ocular region, thinner antennæ, the penultimate joints distinctly longer; the elytra are a little less finely punctured, the anterior abdominal segments are transversely impressed at the base, and these more coarsely and closely punctured, as in *dejectus*, from which it is distinguished by the smaller eyes and thinner antennæ.

♂: unknown.

Sikkim: Tonglo.

968. Philonthus dejectus, sp. n.

Colour, size, and build of *aliquatenus*, the antennæ similarly constructed, but at once distinguished from it by the base of the anterior abdominal segments being transversely impressed, and with the puncturation there being coarser and closer than elsewhere; the head also is less orbicular and more quadrate.

♂: unknown.

Chakrata district; Bangar, alt. 6000 feet.

969. Philonthus kuluensis.

Philonthus kuluensis Schub.*, D. E. Z. 1908, p. 617.

Shining, black; the elytra with greenish metallic reflex; thorax with dorsal row of five punctures. Antennæ black, the 1st joint reddish-yellow. Legs reddish-yellow, the tibiæ infuscate. Length 7 mm.

Head oval, a little narrower than the thorax, the eyes as long as the post-ocular region, median interocular punctures widely separated, behind the eyes with a few punctures. Antennæ rather slender, the 2nd and 3rd joints of equal length, the 4th to 10th gradually decreasing in length, the penultimate about as long as broad. Thorax a little longer than broad, the sides straight, scarcely retracted in front, the dorsal series consisting of five rather large punctures. Scutellum rather closely punctured. Elytra as long as but a little broader than the thorax, coarsely and not closely punctured (somewhat like *sordidus* Gr.). Abdomen at the base of the anterior segments closely and coarsely punctured, elsewhere more finely and sparingly.

♂ : anterior tarsi dilated. 6th ventral segment with slight rounded excision.

Kulu, alt. about 1500 metres.

970. **Philonthus kotgarhensis**, sp. n.

Near *P. kuluensis*. Similarly coloured, but with the 1st joint of the antennæ black and the femora of a darker yellow, the head is broader, more orbicular, a little narrower than the thorax ; thorax shorter, as long as broad, the 2nd, 3rd, and 4th punctures of the dorsal row much nearer each other than to the 1st and 5th, the elytra much more finely and much more closely punctured, the abdomen less closely punctured and with slight metallic reflex. First joint of the posterior tarsi shorter than the last. Length 7·3 mm.

♂ : anterior tarsi dilated. 6th ventral segment with semi-elliptical excision, the edge slightly bevelled.

Simla Hills : Kotgarh, alt. 7000 feet. Dehra Dun.

971. **Philonthus convalescens.**

Philonthus convalescens Epp.*, W. E. Z. ix, 1890, p. 276.

Shining, black † ; the elytra with strong dark greenish reflex, the abdomen less strongly metallic. Thorax with dorsal row of five small punctures. Antennæ black. Legs pitchy. Length 8·5 mm.

Head in both sexes very slightly longer than broad, sub-orbicular, a little narrower than the thorax, the eye much shorter than the post-ocular region ; median interocular punctures nearer the lateral than each other ; behind the eyes with a few small punctures ; ground-sculpture absent. Antennæ with the 3rd joint longer than the 2nd, 4th to 10th all longer than broad, gradually decreasing in length, the penultimate only slightly longer than broad. Thorax a little longer than broad, the sides straight, very slightly retracted in front, dorsal row of five rather small punctures, of which the 1st and 5th are more remote from their neighbours than the others, externally with two more. Scutellum moderately finely, closely punctured. Elytra a little longer and broader than the thorax, moderately finely and moderately closely punctured. Abdomen at the base of the anterior segments closely and rather coarsely punctured, elsewhere finely and moderately closely. Anterior tarsi dilated (less in the ♀). First joint of the posterior tarsi longer than the last.

† Occasionally the head and thorax show a faint metallic reflex.

♂ : 6th ventral segment with acute triangular impression, the base arcuately emarginate.

Simla and Chakrata districts, alt. 6000–8000 feet. W. Almora : Dhauli Ganja ; Kali Valley, alt. 9000 feet.

972. Philonthus remotus.

Philonthus remotus Fauv.*, Rev. d'Ent. xiv, 1895, p. 264.
Philonthus nilgiriensis Cam., E. M. M. lvi, 1920, p. 215.

Black, shining ; head and thorax slightly iridescent, the latter with dorsal row of five punctures. Antennæ black, the first joint more or less pitchy. Legs brownish-yellow, the tibiæ blackish. Length 6·5–7 mm.

Build somewhat resembling *fimetarius*, the antennæ similarly constructed, but with shorter, broader head and larger eyes, the elytra shorter and differently coloured, the abdomen much more closely punctured. Head suborbicular, a little narrower than the thorax (♂ ♀), the eyes large, almost as long as the post-ocular region, median interocular punctures small, widely separated from each other, the front lightly impressed, on either side of the vertex behind with three obliquely placed punctures, the post-ocular region with a few others ; ground-sculpture very fine, transverse. Antennæ with the 3rd joint longer than the 2nd, the penultimate as long as broad. Thorax slightly longer than broad, the sides almost parallel, only very slightly retracted in front, dorsal row of five rather large punctures, of which the 5th is distant from the 4th, externally with two others. Elytra about as long as the thorax, slightly transverse, rather finely and rather closely punctured. Abdomen moderately finely and closely punctured, more finely behind. First joint of the posterior tarsi as long as the last.

♂ : anterior tarsi dilated. 6th ventral segment rather deeply arcuately excised, the margin with narrow membranous border.

Burma : Carin Cheba, Carin Asciuii Ghécu, alt. 900–1500 metres (*Fea*). Nilgiri Hills. Dehra Dun. Mussoorie district. Siwaliks. In cut grass.

973. Philonthus flavipes.

Philonthus flavipes Kr.*, Arch. Naturg. xxv, 1859, i, p. 88.

Shining, black ; the thorax more or less sericeous, with dorsal row of five punctures ; elytra with greenish-metallic reflex, abdomen slightly iridescent. Antennæ black, with the 1st joint yellowish, the 11th or 10th and 11th often orange-red. Legs yellow. Length 6 mm.

Somewhat resembling *peliomerus* in build, but with larger

head, etc. Head in ♂ large, transversely suborbicular, broader than the thorax, the eyes large, longer than the post-ocular region ; in the ♀ smaller, much less transverse, as broad as the thorax, the eyes similar. Median interocular punctures widely separated, nearer the lateral than each other, on each side of the vertex with a group of three large punctures, at the sides with a few smaller ones ; ground-sculpture very fine. Antennæ with the 3rd joint a little longer than the 2nd, 4th to 10th gradually decreasing in length, the penultimate scarcely longer than broad. Thorax slightly longer than broad, the sides straight, scarcely retracted in front, with dorsal row of five rather large punctures and two others externally ; ground-sculpture more distinct than on the head. Scutellum finely and closely punctured. Elytra a little longer and broader than the thorax, moderately finely, closely punctured. Abdomen moderately finely and rather closely punctured, more sparingly behind. First joint of posterior tarsi as long as the last.

♂ : anterior tarsi dilated. 6th ventral segment with very small, acute, triangular impression, its base arcuately emarginate.

Ceylon : Colombo. Also in Sumatra and Cochin China.

974. **Philonthus aberrans**, sp. n.

In build, colour, and antennal structure very similar to *peliomerus*, but in the ♂ the head is larger, more transverse, and distinctly broader than the thorax, the eye almost as long as the post-ocular region (in the ♀ the head is smaller and less transverse than in the ♂, as broad as the thorax) ; the antennæ scarcely differ in structure from *peliomerus*, and occasionally the last joint is more or less rufescent ; thorax a little longer than broad, with dorsal row of five punctures, of which the 2nd, 3rd, and 4th are close together, the 1st and 5th remote ; ground-sculpture of head and thorax very fine ; the punctuation of the elytra and abdomen scarcely differs from that of *peliomerus*, but the latter has a slight metallic reflex. First joint of the posterior tarsi shorter than the last. Length 8 mm.

♂ : anterior tarsi dilated. 6th ventral segment with acute triangular excision, the apex rounded, the edges bevelled.

Mussoorie district : Mossy Falls ; Keyarkuli. Assam : Naga Hills, Laimatak.

975. **Philonthus indicus.**

Philonthus indicus Cam., E. M. M. lvi, 1920, p. 216.

Black, shining. Head in the ♂ transversely subquadrate, broader than the thorax, the mandibles prominent. Thorax with dorsal row of five punctures on either side. Antennæ

and legs dark, the penultimate joints of the former transverse. Length 7 mm.

In the large, transversely subquadrate head and prominent mandibles similar to *P. peliomerus* Kr. ♂, but very different in other respects, the thorax 5-punctate and much shorter than in that species. Head transversely subquadrate, the posterior angles rounded, broader than the thorax (♂), the eyes small, their diameter much less than the length of the post-ocular region, the front slightly but broadly impressed, the median interocular punctures widely separated, the disc with two or three obliquely placed punctures on either side, the temples sparingly punctured. Mandibles long and prominent, reddish, palpi dark. Antennæ rather short and stout, entirely dark, the 3rd joint longer than the 2nd, the 4th a little longer than broad, the 5th to the 10th strongly transverse, gradually increasing in breadth, the 11th short. Thorax scarcely longer than broad, parallel; disc with a row on either side of five moderate punctures, two others externally to this and three or four near the anterior angles. Scutellum closely punctured. Elytra black, a little longer and broader than the thorax, very finely and moderately closely punctured and pubescent. Abdomen black, finely and moderately closely punctured at the bases of the anterior segments, much more sparingly behind, sparingly pubescent. Legs (including the coxæ) black; tarsi pitchy. First joint of posterior tarsi shorter than the last.

♂: anterior tarsi dilated. 6th ventral segment with very small triangular excision, the margin bevelled.

♀: unknown.

Nilgiri Hills (*H. L. Andrewes*).

976. **Philonthus consors**, sp. n.

Black, shining; thorax with dorsal row of five punctures. Antennæ pitchy, the 1st, 2nd, and 11th (occasionally also the 10th) joints reddish-yellow. Legs reddish-yellow, the tibiæ infuscate. Length 6·5 mm.

In build and colour very similar to *tamulus*, but smaller, the thorax with dorsal row of five punctures, the elytra less sparingly punctured, the abdomen much more finely and closely punctured. Head in ♂ large, transverse, broader than the thorax, the post-ocular region retracted and gently rounded to the neck, a little longer than the eye; median interocular punctures more widely separated from each other than from the lateral; in the ♀ smaller, less transverse, as broad as the thorax; vertex behind on each side with three obliquely placed punctures, the post-ocular region with two or three others; ground-sculpture very fine. Antennæ rather short, the 3rd joint scarcely longer than the 2nd, the 4th scarcely,

the 5th to 10th distinctly transverse. Thorax a little longer than broad, the sides parallel, with dorsal row of five small punctures, the 5th more remote from the 4th, externally with two others; ground-sculpture as on the head. Scutellum finely and rather sparingly punctured. Elytra as long as the thorax, finely and rather sparingly punctured and pubescent. Abdomen very finely, closely punctured and pubescent throughout. First joint of posterior tarsi longer than the last.

♂: anterior tarsi dilated. 6th ventral segment with rectangular excision, the margin rather broadly membranous.

Ceylon. In British Museum Collection.

977. **Philonthus æneipennis.**

Philonthus æneipennis Boh., Eugen. Resa, 1858, p. 30.
Philonthus erythropus Kr.*, Arch. Naturg. xxv, 1859, i, p. 88.
Philonthus lewisius Shp.*, Trans. Ent. Soc. Lond. 1874, p. 42; Fauv., Rev. d'Ent. xxii, 1903, p. 159.
Philonthus punctatissimus Schub.*, D. E. Z. 1908, p. 619.
Philonthus æneipennis Boh., var. *cliens* Epp.*. W. E. Z. ix, 1890, p. 277; *tricoloris* Schub.*, D. E. Z. 1908, p. 620.

Subparallel, shining, black; thorax often pitchy, with dorsal row of five punctures; elytra green. Antennæ blackish, the first two joints more or less yellowish-brown. Legs yellowish-red, the tibiæ infuscate. Length 8 mm.

Var. *cliens*. Thorax bright red, elytra blue, abdomen somewhat iridescent.

Head in both sexes suborbicular, a little narrower than the thorax, the eye shorter than the post-ocular region, median interocular punctures widely separated, near the lateral, behind the eye with a few punctures; ground-sculpture absent. Antennæ with the 3rd joint a little longer than the 2nd, 4th to 7th a little longer than broad, gradually decreasing in length, 8th to 10th about as long as broad, the 11th a little longer. Thorax a little longer than broad, the sides straight, scarcely retracted in front, dorsal row of five moderate punctures, externally with two others; ground-sculpture absent. Scutellum closely and moderately coarsely punctured. Elytra about as long as but a little broader than the thorax, rather closely and moderately coarsely punctured. Abdomen parallel, closely and moderately coarsely punctured at the base of the segments, more finely and sparingly elsewhere. First joint of the posterior tarsi as long as the last.

♂: anterior tarsi dilated. 6th ventral segment with rather broad crescentic emargination, in front of the emargination with acute, triangular, smooth impression.

Widely distributed throughout India and Ceylon. Also in Japan, China, Malaya, Sumatra, New Guinea, Aden, and Mauritius.

978. **Philonthus pæderoides.**

Philonthus pæderoides Motsch., Bull. Mosc. xxxi, 1858, ii, p. 662.
Philonthus bellus Kr.*, Arch. Naturg. xxv, 1859, i, p. 83.

Shining; head black, thorax bright red, elytra blue, abdomen red, iridescent, the posterior half of the 5th and whole of the 6th segments black. Antennæ blackish, the penultimate joints often more or less reddish. Legs yellowish-red, the tibiæ infuscate. Length 8 mm.

In size, build, and antennal structure very similar to *æneipennis*, but differently coloured and the elytra more coarsely punctured. First joint of posterior tarsi as long as the last.

♂: anterior tarsi dilated. 6th ventral segment crescentically emarginate, the edge bevelled.

Ceylon: Kandy; Nuwara Eliya. India: Nilgiri Hills; Belgaum; Igatpuri. Also in Cochin China, Philippines, and Sumatra.

979. **Philonthus crassicornis.**

Philonthus crassicornis Fauv., Rev. d'Ent. xiv, 1895, p. 264.

Head and thorax black, shining, slightly iridescent; elytra and abdomen pitchy-black, the suture of the former sometimes, and the posterior margin of the segments of the latter very narrowly and obscurely reddish. Thorax with dorsal row of five punctures. Antennæ black, the first two joints reddish-yellow, the 11th and sometimes the 10th orange-red. Legs reddish-yellow, the tibiæ infuscate. Length 3·5–3·8 mm.

Somewhat resembling the European *debilis* Gr. in build and colour of the body, but a little smaller, the head transversely subquadrate, the antennæ much shorter, stouter, and differently coloured. Head transverse, subquadrate, nearly as broad as the thorax, the posterior angles rounded, the eyes large, about as long as the post-ocular region; median interocular punctures widely separated, the front often with slight impression, on each side of the vertex behind with two obliquely placed punctures, the post-ocular region with a few fine punctures; ground-sculpture fine and transverse. Antennæ short, the 3rd joint scarcely longer than the 2nd, 4th to 10th strongly transverse. Thorax scarcely longer than broad, slightly narrowed in front, with dorsal row of five rather large punctures and two others externally; ground-sculpture as on the head. Elytra as long as the thorax, finely and rather closely punctured, finely pubescent. Abdomen finely and moderately closely punctured, finely pubescent. First joint of the posterior tarsi shorter than the last.

♂: anterior tarsi dilated. 6th ventral segment with acute triangular impression, its base arcuately emarginate.

Ceylon. India: Nilgiri Hills; Dehra Dun. Also in Singapore, Java, Sumatra, Mauritius, Réunion.

980. **Philonthus acroleucus.**

Philonthus acroleucus Kr.*, Arch. Naturg. xxv, 1859, i, p. 91.

Very closely allied to *crassicornis*, of the same colour, build, and antennal structure, but larger (5 mm.) and more robust, head and thorax more strongly iridescent, the ground-sculpture more marked, the elytra a little longer, a little less finely and a little less closely punctured. The ♂ characters are similar.

The colour of the antennæ and legs given by Kraatz in his description—"antennæ black, the first joint pitchy, etc., legs pitchy-black, tarsi reddish"—does not agree with the type, in which the first two joints are reddish-yellow and also the legs, the tibiæ being scarcely infuscate.

Ceylon. Also in Sumatra, Java, Lombok, and Philippines.

981. **Philonthus chatterjeei.**

Philonthus chatterjeei Cam., Trans. Ent. Soc. Lond. 1926, p. 356.

Black, shining; head suborbicular. Thorax with dorsal row of five punctures on either side of the disc. Elytra very finely and sparingly punctured. Palpi pitchy. Antennæ black, the last joint obscurely testaceous. Legs pitchy, the tarsi testaceous. Length 5·5 mm.

Very similar in size and build to *P. acroleucus* Kr., but more robust, the antennæ a little longer, the penultimate joints less transverse, the 1st joint black, the legs dark, the scutellum much more coarsely punctured, the elytra more sparingly and the abdomen much more sparingly punctured. Head suborbicular, narrower than the thorax, the eyes shorter than the post-ocular region, median interocular punctures distant from one another, between the eye posteriorly and the base with an oblique row of three punctures, temples with two or three punctures. Antennæ with 3rd joint scarcely longer than 2nd, 4th and 5th slightly longer than broad, 6th to 10th slightly transverse. Thorax slightly longer than broad, slightly narrowed in front, on either side of the disc with a row of five punctures, of which the four posterior are equidistant, externally with two or three others. Scutellum closely and rather coarsely punctured. Elytra a little broader than but as long as the thorax, as long as broad, finely and only moderately closely punctured, the sides setiferous. Abdomen black, shining, finely and not very closely punctured and finely pubescent. First joint of posterior tarsi about as long as the last.

♂: unknown.

Mussoorie district; Arni Gad. In stream debris.

982. Philonthus discoideus.

Staphylinus discoideus Gr., Col. Micr. Brunsv. 1802, p. 38; Er., Käf. Mark Brand. 1837–39, p. 469 (*Philonthus*); id., Gen. Spec. Staph. 1839–40, p. 474; Kr., Naturg. Ins. Deutsch. ii, 1856–58, p. 605; Thoms., Skand. Col. ii, 1860, p. 160; ix, 1867, p. 151; Fauv., Faun. Gallo-Rhén. iii, 1872, p. 454; id., Ann. Mus. Civ. Gen. xiii, 1878, p. 83; Muls. et Rey, Ann. Soc. Agric. Lyon, (4) viii, 1875, p. 485; Horn, Trans. Amer. Ent. Soc. 1884, p. 196; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 455; Shp., Faun. Haw. iii, v, 1900, p. 588.

Philonthus conformis Boisd. et Lac., Faun. Ent. Paris, i, 1835, p. 208.

Philonthus lepidulus Steph., Ill. Brit. Ent. v, 1832, p. 223.
Philonthus ruficornis Melsh., Proc. Ac. Phil. ii, 1846, p. 38.
Philonthus suturalis Steph., Ill. Brit. Ent. v, 1832, p. 224.
Staphylinus testaceus Gr., Mon. Col. Micr. 1806, p. 60.
Ab. *rufipennis* Gerh., D. E. Z. 1910, p. 555.

Shining; head black, thorax reddish-brown, elytra pitchy, the suture, apical, and reflexed margins distinctly rufescent; abdomen black, slightly iridescent, the posterior margin of the segments narrowly reddish. Antennæ reddish-testaceous. Legs yellow. Length 5 mm.

Head transversely subquadrate, a little narrower than the thorax, the posterior angles obtusely rounded, the eyes large, longer than the temples; median interocular punctures widely separated, behind and internal to the eye with two others placed obliquely; ground-sculpture distinct. Antennæ rather short, the 4th to 10th joints transverse. Thorax as long as broad, scarcely narrowed in front, with dorsal row of five rather large punctures and two others externally. Scutellum and elytra moderately coarsely and moderately closely punctured, the latter as long as the thorax. Abdomen finely and moderately closely punctured, finely yellow pubescent like the elytra. First joint of the posterior tarsi about as long as the last.

♂: anterior tarsi dilated. 6th ventral segment with acute triangular excision filled in by membrane, the base of which is arcuately emarginate. Widely distributed throughout India. Cosmopolitan.

983. Philonthus flavocinctus.

Philonthus flavocinctus Motsch., Bull. Mosc. xxxi, 1858, ii, p. 663.
Philonthus rufomarginatus Kr., Arch. Naturg. xxv, 1859, i, p. 90.

Very closely allied to *discoideus*, of similar build and colour, but with the antennæ black, only the first two or three joints reddish-yellow, the head larger and more transverse, as broad as the thorax, the elytra more closely and the abdomen more finely punctured. Length 4–6 mm.

♂: anterior tarsi dilated. 6th ventral segment with semi-oval excision, its margin rather broadly membranous.

Ceylon. Widely distributed throughout India except the Himalayan region. Also in the rest of the Oriental region, Mauritius, and Réunion.

984. **Philonthus apicipennis,** sp. n.

Philonthus apicipennis Bernh., *in litt.*

Shining; head and thorax black, elytra and abdomen pitchy-black, the former with the posterior margin distinctly yellow, the latter somewhat iridescent, the posterior margin of the segments narrowly rufescent. Antennæ blackish, the 1st, 2nd, and 11th joints reddish-yellow; rarely reddish-yellow, with the intermediate joints infuscate. Legs yellow, tibiæ scarcely infuscate. Length 4·75–5 mm.

Near *discoideus*, but differently coloured, the build very similar, but the head narrower, though of the same shape, and with large eyes, both the head and thorax without ground-sculpture; antennæ formed as in *discoideus*; scutellum and elytra much more finely and much more closely punctured, abdomen more finely and much more densely punctured throughout. First joint of the posterior tarsi longer than the last.

♂: anterior tarsi dilated. 6th ventral segment acutely triangularly excised, the edges rather broadly bevelled.

Dehra Dun. Siwaliks: Mussoorie. Haldwani. Near the stream margins.

985. **Philonthus cinctipennis.**

Philonthus cinctipennis Fauv., Faun. Gallo-Rhén. iii, Cat. Syst. Staph. 1875, p. xxx, note; id., Bull. Soc. Linn. Norm. (3) ii, 1877–78, p. 123; id., Rev. d'Ent. v, 1886, p. 150; xxiii, 1904, p. 59.

Black, shining; the elytra with the suture, apical, and reflexed margins very narrowly and obscurely reddish; thorax with dorsal row of five punctures. Antennæ reddish, the 1st joint reddish-yellow. Legs reddish-yellow. Length 3·75–4·5 mm.

Head suborbicular (♂ and ♀) as broad as the thorax, the eyes large, longer than the post-ocular region, the median interocular punctures nearer the lateral than each other; ground-sculpture absent. Antennæ with the 4th to 6th joints a little longer than broad, gradually decreasing in length, the penultimate about as long as broad. Thorax a little longer than broad, the sides parallel, with dorsal row of five equidistant punctures; ground-sculpture absent. Elytra slightly longer and broader than the thorax, rather closely and finely punctured, finely yellow pubescent. Abdomen finely and rather closely punctured throughout, more finely behind. First joint of posterior tarsi shorter than the last.

♂ : anterior tarsi dilated. 6th ventral segment with acute triangular impression, its base rectangularly emarginate, the sides not bevelled.

India : Khandesh. Burma. Widely distributed throughout the Oriental region. Also in Egypt and Africa.

Although stated to be widely distributed throughout the Oriental region, I have not seen Indian or Oriental examples of this species, the description above being taken from African specimens determined by Fauvel. It is distinguished from *flavocinctus* by the longer and thinner antennæ, the much narrower and more obscure reddish markings of the elytra, which are less finely punctured, and by the entirely black abdomen.

986. **Philonthus leucopygus.**

Philonthus leucopygus Kr.*, Arch. Naturg. xxv, 1859, i, p. 90.

In build scarcely differing from *flavocinctus*, but the average size larger (6 mm.), the antennæ longer and more slender, the penultimate joints less transverse, the apical margin of the elytra is less broadly and distinctly reddish-yellow, conversely the posterior margin of the abdominal segments are more broadly and brightly reddish, and the posterior half of the 5th and whole of the 6th segments are bright reddish-yellow. The puncturation of the elytra and abdomen is distinctly coarser, especially at the base of the segments.

♂ : 6th ventral segment slightly emarginate (*teste* Kraatz).

"Ind. or." (without further indication). Also in the Malay Peninsula and Sumatra.

987. **Philonthus circumductus.**

Philonthus circumductus Fauv., Rev. d'Ent. xiv, 1895, p. 263.

Shining; head black, thorax and abdomen pitchy, the former rarely red, the posterior margin of the segments more or less broadly reddish; elytra with the base broadly, the suture narrowly red, the apical margin narrowly and distinctly yellow. Thorax with dorsal row of five small punctures. Antennæ with the first two and the last four joints yellowish-red. Legs reddish-yellow. Length 6 mm.

Somewhat resembling *P. discoideus*, but differently coloured, with much less closely punctured elytra and abdomen and shorter, differently coloured antennæ, rounded head, etc. Head a little transverse, suborbicular, narrower than the thorax, the eyes large, about as long as the post-ocular region, the median interocular punctures widely separated, the front with a small impression, behind and internal to the eye with two punctures placed obliquely, the post-ocular region with three or four

more: ground-sculpture wanting. Antennæ rather short, the 3rd joint scarcely longer than the 2nd, 4th as long as broad, 5th to 10th transverse. Thorax a little longer than broad, slightly narrowed in front, with dorsal row of five rather small punctures and two others externally: ground-sculpture wanting. Scutellum rather strongly and closely punctured. Elytra as long as but a little broader than the thorax, a little broader than long, finely and sparingly punctured. Abdomen transversely impressed at the base of the first three segments, and there closely and more strongly punctured, their apical halves almost impunctate, the 4th and 5th segments rather finely and closely punctured at the base. The whole insect sparingly pubescent. First joint of the posterior tarsi shorter than the last.

♂: anterior tarsi dilated. 6th ventral segment with smooth, acute, triangular impression, its base with arcuate emargination.

Burma: Carin Cheba, alt. 900–1100 metres (*Fea*). Also in the Philippines and Malay Peninsula.

988. **Philonthus vagus.**

Philonthus vagus Fauv., Rev. d'Ent. xiv, 1895, p. 263.

Shining, pitchy; the head black, thorax rarely red, the elytra with large red humeral spot, the suture narrowly reddish, the posterior margin yellow: abdomen with the posterior margin of the segments yellow. Antennæ with the first two and last four joints reddish-yellow. Legs yellow. Length 5 mm.

Near *circumductus*, but smaller and narrower, the antennæ more slender, the eyes larger, thorax a little longer, with finer punctures, elytra differently coloured, yet more sparingly punctured, the abdomen extremely finely and sparingly punctured. The whole insect yet more sparingly pubescent.

♂: 6th ventral segment narrowly and rather deeply excised, scarcely impressed in front of the excision.

Burma: Carin Asciuii Ghécu, alt. 1400–1500 metres; Tenasserim, Thagata (*Fea*). Also in Malacca and Sumatra.

989. **Philonthus fauvelianus.**

Philonthus fauvelianus Bernh., Cat. Col. Staph. iv, 1914, p. 337.
Philonthus dispersus Fauv., Rev. d'Ent. xiv, 1895, p. 264.

Shining, pitchy: the head black, the elytra with obscure red humeral spot, the suture obscurely reddish, the apical margin reddish-yellow. Abdomen with the posterior margin of the segments yellow. Antennæ with the first two and last four joints yellowish-red. Legs yellow. Length 5·5 mm.

Near *vagus*, but a little larger and less parallel, the head larger, transversely subquadrate, the antennæ longer and

stouter, the 4th and 5th joints a little longer than broad, the following less transverse, the elytra with more obscure coloration, a little longer than broad, abdomen extremely finely and sparingly but more uniformly punctured.

♂: 6th ventral segment deeply triangularly excised.

Burma: Carin Asciuii Ghécu, alt. 1400–1500 metres (*Fea*).

990. **Philonthus gentilicius.**

Philonthus gentilicius Cam., Trans. Ent. Soc. Lond. 1926. p. 353.

Black, shining; elytra red, often more or less infuscate posteriorly, the extreme apical margin testaceous. Thorax with dorsal row of five punctures on either side; posterior margins of abdominal segments narrowly rufescent, the bases of the anterior segments coarsely and closely punctured. Antennæ with the first two and the last two or three joints reddish-testaceous, the rest infuscate. Legs testaceous. Length 6–7 mm.

Allied to *P. circumductus* Fauv., but the head is more orbicular, the antennæ are longer, the penultimate joints less transverse, the elytra differently coloured and more closely punctured, the bases of the first three abdominal segments are rather less coarsely punctured. Head transversely suborbicular, a little narrower than the thorax, median interocular punctures widely separated, nearer the lateral, temples with two or three fine punctures, and on either side with a row of three punctures between the posterior border of the eye and the base, all the punctures setiferous. Temples a little shorter than the eyes. Antennæ with 3rd joint a little longer than 2nd, 4th scarcely longer than broad, 5th and 6th as long as broad, 7th to 10th slightly transverse. Thorax a little longer than broad, scarcely narrowed in front, the sides nearly parallel when seen from above; disc on either side with five moderate punctures, the anterior and posterior the more remote of the series, externally with two others and two more behind the anterior angles. Scutellum densely, moderately coarsely punctured. Elytra convex, a little broader but scarcely as long as the thorax, about as long as broad, finely but not closely punctured, red, usually with a more or less infuscate area behind the middle, not quite extending to the suture or the lateral and posterior margins, these very narrowly testaceous. Abdomen moderately coarsely and closely punctured at the bases of the first three segments, much more finely elsewhere, pubescence fine, yellowish.

♂: anterior tarsi moderately dilated. 6th ventral segment with small triangular excision, the margins smooth and shining.

Chakrata district: Manjgaon, Bangar, Mohna. Mussoorie district: Arni Gad. Dehra Dun: Siwaliks, alt. 2500–6000 feet. In damp places near streams.

991. **Philonthus fraternus.**

Philonthus fraternus Cam., Trans. Ent. Soc. Lond. 1926, p. 354.

Black, shining; elytra red, very finely, sparingly punctured; abdomen entirely black, finely, moderately closely, uniformly punctured on the anterior segments, the 5th and 6th more finely and sparingly. Thorax with dorsal row of five punctures on either side. Antennæ with the 1st joint pitchy above, ferruginous below, 2nd ferruginous, ringed with brown, 11th testaceous, the rest black. Legs brown, the tarsi fusco-testaceous. Length 7·2 mm.

Scarcely differing in build from *gentilicius*, but the antennæ have the penultimate joints a little more transverse, the legs are dark, the elytra more finely and sparingly punctured, the abdomen entirely black, the bases of the anterior segments without coarse puncturation. From *P. circumductus* Fauv. it differs in the suborbicular head, darker antennæ and legs, more finely and more closely punctured elytra, and absence of coarser puncturation at the bases of the anterior abdominal segments. First joint of the posterior tarsi longer than the last.

♂: unknown.

Simla Hills: Kotgarh, alt. 7000 feet. At edge of stream.

992. **Philonthus madurensis.**

Philonthus madurensis Bernh., Ent. Blätt. 1915, p. 255.

Shining; head black; thorax red, the posterior border more or less infuscate, with dorsal row of five fine punctures; elytra pitchy-black, the base broadly, the suture and apical margin narrowly reddish-yellow; abdomen with the first three segments red, the following black, somewhat iridescent, the posterior margin narrowly reddish-yellow. Antennæ with the first three and last two joints reddish-yellow, the others infuscate. Legs yellow. Length 4·5–5 mm.

Head in both sexes a little broader than long, suborbicular, a little narrower than the thorax, narrowed and rounded behind the eyes, these large but shorter than the post-ocular region; median interocular punctures much nearer to the lateral than to each other, at the sides behind with a few punctures; ground-sculpture absent. Antennæ with the 3rd joint longer than the 2nd, the 4th slightly longer than broad, the 5th to 10th transverse, gradually increasing in width. Thorax a little longer than broad, slightly narrowed in front, the sides straight, dorsal row of five fine punctures and two others externally. Scutellum black, rather coarsely and closely punctured. Elytra as long as but broader than the thorax, moderately finely but rather sparingly punctured, with a fine, rather long yellow pubescence and some black setæ at the sides. Abdomen finely and sparingly punctured

and yellow pubescent. First joint of the posterior tarsi about as long as the last.

♂ : anterior tarsi dilated. 6th ventral segment with acute triangular excision, the edges bevelled.

Madura Dist.: Shembaganur (*Donckier*). Nilgiri Hills (*H. L. Andrewes*).

993. **Philonthus rufiventris.**

Philonthus rufiventris Cam., E. M. M. liv, 1918, p. 170.

Shining; head black; thorax and scutellum red; elytra pitchy-black, the base broadly, the suture and posterior margin narrowly yellowish-red; abdomen with the first four segments red, the last two black, with the posterior margin reddish-yellow. Antennæ with the first three and last two joints reddish-yellow. Legs yellow. Length 5–5·5 mm.

Very closely allied to *madurensis*, differs in the stouter antennæ, the thorax not infuscate behind, the red scutellum, the first four abdominal segments red, the elytra and abdomen yet more sparingly punctured. The ♂ characters scarcely differ. This species and *madurensis* belong to the *crassicornis* group.

Ceylon: Kandy (*Bryant*).

994. **Philonthus speciosus.**

Philonthus speciosus Cam., Trans. Ent. Soc. Lond. 1926, p. 355.

Head and abdomen black; thorax red, with dorsal row of five punctures on either side; elytra black, the base and sutural margin narrowly, the sides and apical margins more broadly reddish-testaceous. Antennæ with the first two joints testaceous, the rest blackish. Legs testaceous. Length 4 mm.

Head orbicular, a little narrower than the thorax, the temples shorter than the eyes; median interocular punctures widely separated, behind the eyes on either side with an oblique row of three punctures, temples finely, rather closely punctured. Antennæ with 2nd and 3rd joints of equal length, 4th and 5th slightly longer than broad, 6th as long as broad, 7th to 10th slightly transverse. Thorax a little longer than broad, the sides parallel, on either side with a row of five small punctures, externally with two others. Elytra as long as but broader than the thorax, about as long as broad, moderately finely and moderately closely punctured, finely pubescent. Abdomen finely, closely punctured and pubescent, more sparingly on the last two segments. First joint of posterior tarsi shorter than the last.

♂ : unknown.

Dehra Dun.

995. **Philonthus quisquiliarius.**

Staphylinus quisquiliarius Gyll., Ins. Suec. ii, 1810, p. 335; Er., Käf. Mark Brand. i, 1837–39, p. 469 (*Philonthus*); id., Gen. Spec. Staph. 1839–40, p. 475; Kr., Naturg. Ins. Deutsch. ii, 1856–58, p. 607; Thoms., Skand. Col. ii, 1860, p. 160; ix, 1867, p. 151; Fauv., Faun. Gallo-Rhén. iii, 1872, p. 463; Muls. et Rey, Ann. Soc. Agr. Lyon, (4) viii, 1875, p. 492; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 455.
Philonthus brunneipennis Quedf., B. E. Z. xxvi, 1882, p. 182.
Philonthus chalceipennis Fauv., Ann. Mus. Civ. Gen. xiii, 1879, p. 547.
Philonthus linearis Hoch., Bull. Mosc. xxii, 1849, i, p. 140.
Philonthus sinuatus Woll., Col. Hesperid. 1867, p. 239.
Philonthus quisquiliarius Gyll., var. *inquinatus* Steph., Ill. Brit. Ent. v, 1832, p. 223; Fauv., Faun. Gallo-Rhén. iii, 1872, p. 463; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 455.
Philonthus dimidiatus Boisd. et Lacord., Faun. Ent. Paris, i, 1835, p. 402; Er., Käf. Mark Brand. i, 1837–39, p. 467.
Philonthus phæopus Steph., Ill. Brit. Ent. v, 1832, p. 236.
Philonthus rubidus Er., Gen. Spec. Staph. 1839–40, p. 475.
Philonthus quisquiliarius Gyll., var. *samoensis* Bernh., Arch. Naturg. lxxxviii, A, 1922, p. 150.

Shining, black; the elytra pitchy, rarely with slight greenish reflex, occasionally with obscure reddish marking behind; thorax with dorsal row of five punctures. Antennæ with the first joint reddish-yellow, the rest blackish. Legs reddish-yellow. Length 5·5–6·5 mm.

Var. *inquinatus* Steph. Elytra yellowish-red, only the base narrowly blackish. Between the type-form and this variety every gradation in elytral coloration is found.

Head suborbicular, as broad as the thorax, the eyes large, as long as the post-ocular region, median interocular punctures widely separated, behind the eyes with a few punctures; ground-sculpture extremely fine. Antennæ slender, the 3rd joint a little longer than the 2nd, 4th to 7th longer than broad, gradually decreasing in length, 8th to 10th fully as long as broad. Thorax as long as broad, scarcely narrowed in front, the sides straight, with dorsal row of five rather large punctures and two more externally. Elytra longer and broader than the thorax, moderately coarsely and rather closely punctured. Abdomen moderately finely and rather closely punctured, a little more sparingly behind. First joint of the posterior tarsi shorter than the last.

♂: anterior tarsi dilated. 6th ventral segment acutely triangularly excised, the excision filled by a membrane the base of which is arcuately emarginate; 5th ventral segment with a small, arcuate, scarcely perceptible emargination.

Widely distributed throughout India and Ceylon, the var. *inquinatus* being the commoner form. Cosmopolitan. In the Oriental region it is very abundant in the paddy-fields.

996. Philonthus ventralis.

Staphylinus ventralis Gr., Col. Micr. Brunsv. 1802, p. 174; Er., Käf. Mark Brand. i, 1837–39, p. 468 (*Philonthus*); id., Gen. Spec. Staph. 1839–40, p. 473; Kraatz, Naturg. Ins. Deutsch. ii, 1856–58, p. 605; Thoms., Skand. Col. ii, 1860, p. 160; ix, 1867, p. 150; Fauv., Faun. Gallo-Rhén. iii, 1872, p. 453; Muls. et Rey, Ann. Soc. Agric. Lyon, (4) viii, 1875, p. 481; Horn, Trans. Amer. Ent. Soc. xi, 1884, p. 211; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 455.
Staphylinus anthrax Gr., Col. Micr. Brunsv. 1802, p. 176.
Philonthus fulvipes Steph., Ill. Brit. Ent. v, 1832, p. 219.
Staphylinus immundus Gr., Mon. Col. Micr. 1806, p. 66.
Philonthus picicollis Steph., Ill. Brit. Ent. v, 1832, p. 224.
Philonthus rotundiceps Steph., l. c. p. 248.

Black, shining; the thorax and elytra often pitchy, the former with dorsal row of five large punctures. Antennæ black, the front joint reddish-yellow. Legs reddish-yellow, the tibiæ infuscate. Length 5·5–6 mm.

Closely allied to the European *debilis* Gr., but larger and more robust, the thoracic punctures larger, the elytra less closely punctured, and the first joint of the posterior tarsi shorter than the last. Head suborbicular, as broad as the thorax in the ♂, a little narrower in the ♀, eyes large, almost as long as the post-ocular region, the median interocular punctures widely separated; ground-sculpture distinct. Antennæ with the 3rd joint a little longer than the 2nd, the 4th as long as broad, the 5th to 10th distinctly transverse but not increasing much in width. Thorax about as long as broad, scarcely narrowed in front, with dorsal row of five large punctures and two others externally: ground-sculpture as on the head. Elytra as long as but a little broader than the thorax, moderately finely and moderately closely punctured. Abdomen finely and rather closely punctured in front, more sparingly behind. First joint of posterior tarsi shorter than the last.

♂: anterior tarsi scarcely dilated. 6th ventral segment with feeble, acute, triangular impression, the base of which is slightly emarginate.

Dehra Dun. Cosmopolitan.

997. Philonthus gemellus.

Philonthus gemellus Kr.*, Arch. Naturg. xxv, 1859, i, p. 91.

Shining; head black, thorax, elytra, and abdomen pitchy; thorax with dorsal row of five rather large punctures. Antennæ black, the first joint reddish-yellow. Legs reddish-yellow, the tibiæ infuscate. Length 6 mm.

Near *P. ventralis* Gr., but a little smaller, the antennæ thinner, the elytra less finely punctured, the abdomen more

closely punctured. Head subquadrate, the posterior angles rounded, narrower than the thorax, eyes rather large, but shorter than the post-ocular region; median interocular punctures widely separated, the front sulcate (more deeply in the ♂); ground-sculpture fine, longitudinal. Antennæ with the 3rd joint a little longer than the 2nd, 4th and 5th scarcely longer than broad, the 6th to 10th about as long as broad. Thorax slightly longer than broad, a little narrowed in front, with dorsal row of five rather large punctures and two others externally; ground-sculpture less fine than on the head, more or less transverse. Elytra as long as the thorax, rather closely, moderately finely punctured. Abdomen finely and closely punctured, the first and second (visible) segments on each side of the middle of the base with a small fovea. First joint of the posterior tarsi shorter than the last. Anterior tarsi simple.

♂: 6th ventral segment with acute triangular impression, its base arcuately emarginate.

Ceylon. India: Dehra Dun. Also in the Malay Peninsula and Java.

998. **Philonthus densus.**

Philonthus densus Cam., Trans. Ent. Soc. Lond. 1926, p. 355.

Black, shining; elytra bronze-black. Thorax with dorsal row of five punctures on either side. Abdomen exceedingly finely and densely punctured and pubescent, sericeous. Antennæ black. Anterior coxæ and the femora more or less testaceous, tibiæ and tarsi blackish. Length 7·5 mm.

Size and build of *P. ventralis* Gr., but the antennæ are more slender, the eyes larger, the elytra more finely and the abdomen much more finely and closely punctured and pubescent, much as in *P. sanguinolentus* Gr. Head transversely subquadrate, the posterior angles rounded, in the ♂ as broad as the thorax, the eyes large, longer than the post-ocular region, median interocular punctures widely separated, behind the eyes with an oblique row of three punctures, the temples with four or five others. Antennæ with the 3rd joint a little longer than 2nd, 4th to 10th all longer than broad, gradually decreasing in length, the 10th not much longer than broad, a little longer than 11th. Thorax a little longer than broad, the sides nearly parallel, very slightly narrowed in front, on either side of the disc with a row of five moderately large punctures and externally with three others; sides setiferous. Scutellum densely and finely punctured. Elytra a little broader, but scarcely longer than the thorax, slightly transverse, less shining than the fore-parts, finely and closely punctured, finely pubescent, the sides setiferous. Abdomen

extremely finely and very densely punctured and pubescent throughout, sericeous.

♂ : anterior tarsi dilated. 6th ventral segment with small triangular excision, the margins smooth and shining.

Chakrata district : Chulli Khud, Sainj Khud, Korawa Khud, alt. 6500–8000 feet. In dung.

999. **Philonthus beesoni.**

Philonthus beesoni Cam., Trans. Ent. Soc. Lond. 1926, p. 357.

Black, shining ; antennæ with penultimate joints longer than broad. Thorax with dorsal row of five punctures on either side of disc. Elytra very finely and moderately closely punctured. Antennæ, palpi, and legs dark, femora pitchy. Length 7 mm.

Size and build of *P. ventralis* Gr., but the antennæ are more slender, the penultimate joints a little longer than broad, the eyes larger, the puncturation of the elytra a little finer and a little closer, that of the abdomen much closer, the ground-sculpture of the fore-parts much less distinct. Head subquadrate, narrower than the thorax, the posterior angles rounded, the eyes about as long as the post-ocular region, median interocular punctures more distinct from each other than from the lateral ones, between the eye and base with an oblique row of three punctures, temples with three or four punctures. Antennæ with 3rd joint a little longer than 2nd, 4th to 10th all longer than broad, gradually decreasing in length, 11th a little longer than 10th. Thorax about as long as broad, slightly narrowed in front, on either side of disc with a row of five moderately large punctures and two others externally. Scutellum finely and rather closely punctured. Elytra a little wider than but about as long as thorax, finely and moderately closely punctured and pubescent. Abdomen very finely and rather closely punctured and pubescent, a little more sparingly behind. First joint of posterior tarsi longer than the last.

♂ : anterior tarsi dilated. 6th ventral segment with smooth triangular impression which is triangularly excised at base.

Simla district : Gahan, Matiana, Theog, Fagu, alt. 7000–8000 feet. Chakrata district : Binal Gad, alt. 7000–8000 feet. In the stream shingle.

1000. **Philonthus kashmiranus.**

Philonthus kashmiranus Bernh., Col. Rundsch. 1915, p. 52.

Very similar to *P. lederi* Epp., but differing as follows : about a half as large again, and so more elongate, the head narrower and longer, the antennæ longer, the penultimate joints a good deal longer than broad. The thorax is also much longer, narrowed in front in a straight line, the punctures

of the dorsal row finer, the ground-sculpture much finer and more sparing and so much more shining. Elytra longer, much more coarsely and twice as sparingly punctured, shining. Abdomen more sparingly punctured. The eyes distinctly larger, the temples much shorter. The first joint of the posterior tarsi much longer. Length 11 mm.

Kashmir : Kishtwar Panjal (*Rost*). Unique (ex *Bernhauer*).

1001. **Philonthus pamirensis.**

Philonthus pamirensis Shp., Col. Soc. Yark. Miss. 1891, p. 41; id., J. Asiat. Soc. Bengal, xlvii, 1878, 2, p. 170.

Near *P.* (*Staphylinus*) *tenuis* F. Rather narrow, scarcely parallel, black, the elytra red. Antennæ brown, the base testaceous. Anterior legs testaceous, the posterior brown. Abdomen finely punctured. Length 6 mm.

Antennæ stout, distinctly thickened towards the apex, the basal joint yellow. Palpi blackish. Head oval, narrow, finely punctured at the sides behind the eyes. Thorax narrower than the elytra, a little narrowed in front, black, very shining, the dorsal series consisting of five fine punctures, the lateral punctures few and fine. Elytra about as long as the thorax, red, finely punctured. Hind body narrowed towards the apex, the segments finely punctured.

♂ : front tarsi rather strongly dilated. Though closely allied to *P. tenuis* F., this species is easily distinguished by its black thorax.

A single specimen on road across Pamir from Suchol to Panja.

1002. **Philonthus longicornis.**

Philonthus longicornis Steph., Ill. Brit. Ent. v, 1832, p. 237; Woll., Trans. Ent. Soc. Lond. 1871, p. 302; Fauv., Faun. Gallo-Rhén. iii, 1872, p. 480; id., Ann. Mus. Civ. Gen. x, 1877, p. 264; Horn, Trans. Amer. Ent. Soc. xi, 1884, p. 195; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 454; Fauv., Rev. d'Ent. xxii, 1903, p. 271;
Philonthus algiricus Motsch., Bull. Mosc. xxxi, 1858, ii, p. 663.
Philonthus asemus Kr.*, Arch. Naturg. xxv, 1859, 1, p. 86.
Philonthus fumosus Solsky, Hor. Soc. Ent. Ross. v, 1867–68, p. 134.
Philonthus fuscicornis Nordm., Symb. 1837, p. 96.
Philonthus lætabilis Oll., Proc. Linn. Soc. N. S. Wales, 1887, p. 501; Lea, l. c. 1899, p. 540.
Philonthus pedestris Walk., Ann. Mag. Nat. Hist. (3) iii, 1859, p. 51.
Philonthus perplexus Fairm. et Germ., Ann. Soc. Ent. Fr. (4) i, 1861, p. 431.
Philonthus promptus Er., Gen. Spec. Staph. 1839–40, p. 929.
Philonthus scybalarius Nordm., Symb. 1837, p. 94; Kraatz, Naturg. Ins. Deutsch. ii, 1856–58, p. 601; Thoms., Skand. Col. ii, 1860, p. 164; ix, 1867, p. 153; Muls. et Rey, Ann. Soc. Agr. Lyon, (4) viii, 1875, p. 472.

Philonthus varians Fairm., Rev. Zool. 1849, p. 290; Woll., Ins. Mad. 1854, p. 583.
Philonthus varians Fairm., var. *b* Er., Käf. Mark Brand. 1837–39, p. 466; id., Gen. Spec. Staph. 1839–40, p. 470.

Black, shining; thorax with dorsal row of five punctures. Antennæ entirely black or with the 1st joint yellow below; anterior coxæ black externally, yellow within or entirely brownish-yellow; femora black or yellowish-brown. Tibiæ and tarsi black or pitchy. Length 6·5–7·5 mm.

Head short, oval, narrower than the thorax, the eyes large, longer than the post-ocular region; median interocular punctures widely separated from each other, on each side of the vertex behind with three punctures placed obliquely; ground-sculpture very fine, transverse. Antennæ slender, the 3rd joint a little longer than the 2nd, 4th to 10th all longer than broad, gradually decreasing in length, the penultimate but little longer than broad. Thorax a little longer than broad, strongly narrowed in front, with dorsal row of five moderate punctures of which the 1st and 5th are more remote respectively from the 2nd and 4th, externally with two others, ground-sculpture as on the head. Elytra as long as the thorax, finely, closely, and roughly punctured, finely pubescent. Abdomen finely and rather closely punctured. First joint of the posterior tarsi longer than the last.

The insect described as *asemus* by Kraatz is no larger than many European specimens of *longicornis*, nor is there any appreciable difference in the head. The 1st joint of the antennæ is yellowish-brown, the anterior coxæ reddish-yellow, the outer border infuscate, the femora and tibiæ are reddish-yellow, the latter infuscate, a coloration common in *longicornis*. The type is a ♀.

♂: anterior tarsi dilated. 6th ventral segment with acute triangular impression, its base with arcuate emargination.

Common and widely distributed throughout India and Ceylon. Cosmopolitan. In dung.

1003. Philonthus anepsius.

Philonthus anepsius Cam., Trans. Ent. Soc. Lond. 1926, p. 353.

Closely allied to *longicornis*, but larger (9 mm.), the antennæ entirely black, the penultimate joints only as long as broad; eyes a little longer; anterior and middle coxæ entirely yellow, the rest of the legs deep black; elytra similarly but less finely punctured, the abdomen obviously more coarsely and much less closely punctured.

♂: unknown.

♀: anterior tarsi strongly dilated.

Siwaliks. In dung.

1004. **Philonthus fœtidus**, sp. n.

Closely allied to *longicornis*, but larger (9·5–10 mm.) and more robust, the antennæ a little longer but similarly constructed, the 1st joint pitchy; head broader (especially in the ♂), transversely suborbicular, the post-ocular region shorter than the eye; abdomen a little less closely punctured; legs (including the coxæ) black.

From *anepsius* it is at once distinguished by the black coxæ, longer penultimate joints of the antennæ, and much more finely and closely punctured abdomen.

Anterior tarsi simple in ♀.

♂: anterior tarsi dilated. 6th ventral segment with acute triangular impression, its base arcuately emarginate.

Chakrata district: Kanasar, Chulli Khud, Bodyar, alt. 7500–8300 feet. Simla Hills, alt. 7600 feet. In dung.

1005. **Philonthus nigricoxis.**

Philonthus nigricoxis Cam., Ann. Mag. Nat. Hist. (10) ii, 1928, p. 562.

Very near *P. longicornis* Steph., but differing in the anterior coxæ being entirely deep black, as also are the palpi and antennæ; the penultimate joints of the latter are a little shorter, the head is also a little shorter, the elytra rather more finely punctured. The antennæ are constructed as in *peregrinus* Fauv., but the head and thorax are shorter and broader and the elytra more closely and less squamosely sculptured than in that species; moreover, in *peregrinus* the anterior coxæ are pitchy, darker externally and lighter within. The ♂ characters scarcely differ from those of *longicornis*. Length 5 mm.

Sikkim: Karponang, alt. 10,000 feet (24. iv. 1924). Tibet: Tuna, alt. 14,500 feet (9. iv. 1924).

1006. **Philonthus suspiciosus**, sp. n.

Very near *longicornis*, but with the last joint of the antennæ sometimes obscurely reddish, the 1st yellowish or pitchy, thorax shorter and broader, reddish-brown, with the punctures larger, head broader, more quadrate, the abdomen much more sparingly, less finely punctured, anterior coxæ entirely pitchy, the legs yellow, with infuscate tibiæ. Length 6 mm.

♂: 6th ventral segment not impressed, the emargination arcuate, broader, and less deep than in *longicornis*.

♀: unknown.

Burma: Ruby Mines; Tenasserim.

1007. **Philonthus cruentatus.**

Staphylinus cruentatus Gmelin, Linn. Syst. Nat. ed. 13, i, pt. iv, 1790, p. 2035; Crotch in Harold, Col. Hefte, vi, 1870, p. 100; Fauv., Faun. Gallo-Rhén. iii, 1872, p. 479; Muls. et Rey, Ann. Soc. Agric. Lyon, (4) viii, 1875, p. 469; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 454.

Staphylinus bipustulatus Panz., Faun. Germ. 27, 1795, no. 10; Er., Käf. Mark Brand. 1837–39, p. 468 (*Philonthus*); Kr., Naturg. Ins. Deutsch. ii, 1856–58, p. 601; Thoms., Skand. Col. ii. 1860, p. 164; ix, 1867, p. 154.

Philonthus cruentatus Gm., var. *extinctus* Bernh., W. Z. B. l, 1900, p. 145.

Shining, black; the elytra behind, near the suture, with a large pear-shaped blood-red marking; thorax with dorsal row of five punctures. Antennæ black. Legs black or dark brown. Length 6·5–7 mm.

The elytral marking varies much in distinctness, and is occasionally absent. Head short, oval, narrower than the thorax, the eye about as long as the post-ocular region; median interocular punctures widely separated, nearer the lateral than to each other; behind and internal to the eye with three large punctures placed obliquely, the post-ocular region with a few punctures. Antennæ with the 3rd joint a little longer than the 2nd, the penultimate about as long as broad. Thorax as long as broad, distinctly narrowed in front, with dorsal row of five punctures and two others externally; ground-sculpture distinct, as on the head. Elytra as long as the thorax, closely, moderately coarsely, roughly punctured. Abdomen closely, moderately finely punctured, more sparingly behind, the pubescence coarse. The sides of thorax, elytra, and abdomen with black setæ. First joint of the posterior tarsi longer than the last.

♂: anterior tarsi strongly dilated. 6th ventral segment with very acute triangular excision, the edges bevelled.

Chakrata district, alt. 7000–8000 feet. Widely distributed in the Palæarctic region. In dung.

1008. **Philonthus maculatus.**

Philonthus maculatus Cam., E. M. M. lvi, 1920, p. 217.

Black, shining; head suborbicular; thorax with dorsal series of five punctures; elytra scarcely bronzed, the suture narrowly and obscurely reddish, the disc with an indeterminate reddish spot extending from the shoulders to the middle; posterior margins of the abdominal segments narrowly reddish. Antennæ slender, all the joints longer than broad, the first two of them fusco-testaceous; legs testaceous, the tibiæ pitchy. Length 7·3 mm.

Allied to *P. varians* Payk., but the head is larger and rounded, with larger eyes, the antennæ a little longer and more

slender, the base lighter, the thorax is not narrowed in front, the sides being parallel, the suture of the elytra and the posterior margins of the abdominal segments are reddish, and the latter are more finely punctured and pubescent. Head suborbicular, narrower than the thorax, the median interocular punctures widely separated; the eyes large, their diameter longer than the temples. Antennæ slender, all the joints longer than broad, the 11th as long as the 10th. Thorax scarcely longer than broad, the sides parallel; disc with five moderate punctures on either side and three others externally. Scutellum black, finely and pretty closely punctured. Elytra a little shorter than the thorax, slightly transverse and of the colour indicated, finely and closely punctured and pubescent. Abdomen very finely and closely punctured and pubescent, a little more sparingly behind. First joint of the posterior tarsi longer than the last.

♂: anterior tarsi strongly dilated. 6th ventral segment triangularly excised.

Mysore, alt. 4400 feet.

1009. **Philonthus varians.**

Staphylinus varians Payk., Mon. Staph. 1789, p. 45; Er., Gen. Spec. Staph. 1839–40, p. 470 (ex parte) (*Philonthus*); Kraatz, Naturg. Ins. Deutsch. ii, 1856–58, p. 602; Fauv., Faun. Gallo-Rhén. iii, 1872, p. 481 (ex parte); Muls. et Rey, Ann. Soc. Agric. Lyon, (4) viii, 1875, p. 475; Horn, Trans. Amer. Ent. Soc. xi, 1884, p. 195; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 454.
Philonthus alpigradus Muls. et Rey, Ann. Soc. Agric. Lyon, (4) viii, 1875, p. 481.
Staphylinus aterrimus Marsh., Ent. Brit. 1802, p. 513.
Staphylinus bimaculatus Marsh., l. c. p. 525.
Staphylinus bipustulatus Gr., Col. Micr. Brunsv. 1802, p. 37.
Philonthus costatus Baudi, Stud. Ent. 1848, p. 28 (monstr.).
Philonthus incompletus Hochh., Bull. Mosc. xii, 1849, p. 153 (monstr.).
Philonthus intaminatus Steph., Ill. Brit. Ent. v, 1832, p. 235.
Philonthus lituratus Steph., l. c. p. 238.
Staphylinus nitens Gr., Col. Micr. Brunsv. 1802, p. 26.
Philonthus opacus Gyll., Ins. Suec. ii, 1810, p. 340; Er., Käf. Mark Brand. i, 1837–39, p. 465; Thoms., Skand. Col. ii, 1860, p. 164.
Philonthus punctiventris Steph., Ill. Brit. Ent. v. 1832, p. 235.
Philonthus unicolor Steph., l. c. p. 224.
Ab. *piceicoxis* Grid., Atti Accad. Ven. Trent. Istr. xi, 1920, p. 6.

Shining, black, occasionally with very slight bronze reflex; the elytra at the shoulder with oblique reddish indeterminate marking extending to about the middle of the disc. Thorax with dorsal row of five punctures. Abdomen slightly iridescent. Antennæ black. Coxæ yellow, infuscate externally; femora yellow or brownish-yellow; tibiæ and tarsi infuscate. Length 6 mm.

Near *longicornis*, but with the head narrower, the eye as long as the post-ocular region, the antennæ more slender, with longer penultimate joints, differently coloured elytra, and rather more finely punctured abdomen. First joint of the posterior tarsi longer than the last. Varies considerably in the size and distinctness of the elytral marking, the femora also are often brown.

♂: anterior tarsi dilated. 6th ventral segment acutely excised, the margin bevelled.

Burma: Ruby Mines (*Doherty*). Common and widely distributed in the Palæarctic and Nearctic regions; also in Africa.

1010. **Philonthus minutus.**

Philonthus minutus Boh., Ins. Caffr. i, 1848, p. 279.
Philonthus longiceps Fauv., Ann. Mus. Civ. Gen. xv, 1879–80, p. 104.
Philonthus mutans Shp.*, Trans. Ent. Soc. Lond. 1874, p. 43.
Philonthus parviceps Kr.*, Arch. Naturg. xxv, 1859, i, p. 86.
Philonthus rufocinctus Fauv., Bull. Soc. Linn. Norm. (3) ii, 1877–78, p. 126.

Pisciform, black, shining; the elytra pitchy, with the suture and apical margin narrowly, the reflexed margin more broadly reddish-yellow; abdomen slightly iridescent. Thorax with dorsal row of five punctures. Antennæ black, the 1st joint yellow. Legs yellow, the tibiæ infuscate. Length 5–7 mm.

In facies much resembling *varians*, but the average size is smaller and the elytra differently coloured. Head narrow, oval, the eye a little longer than the post-ocular region; median interocular punctures nearer the lateral than each other; ground-sculpture fine. Antennæ rather slender, the 3rd joint a little longer than the 2nd, 4th to 10th all longer than broad, gradually decreasing in length, the penultimate only a little longer than broad, the 11th longer than the 10th. Thorax as long as broad, distinctly narrowed in front, with dorsal row of five moderate punctures and two others externally. Elytra slightly longer and broader than the thorax, closely and finely punctured, with a rather coarse yellowish pubescence. Abdomen narrowed behind, closely and finely punctured and finely pubescent. First joint of posterior tarsi longer than the last.

♂: anterior tarsi dilated. 6th ventral segment with an acute triangular impression, its base with small arcuate emargination.

Common and widely distributed throughout India and Ceylon. Also in S. Europe, Africa, and the Oriental region as far as Japan and New Guinea.

1011. **Philonthus ingratulus**, sp. n.

Head black, thorax reddish-brown, with dorsal row of five punctures, elytra brownish-yellow, abdomen brown. Antennæ blackish, the first two joints yellow. Legs yellow, the tibiæ scarcely infuscate. Length 4 mm.

In size and colour very similar to *thermarum*, but differs in the build of the head and thorax; systematically near *minutus*, from which it scarcely differs in build, but the antennæ are shorter, the penultimate joints transverse, the elytra and abdomen rather less closely punctured, the size smaller, and the colour different. First joint of the posterior tarsi longer than the last.

♂: unknown.

Mussoorie district: Arni Gad.

1012. **Philonthus peregrinus.**

Philonthus peregrinus Fauv., Ann. Soc. Ent. Fr. (4) vi, 1866, p. 315.
Philonthus piceicoxis Epp., D. E. Z. 1895, p. 127.

Black, shining; thorax with dorsal row of five punctures. Antennæ black. Legs black or pitchy, the femora often yellowish-brown, the anterior coxæ yellow internally. Length 5–7·5 mm.

Of the size and build of *varians*, but differently coloured, the antennæ shorter, the penultimate only slightly longer than broad, the elytra and abdomen less finely punctured; from *longicornis* it differs in the narrower head, the thorax more narrowed in front, and the less finely, squamosely punctured elytra. First joint of the posterior tarsi longer than the last.

♂: anterior tarsi dilated. 6th ventral segment with acute triangular impression, its base arcuately emarginate.

W. Himalayas: Chamba State. Dehra Dun and Chakrata districts. Also in Africa, Madagascar, Comoro Islands, Mauritius, Réunion, and Seychelles.

1013. **Philonthus distinctus.**

Philonthus distinctus Gemm. et Har., Cat. Col. ii, 1868, p. 587.
Philonthus antennatus Motsch., Bull. Mosc. xxxi, 1858, ii, p. 664.

Resembles *Gabrius vernalis* in build and coloration, but with round head. Black; mouth-parts, base of the antennæ, ends of the palpi, knees, tarsi, and margin of the abdominal segments more or less reddish-testaceous, the rest of the legs, femora and coxæ infuscate. Head with four punctures on each side internal to the eyes and several others posteriorly. Thorax a little broader than the head, but not longer, with dorsal row of five punctures. Scutellum triangular, finely punctured like the base of the elytra, these as long as but

broader than the thorax, square, the puncturation becoming less close and less strong towards the apex, pubescence yellowish-white. Puncturation of the abdomen feeble, the pubescence very similar to that of the elytra. The club of the antennæ is rather large and black, the end of the last joint emarginate and pale.

"Ind. or." (without further indication) (ex *Motschoulsky*).

Philonthus (*Gabrius*) *vernalis* has a length of 5·5–6 mm.

1014. **Philonthus thermarum.**

Philonthus thermarum Aubé, Ann. Soc. Ent. Fr. (2) viii, 1850, p. 316 ; Kraatz, Naturg. Ins. Deutsch. ii, 1856–58, p. 608 ; Fauv., Faun. Gallo-Rhén. iii, 1872, p. 470 ; Muls. et Rey, Ann. Soc. Agric. Lyon, (4) viii, 1875, p. 546 ; Horn, Trans. Amer. Ent. Soc. 1884, p. 196 ; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 460 ; Fauv., Rev. d'Ent. xxii, 1903, p. 271.
Philonthus angustatus Kr., Arch. Naturg. xxv, 1859, i, p. 92.
Philonthus brevicenter Sperk, Bull. Mosc. viii, 1835, p. 153.
Philonthus exilis Kr., Stett. Ent. Zeit. xii, 1851, p. 293.
Philonthus fuscolaterus Motsch., Étud. Ent. viii, 1859, p. 76.
Philonthus inclinans Walk., Ann. Mag. Nat. Hist. (3) iii, 1859, p. 51.
Philonthus pygmæus Kr., Arch. Naturg. xxv, 1859, i, p. 93.

Belongs to the subgenus *Gabrius*. Shining, head pitchy-black, thorax reddish-brown, with dorsal series of five punctures ; elytra brownish-yellow, often a little infuscate about the scutellum ; abdomen pitchy, the posterior margin of the segments reddish, the apex brownish-yellow. Antennæ brown, the first two joints yellow. Legs yellow. Length 2·5–3·5 mm.

Head oblong, narrower than the thorax, the posterior angles rather broadly rounded, the eyes small, much shorter than the post-ocular region ; median interocular punctures widely separated, much nearer the lateral than each other, behind and internal to the eye with a puncture and before the base with four others, post-ocular region with two or three more ; ground-sculpture well-marked. Antennæ with the 3rd joint a little longer than the 2nd, 4th about as long as broad, 5th to 10th transverse, scarcely increasing in width. Thorax oblong, slightly narrowed in front, with dorsal row of five moderate punctures and two others externally ; ground-sculpture as on the head. Elytra a little longer and broader than the thorax, moderately coarsely and not very closely punctured. Abdomen very finely, closely punctured, finely and closely pubescent. First joint of the posterior tarsi as long as the last.

♂ : anterior tarsi dilated. 6th ventral segment triangularly impressed, the base of the impression obtusely emarginate.

Widely distributed in India and Ceylon. Cosmopolitan. In manure heaps and debris.

1015. **Philonthus disjunctus.**

Philonthus disjunctus Bernh., Cat. Col. Staph. iv, 1914, p. 336.
Philonthus distans Fauv., Rev. d'Ent. xiv, 1895, p. 265 (præoc.).

Build and size of *nigritulus* Gr., but with the dorsal row of punctures less numerous and differently arranged. Black, shining, sparingly yellow pubescent, the elytra with greenish-reflex, the abdomen scarcely iridescent; palpi, first three joints of the antennæ and the tibiæ pitchy, femora testaceous, tarsi more or less reddish. Antennæ thicker and a little longer, head shorter and broader, oval, eyes larger, the front slightly sulcate, between the eyes on each side with two punctures placed obliquely, on each side of the vertex internal to the eye with three more similarly placed. Thorax broader, a little narrowed from base to apex, the posterior angles less rounded, with somewhat oblique row of four † punctures, of which the first is very distant from the front margin; scutellum and elytra punctured as in *nigritulus*, the abdomen finely, obsoletely punctured; elytra broader.

♂: 7th [6th] ventral segment truncate, scarcely visibly sinuate, from the middle to the apex sulcate. Length 5·5 mm.

Burma: Carin Asciuii Ghécu, alt. 1400–1500 metres (*L. Fea*) (ex *Fauvel*).

1016. **Philonthus lineifrons.**

Philonthus (*Gabrius*) *lineifrons* Cam., Trans. Ent. Soc. Lond. 1926, p. 359.

Black, shining; elytra brownish-testaceous, darker at the scutellum and along the suture. Thorax with dorsal row of five punctures on either side. Antennæ black, the 1st joint pitchy. Legs testaceous, the tibiæ pitchy. Length 4–4·5 mm.

Near *P. thermarum* Aubé, but darker coloured, with less finely punctured elytra and less closely punctured abdomen, and with a narrow, deeply impressed line on the front, often extending as far as the vertex. Head oblong, narrower than the thorax, the temples longer than the diameter of the eyes, median interocular punctures widely separated, the front narrowly, deeply impressed, vertex on either side with two obliquely placed punctures, temples with three punctures, two of them against the eye. Antennæ with 3rd joint a little longer than 2nd, 4th slightly longer than broad, 5th and 6th about as long as broad, 7th to 10th very slightly transverse. Thorax a little longer than broad, the sides parallel, the disc on either side with a row of five punctures, externally with five others. Scutellum black, with seven or eight punctures,

† Fauvel does not include the anterior puncture in his enumeration.

externally with five others. Scutellum black, with seven or eight punctures. Elytra broader and a little longer than the thorax, moderately finely and moderately closely punctured. Abdomen finely and moderately closely punctured, rather more sparingly on the 7th and 8th segments, finely pubescent.

♂ : 6th ventral segment with small triangular impression, the base of which is very feebly crescentically emarginate.

Simla and Chakrata districts, alt. 7000–8000 feet. In dung and vegetable debris.

1017. **Philonthus pulchellus.**

Philonthus pulchellus Kr., Arch. Naturg. xxv, 1859, i, p. 92.

Shining; head reddish-brown, thorax and elytra red, the latter darker in front, abdomen pitchy-black, the posterior margins of the segments narrowly reddish; thorax with dorsal row of five punctures. Antennæ brown, the first three joints yellow. Legs yellow. Length 3 mm.

Very near *P. thermarum*, but more brightly coloured, the antennæ a little longer and distinctly more slender, the thorax more narrowed in front. Head oval oblong, narrower than the thorax, the post-ocular region much longer than the eye; median and lateral interocular punctures close together, the sides behind with a few small punctures; ground-sculpture very fine. Antennæ with the 3rd joint a little longer than the 2nd, 4th very slightly longer than broad, 5th to 10th about as long as broad, subequal. Thorax longer than broad, the sides straight and retracted in front, the dorsal row of five small punctures and two others externally. Scutellum with a few fine punctures. Elytra as long as but a little broader than the thorax, rather sparingly and moderately finely punctured. Abdomen finely and rather closely punctured, with a fine yellow pubescence as on the elytra. Anterior tarsi simple. First joint of the posterior tarsi shorter than the last.

♂ : 6th ventral segment with acute triangular excision, the edges rather broadly bevelled.

Ceylon. Also in Singapore, Penang, Sumatra, and Java.

1018. **Philonthus atkinsoni**, sp. n.

Black, shining; head and thorax not iridescent, the latter with dorsal row of six large punctures, the posterior more remote. Antennæ obscure ferruginous red, the 1st joint and base of 2nd reddish-yellow. Legs yellowish-brown, the tibiæ pitchy. Length 9 mm.

Head transverse, subquadrate, as broad as the thorax; median interocular punctures widely separated; at the inner

margin of the eye with three or four small punctures, on either side of the vertex behind with two large punctures placed obliquely, the post-ocular region with a few small punctures, on each side of the base with a few more. Antennæ with the 3rd joint longer than the 2nd, the 4th a little longer than broad, 5th about as long as broad, the following slightly transverse. Thorax about as long as broad, the sides, as seen from above, straight and retracted behind ; dorsal row of six large punctures, two others externally and two or three more behind the anterior angles ; ground-sculpture as on the head, scutellum finely and closely punctured. Elytra as long as the thorax, finely and closely punctured, with fine yellowish pubescence. Abdomen closely and finely punctured, a little more sparingly behind, with fine yellow pubescence.

This species is very similar in facies to *P. suspectus* Er. from Brazil, but the elytra are much more closely punctured and without metallic reflex, and the abdomen is much more closely punctured also.

♂ : 6th ventral segment with very small, smooth, triangular impression, its base feebly emarginate.

Bengal : Berhampore. In British Museum Collection.

1019. **Philonthus siwalikensis.**

Philonthus siwalikensis Cam., Trans. Ent. Soc. Lond. 1926, p. 357.

Black, shining ; the elytra more opaque, slightly bronzed. Thorax with dorsal row on either side of six punctures. Abdomen with the bases of the first five visible segments very closely and moderately coarsely punctured. Palpi reddish-testaceous. Antennæ with 1st joint reddish-testaceous, the last one or two somewhat obscure testaceous. Femora and tarsi testaceous, the tibiæ pitchy-black. Length 9 mm.

Near *P. fumarius* Gr., but rather less robust, the head rather broader, the thorax more parallel-sided, the elytra not quite so closely punctured, the abdomen much more closely and much less finely punctured at the bases of the segments ; the structure of the antennæ and the colour of the elytra are practically the same as in *P. fumarius*. Head suborbicular, narrower than the thorax, a little narrowed behind, the eyes large, longer than the post-ocular region, the median inter-ocular punctures widely separated, much nearer the lateral ones than to each other ; between the eye and the base with a curved row of four punctures, temples with a few fine punctures. Antennæ with the 3rd joint considerably longer than 2nd, 4th to 10th all longer than broad, gradually decreasing in length, the 10th only a little longer than broad. Thorax slightly longer than broad, scarcely narrowed in front, the sides nearly parallel when viewed from above ; disc on either

side with six moderate punctures, externally with two others, finely transversely strigose. Scutellum finely, closely, asperately punctured. Elytra broader but about as long as the thorax, finely and closely punctured and pubescent. Abdomen closely and moderately coarsely punctured at the bases of the first five visible segments, less closely and more finely elsewhere. First joint of posterior tarsi longer than the last.

♂: anterior tarsi dilated. 6th ventral segment with rather long, narrow, triangular smooth impression in the middle posteriorly, the base nearly semicircularly excised.

Siwaliks: Kheri Rau, Mohan Rau, Lachiwala, Song River. At the edges of the water.

1020 **Philonthus persimilis.**

Philonthus persimilis Cam., Trans. Ent. Soc. Lond. 1926, p. 358.

Very near *siwalikensis*, but differs in the 1st joint of the antennæ being entirely black, the last obscurely reddish, the palpi pitchy, the legs entirely dark, the elytra rather more coarsely punctured and a little longer. In the ♂ the 6th ventral segment is more broadly and less deeply excised.

Siwaliks: Kheri Rau, Song River. Mussoorie district: Aglar River, Arni Gad, Keyarkuli, alt. 6000 feet. Simla district: Fagu, alt. 8000 feet. Assam: Naga Hills. Of similar habits to *siwalikensis*.

1021. **Philonthus rivularis.**

Shining, black; the elytra with scarcely perceptible metallic reflex; thorax with dorsal row of six punctures. Antennæ black. Legs pitchy-black. Length 7·5–8 mm.

Very near *persimilis*, but a little smaller and less robust, the elytra scarcely metallic and more finely punctured. Head (♂ and ♀) suborbicular, narrower than the thorax, the eyes a little shorter than the post-ocular region, the median inter-ocular punctures widely separated, adjacent to the inner margin of the eye with closely placed punctures of varying size, the post-ocular region closely and finely punctured; ground-sculpture very fine. Antennæ long and slender, the 3rd joint distinctly longer than the 2nd, the 4th to 10th all distinctly longer than broad, gradually decreasing in length, the 11th about as long as the 10th. Thorax narrow, parallel, distinctly longer than broad, with dorsal row of six rather large punctures and two others externally, the ground-sculpture as on the head. Elytra distinctly longer and broader than the thorax, very finely, closely punctured, finely pubescent. Abdomen with the first three (visible) segments transversely

impressed at the base, and there closely and more coarsely punctured, the 4th and 5th segments more finely but equally closely punctured, 6th very finely and sparingly punctured, finely pubescent. First joint of the posterior tarsi longer than the last.

♂ : anterior tarsi dilated. 6th ventral segment with acute triangular impression, its base arcuately emarginate.

Dehra Dun : Song River. Mussoorie : Arni Gad, Aglar River. Simla Hills : Fagu. Sikkim : Namsoo. This species is found on the banks of streams.

1022. **Philonthus christiei.**

Philonthus christiei Bernh., Arch. Naturg. lxxxiv. 1918, A. p. 181.
Philonthus masuriensis Cam., Trans. Ent. Soc. Lond. 1926. p. 358.

Black, shining ; elytra pitchy-black or pitchy-brown ; thorax with dorsal row of six punctures. Abdomen with the posterior margin of the segments narrowly reddish. First joint of antennæ pitchy or pitchy-testaceous, the penultimate joints scarcely transverse ; femora testaceous, the tibiæ and tarsi pitchy. Length 6–7 mm.

Of similar build and closely allied to *P. micans* Gr., but the head is shorter and broader (especially in the ♂), the antennæ are shorter, the penultimate joints very slightly transverse, the elytra a little less finely and less closely punctured and without ground-sculpture and a little shorter ; the abdomen is very similarly punctured, but the pubescence is rather less coarse. Head (in the ♂) large, subquadrate, as broad as the thorax, the temples a little longer than the eyes, median inter-ocular punctures distant, nearer to the lateral ones than to each other, disc on either side behind with two punctures and one midway between the posterior border of the eye and the base, ground-sculpture very fine, transversely strigose. Antennæ with 2nd joint shorter than 3rd, 4th and 5th slightly longer than broad, 6th and 7th as long as broad, 8th to 10th slightly transverse. Thorax about as long as broad, a little narrowed in front, the sides (viewed from above) straight, the disc on either side with a row of six moderate punctures and externally with two others, near the lateral margin with three more, ground-sculpture similar to the head and, in certain lights, sericeous. Scutellum closely and moderately finely punctured. Elytra broader than and about as long as the thorax, finely and rather closely punctured, finely pubescent and without ground-sculpture. Abdomen very finely and closely punctured and pubescent throughout.

♂ : head broader, subquadrate ; anterior tarsi dilated. 6th ventral segment with a deep, smooth, triangular impression

the base of which is triangularly excised; 5th with a very small arcuate emargination in the middle of the posterior border.

Sikkim: Darjeeling. Mussoorie district: Dhobi Ghat. Chakrata district: Bodyar. Simla Hills: Kotgarh, alt. 5000–8000 feet. In dung.

1023. **Philonthus fluviatilis**, sp. n.

Near *christiei*; similarly coloured but narrower, the head a little longer and narrower, the eyes smaller, thorax narrower, elytra less finely and less closely punctured, abdomen much less closely punctured. First joint of posterior tarsi shorter than the last. Length 6 mm.

♂: unknown.

Assam: Naga Hills, alt. 5000 feet.

1024. **Philonthus basipilosus.**

Philonthus basipilosus Schub.*, D. E. Z. 1908, p. 621.

Black, shining; the base of the elytra and abdominal segments at the sides more thickly pubescent; thorax with dorsal row of six punctures. Antennæ black. Legs pitchy. Length 4·5–5 mm.

Somewhat similar in build to the European *tenuis*, but with broader head and different colour. Head oval, scarcely as broad as the thorax, the eyes small, about a third as long as the post-ocular region; median interocular punctures very small, only slightly more distant from each other than from the lateral, the vertex on each side behind with two obliquely placed punctures, the post-ocular region with a few others; ground-sculpture very fine, transverse. Antennæ rather stout, 2nd and 3rd joints of about equal length, 4th and 5th scarcely longer than broad, the following distinctly transverse, gradually increasing in width. Thorax slightly longer than broad, the sides scarcely retracted behind, with dorsal row of six small punctures and two others externally; ground-sculpture less distinct than on the head. Elytra as long as but broader than the thorax, finely and not very closely punctured except at the base, where, also, the yellowish pubescence is distinctly thicker. Abdomen with the anterior segments transversely impressed at the base, finely and not very closely punctured and pubescent, except at the sides of the segments, where the pubescence is more evident. First joint of the posterior tarsi longer than the last.

♂: anterior tarsi dilated. 6th ventral segment with acute, smooth, triangular impression, its base arcuately emarginate.

Punjab: Kulu; Bashahr State, alt. 6000–8000 feet.

1025. **Philonthus differens.**

This only differs from *apicipennis* in the presence of six rather large punctures in the dorsal thoracic row, whereas in *apicipennis* there are only five, and these are finer; the puncturation of the elytra is a little finer in *apicipennis*. It is, perhaps, only an aberration of the latter. Length 6 mm.

Nilgiri Hills (*H. L. Andrewes*).

1026. **Philonthus rubricollis.**

Philonthus rubricollis Motsch., Bull. Mosc. xxxi, 1858, ii, p. 665.
Philonthus erythrostictus Kr.*, Arch. Naturg. xxv, 1859, i. p. 94.

This species only differs from *assamensis* by having six punctures in the dorsal row on the thorax. Length 5 mm.

♂: anterior tarsi dilated. 6th ventral segment triangularly impressed, its base arcuately emarginate.

Bihar: Katihar.

1027. **Philonthus fuscatus.**

Philonthus fuscatus Kr.*, Arch. Naturg. xxv, 1859, i, p. 95.

Differs from *rubricollis* in the smaller size (4·5 mm.), smaller, oval head, less densely punctured elytra, abdomen more reddish, rather more finely but equally closely punctured. The first three joints of the antennæ are reddish-yellow.

Ceylon.

1028. **Philonthus turbidus.**

Philonthus turbidus Er., Gen. Spec. Staph. 1839–40, p. 484; Shp., Faun. Haw. iii, v, 1908, p. 548.
Philonthus pharao Saulcy, Ann. Soc. Ent. Fr. (4) iv, 1864, p. 639.
Philonthus punctipennis Woll.*, Cat. Col. Mader. 1857, p. 192.
Philonthus rubiginosus Solsky, Hor. Soc. Ent. Ross. v, 1867, p. 30.

Black, shining; thorax with dorsal row of six punctures, in certain lights with sericeous reflex; abdomen slightly iridescent. Antennæ black, the 1st joint and sometimes the last reddish. Legs yellowish-red. Length 8 mm.

Head narrower than the thorax, oblong-ovate, eyes rather large, but little shorter than the post-ocular region; median interocular punctures widely separated, behind the eyes with several small punctures; ground-sculpture fine and transverse. Antennæ with the 3rd joint longer than the 2nd, the 4th to 10th all longer than broad, gradually decreasing in length, the penultimate only slightly longer than broad. Thorax longer than broad, narrowed in front, with dorsal row of six moderate punctures and three others externally; ground-sculpture as on the head. Scutellum finely and closely punctured. Elytra longer and a little broader than the thorax, closely, moderately finely punctured. Abdomen

closely and more finely punctured than the elytra, the 6th segment much less closely, pubescence black, rather close. First joint of posterior tarsi about as long as the last.

♂: anterior tarsi strongly dilated. 6th ventral segment with triangular impression, its base arcuately emarginate.

Assam. Also in Egypt, Morocco, Somaliland, Madagascar, Mauritius, Syria, S. Russia, and Madeira.

1029. **Philonthus acuminatus.**

Philonthus acuminatus Kr., Arch. Naturg. xxv, 1859, i, p. 93.

Shining, black; the elytra with slight greenish reflex; thorax with dorsal row of six punctures. Antennæ black. Legs pitchy-black. Length 6 mm.

In build somewhat similar to the European *fulvipes* F., but the head and thorax longer and the colour different. Head long, narrow, oval, narrower than the thorax, the eye shorter than the rather closely punctured post-ocular region; median interocular punctures widely separated; ground-sculpture very fine. Antennæ rather long, the 4th to 10th joints longer than broad, gradually decreasing in length, the penultimate joints only slightly longer than broad. Thorax longer than broad, narrowed in front, the sides nearly straight, with dorsal row of six moderate punctures and two others externally; ground-sculpture as on the head. Elytra as long as but broader than the thorax, finely and moderately closely punctured, finely pubescent. Abdomen gradually narrowed behind, finely and sparingly punctured, more closely at the base of the first three segments, pubescence rather long and sparing. First joint of the posterior tarsi longer than the last.

♂: anterior tarsi dilated.

Ceylon: Bogawantalawa, 4900–5200 feet.

1030. **Philonthus perniger.**

Philonthus perniger Bernh., Arch. Naturg. lxxxiv, 1918, A, p.181.

Amongst the species with dorsal series of six punctures distinguished by the uniformly deep black colour. In build similar to *debilis* Gr. Formerly I regarded it as *acuminatus*, which species was then unknown to me, and has a similar colour, but it differs from it in the dark legs, larger, much broader build, the parts of the body shorter, broader neck, more closely punctured elytra and much stronger puncturation of the abdomen. Head narrower than the thorax, only slightly longer than broad, the median interocular punctures nearer the lateral than to each other, behind the eyes with a large number of strong punctures. Antennæ shorter than the head and thorax, the penultimate joints very slightly broader than long. Thorax a little narrower than the elytra, scarcely

longer than broad, the sides nearly straight, slightly retracted in front, rounded behind, with dorsal row of six large punctures, externally with two others placed obliquely. Elytra not or scarcely longer than the thorax, slightly widened behind, rather strongly and moderately closely punctured. Abdomen on the basal half of the segments rather strongly, on the posterior half and on the 7th segment more finely and sparingly punctured. First joint of the posterior tarsi rather short, scarcely longer than the last. Length 5–6·5 mm.

♂: anterior tarsi dilated. 6th ventral segment slightly emarginate.

Madura Dist.: Shembaganur (*Donckier*, 1912) (ex *Bernhauer*).

1031. **Philonthus asiaticus.**

Philonthus asiaticus Bernh., D. E. Z. 1902, p. 27.

Black, shining; the elytra bronze-green, the legs and base of the antennæ pitchy; head orbicular, narrowed towards the base; thorax oblong, with dorsal series of six punctures; elytra as broad as the thorax, closely and finely punctured; abdomen subopaque, finely and closely punctured. Length 7 mm. (3¼ lin.).

Resembles *flavipes* in the colour of the elytra and to some extent in the build, but the thorax is longer and with six punctures in the dorsal row, and the elytra much more closely and finely punctured, the base of the antennæ and the legs pitch-brown. Head longer than broad, distinctly narrowed behind, the posterior angles broadly rounded, the median interocular punctures close to the lateral, sparingly punctured behind the eyes, these rather large, as long as the temples. Antennæ rather long, the penultimate joints only slightly transverse. Thorax about half as long again as broad, the sides parallel, with dorsal row of six punctures, externally with two others not quite parallel with them. Elytra as long as the thorax, much longer than broad, metallic green, rather finely and closely punctured. Abdomen scarcely more finely punctured than the elytra, at the base of the anterior segments very closely, on their apical half and the whole of the 7th segment less closely punctured; the basal line of the anterior segments straight.

Ceylon: Kanthaley. Unique (ex *Bernhauer*).

1032. **Philonthus oculatus.**

Philonthus oculatus Bernh., D. E. Z. 1902, p. 28.

Shining, black; elytra bronze-green; antennæ slender, the base and apex reddish-yellow; legs reddish-yellow. Head orbicular, narrowed towards the base; thorax elongate, with dorsal row of six punctures. Length 6 mm.

Build of *asiaticus*, but smaller and narrower, with larger eyes, shorter temples, and longer antennæ. Head as long as broad, as broad as the thorax, narrowed behind, with very large prominent eyes, much longer than the temples when viewed from above; near the eyes on each side and on the temples with rather close large and small punctures. Antennæ long and slender, the penultimate joints much longer than broad, the base and the last two joints yellow. Thorax much narrower than the elytra, much longer than broad, the sides parallel, with dorsal row of six large punctures, externally with two others placed obliquely. Elytra metallic greenish, scarcely longer than the thorax, finely and closely punctured, closely pubescent. Abdomen rather coarsely and closely punctured on the basal half of the segments, on the apical half and on the whole of the 7th finely and sparingly punctured. First joint of the posterior tarsi longer than the last.

Ceylon: Negombo. Unique (ex *Bernhauer*).

1033. **Philonthus almorensis**, sp. n.

Black, shining; thorax with dorsal row of six punctures. Antennæ black. Legs yellowish-brown, the tibiæ darker. Length 7·5 mm.

Somewhat resembling *acuminatus* by reason of the pointed abdomen and narrow head, but in other respects quite different. Head oblong, as broad as the thorax, the posterior angles rounded, the eyes small, the median interocular punctures widely separated; vertex behind on each side with two obliquely placed punctures, the post-ocular region with a few more; ground-sculpture very fine, wavy. Antennæ rather long, the 3rd joint longer than the 2nd, 4th to 8th longer than broad, gradually decreasing in length, 9th and 10th about as long as broad. Thorax about a fourth longer than broad, slightly narrowed behind, with dorsal row of six moderate punctures and two others externally, the ground-sculpture as on the head. Elytra a fourth longer and distinctly broader than the thorax, rather finely and closely punctured. Abdomen distinctly narrowed behind, very finely and rather closely punctured, much more sparingly on the last segment, pubescence fine. First joint of the posterior tarsi shorter than the last. Anterior tarsi simple.

♂: unknown.

Almora, Dhauli Ganga.

1034. **Philonthus himalayicus.**

Philonthus himalayicus Bernh., Col. Rundsch. 1915, p. 52.

In build somewhat similar to *P. turcmenus* Fauv., but readily distinguished both from it and the allied species by its

colour. Larger than *turcmenus*, deep black, the elytra bright bluish, the head broader and shorter, only slightly longer than broad, almost quadrate, the antennæ shorter, the penultimate joints more transverse. Elytra more finely and much more sparingly punctured, scarcely half as closely punctured as *turcmenus* and more shining. Abdomen more shining, scarcely a third as closely punctured. Length 5 mm.

Kulu, alt. 10,000 feet (*Rost*). Unique (ex *Bernhauer*).

1035. **Philonthus autumnalis**, sp. n.

Black, shining; the elytra with greenish-metallic reflex; thorax with dorsal row of six punctures. Antennæ black. Legs reddish-yellow, the tibiæ infuscate. Length 6 mm.

In size and build similar to the European *astutus* Er., but with the antennæ a little longer and thinner, the penultimate joints less transverse, and the elytra differently coloured and more finely punctured, the abdomen much more finely and closely punctured. Head (♂) as broad as the thorax, oval, the eyes less than half the length of the post-ocular region, the median interocular punctures widely separated, the front lightly impressed; ground-sculpture fine and wavy. Antennæ with the 3rd joint as long as the 2nd, 4th to 10th gradually decreasing in length, the penultimate slightly transverse. Thorax distinctly longer than broad, narrowed behind, with dorsal row of six rather large punctures and two others externally, the ground-sculpture as on the head. Elytra longer and broader than the thorax, finely and closely punctured. Abdomen finely and closely punctured and pubescent, more sparingly on the last segment. First joint of posterior tarsi shorter than the last.

♂: anterior tarsi simple. 6th ventral segment with large triangular impression closely covered with stiff setæ, its base broadly obtusely emarginate, its borders closely set with long yellow setæ.

♀: unknown.

Mussoorie district: Keyarkuli, alt. 7000 feet.

1036. **Philonthus lapidicola**, sp. n.

Near *autumnalis*, but with the head (♀) shorter and broader, more suborbicular, as broad as the thorax, the antennæ shorter and stouter, the penultimate joints more transverse, ground-sculpture almost absent on the thorax, elytra a little less finely punctured, abdomen much less shining, subopaque, much more closely punctured and pubescent, subsericeous; legs pitchy. Length 5·75 mm.

♂: unknown.

Kashmir: Gulmarg, Ferozepur Nala, alt. 6500 feet (*B. M. Bhatia*).

1037. **Philonthus deceptor**, sp. n.

Black, shining; the elytra with greenish-bronze reflex; thorax with dorsal row of six punctures. Antennæ black, the first joint pitchy. Legs yellowish, the tibiæ darker. Length 6 mm.

In size, build, and antennal structure scarcely differing from the European *astutus* Er., but the elytra differently coloured and more finely punctured, the abdomen more finely punctured. Head (♂ and ♀) scarcely as broad as the thorax, slightly longer than broad, the post-ocular region parallel at first, then rounded with the base, the eyes small, the median interocular punctures widely separated; ground-sculpture extremely fine. Antennæ moderate, the 3rd joint a little longer than the 2nd, 4th and 5th a little longer than broad, the following about as long as broad. Thorax distinctly longer than broad, the sides parallel, with dorsal row of six moderate punctures and two others externally; ground-sculpture as on the head. Elytra a little longer and broader than the thorax, finely and rather closely punctured. Abdomen very finely, rather closely punctured and very finely pubescent except on the last segment, which is almost impunctate. First joint of the posterior tarsi shorter than the last.

♂: anterior tarsi simple. 6th ventral segment with slightly obtuse emargination, which is entirely filled in by a white membrane.

Simla Hills: Gahan. Mussoorie district, alt. 6000–7000 feet. In stream moss.

1038. **Philonthus gratellus**, sp. n.

Near *deceptor*; similarly coloured but a little smaller (5 mm.); the antennæ shorter, the 6th to 10th joints distinctly transverse, the elytra shorter, only as long as the thorax, much more sparingly punctured, the abdomen less closely punctured, the legs pitchy.

♂: anterior tarsi simple. 6th ventral segment with acute, feeble, smooth, triangular impression, its base scarcely emarginate.

Mussoorie, Chakrata, and Simla districts, alt. 6000–8000 feet. In stream moss.

1039. **Philonthus parkeri**, sp. n.

Size, build, and colour of *gratellus*, and only differs from it in the elytra being a little less finely punctured and the abdomen much more closely, less finely punctured, the pubescence much coarser and closer.

♂: anterior tarsi simple. 6th ventral segment with deep, acute, triangular impression, its base distinctly arcuately emarginate.

Chakrata and Simla districts, alt. 6000–8000 feet. In dung.

1040. **Philonthus excelsus**, sp. n.

Black, shining; the elytra brilliant metallic-green; thorax with dorsal row of six punctures. Antennæ with the first two joints reddish-yellow, the following reddish-brown. Legs yellow, tibiæ infuscate. Length 5·5 mm.

Very near *gratellus*, similar in build and antennal structure, differs in the colour of the antennæ and legs, the bright green, more closely punctured elytra, and the more finely and sparingly punctured abdomen.

♂: anterior tarsi simple. 6th ventral segment with small triangular impression, its base with slight arcuate emargination.

Simla Hills: Gahan, alt. 7000 feet. Chakrata district: Bangar, alt. 6000 feet. In stream moss.

1041. **Philonthus humidulus**, sp. n.

Very near *excelsus*, and only differs in the darker and slightly longer antennæ, darker legs, less brilliant, more bronze-green elytra, and more feeble ground-sculpture on the thorax. The ♂ characters are similar.

Chakrata district: Manjgaon and Chulli Khuds, Mohna and Bangar, alt. 6000–8000 feet. In stream moss.

1042. **Philonthus nigritulus.**

Staphylinus nigritulus Gr., Col. Micr. Brunsv. 1802, p. 41; Kraatz, Naturg. Ins. Deutsch. ii, 1856–58, p. 616 (*Philonthus*); Fauv., Faun. Gallo-Rhén. iii, 1872, p. 469; id., Ann. Mus. Civ. Gen. xiii, 1878, p. 84; Muls. et Rey, Ann. Soc. Agric. Lyon, (4) viii, 1875, p. 554; Horn, Trans. Amer. Ent. Soc. xi, 1884, p. 216; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 460.
Staphylinus aterrimus Gr., Col. Micr. Brunsv. 1802, p. 41; Er., Käf. Mark Brand. i, 1837–39, p. 476 (*Philonthus*); id., Gen. Spec. Staph. 1839–40, p. 492; Thoms., Skand. Col. ii, 1860, p. 170.
Philonthus attenuatus Steph., Ill. Brit. Ent. v, 1832, p. 251.
Philonthus basalis Steph., l. c. p. 251.
Philonthus coxalis Hochh., Bull. Mosc. xliv, 1871, p. 142.
Philonthus ovicollis Broun, Man. New Zeal. Col. i, 1880, p. 109.
Philonthus piliger Muls. et Rey, Ann. Soc. Agric. Lyon, (4) viii, 1875, p. 553.
Philonthus phœopus Steph., Man. Brit. Col. 1839, p. 400.
Philonthus pumilus Mannh., Brachél. 1830, p. 32; Motsch., Bull. Mosc. xxxi, 1858, ii, p. 661.
Philonthus pusillus Heer, Faun. Helv. i, 1838–42, p. 271.
Philonthus pygmæus Snell., Herklots, Bouwst. Faun. Nederl. ii, 1854, p. 70.

Shining, black; the elytra pitchy-black or brown; thorax with dorsal row of six punctures. Antennæ black, the first

two joints reddish. Legs reddish-yellow, the tibiæ often infuscate. Length 4–5 mm.

Head oblong, a little narrower than the thorax, the posterior angles rounded, the eyes small, their length much shorter than that of the post-ocular region; median interocular punctures widely separated, a little distance behind each of them and in the same line is another; front slightly impressed, the postero-lateral region with a few scattered punctures; ground-sculpture fine, wavy, more or less transverse. Antennæ moderate, rather stout, the 3rd joint a little longer than the 2nd, the 4th to 10th transverse, gradually increasing in width. Thorax longer than broad, parallel, with dorsal row of six punctures and two others externally; ground-sculpture as on the head. Elytra a little longer and broader than the thorax, moderately coarsely and not very closely punctured. Abdomen finely and rather closely punctured and pubescent, more sparingly behind. First joint of posterior tarsi shorter than the last.

♂: anterior tarsi simple. 6th ventral segment with small, smooth, slightly acute impression, its base slightly, arcuately emarginate.

Ceylon. Cosmopolitan. It is probable, however, that several species are confused under this name. It is found in manure heaps and vegetable debris.

1043. **Philonthus nigrituloides**, sp. n.

Closely allied to *nigritulus*, but differing in the following respects: the antennæ are a little longer, the penultimate joints as long as broad, the head distinctly narrower and longer, and the elytra a little more coarsely punctured. Length 3·75 mm.

India (without further indication). In British Museum Collection.

1044. **Philonthus confusus**, sp. n.

Very near *nigritulus*, of the same colour, and only differing in the following respects: the antennæ are a little shorter and stouter, the penultimate joints a little more transverse, the first two joints pitchy, the head a little broader and so more square, the eyes a little larger, the puncture behind the median interocular is not in the same line, but placed more externally, the elytra more finely, less deeply punctured, the abdominal puncturation and pubescence much less close. The ♂ characters are similar. Length 5 mm.

Chakrata, Mussoorie, and Simla districts, alt. 7000–8000 feet. In stream moss.

1045. **Philonthus furtivus**, sp. n.

Build and colour of *confusus*, but the elytra more distinctly punctured, the abdomen much more finely and more closely punctured and pubescent, the 5th segment scarcely less than the preceding. From *nigritulus* it differs in the broader head, larger eyes, more finely punctured elytra, and more finely and closely punctured and pubescent abdomen. The ♂ characters are similar to those of *confusus*. Length 5–6 mm.

Chakrata, Mussoorie, and Simla districts, alt. 6000–8000 feet. In dung.

1046. **Philonthus vicinus**, sp. n.

Broader and more robust than *furtivus*, the thorax broader, the elytra more finely and less deeply punctured, the abdomen much more sparingly punctured, especially behind. Resembles *confusus* in the abdominal puncturation, but of broader build, the elytra blacker, finely but less obsoletely punctured. Length 5·5 mm.

♂: anterior tarsi simple. 6th ventral segment with very narrow, acute, smooth, triangular impression extending practically the whole length of the segment, its base scarcely emarginate.

Simla Hills: Kotgarh, alt. 7000 feet.

1047. **Philonthus imitator.**

Philonthus imitator Fauv.*, Rev. d'Ent. xiv, 1895, p. 265.

Black, shining; the elytra pitchy, abdomen iridescent, the posterior margin of the segments narrowly reddish. Thorax with dorsal row of six punctures. Antennæ reddish-yellow, the 3rd to 9th joints usually more or less infuscate. Legs reddish-yellow. Length 4·75–5 mm.

Head as long as broad, suborbicular, narrower than the thorax, the eyes less than half as long as the post-ocular region, the median interocular punctures widely separated, the front often slightly impressed, on each side of the vertex posteriorly with two punctures placed obliquely and four or five others on the post-ocular region; ground-sculpture fine, transverse and wavy. Antennæ moderate, the 3rd joint a little longer than the 2nd, 4th and 5th a little longer than broad, the penultimate slightly transverse. Thorax a little longer than broad, distinctly narrowed in front, with dorsal row of six moderate equidistant punctures and two others externally, the ground-sculpture as on the head. Elytra as long as but broader than the thorax, finely and rather closely punctured. Abdomen very finely, moderately closely punctured in front, more sparingly behind. First joint of the posterior tarsi shorter than the last.

♂: *anterior tarsi simple. 6th ventral segment with small, acute, triangular, smooth impression, its base scarcely emarginate.*

Burma: Carin Asciuii Ghécu, alt. 1400–1500 metres. Sikkim: Darjeeling. United Provinces: Mussoorie, Chakrata, and Simla districts, alt. 6000–8000 feet. Found in moss, and sometimes under bark of dead trees.

1048. **Philonthus leptocerus.**

Philonthus leptocerus Fauv., Rev. d'Ent. xiv, 1895, p. 266.

Black, shining; the elytra bronze-green, closely pubescent, subsericeous; thorax with dorsal row of seven punctures; abdomen with the posterior margin of the last two segments narrowly reddish, subsericeous and iridescent. Antennæ black, the first and last joints reddish. Legs yellowish-red, the tibiæ scarcely infuscate. Length 6–7·5 mm.

Head in ♂ as broad as the thorax, transversely suborbicular, the eyes large, about as long as the post-ocular region, the median interocular punctures widely separated, behind the antennal tubercles, internal to the eyes, and on the postero-lateral regions with numerous punctures of varying size; ground-sculpture very fine. Antennæ long and slender longer than the head and thorax, the penultimate joints twice as long as broad. Thorax narrow, much longer than broad, the sides parallel, dorsal row of seven rather large punctures and two others externally; ground-sculpture as on the head. Elytra as long as, but broader than the thorax, closely, finely, asperately punctured, closely and finely pubescent. Abdomen closely and in front scarcely less finely punctured than the elytra, on the 6th segment much more sparingly punctured, closely pubescent, subsericeous. First joint of the posterior tarsi longer than the last.

♂: anterior tarsi dilated. 6th ventral segment with long, acute, triangular impression, its base rather deeply, arcuately emarginate.

Burma: Rangoon; Teinzo (*L. Fea*); Insein (*Atkinson*). Also in Cochin China.

1049. **Philonthus eustilbus.**

Philonthus eustilbus Kr., Arch. Naturg. xxv, 1859, i, p. 98.
Philonthus versicolor Cam., E. M. M. lv, 1919, p. 254.

Black, shining; abdomen strongly iridescent, the posterior margin of the ventral segments narrowly reddish; thorax multipunctate at the sides. Antennæ black, the first joint more or less testaceous, the last often obscurely reddish. Legs reddish-yellow, the tibiæ often a little infuscate. Length 6–8 mm.

Head transverse, suborbicular, the eyes large, their diameter much greater than the length of the post-ocular region, median interocular punctures wanting, the series represented by a single juxta-ocular puncture on either side ; posteriorly with three or four large punctures in the vicinity of the eyes. Antennæ with the 3rd joint a little longer than the 2nd, the 4th to the 10th all distinctly longer than broad and scarcely differing in length or breadth, the 11th as long as the preceding. Thorax a little broader than the head, about as long as broad, the sides almost parallel, the posterior angles broadly rounded ; the disc on either side of the middle with a somewhat irregular row of ten or eleven punctures, external to this the sides are very sparingly and more finely punctured. Scutellum finely and closely punctured and pubescent. Elytra scarcely longer but a little broader than the thorax, slightly transverse, pretty closely and finely punctured and finely but distinctly pubescent. Abdomen gradually narrowed behind, strongly iridescent, finely and sparingly punctured, pubescence rather long and sparing. First joint of the posterior tarsi about as long as the last ; anterior tarsi simple in both sexes.

♂ : 6th ventral segment with acute triangular impression, its base arcuately emarginate.

Ceylon : Belligam. India : Dehra Dun district. In cut grass and sometimes in dry dung.

1050. **Philonthus paradoxus**, sp. n.

Black, shining ; the elytra and abdomen more pitchy, less shining, the latter very closely punctured, subsericeous, the thorax multipunctate. Antennæ brown, the first two joints more or less testaceous. Legs reddish-testaceous, the tibiæ infuscate. Length 6·5 mm.

In build resembling *eustilbus*, but much less robust and in other respects very different. Head suborbicular, narrower than the thorax, the eyes large, almost as long as the post-ocular region, closely, moderately finely punctured except on the front and a small space on the vertex posteriorly ; ground-sculpture transverse, wavy. Antennæ with the 3rd joint as long as the 2nd, 4th and 5th scarcely longer than broad, 6th to 10th distinctly transverse. Thorax about as long as broad, the sides straight and a little retracted in front, smooth along the middle, elsewhere rather closely covered with moderate punctures, the ground-sculpture as on the head. Scutellum rather coarsely and closely punctured. Elytra a little longer and broader than the thorax, closely, asperately, moderately finely punctured, finely yellow pubescent. Abdomen very finely and very closely punctured and pubescent,

subsericeous. First joint of the posterior tarsi longer than the last. Anterior tarsi a little dilated.

♂ : unknown.

Dehra Dun. A single ♀ *example taken at the exposed comb of a termite.*

1051. **Philonthus leucotus.**

Philonthus leucotus Er., Gen. Spec. Staph. 1839–40, p. 507; Kr., Arch. Naturg. xxv, 1859, i, p. 98.

Black, shining; the head and thorax with greenish-metallic reflex, the legs and elytra reddish-yellow, the latter with an obscure curved brownish fascia behind the middle; abdomen with the first three ventral segments red. Antennæ with the last five joints pale yellow. Length 5 mm.

Antennæ nearly as long as the head and thorax, the 3rd joint a half longer than the 2nd, the 4th to 10th gradually becoming shorter but scarcely stouter, the first of them slender and elongate, the penultimate oblong-subobconical, the last oblong ovate, the apex pointed below, black, the last five joints pale yellow. Mandibles and palpi moderately long, pitchy-red. Head a little narrower than the thorax, orbicular, a little convex, very closely punctured, smooth in the middle of the front, black, shining, with greenish-metallic reflex. Thorax a little narrower than the elytra, scarcely shorter than broad, a little narrowed in front, the sides almost straight, the base rounded, the apex a little emarginate, the anterior angles slightly deflexed, the posterior more or less rounded, slightly convex, very closely punctured, a narrow more or less raised median line smooth, shining, black, with greenish-metallic reflex, very finely grey pubescent. Scutellum very closely punctured, finely pubescent. Elytra as long as the thorax, very closely punctured, reddish-yellow, behind the middle with obsolete curved brownish fascia, the pubescence reddish-yellow. Abdomen finely and closely punctured, finely grey pubescent, black and moderately shining above with the posterior margin of the 5th segment narrowly whitish, below shining, with the first three segments red, the rest black. Sternum black, moderately shining. Legs rather long, reddish-yellow, all the coxæ black, the middle approximate, the anterior tibiæ without spines, the posterior with a few. Wings hyaline, brownish.

♂ : anterior tarsi slightly dilated.

♀ : unknown.

Nepal. Hope Collection (ex *Erichson*).

1052. **Philonthus amabilis.**

Philonthus amabilis Kr., Arch. Naturg. xxv, 1859, i, p. 97.

Black, shining; the thorax and base of the abdomen red, elytra greenish-brown, the humeral angle and apical margin

reddish-yellow. Antennæ with the last two joints yellow: thorax strongly and closely punctured at the sides. Length 5 lin.

Of the slender build of *lætus* Er., but much larger. Antennæ a little shorter than the head and thorax, black, with the last two joints yellow, the 3rd a little longer than the 2nd, the 4th to 10th gradually becoming a little shorter and broader, the penultimate scarcely broader than long, the last a little larger, pointed below. Palpi red. Mandibles slender, falciform. Head a little broader than the thorax, suborbicular, lightly convex, black, shining, strongly and sparingly punctured at the sides. Thorax narrower than the elytra, red, convex, almost a half longer than broad, slightly narrowed towards the base, slightly rounded before the middle, truncate in front, the anterior angles almost rectangular, with rounded apex, the posterior obtuse, on each side strongly and closely punctured, smooth along the middle. Scutellum closely and finely punctured, brown. Elytra scarcely longer than the thorax, closely and strongly punctured, less closely internally, more closely and less strongly externally, brown with greenish-metallic reflex, the pubescence reddish-yellow, the humeral angle and the posterior margin narrowly reddish-yellow, the suture rufescent. Abdomen a little narrowed towards the apex, the individual segments finely punctured, towards the base more coarsely and closely punctured, the 1st to 4th segments red, the 5th to 7th black, the 6th with the apical margin narrowly yellow. Legs pitchy-brown, the base of the tibiæ and tarsi (except the 1st joint) reddish-yellow, the anterior moderately dilated.

Northern India (*Bacon*) (ex *Kraatz*).

1053. **Philonthus hesperiformis**, sp. n.

Shining, red; the last three abdominal segments black, the elytra with slight metallic reflex. Antennæ black, the 1st joint reddish below, the last three yellow. Legs reddish-yellow, the tibiæ paler. Length 9 mm.

In build somewhat resembling *Hesperus fœ* but the head more narrowed behind, the eyes smaller, the thorax shorter, with the sides more rounded in front. Head slightly transverse, suborbicular, the eyes much shorter than the post-ocular region; the front and the vertex impunctate, behind the antennal tubercles and internal to the eyes with rather small, close, umbilicate punctures, the base and postero-lateral region coarsely, closely, rugosely punctured. Antennæ with the 9th and 10th joints transverse. Thorax a little longer than broad, the sides rather strongly rounded in front, retracted and sinuate behind, broadly impunctate along the

middle, elsewhere with small umbilicate punctures irregularly distributed. Scutellum coarsely and closely punctured. Elytra as long as but broader than the thorax, flat, very coarsely and closely punctured, with long yellow pubescence. Abdomen narrowed behind, the first three visible segments transversely impressed at the base, and there more coarsely and closely punctured than towards the apical margin; on the last three segments the puncturation is coarse, close, and elongate, the apical margin impunctate, pubescence long and yellow, here and there with long black setæ. Anterior tarsi simple. First joint of the posterior tarsi longer than the last.

♂: unknown.

Nilgiri Hills (*H. L. Andrewes*).

Genus **CAFIUS** Steph.

Cafius Steph., Ill. Brit. Ent. v, 1832, p. 245; Thoms., Skand. Col. ii, 1860, p. 152; Fauv., Faun. Gallo-Rhén, iii, 1872, p. 421; Muls. et Rey, Ann. Soc. Agric. Lyon, (4) viii, 1875, pp. 564, 574; Horn, Trans. Amer. Ent. Soc. xi, 1884, p. 234; Olliff, Proc. Linn. Soc. N. S. Wales, (2) ii, 1887, p. 498; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 462.

Subgen. *Bryonomus* Cas., Bull. Cal. Ac. i, 1886, p. 313.

Subgen. *Cafius*, s. str., Muls. et Rey, Ann. Soc. Agric. Lyon, (4) viii, 1875, p. 564.

Subgen. *Remus* Holme, Trans. Ent. Soc. Lond. ii, 1837, p. 64 (nec Thoms., nec Muls. et Rey).

Pseudidus Muls. et Rey, Ann. Soc. Agric. Lyon, (4) viii, 1875, p. 574.

Biology.—Rey, Ann. Soc. Linn. Lyon, xxxiii, 1886, pp. 146, 148; Rupertsberger, Biol. Lit. Käf. Eur. 1894, p. 121.

Facies of the more depressed species of *Philonthus*, but with the superior lateral line of the thorax more strongly deflexed, so that the long anterior seta near the anterior angles is more remote from it than in *Philonthus*; moreover the first four joints of the anterior tarsi are dilated in both sexes, whereas in *Philonthus* they may be simple in both sexes, but when dilated only the first three joints are affected. The abdomen is always very densely punctured and pubescent in all the species, and the 1st joint of the posterior tarsi is always longer than the last. In other respects the characters are similar to *Philonthus*. All the species are maritime and found in seaweed throughout the world.

Only two species are recorded in our fauna, which may be distinguished as follows :—

Larger (8·9 mm.); head and thorax sub-opaque	*nauticus* Fairm., p. 155.
Smaller (4·6 mm.); head and thorax shining.	*ceylonicus* Bernh., p. 155.

1054. Cafius nauticus.

Cafius nauticus Fairm., Rev. Zool. 1849, p. 288 ; Fauv., Ann. Soc. Ent. Fr. 5, (iv) 1874, p. 438 ; id., Ann. Mus. Civ. Gen. x, 1877, p. 258 ; id., Rev. d'Ent. viii, 1889, p. 262.
Cafius densiventris Fauv., Ann. Mus. Civ. Gen. x, 1877, p. 258.
Cafius longipennis Walk., Ann. Mag. Nat. Hist. (3) ii, 1858, p. 205.
Philonthus parallelus Kr., Arch. Naturg. xxv, 1859, i, p. 99.
Philonthus puncticollis Boh., Eugen. Resa, 1858, p. 31.

Black, subopaque, parallel ; elytra often pitchy. Antennæ pitchy, towards the apex more or less obscurely reddish. Legs reddish or pitchy. Length 8–9 mm.

Head subquadrate, in the ♂ a little broader, in the ♀ as broad as the thorax, the eye large, almost as long as the temples, the posterior angles briefly rounded ; in the middle of the vertex with a round smooth space continued in front and behind as a narrow shining line, the front with a few punctures, elsewhere closely, rather coarsely and deeply punctured, the punctures umbilicate, ground-sculpture distinct. Antennæ with the 3rd joint distinctly longer than the 2nd, 4th to 6th a little longer than broad, gradually decreasing in length, the following about as long as broad or very slightly transverse. Thorax longer than broad, the sides sinuate and retracted behind, the angles rounded, along the middle with rather broad, impunctate, somewhat elevated line, closely but less coarsely punctured than the head, the ground-sculpture similar. Elytra distinctly longer and a little broader than the thorax, parallel, finely and densely punctured, finely grey pubescent. Abdomen rather more finely than, but equally densely punctured as the elytra and similarly pubescent.

♂ : 6th ventral segment with rather deep acute triangular excision, its margin narrowly bevelled ; 5th with slight obtuse emargination.

Ceylon : Colombo. Widely distributed in the Oriental region. Also in Polynesia, Hawaii, Australia, Perim, Mauritius, and the east coast of Africa.

1055. Cafius ceylonicus.

Cafius ceylonicus Bernh., D. E. Z. 1902, p. 29.

Black ; the head and thorax shining, the elytra and abdomen opaque, the antennæ with pitchy base, the rest obscure yellowish. Legs obscure yellow. Head and thorax strongly and closely punctured, with smooth longitudinal line, elytra finely and very closely, abdomen very finely and very closely punctured. Length 4·6 mm.

Uniformly black, the antennæ towards the apex and the legs obscure yellow. Head quadrate, shining, with a broad impunctate middle line, otherwise coarsely and rather closely punctured. Antennæ rather long, the penultimate joints

not transverse. Thorax much longer than broad, towards the base narrowed and sinuate, with broad, smooth middle line, elsewhere coarsely and closely punctured. On each side of the middle line with a sulcus which is yet more closely punctured. Elytra much longer and broader than the thorax, rather finely and very closely punctured, only slightly shining, grey pubescent. Abdomen extremely finely and extremely closely punctured and with extremely thick grey sericeous pubescence, dull.

Ceylon : Weligama. Unique (ex *Bernhauer*).

This insect would appear to be very near, if not identical with, *corallicola* Fairm., which has a wide Oriental distribution.

Genus **HESPERUS** Fauv.

Hesperus Fauv., Faun. Gallo-Rhén. iii, 1872, p. 426 ; Muls. et Rey, Ann. Soc. Agric. Lyon, (4) viii, 1875, p. 559 ; Olliff, Proc. Linn. Soc. N.S. Wales, (2) ii, 1887, p. 508; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 461 ; Fauv., Rev. d'Ent. xxii, 1903, p. 268 ; Gridelli, Ann. Mus. Civ. Gen. li, 1924, p. 170.
Subgen. *Hesperotropis* Grid., l. c. p. 196.

Usually convex species allied to *Philonthus* and *Belonuchus*, but with longer and more slender palpi than in these genera, the last joint styliform, the mandibles usually falciform and edentate, and in all our species less depressed than *Belonuchus*. The superior lateral line of the thorax is more strongly deflexed than in *Philonthus*, so that the large anterior setiferous puncture is distant from it, and the mesosternal process is broader, the intermediate coxæ widely separated, and the first four joints of the tarsi are dilated in the ♂. The absence of the double row of spines on the posterior femora of the ♂ separates it from *Belonuchus*. In other respects agrees with *Philonthus*. The differences between the three groups are entirely comparative however. It is found throughout the warmer parts of the world in fallen fruit, fungus, etc.

Key to the Species.

1.	Head and thorax with strong violet reflex; elytra brilliant green	*gridellii* Cam., p. 161.
	Species otherwise coloured.....	2.
2.	Elytra unicolorous red	3.
	Elytra otherwise	4.
3.	Abdomen black, the 5th (visible) segment red	*andrewesi*, sp. n., p. 157.
	Abdomen with the first three (visible) segments red, the following in greater part red	*birmanus*, sp. n., p. 160.
4.	Abdomen with the first three visible segments entirely or in great part red	5.
	Abdomen otherwise coloured	7.

5. Last three joints of antennæ pale yellow ..	*trimerus* Fauv., p. 159.
Antennæ otherwise	6.
6. Last two joints of antennæ pale yellow....	*feæ* Fauv., p. 158.
Last joint only of antennæ pale yellow; head and thorax reddish; elytra uneven.	*inæqualis* Fauv., p. 160.
7. Last three joints of the antennæ pale yellow; abdomen black, strongly iridescent, the 3rd and 4th (visible) segments red; thorax entirely red	*lævigatus* Fauv., p. 157.
Last two joints of the antennæ pale yellow; abdomen black, strongly iridescent, the posterior margin of the 3rd and 4th (visible) segments reddish; thorax red, the posterior margin sometimes blackish.	[p. 158. *wasmanni* Fauv.,

1056. **Hesperus lævigatus.**

Hesperus lævigatus Fauv., Rev. d'Ent. xiv, 1895, p. 259.

Very shining; head black, thorax red, elytra black, the base broadly red, the sutural margin narrowly reddish, the posterior margin broadly reddish-yellow; scutellum pitchy. Abdomen strongly iridescent, the 1st, 2nd, 5th and 6th segments black, the posterior margin of the 5th narrowly yellow, 3rd and 4th segments red; anal styles yellow, the apex black. Antennæ black, the last three joints pale yellow. Legs reddish-yellow. Length 8–8·5 mm.

Head short, transverse, suborbicular, scarcely as broad as the thorax, the eyes large, almost as long as the post-ocular region, at their inner border with two punctures, the post-ocular region with a few others. Antennæ with all the joints longer than broad. Thorax a little longer than broad, the sides almost straight, a little retracted and sinuate behind, with dorsal row of four moderate punctures on each side, externally with four others placed quadrately. Scutellum smooth along the middle. Elytra as long as but broader than the thorax, towards the sides with a row of five or six larger punctures, otherwise with a few fine, scattered, setiferous punctures. Abdomen gradually narrowed backwards, extremely sparingly punctured, and with long black setæ.

♂: anterior tarsi simple. 6th ventral segment rather broadly subtriangularly excised, its margins feebly crenulate.

Burma: Carin Cheba, alt. 900–1100 metres (*L. Fea*).

Also in the Malay Peninsula, Singapore, Sumatra, Java, and Borneo.

1057. **Hesperus andrewesi,** sp. n. (Fauvel, *in litt.*).

Shining; head, thorax, and scutellum black; elytra red; abdomen iridescent, black, the posterior margin of the 4th (visible) and whole of the 5th segment red. Antennæ black, the last joint reddish. Legs reddish-yellow. Length 9 mm.

In build much resembling *lævigatus*, but the thorax shorter and broader. The antennæ are similarly constructed; the thorax, except along the smooth central region, is irregularly and rather sparingly punctured, the punctures nearer the middle being larger and closer. Scutellum closely punctured. Elytra with a row of five or six larger punctures extending from the shoulder to the posterior margin parallel to the outer border, otherwise rather finely and rather closely punctured. Abdomen closely, rather coarsely punctured at the base of the anterior segments, elsewhere more finely and more sparingly.

♂: unknown.

Nilgiri Hills (*H. L. Andrewes*).

1058. **Hesperus wasmanni.**

Hesperus wasmanni Fauv., Rev. d'Ent. xiv, 1895, p. 260.

Very shining; head black, thorax red, scutellum pitchy, elytra red, the posterior margin yellow, behind the middle with more or less distinct transverse blackish fascia not reaching the suture. Abdomen black, strongly iridescent, the 3rd and 4th (visible) segments red, posterior margin of the 5th narrowly yellow. Antennæ black, the last two joints yellow. Legs reddish-yellow. Length 8·5 mm.

Much resembling *lævigatus*, but with only the last two joints of the antennæ yellow, the dorsal row of thorax consisting of nine or ten small punctures, externally finely, sparingly, and irregularly punctured; scutellum more strongly punctured; elytra much more closely punctured; abdomen more punctured. In an example from Dehra Dun the posterior margin of the thorax is narrowly infuscate and the base of the 3rd and 4th segments blackish.

♂: 6th ventral segment rather deeply and narrowly excised, the apex rounded.

Burma: Carin Cheba, alt. 900–1100 metres (*L. Fea*). Sikkim: Darjeeling. Dehra Dun.

1059. **Hesperus feæ.**

Hesperus feæ Fauv., Rev. d'Ent. xiv, 1895, p. 260.
Hesperus feæ Fauv., var. *cingulatus* Cam., Trans. Ent. Soc. Lond. 1926, p. 361.

Shining; head black, with greenish-bronze reflex; thorax red; elytra black, the disc broadly brassy, externally about the middle with indeterminate leaden reflex, the base and shoulders broadly, the suture narrowly rufescent, the postero-external angles and posterior margins testaceous; abdomen black, the first three (visible) segments red, the posterior margin of the 5th testaceous. Antennæ black, the last two

joints pale yellow; maxillary palpi and mandibles reddish. Legs reddish-testaceous, the tibiæ yellow, infuscate towards the apex. Length 9–10·5 mm.

Var. *cingulatus*. Base of first three (visible) segments infuscate; thorax a little less closely punctured.

Head slightly transverse, as broad as the thorax, subquadrate, the temples slightly convergent behind, the posterior angles rounded, near the antennal tubercles on either side with three or four punctures, the temples and before the base rather coarsely, closely punctured, the disc smooth. Antennæ with 3rd joint longer than 2nd, 4th and 5th slightly longer than broad, 6th to 8th as long as broad, 9th and 10th slightly transverse. Thorax a little longer than broad, the sides (viewed from above) narrowed and sinuate behind, the median line broadly smooth, the sides irregularly, moderately coarsely and moderately closely punctured, the punctures setiferous. Scutellum black, closely and moderately finely punctured. Elytra broader than but as long as the thorax, square, moderately finely and moderately closely punctured, pubescence fine and yellow and with a few fine erect setæ. Abdomen with the first three (visible) segments closely and moderately finely punctured at the bases, the following more finely and more irregularly punctured, pubescence scanty, yellow, the sides with moderate black setæ.

♂: 6th ventral segment with a small crescentic emargination of the posterior border.

Burma: Carin Cheba, alt. 900–1100 metres; Carin Asciuii Ghécu, alt. 1400–1500 metres (*L. Fea*). Sikkim: Darjeeling (*Christie*). Mussoorie district: Arni Gad. Chakrata district: Bangar. Simla Hills: Theog, alt. 6000–7000 feet. In damp leaves near streams (*Cameron*).

1060. **Hesperus trimerus.** (Plate II. fig. 1.)

Hesperus trimerus Fauv., Rev. d'Ent. xiv, 1895, p. 261.

Very similar in build and coloration to *feæ*, but a little larger (11 mm.), the antennæ longer, the penultimate joints distinctly longer than broad, the last three of them pale yellow. Thorax a little longer, the sides less rounded in front, more closely punctured; elytra more coppery, the base and apical margin more broadly reddish; abdomen more coarsely punctured, with the first three visible segments of a duller red, the 5th with the apical margin less distinctly paler. Legs reddish.

♂: 6th ventral segment with a small arcuate emargination, in front of it with feeble narrow impression.

Burma: Carin Cheba, alt. 900–1100 metres (*L. Fea*). Assam: Naga Hills (*S. N. Chatterjee*).

1061. **Hesperus inæqualis.**

Hesperus inæqualis Fauv.*, Rev. d'Ent. xiv. 1895, p. 258.

Shining; head and thorax reddish, more or less mottled with brown and with slight greenish reflex; elytra black, with slight greenish reflex, the base and suture (more narrowly) red, the postero-external angles yellow; abdomen with the first three (visible) segments red, the first two a little infuscate in the middle, 4th and 5th black, the posterior margin of the latter narrowly yellow, the 6th yellow. Antennæ black, the last joint yellow. Femora and tarsi yellowish-red; tibiæ black, near the base with a narrow yellow ring. Length 9·5–11 mm.

Head as broad as the thorax, slightly transverse, suborbicular, the eyes large and prominent, longer than the post-ocular region; front impunctate, deeply sulcate in the middle; vertex with round impunctate space, elsewhere with larger and smaller punctures rather closely placed. Antennæ long and slender, all the joints longer than broad. Thorax a little longer than broad, the sides rounded in front, retracted and sinuate behind, smooth along the middle, on each side with a row of four very large punctures, internal to them with a very irregular row of seven or eight much smaller ones, externally near the lateral margin with three large punctures placed triangularly. Elytra longer and a good deal broader than the thorax, somewhat dilated behind, from the shoulder towards the middle of the posterior margin narrowly and obliquely elevated, internally in front of the middle of the disc with an oval callus, the suture also slightly elevated; base finely and rather closely punctured, elsewhere finely and rather sparingly, pubescence yellow and with some long black setæ. Abdomen gradually narrowed behind, the first three visible segments transversely impressed at the base, the first of them with a transverse basal row of punctures and an apical one of very fine ones, the 2nd and 3rd with three rows basal, medial, and apical, the following sparingly, finely, and irregularly punctured and with long setæ as elsewhere.

♂: anterior tarsi a little dilated. 6th ventral segment with small arcuate excision.

Burma: Carin Cheba, alt. 900–1100 metres; Carin Ghécu, alt. 1300–1400 metres (*L. Fea*).

1062. **Hesperus birmanus,** sp. n.

Shining; head and thorax black, scutellum, elytra, and first three (visible) abdominal segments red, the 4th to 6th black, iridescent, the posterior margin of the 4th and 5th narrowly yellow. Antennæ with the 1st, 2nd, base of 3rd, and 11th joints yellow. Legs and palpi reddish-yellow. Length 14 mm.

Very similar to *borneensis* Bernh., but differs in the colour of the antennæ and abdomen, with finer, scarcely elongate puncturation of the 4th and 5th segments. Head black, shining, transversely quadrate, the eyes large, their diameter much greater than the length of the temples, which are slightly convergent to the rounded posterior angles; impressed on either side between the eye and the base of the antenna; front with a pair of setiferous punctures in the ♂, the rest of the sculpture consisting of three or four juxta-ocular punctures, one on either side of the posterior part of the disc and two or three small temporal punctures, all of which carry the usual setæ. Antennæ rather stout, the 2nd joint a little shorter than the 3rd, the 4th scarcely longer than broad, the 5th as long as broad, the 6th to the 10th transverse, gradually increasing in breadth, the 11th short, oval, emarginate. Palpi testaceous. Thorax scarcely longer than broad, widest at the anterior angles, which are deflexed, the sides gradually convergent in a nearly straight line to the broadly rounded posterior angles; the disc on either side with a row of four moderately large punctures, the sides with four or five others behind the anterior angles, the lateral and basal margins also present a few small punctures. Scutellum triangular, reddish-testaceous, closely and not very finely punctured in its centre. Elytra a little longer and broader than the thorax, bright reddish-testaceous, not very finely or very closely punctured; pubescence long, yellow, much of it erect. Abdomen of the colour described above, the first three visible segments very sparingly, the last three much more closely and uniformly punctured; pubescence long, yellowish.

♂: front with a pair of setiferous punctures; anterior tarsi with the first four joints a little dilated. 6th ventral segment with a small obtuse excision.

Burma: Karen Mts. Assam: Sadiya.

1063. Hesperus gridellii.

Hesperus gridellii Cam., Trans. Ent. Soc. Lond. 1926, p. 360.

Shining, blue-black; elytra metallic green; abdomen black, scarcely iridescent. Antennæ, maxillary palpi, and mandibles black. Legs black. Length 13·2 mm.

Head large, transversely subquadrate, fully as broad as the thorax, eyes large, temples short, the posterior angles rounded, median interocular punctures more distant from each other than from the lateral ones, temples and before the base with moderately coarse and moderately close setiferous punctures. Antennæ slender, the 3rd joint much longer than the 2nd, all the rest distinctly longer than broad, gradually decreasing in length, 11th as long as 10th. Thorax slightly transverse in ♂, about as broad as long in ♀, the sides (viewed from above)

almost straight, the disc on either side with a row of four rather large punctures, externally with a group of three smaller ones, behind the anterior angles with three more, all setiferous. Scutellum black, moderately coarsely and rather closely punctured. Elytra a little longer and broader than the thorax, about as long as broad, of a beautiful metallic green colour, moderately finely and not very closely punctured, finely setiferous. Abdomen with the first three (visible) segments with a transverse row of moderate punctures at the base and a row of smaller ones nearer the posterior margin, which itself is closely punctured, 4th to 6th segments more finely, more irregularly, and more sparingly punctured, especially the last.

♂: head broader. 6th ventral segment with rather broad triangular excision, the margins of which are impressed.

Almora, Kali Valley, alt. 9000 feet. In fungus.

STEVENSIA, gen. n.

Facies resembling *Hesperus*; at once distinguished from it by the presence of triangular prosternal epimera overlying the stigmata and less strongly chitinized than the pronotal epipleura. Labrum short, broad, in the middle of the anterior margin with small triangular notch. Mandibles long and slender, the right with a bicuspid, the left with a tricuspid tooth, the cusps all pointed; maxillary palpi with the 1st joint small, 2nd moderately long, slightly curved and thickened towards the apex, 3rd scarcely as long, similarly thickened, 4th slender, fusiform, longer than the 3rd. Tongue short, rounded in front and with a small central triangular notch; paraglossæ well developed; labial palpi rather short, 1st joint short, 2nd a little longer, 3rd about as long as the two preceding together, fusiform. Mesosternal process long and sharply pointed, extending about three-fourths the length of the coxæ, these only narrowly separated behind; anterior metasternal process rounded in front, not extending between the coxæ, and separated by an intersternal piece from the mesosternal process. Legs rather long, all the tibiæ spinose; anterior tarsi with the first three joints slightly dilated in the ♂, middle and posterior with the 1st joint rather long, 2nd to 4th gradually decreasing in length, the 5th shorter than the 1st.

1064. **Stevensia longipennis**, sp. n. (Plate I, fig. 10.)

Head, thorax, and scutellum very shining greenish-blue; elytra and abdomen black, less shining. Antennæ reddish-brown, the 1st joint black. Legs black, tarsi reddish. Length 11·5 mm.

Head short, transverse, suborbicular, a little broader than the thorax ; eyes large and prominent, a little longer than the post-ocular region ; on each side in front behind the insertion of the antennæ with a round fovea, between this and the eye with an umbilicate puncture, before the base on each side with a smaller one, the post-ocular region very closely and finely punctured, opaque and pubescent ; ground-sculpture wanting, but with some extremely fine scattered punctures. Antennæ slender, the 3rd joint twice as long as the 2nd, 4th to 10th all longer than broad, gradually decreasing in length and narrowed at the base, 11th shorter than the 10th, emarginate at apex. Thorax about as long as broad, the sides rounded and dilated in front, distinctly retracted and sinuate behind, usually without punctures other than the marginal ones, but occasionally with one on each side before the middle, and with an extremely fine scattered puncturation as on the head. Scutellum impunctate, glabrous. Elytra broader and much longer than the thorax, closely and moderately finely punctured, finely pubescent. Abdomen narrowed towards the apex, very finely punctured, very closely at the base of the segments, much more sparingly elsewhere ; pubescence long, rather fine, more erect on the last two segments.

♂ : anterior tarsi with the first three joints a little dilated. 6th ventral segment with small, acute, smooth, triangular impression, its base scarcely emarginate.

Sikkim : Gopaldhara, Rungbong Valley (*H. Stevens*).

Genus **TOLMERINUS.**

Tolmerinus Bernh., W. E. Z. xl, 1923, p. 63.
Tolmerus Bernh., Ent. Blätt. vii, 1911, p. 89.

Facies much resembling certain species of *Philonthus* with suborbicular head. Head more or less suborbicular, the neck moderate. Labrum short, transverse, corneous, divided by a rather broad arcuate emargination into two lobes, each furnished with a ciliate membrane rounded in front, the posterior corneous part furnished with long setæ. Mandibles slender, falciform, both obtusely angulate internally about the middle, behind the angulation with well developed ciliate membrane. Maxillæ with the outer lobe longer than the inner, truncate and densely ciliate at the apex, the inner densely ciliate internally. Maxillary palpi 4-jointed, the 1st joint small, 2nd curved, elongate, slightly thickened towards the apex, 3rd oblong, shorter than the 2nd, 4th fusiform, almost twice as long as the preceding. Mentum strongly transverse, truncate in front. Tongue short, broad, membranous, rounded in front, with an extremely small emargination in

the middle of the anterior border. Paraglossæ longer than the tongue, strongly ciliate. Labial palpi with the 1st joint twice as long as broad, 2nd scarcely shorter, the 3rd longer, fusiform. Prosternum truncate behind, the deflexed part keeled along the middle. Superior lateral line strongly deflexed and joining the inferior behind the anterior angles, the large setiferous puncture remote from it. Pronotal epipleura rather broad, obtusely angulate internally, not covering the stigma. Mesosternum acutely pointed behind, extending about half the length of the coxæ, these contiguous. Metasternum short, its anterior process not produced between the coxæ, the posterior process emarginate at the apex. Anterior tibiæ not spinose, the middle with several, the posterior with one or two spines. Anterior tarsi short, the first three joints strongly dilated in the ♂; middle and posterior with the 1st joint elongate, as long as the 2nd and 3rd together, 3rd and 4th gradually shorter.

Key to the Species.

1.	Black species	2.
	Species with red thorax or elytra	7.
2.	Antennæ with the last three joints pale yellow; 1st (visible) abdominal segment with patch of golden pubescence on each side of the base, the posterior margin of the 5th with golden yellow fascia	[p. 167. *auronotatus* Fauv.,
	Antennæ otherwise	3.
3.	Antennæ with the last two or three joints reddish	4.
	Antennæ with the apex of the last joint only reddish. Smaller species (9 mm.)	[p. 166. *trifasciatus* Cam.,
4.	Abdomen without bands or spots of pubescence	5.
	Abdomen with bands of yellow pubescence.	6.
5.	Larger (13 mm.). Abdomen less finely and less closely punctured	*inornatus* Cam., p. 165.
	Smaller (11 mm.). Abdomen very finely and closely punctured	*obscurus*, sp. n., p. 166.
6.	Abdomen strongly iridescent	*fasciiventris* Fauv., [p. 166.
	Abdomen slightly iridescent	*abdominalis* Cam., [p. 165.
7.	Thorax and 5th (visible) abdominal segment red	*ruficollis* Cam., p. 169.
	Thorax black	8.
8.	Abdomen strongly iridescent, the 5th segment in greater part red. Length 11 mm.	[p. 168. *rufipennis* Fauv.,
	Abdomen slightly iridescent. Length 9 mm.	9.
9.	Posterior margin of the 5th abdominal segment only red. Penultimate joints of antennæ reddish-yellow	*rufipes* Cam., p. 168.
	Almost the whole of the 5th segment red. Penultimate joints of antennæ concolorous	*simulans*, sp. n., p. 169.

1065. **Tolmerinus abdominalis.**

Tolmerinus abdominalis Cam., Trans. Ent. Soc. Lond. 1926, p. 363.

Black, subopaque, the posterior margin of the 5th (visible) and whole of the 6th abdominal segments obscurely rufescent; the base and shoulders of the elytra, the whole of the 1st (visible), the base of the 3rd at the sides, the whole of the base of the 4th, and the base and apex of the 5th abdominal segments golden pubescent. Antennæ black, the 1st, 10th, and 11th joints rufescent, maxillary palpi reddish. Legs pitchy-brown, tarsi rufescent. Length 13 mm.

Head suborbicular, narrower than the thorax, densely, moderately finely subrugosely punctured, moderately closely covered with yellowish pubescence, and with a more or less distinct fine median shining line throughout. Antennæ with 3rd joint longer than 2nd, 4th to 6th slightly longer than broad, 7th and 8th about as long as broad, 8th and 10th slightly transverse. Thorax a little longer than broad, very slightly narrowed behind, the sides almost straight (as seen from above) viewed laterally, broadly sinuate posteriorly, the lateral seta distant from the deflexed margin, sculpture similar to that of the head, but without a median line, pubescence fine, yellow, the sides with two long black setæ. Scutellum densely and finely punctured. Elytra as long as but a little wider than the thorax, square, densely and more finely and roughly punctured than the fore-parts, pubescence fine and yellow, denser at the base and shoulders, forming a more or less distinct patch in certain lights, near the scutellum with a setiferous puncture, the sides with three long black setæ. Abdomen slightly iridescent, very finely and densely punctured at the bases of the segments, much more sparingly towards the posterior margins, the 1st (visible) segment covered with fine yellow pubescence throughout, the 3rd with a somewhat obscure patch of similar pubescence on either side, the 4th with a transverse fascia at the base, not so dense, however, as that of the 1st segment, the 5th with more or less distinct basal and apical fasciæ, the other areas of the segments with a scanty black pubescence and numerous erect black setæ.

♂: unknown.

Dehra Dun.

1066. **Tolmerinus inornatus.**

Tolmerinus inornatus Cam., Trans. Ent. Soc. Lond. 1926, p. 362.

Entirely black, greasy lustrous; 7th (5th visible) abdominal segment narrowly and obscurely rufescent posteriorly. Antennæ with the first two joints and the last more or less ferruginous. Legs pitchy, tarsi rufescent. Length 13 mm.

Similar to *abdominalis* in size and build, but differing in the following respects: the entire absence of yellow pubescence, the much finer and less close puncturation of the head and thorax, and less close abdominal sculpture.

♂: 6th ventral segment with crescentic excision.

Mussoorie district: Arni Gad.

1067. **Tolmerinus obscurus**, sp. n.

Near *inornatus*, but smaller (11 mm.), thorax a little shorter and broader, the elytra scarcely as long, transverse; the whole insect more finely and closely punctured, especially on the abdomen, which is covered with a fine greyish pubescence. The antennæ are a little thinner, but of the same build and colour.

Manipur (*Doherty*). Unique. In British Museum Collection.

1068. **Tolmerinus fasciiventris.**

Anisolinus fasciiventris Fauv., Rev. d'Ent. xiv, 1895, p. 270.

This species would appear to be closely allied to *abdominalis*, having similar coloration and similar arrangement of pubescence, but the thorax is described as being somewhat dilated from the apex to the base and the abdomen strongly iridescent, characters not applicable to *abdominalis*. Length 13–19 mm.

♂: 2nd to 4th ventral segments with posterior margin crenulate; 4th triangularly excised; 5th with a round smooth fovea at the middle of the base, which is furnished with a fascia of black hairs, the apex scarcely sinuate; 6th broadly and rather deeply subtriangularly incised, with a smooth impression in front of it.

Burma: Carin Cheba, alt. 900–1100 metres; Bhamo; Teinzo; Pegu; Palon (*Fea*).

1069. **Tolmerinus trifasciatus.**

Tolmerinus trifasciatus Cam., Trans. Ent. Soc. Lond. 1926, p. 363.

Black, subopaque, densely punctured; abdomen rather shining black, the 6th (visible) segment ferruginous, the apex of the 1st and bases of the 4th and 5th segments thickly clothed with golden-yellow pubescence, the sides of the 2nd and 3rd obscurely yellow pubescent. Antennæ with the first two joints and apex of the last more or less ferruginous. Legs pitchy. Length 9 mm.

Head transversely suborbicular, narrower than the thorax, neck about one-third the breadth of the head; eyes rather small, disc in front with a fine median raised line, otherwise densely, moderately finely, umbilicately punctured; temples each with two setæ. Antennæ with 3rd joint longer than

2nd, 4th to 6th a little longer than broad, gradually decreasing in length, 7th as long as broad, 8th to 10th slightly transverse. Thorax a little longer than broad, widest just behind the rounded anterior angles, a little narrowed and sinuate behind (as seen from above), posterior angles broadly rounded, the lateral seta distant from the deflexed margin, densely punctured like the head, without smooth median line. Scutellum densely and finely punctured. Elytra a little broader but shorter than the thorax, as long as broad, densely, rather finely, transversely rugosely punctured, pubescence fine and yellow, near the scutellary margin with a setiferous puncture, the sides with three long setæ. Abdomen very finely and closely punctured with fine black pubescence and with yellow fasciæ as above described, the sides and posterior margins of the segments with black setæ.

♂: 6th ventral segment with a crescentic emargination; 5th with a round fovea in the middle, with shining fundus.

1070. **Tolmerinus auronotatus.**

Anisolinus auronotatus Fauv., Rev. d'Ent. xiv, 1895, p. 270.

Elongate, rather convex, opaque, black, the abdomen somewhat shining; head, thorax, and elytra very closely and very finely asperately punctured; abdomen closely and finely punctured at the base of the segments, elsewhere very closely, scarcely perceptibly punctured, very closely covered with a very fine fuscous pubescence; mouth, margins of 5th and 6th [4th and 5th] segments, anal styles, and tarsi reddish. Antennæ with the first three joints black or pitchy-red, 2nd with the base red, 8th rarely pitchy, the last three joints yellowish-white; 7th [6th] segment with the apex broadly red; legs pitchy-red, the femora more or less pitchy; 2nd [1st] on each side at the base with a patch of golden yellow pubescence, 6th [5th] at the posterior margin with a transverse fascia of similar pubescence. Antennæ as long as the head and thorax, all the joints longer than broad; head oval, in the middle of the front with an extremely fine, raised, almost smooth line; thorax almost a third broader and longer than the head, subquadrangular, scarcely narrowed towards the base, the sides strongly rounded in front, slightly sinuate behind the middle, the base curved; scutellum very finely rugose; elytra a little shorter than the thorax and a third broader, deeply conjointly emarginate; abdomen pointed, the pubescence sericeous, especially in the middle. Length 12–13 mm.

♂: unknown.

Burma: Carin Cheba, alt. 900–1100 metres (ex *Fauvel*).

Similar to *abdominalis* in size and build, but differing in the following respects: the entire absence of yellow pubescence, the much finer and less close puncturation of the head and thorax, and less close abdominal sculpture.

♂: 6th ventral segment with crescentic excision.

Mussoorie district: Arni Gad.

1067. **Tolmerinus obscurus**, sp. n.

Near *inornatus*, but smaller (11 mm.), thorax a little shorter and broader, the elytra scarcely as long, transverse; the whole insect more finely and closely punctured, especially on the abdomen, which is covered with a fine greyish pubescence. The antennæ are a little thinner, but of the same build and colour.

Manipur (*Doherty*). Unique. In British Museum Collection.

1068. **Tolmerinus fasciiventris.**

Anisolinus fasciiventris Fauv., Rev. d'Ent. xiv, 1895, p. 270.

This species would appear to be closely allied to *abdominalis*, having similar coloration and similar arrangement of pubescence, but the thorax is described as being somewhat dilated from the apex to the base and the abdomen strongly iridescent, characters not applicable to *abdominalis*. Length 13–19 mm.

♂: 2nd to 4th ventral segments with posterior margin crenulate; 4th triangularly excised; 5th with a round smooth fovea at the middle of the base, which is furnished with a fascia of black hairs, the apex scarcely sinuate; 6th broadly and rather deeply subtriangularly incised, with a smooth impression in front of it.

Burma: Carin Cheba, alt. 900–1100 metres; Bhamo; Teinzo; Pegu; Palon (*Fea*).

1069. **Tolmerinus trifasciatus.**

Tolmerinus trifasciatus Cam., Trans. Ent. Soc. Lond. 1926, p. 363.

Black, subopaque, densely punctured; abdomen rather shining black, the 6th (visible) segment ferruginous, the apex of the 1st and bases of the 4th and 5th segments thickly clothed with golden-yellow pubescence, the sides of the 2nd and 3rd obscurely yellow pubescent. Antennæ with the first two joints and apex of the last more or less ferruginous. Legs pitchy. Length 9 mm.

Head transversely suborbicular, narrower than the thorax, neck about one-third the breadth of the head; eyes rather small, disc in front with a fine median raised line, otherwise densely, moderately finely, umbilicately punctured; temples each with two setæ. Antennæ with 3rd joint longer than

2nd, 4th to 6th a little longer than broad, gradually decreasing in length, 7th as long as broad, 8th to 10th slightly transverse. Thorax a little longer than broad, widest just behind the rounded anterior angles, a little narrowed and sinuate behind (as seen from above), posterior angles broadly rounded, the lateral seta distant from the deflexed margin, densely punctured like the head, without smooth median line. Scutellum densely and finely punctured. Elytra a little broader but shorter than the thorax, as long as broad, densely, rather finely, transversely rugosely punctured, pubescence fine and yellow, near the scutellary margin with a setiferous puncture, the sides with three long setæ. Abdomen very finely and closely punctured with fine black pubescence and with yellow fasciæ as above described, the sides and posterior margins of the segments with black setæ.

♂: 6th ventral segment with a crescentic emargination; 5th with a round fovea in the middle, with shining fundus.

1070. **Tolmerinus auronotatus.**

Anisolinus auronotatus Fauv., Rev. d'Ent. xiv, 1895, p. 270.

Elongate, rather convex, opaque, black, the abdomen somewhat shining; head, thorax, and elytra very closely and very finely asperately punctured; abdomen closely and finely punctured at the base of the segments, elsewhere very closely, scarcely perceptibly punctured, very closely covered with a very fine fuscous pubescence; mouth, margins of 5th and 6th [4th and 5th] segments, anal styles, and tarsi reddish. Antennæ with the first three joints black or pitchy-red, 2nd with the base red, 8th rarely pitchy, the last three joints yellowish-white; 7th [6th] segment with the apex broadly red; legs pitchy-red, the femora more or less pitchy; 2nd [1st] on each side at the base with a patch of golden yellow pubescence, 6th [5th] at the posterior margin with a transverse fascia of similar pubescence. Antennæ as long as the head and thorax, all the joints longer than broad; head oval, in the middle of the front with an extremely fine, raised, almost smooth line; thorax almost a third broader and longer than the head, subquadrangular, scarcely narrowed towards the base, the sides strongly rounded in front, slightly sinuate behind the middle, the base curved; scutellum very finely rugose; elytra a little shorter than the thorax and a third broader, deeply conjointly emarginate; abdomen pointed, the pubescence sericeous, especially in the middle. Length 12–13 mm.

♂: unknown.

Burma: Carin Cheba, alt. 900–1100 metres (*L. Fea*) (ex *Fauvel*).

1071. **Tolmerinus rufipennis.**

Anisolinus rufipennis Fauv.*, Rev. d'Ent. xiv, 1895, p. 271.

Very similar to *rufipes*, but with the base of the antennæ more obscurely reddish, as also are the last two joints, the head less orbicular, less finely punctured, the thorax with straighter, more parallel sides, the elytra less finely punctured, the abdomen strongly iridescent, with the 5th (visible) segment much more broadly red. Length 11 mm.

♂: 6th ventral segment broadly, rather deeply arcuately emarginate, with triangular smooth impression in front of the emargination.

Burma: Rangoon, Teinzo, Bhamo, Shwego-myo (*L. Fea*). Also in Cochin China.

1072. **Tolmerinus rufipes.**

Tolmerinus rufipes Cam., Trans. Ent. Soc. Lond. 1926, p. 363.

Head and thorax black, shining; elytra and abdomen less shining, the former red, the latter black, with the posterior margin of 7th (5th visible) segment narrowly rufescent. Antennæ reddish, the 4th to 8th joints pitchy. Legs reddish-testaceous. Length 9 mm.

Head orbicular, narrower than the thorax, exceedingly finely, rather closely punctured, the disc impunctate, with three long setæ, one behind the insertion of the antennæ, one juxta-ocular, and one temporal, pubescence fine and greyish. Antennæ with 3rd joint longer than 2nd, the following all longer than broad, gradually decreasing in length. Thorax a little longer than broad, narrower in front, the sides (seen from above) very slightly curved, slightly sinuate behind when viewed laterally, the angles broadly rounded, punctuation exceedingly fine and rather close, on either side of the disc with a row of four obsolete punctures, pubescence fine and greyish. Scutellum pitchy, densely and finely punctured. Elytra a little wider, but scarcely so long as the thorax, slightly transverse, closely and finely punctured and pubescent, on either side of the scutellum with a setiferous puncture, the sides with four or five others, posterior margin with some fine black setæ. Abdomen a little narrowed towards apex, not iridescent, very finely and very closely punctured and pubescent, especially towards the bases of the segments, the 8th (6th visible) more shining and sparingly punctured; apical margins and sides with black setæ.

♂: anterior tarsi dilated. 6th ventral segment with small triangular excision, the sides of which are narrowly impressed.

♀: unknown.

Mussoorie district: Arni Gad.

1073. **Tolmerinus simulans**, sp. n.

Size and colour of *rufipes*, but with the 5th segment more broadly red, only the base black. Legs more pitchy, only the tarsi reddish. Antennæ shorter and stouter, the penulti mate joints concolorous, thorax a little narrower, abdomen finely and less closely punctured. From *rufipennis* it is distinguished by its smaller size and scarcely iridescent abdomen.

♂: 6th ventral segment with acute triangular excision, the apex rounded, the margin broadly bevelled.

Assam: Patkai Mts. (*Doherty*). Unique. In British Museum Collection.

1074. **Tolmerinus ruficollis.** (Plate II, fig. 2.)

Tolmerinus ruficollis Cam., Trans. Ent. Soc. Lond. 1926, p. 364.

Head black, shining; thorax red, shining; elytra black moderately shining; abdomen black, iridescent, the 7th (5th visible) segment rufescent. Antennæ dark, the 1st and 11th joints reddish. Legs reddish, the tibiæ infuscate. Length 8 mm.

A little more robust than *rufipes*, with less finely punctured head and smaller impunctate discal area, shorter, stouter antennæ, the penultimate joints slightly transverse, the thorax, however, is exceedingly finely and moderately closely punctured, much as in the preceding species, and with four very obsolete punctures on either side, viewed laterally the sides are more strongly sinuate behind; the elytra are less finely punctured, the abdomen is rather strongly iridescent, and the bases of the segments less finely punctured.

♂: 6th ventral segment with rather deep triangular excision.

Dehra Dun.

PARATOLMERUS, gen. n.

Facies of *Tolmerinus*; at once distinguished by the long, strongly flagellate antennæ, the 1st joint almost half as long as the rest of the structure. Labrum short and broad, membranous in front, the anterior border gently rounded and apparently narrowly divided along the middle almost to the base. Maxillary palpi short, the 2nd joint a little curved and dilated towards the apex, 3rd short, obconical, 4th a little longer, conical. Labial palpi short, 1st joint very short, 2nd stout, cylindrical, 3rd small and subulate. Prothorax and sternal structure very similar to *Tolmerinus*. Anal styles short and stout. Tibiæ not spinose. Anterior tarsi short, the first four joints short and subequal, the claws long and but little curved; middle and posterior tarsi with the 1st joint as long as the three following together, the claws shorter and more curved.

1075. **Paratolmerus pilosiventris**, sp. n.

Black ; vertex of head and whole of thorax very shining, the rest less so. Antennæ reddish, the 1st joint blackish. Legs reddish-brown, the tarsi reddish. Length 8·5 mm.

Head orbicular, the neck about a fourth its width, narrower than the thorax, the eyes moderate, much shorter than the post-ocular region ; vertex impunctate, shining, the rest of the surface very finely and very closely punctured, subopaque and pubescent except on the front, where the puncturation is much less close. Antennæ long and slender, the 1st joint about half as long as the following together, 2nd to 10th all longer than broad, gradually decreasing in length, the 11th joint shorter than the 10th. Thorax as long as broad, the sides slightly rounded in front, slightly retracted and sinuate behind, and, except for the usual marginal punctures, devoid of sculpture. Scutellum closely punctured and pubescent. Elytra a little longer and broader than the thorax, rather closely, moderately coarsely punctured, finely pubescent. Abdomen narrowed behind, finely and closely punctured at the base of the segments, much less closely elsewhere, with a long and thick greyish pubescence both above and below, and especially noticeable on the side margins.

♂ : unknown.

Sikkim : Gopaldhara, Rungbong Valley (*Stevens*).

Genus **BELONUCHUS** Nordm.

Belonuchus Nordm., Symbol. 1837, p. 129 ; Er., Gen. Spec. Staph. 1839–40, p. 419 ; Lacord., Gen. Col. ii, 1855, p. 80 ; Sharp, Trans. Ent. Soc. Lond. 1876, p. 156 ; Fauv., Ann. Mus. Civ. Gen. xii, 1878, p. 269.

Trapeziderus Motsch., Étud. Ent. viii, 1859, p. 77 ; Fauv., Rev. d'Ent. xiv, 1895, p. 266.

Closely related to *Philonthus* and *Hesperus*, but of a more depressed build than is usual in these genera, with stouter antennæ, quadrate head, and more trapezoidal thorax, the anterior angles more prominent, and usually with an emargination behind them. The mouth-parts resemble those of *Philonthus*, the palpi being less elongate than in *Hesperus*. The mesosternal process is broader than in the majority of species of *Philonthus*, but less broad than in *Hesperus*. The superior lateral line of the thorax is more deflexed than in *Philonthus*. In the ♂ the posterior femora are furnished below with a double row of spines. The first joint of the posterior tarsi always shorter than the last. In the ♂ the head is always larger than in the ♀. The anterior tarsi with the first four joints slightly dilated in both sexes.

The genus is found throughout the warmer parts of the world in decaying fruit, under bark, etc.

Key to the Species.

1.	Entirely black species, at most with the suture obscurely reddish	2.
	Otherwise coloured	8.
2.	Last joint of the antennæ yellow; thorax with dorsal row of 7 punctures, not emarginate behind the anterior angles	[p. 174. *birmanus*, sp. n.,
	Last joint of the antennæ black	3.
3.	Thorax with dorsal row of 4 punctures	*tripunctatus* Fauv.,
	Thorax with dorsal row of 6 to 9 punctures	[p. 176. 4.
4.	Thorax with dorsal row of 8 or 9 punctures; larger (10 mm.). Head and thorax strongly iridescent	[p. 175. *taprobanus*, sp. n.,
	Thorax with dorsal row of 6 or 7 punctures; smaller (7·5–9 mm.). Head and thorax less iridescent	5.
5.	Postero-lateral region of head closely punctured; head and thorax slightly iridescent	6.
	Postero-lateral region of head sparingly punctured; head and thorax not iridescent	[p. 176. *assamensis*, sp. n.,
6.	Suture of elytra obscurely rufescent; elytra more finely punctured; dorsal row of punctures finer	[p. 176. *ceylonicus*, sp. n.,
	Suture concolorous; elytra less finely punctured; dorsal row of punctures coarser	7.
7.	Abdomen less finely, more closely punctured; thorax external to the dorsal row posteriorly with a row of 4 punctures; head more punctured	[p. 175. *nilgiriensis*, sp. n.,
	Abdomen finely, more sparingly punctured; thorax external to the dorsal row posteriorly with 2 punctures; head less punctured	*imitator*, sp. n., p. 176.
8.	Elytra entirely red	9.
	Elytra not entirely red	12.
9.	Thorax red	*grandiceps* Kr., p. 171.
	Thorax black	10.
10.	Antennæ black; legs pitchy	*quadratus* Kr., p. 172.
	Antennæ with the 11th joint reddish-yellow	11.
11.	Legs reddish-yellow	*rufoniger* Fauv., p. 172.
	Legs black; tarsi reddish	*gardneri*, sp. n., p. 173.
12.	Elytra red, with more or less extensive pitchy spot posteriorly; 10th and 11th joints of antennæ more or less reddish	[p. 174. *maculipennis* Fauv.,
	Elytra red, with the base and sides black; antennæ black	[p. 173. *nalandensis* Bernh.,

1076. Belonuchus grandiceps.

Philonthus grandiceps Kr., Arch. Naturg. xxv, 1859, i, p. 95.
Trapeziderus bicolor Motsch., Et. Ent. viii, 1859, p. 79; Fauv., Rev. d'Ent. xii, 1903, p. 159.

Shining, depressed; head and abdomen black, slightly iridescent; thorax, scutellum, and elytra red, the former

slightly iridescent. Palpi red. Antennæ black, the base of the first three joints red, the apex of the 11th yellowish. Legs yellowish-red. Length 10–11 mm.

Head broader than the thorax, subquadrate, the posterior angles briefly rounded, the eyes small; front with narrow median sulcus and four punctures placed quadrately, more posteriorly with four others similarly placed but more external, the postero-lateral region with a few scattered punctures: ground-sculpture well marked. Antennæ with the 3rd joint a little longer than the 2nd, 4th and 5th about as long as broad, the 6th to 10th distinctly transverse. Thorax a little longer than broad, trapezoidal, the anterior angles depressed and obtuse, the sides almost straight and retracted behind, scarcely sinuate before the rounded posterior angles; dorsal row of six or seven punctures, the basal one smaller and more remote. Scutellum moderately coarsely punctured. Elytra about as long as but broader than the thorax, moderately coarsely and rather closely punctured. Abdomen a little narrowed at the apex, rather closely, moderately finely punctured, less closely behind, finely pubescent.

Ceylon: Kandy. India: Nilgiri Hills.

1077. **Belonuchus quadratus.** (Plate II, fig. 3.)

Philonthus quadratus Kr., Arch. Naturg. xxv, 1859, i, p. 96.

Shining; head, thorax, and scutellum black, more or less iridescent; elytra red. Antennæ black, the base of the first three joints narrowly reddish. Legs pitchy-black. Length 9 mm.

A little smaller than *grandiceps* and differently coloured, the head with more numerous punctures at the sides of the disc and on the postero-lateral region, the thorax usually with seven or eight punctures in the dorsal row and the sides with a slight emargination immediately behind the anterior angles, the elytra more finely and more closely punctured.

Bihar: Pusa. Assam: Naga Hills.

1078. **Belonuchus rufoniger.**

Belonuchus rufoniger Fauv., Rev. d'Ent. xiv, 1895, p. 266.

Shining, black; the elytra red; head, thorax, and abdomen more or less iridescent. Antennæ black, the base of the 2nd and 3rd joints narrowly red, the 11th and sometimes the 10th reddish. Legs reddish-yellow. Length 8–10 mm.

Differs from *quadratus* in the colour of the antennæ and legs, the much shorter, more transverse head and larger eyes, with four quadrately placed punctures towards the front, the

postero-lateral region much more sparingly punctured and the sides of the thorax not emarginate behind the anterior angles. The dorsal row is composed of seven or eight punctures.

♂: 6th ventral segment with rather broad, shallow emargination.

Burma: Carin Cheba, alt. 900–1100 metres. Assam: Naga Hills. Under bark.

1079. **Belonuchus gardneri**, sp. n.

Differs from *rufoniger* in the larger size (11 mm.), the squarer, less transverse head, with more punctured post-ocular region, the head and thorax without iridescence, and the black legs, only the tarsi being reddish.

♂: 6th ventral segment with small, shallow, arcuate emargination.

Bengal: Rangirum (alt. 6000 feet), near Darjeeling (*J. C. M. Gardner*). Under bark.

1080. **Belonuchus nalandensis.**

Belonuchus nalandensis Bernh., D. E. Z. 1902, p. 30.

Black, shining; the elytra red, with the base and sides black; base of the tibiæ and tarsi pitchy-red; head large, subquadrate, strongly punctured; thorax with dorsal row of eight to eleven punctures; elytra scarcely longer than the thorax, strongly, not very closely punctured; abdomen sparingly punctured. Length 8 mm.

Black, shining, the thorax distinctly iridescent, the elytra red, the sides and base rather broadly black, the knees and tarsi reddish. Head very large, almost wider than the elytra, distinctly wider than the thorax, on the disc irregularly, very coarsely, but not closely punctured, in the middle of the front with a short sulcus, deeper in the ♂, and on each side of it with a row of two or three punctures converging in front. Temples smooth and limited all round by a horseshoe-shaped row of rather deep punctures, within this space with a large puncture. Antennæ short, the 3rd joint a little longer than the 2nd, the 4th clavate, the penultimate very strongly transverse. Thorax almost longer than broad, narrower than the elytra, the sides rounded and narrowed behind, very slightly emarginate in the middle, the dorsal row of eight to ten punctures somewhat irregular, the anterior ones especially, between the dorsal row and the margin with some setiferous punctures. Elytra scarcely longer than the thorax, rather strongly but not closely punctured, yellow pubescent, at the sides with long black setæ as on the thorax. Abdomen moderately coarsely but not closely punctured, yellow pubescent.

♂: anterior and posterior femora furnished with strong black spines; the 1st joint of the posterior tarsi shorter than the last.

Ceylon: Nalanda. Two examples (ex *Bernhauer*).

1081. **Belonuchus maculipennis.**

Belonuchus maculipennis Fauv., Rev. d'Ent. xiv, 1895, p. 267.

Scarcely convex, black, shining; scutellum infuscate; the elytra and posterior margin of the abdominal segments red, the former with either a pitchy marking extending over the greater part of the disc and reflexed in the middle, or placed before the postero-external angles and slightly produced inwards. Abdomen scarcely iridescent. Antennæ pitchy, the apex of the 1st and nearly all the 2nd joint reddish, the 10th and 11th more or less reddish-yellow. Legs reddish, the tibiæ infuscate. Length 8 mm.

Head in ♂ strongly transverse, a little broader than the thorax, the posterior angles rounded, in ♀ narrower, scarcely as broad as the thorax. Front with median fovea without punctures externally, on the disc with two or three punctures on each side and three or four more behind the eyes. Antennæ nearly as long as the head and thorax together. Thorax short, scarcely longer than broad, the sides scarcely, the base strongly rounded; anterior angles almost rounded; dorsal row consisting of four large punctures placed obliquely and a smaller one nearer the anterior margin; externally with two others about the middle and three more behind the anterior angles. Scutellum closely punctured. Elytra quadrate, flat, strongly and not very closely punctured, sparingly yellow pubescent. Abdomen narrowed behind, the first three (visible) segments rather strongly punctured at their base, scarcely punctured elsewhere, the 4th and 5th finely and much more closely punctured at the base, almost impunctate towards apex.

♂: 6th ventral segment with small narrow excision, with a small, whitish, triangular impression in front of it.

Burma: Carin Cheba, alt. 900–1100 metres (*L. Fea*) (ex *Fauvel*).

1082. **Belonuchus birmanus,** sp. n.

This black species is at once recognized by the yellow terminal joint of the antennæ, and also by the absence of any trace of emargination behind the anterior angles of the thorax, which are briefly rounded; the head and thorax have well-marked ground-sculpture and here and there are iridescent, the former has a few irregular punctures internal to the eyes and on the post-ocular region, the latter has a dorsal row

on each side of seven punctures. The legs are black, with pitchy tarsi. Length 10 mm.

♂: 6th ventral segment with scarcely perceptible emargination.

Burma: Ruby Mines (*Doherty*). Unique. In British Museum Collection.

1083. **Belonuchus taprobanus**, sp. n.

Black, shining; head and thorax distinctly iridescent, the latter with dorsal row of eight punctures. Palpi reddish. Antennæ black, the base of the 2nd joint reddish. Legs pitchy. Length 9·5 mm.

♂: head as long as broad, quadrate, a little broader than the thorax, the posterior angles briefly rounded, the front margin in the middle with a narrow impression, on each side of it with a puncture, behind the base of the antennæ with a group of four small punctures, behind the eyes on each side of the disc with a group of about nine larger ones, at the base with a row of smaller ones, the temples bounded above, behind, and below by a row of small, closely placed punctures, the included space smooth; ground-sculpture fine. Antennæ with the 3rd joint a little longer than the 2nd, the 4th globular, the 5th to 10th gradually more transverse. Thorax trapezoidal, as long as broad, the anterior angles almost acute, behind them with a small emargination, the sides then retracted and slightly sinuate to the rounded posterior angles; disc with dorsal row of eight punctures, two others externally, and a group of four behind the anterior angles; ground-sculpture as on the head. Scutellum deeply and closely punctured. Elytra a little longer and broader than the thorax, moderately finely and rather closely punctured, finely yellow pubescent, at the sides with a few long setæ. Abdomen narrowed behind, moderately finely, not very closely punctured, rather more sparingly behind, with rather long, not very close yellow pubescence.

♂: 6th ventral segment with scarcely perceptible arcuate emargination.

Ceylon (without further indication).

1084. **Belonuchus nilgiriensis**, sp. n.

Near *ceylonicus*, of the same size (7·5 mm.), but the head more closely punctured on the postero-lateral area, the seven punctures of the dorsal row of thorax larger, and external to them posteriorly with a row of four smaller ones, the elytra entirely black and less finely punctured. Head and thorax only slightly iridescent.

Nilgiri Hills (*H. L. Andrewes*).

1085. **Belonuchus ceylonicus**, sp. n.

Differs from *taprobanus* in the smaller size (7·5 mm.), shorter, transversely quadrate head, the thorax with dorsal row of seven punctures, the elytra more finely punctured and with the suture obscurely reddish, and the thorax only with iridescent reflex.

♂ : unknown.

Ceylon : Kotte. Under jak bark.

1086. **Belonuchus imitator**, sp. n. (Fauvel, *in litt.*)

Very near *nilgiriensis*, of the same size and build, but with less numerous punctures on the postero-lateral region of the head and with only two punctures external to the dorsal row of the thorax, and the puncturation of the abdomen finer and less close.

♂ : 6th ventral segment broadly and very feebly emarginate.

Burma : Schwego-myo (*L. Fea*).

1087. **Belonuchus assamensis**, sp. n.

Build of *ceylonicus*, but larger (9 mm.), the postero-lateral region of the head much less punctured, on each side of the vertex with a row of small close punctures placed obliquely, the punctures of the dorsal row larger, the elytra uniformly black and less finely punctured, the abdomen along the middle almost impunctate, at the sides less closely punctured. The head, thorax, and abdomen without trace of iridescence.

Assam : Naga Hills. Under bark.

1088. **Belonuchus tripunctatus.**

Belonuchus tripunctatus Fauv., Rev. d'Ent. xiv, 1895, p. 267.

Elongate, depressed, black, shining ; thorax with dorsal row of four punctures (including that on the anterior margin, which is smaller). Mandibles reddish ; palpi pitchy-black, the apex pitchy. Antennæ black, the first three joints pitchy-black, the base of the 2nd reddish. Legs pitchy. Length 8 mm.

Head quadrate, a little broader than the thorax, the front broadly impressed, scarcely sulcate, on each side with a pair of punctures behind the base of the antennæ, two larger ones placed obliquely on the disc, another large one externally and behind these, six smaller behind the eyes, and three or four more at the base. Antennæ half as long again as the head, the 3rd joint a little longer than the 2nd, 4th to 6th decreasing in length, 7th to 10th a little transverse. Thorax trapezoidal, longer than broad, the anterior angles obtuse, the disc behind often very broadly depressed, the sides behind a little sinuate ; dorsal row of three large punctures placed obliquely and

another, smaller, on the anterior margin itself, externally with two more, and behind the anterior angles with two others; scutellum closely and deeply punctured; elytra a little longer and much broader than the thorax, rather closely and finely punctured, rather closely covered with yellow pubescence; abdomen with close subacicular puncturation, the last two segments more finely and more sparingly punctured.

Burma: Carin Cheba, alt. 900–1100 metres (*L. Fea*) (ex *Fauvel*).

Genus **SANIDERUS** Fauv.

Saniderus Fauv., Rev. d'Ent. xiv, 1895, p. 257.

This genus is structurally very similar to those groups of *Staphylinus* with unmodified palpi. Prosternal epimera are present. The mesosternum is triangular, indistinctly keeled at the base, and extends about half the length of the coxæ, which are narrowly separated; the anterior metasternal process does not extend between the coxæ, and is separated from the mesosternum by an intersternal piece. The first four joints of the anterior tarsi are dilated in both sexes. It differs in appearance from *Staphylinus* owing to the absence of puncturation on the disc of the head and thorax and more scanty pubescence generally. Only one species is known from our Fauna.

1089. **Saniderus ruficollis.**

Saniderus ruficollis Fauv., Rev. d'Ent. xiv, 1895, p. 257.

Somewhat depressed, parallel, shining. Head black, thorax and elytra orange-red, the latter less shining. Scutellum black. Abdomen with the first three (visible) segments red, pitchy-black along the middle, the 4th almost entirely black, 5th and 6th black, the apex of the latter yellow. Base of mandibles and palpi red. Antennæ pitchy, the 1st joint testaceous, the 2nd and 3rd red. Tarsi red. Length 15 mm.

Head transversely subquadrate, the eyes rather large, the temples a little dilated, the disc impunctate, finely alutaceous, the front sparingly and irregularly punctured, near the inner margin of the eyes with close, coarse, umbilicate punctures, and with a similar rugose puncturation extending obliquely back from the eyes to the middle of the base; vertex with sparing yellow pubescence; the under surface sparingly and strongly punctured, near the eyes with a sulcus. Antennæ a little longer than the head, the 3rd joint about a third longer than the 2nd, 4th slightly, 5th to 10th rather strongly transverse, the 11th emarginate at the apex. Thorax broad, almost semicircular, a little longer than broad, somewhat narrowed in front, almost flat, with an oblique area of coarse umbilicate punctures like those on the head, extending from the neck to the rounded posterior angles, the disc in front

on each side slightly impressed, each impression with eight to twelve irregular punctures, otherwise smooth and with sparing golden-yellow pubescence and a few black setæ. Scutellum very closely and finely punctured. Elytra a little broader than the thorax, quadrate, closely, not very strongly, rugosely punctured, with long, close, golden-yellow pubescence. Abdomen a little narrowed behind, closely and strongly punctured on the first four (visible) segments, the punctures aciculate, the 5th segment at the apex closely and finely punctured; the first three (visible) segments on each side with sparing golden-yellow pubescence, the 4th and 5th with the base and sides more closely but similarly pubescent.

♂: 5th ventral segment scarcely emarginate: 6th broadly, obtusely, and not deeply emarginate, the borders scarcely impressed.

Burma: Carin Cheba, alt. 900–1100 metres (*L. Fea*).

Genus **PHUCOBIUS** Sharp.

Phucobius Shp., Trans. Ent. Soc. Lond. 1874, p. 35; id., Ann. Mag. Nat. Hist. (6) iii, 1889, p. 108; Fauv., Faun. Gallo-Rhén. ii, 1872, p. 421 (note); Cam., E. M. M. lv, 1919, p. 207.

Closely allied to *Cafius*, but the anterior tibiæ are not spinose. Mandibles slender, each with a sharp tooth; the 3rd and 4th joints of the maxillary palpi are longer and more slender than in *Cafius*. The tongue is not bilobed as stated by Sharp, but simply rounded in front. Mesosternal process narrow and pointed, extending about half the length of the intermediate coxæ, which are narrowly separated: the anterior metasternal process scarcely projects between the middle coxæ, and is separated from the mesosternal process by a narrow intersternal piece.

The genus is found on the coast under seaweed in the Oriental Region. Only one species has so far been recorded from our coasts.

Formerly I regarded this genus as identical with *Orthidus* Rey, but I think it must be separated from it on account of the more strongly deflexed superior lateral line of the thorax.

1090. **Phucobius congruus.** (Plate I, fig. 10.)

Philonthus congruus Walk.*, Ann. Mag. Nat. Hist. (3) ii, 1858, p. 205.
Philonthus punctilinea Walk., l. c. p. 205.
Cafius horni Bernh., D. E. Z. 1902, p. 28.

Head and thorax black, shining, with distinct greenish-metallic reflex, the latter with dorsal row of about eight small punctures; scutellum black; elytra and abdomen dark reddish-brown, less shining than the head and thorax. Antennæ, palpi and legs reddish-yellow. Length 8·5–10 mm.

Head transverse, subquadrate, a little broader than the thorax, with rather strongly rounded posterior angles; eyes moderate, about as long as the temples; median interocular punctures nearer each other than to the lateral, which are close to the eyes, on each side of the vertex with a curved row of three large punctures, the post-ocular region more finely and closely punctured, before the base with several large punctures; ground-sculpture rather strong. Antennæ rather long, the 3rd joint distinctly longer than the 2nd, 4th to 8th all longer than broad, gradually decreasing in length, 9th about as long as broad, 10th transverse, 11th short, oval. Thorax about as long as broad, trapezoidal, sides straight, retracted and very slightly sinuate before the rounded posterior angles, the anterior angles rather prominent; dorsal row of about eight small punctures, externally with one or two others, behind the anterior angles with three or four more. Scutellum coarsely punctured. Elytra much longer and a little broader than the thorax, coarsely, closely, subrugosely punctured, finely yellow pubescent. Abdomen a little narrowed behind, the first two (visible) segments on each side of the middle of the base with a flat impression, the 4th to 6th each with a pair of larger punctures about the middle, the whole closely and finely punctured and yellow pubescent.

♂: 5th ventral segment with a small arcuate emargination: 6th with acute triangular excision, its borders narrowly impressed.

Ceylon: Weligama.

Genus **STAPHYLINUS** Linn.

Staphylinus Linn., Syst. Nat. ed. x, 1758, p. 421; Fauv., Faun. Gallo-Rhén. iii, 1872, p. 398; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 419.

Matidus Motsch., Bull. Mosc. xxxiii, 1860, ii, p. 569.

Staphylinus, Fam. viii+*Ocypus* excl. *Physetops* Er., Gen. Spec. Staph. 1839–40, pp. 368, 403.

Staphylinus+*Ocypus* Kr., Naturg. Ins. Deutsch. ii, 1856–58, pp. 536, 560.

Staphylinus, excl. *Emus*, *Creophilus*, *Physetops* Jacq. du Val, Gen. Col. d'Eur. ii, 1857–59, p. 33.

Trichoderma + *Platydracus* + *Staphylinus* + *Goërius* + *Ocypus* + *Tasgius*+*Anodus* Thoms., Skand. Col. i, pp. 23, 24; ii, 1860, pp. 142, 150.

Trichoderma + *Abemus* + *Staphylinus* + *Platydracus* + *Ocypus* + *Tasgius* + *Anodus* Muls. et Rey, Ann. Soc. Agric. Lyon, (4) viii, 1875, p. 214.

Literature.—Lacord., Gen. Col. ii, 1855, pp. 76, 79; Horn, Trans. Amer. Ent. Soc. vii, 1878, p. 185; Lynch, Bol. Ac. Cord. vii, 1884, p. 135; Sharp, B. C.-A. i, 2, 1882–87 (1885), p. 371; Pero, Atti Soc. Ital. Sc. Nat. 1889, xxxii, pp. 17–64; Packard, Psyche, v, 1889, pp. 193–197, 222–228; Georgevitsch, Zool. Anz. 1898, pp. 256–261.

Subgen. *Abemus* Muls. et Rey, Ann. Soc. Agric. Lyon, 1875, p. 242 Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 423. *Parabemus* Reitt., Faun. Germ. ii, 1909, p. 118.
Subgen. *Aulacocypus* Müll., Boll. Soc. Ent. Ital. lvii, 3, 1925, p. 40.
Subgen. *Chitocompsus* Bernh., Ann. Hofmus. Wien, xxvii, 1913, p. 232.
Subgen. *Goërius* Steph., Ill. Brit. Ent. v, 1832, p. 208; Thoms., Skand. Col. ii, 1860, p. 146; Ganglb., l. c. p. 424. *Ocypus* subgen. *Goërius*+subgen. *Ocypus*, s. str., Muls. et Rey, l. c. pp. 276, 290. *Rhagochila* Motsch., Bull. Mosc. xviii. 1845, i, p. 40; ii, p. 549; xxxi. 1858, ii, p. 668.
Subgen. *Neotasgius* Müll., Boll. Soc. Ent. Ital. lvii, 1925, p. 41.
Subgen. *Nesiolinus* Bernh., Phil. Journ. Sci. x, D, 1915, p. 123.
Subgen. *Ocypus* Steph., Ill. Brit. Ent. v, 1832, p. 211; Ganglb., l. c. p. 424. *Anodus* Nordm., Symb. ad Mon. Staph. 1837, p. 11; Thoms., Skand. Col. ii, 1860, p. 150; Muls. et Rey, l. c. p. 325.
Subgen. *Parocypus* Bernh., Col. Rundsch. 1915, p. 52.
Subgen. *Platydracus* Thoms., Öfv. Vet. Ac. Förh. 1858, p. 29; Skand. Col. ii, 1860, p. 143; Muls. et Rey, l. c. p. 257; Ganglb., l. c. p. 423. *Bemasus* Muls. et Rey, l. c. p. 257.
Subgen. *Plesiolinus* Bernh., Col. Rundsch. 1916, p. 3.
Subgen. *Protocypus* Müll., Boll. Soc. Ent. Ital. lv, 1923, pp. 135–146.
Subgen. *Pseudocypus* Muls. et Rey, l. c. p. 291; Ganglb., l. c. p. 424. *Ocypus* Thoms., Skand. Col. ii, 1860, p. 147 (ex parte).
Subgen. *Staphylinus*, s. str., Thoms., Skand. Col. ii, 1860, p. 144; Muls. et Rey, l. c. p. 249; Ganglb., l. c. p. 424. *Tasgius*+*Ocypus*, subgen. *Pseudocypus* Seidl., Faun. Balt. ed. 2, 1891, pp. 96, 391.
Subgen. *Trichoderma* Steph., Ill. Brit. Ent. v, 1832, p. 435; Thoms., Skand. Col. ii, 1860, p. 142; Muls. et Rey, Ann. Soc. Agric. Lyon, (4) viii, 1875, p. 233; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 423. *Dinothenarus* Thoms., Öfv. Vet. Ac. Förh. 1858, p. 29.

Biology.—Frisch, Beschreib. Allerl. Ins. Teutschland, v, 1724, no. 26; Heer, Obs. Ent. 1836, pp. 16–21, tab. 3, A; Blanchard in Guér., Mag. Zool. 1836, cl. ix, p. 165; Ratzeburg, Forstius, i, 1837, p. 30, tab. 1, fig. 14; Thoms., Skand. Col. ii, 1860, pp. 145, 146; Schiødte, Naturh. Tidskr. (3) iii, 1864–65, pp. 197–199, tab. 9, figs. 1–5; Pissot, Bull. Soc. Ent. Fr. 1886, p. clxxxix; id., Le Natural. 1889, p. 205; Laboulbène, Ann. Soc. Ent. Fr. (4) ii, 1862, pp. 559–661, tab. 13, figs. 1–7; Rathoon, Rep. U.S. Dept. Agric. 1861, p. 596; Fauv., Faun. Gallo-Rhén. iii, 1872, p. 398; Muls. et Rey, Ann. Soc. Agric. Lyon, (4) viii, 1875, pp. 240, 266, 285, 321; Rey, Ann. Soc. Linn. Lyon, xxxiii, 1886, p. 144; Schaupp, Bull. Brooklyn Soc. i, 1879, pp. 42, 43; ii, p. 30; iii, p. 92; Xambeu, Rev. d'Ent. ix, 1890, pp. 181, 182; id., Mœurs, vi, L'Echange, 1894, pp. 49, 99, 143; id., Ann. Soc. Linn. Lyon, xxxviii, 1891, pp. 171, 173; id., Rev. d'Ent. xvii, 1898, p. 14; Fabre, Souv. viii, 1903, pp. 265–268; Rupertsberger, Biol. Lit. Käf. Eur. 1894, p. 121; Roubal, W. E. Z. xliii, 1927, pp. 179, 180.

Elongate, more or less parallel, rather large species, with variably shaped head and broad neck, and, as may be inferred from the numerous subgenera into which it has been divided, presenting considerable differences in structure. Labrum transverse, bilobed, the lobes rounded in front and furnished with long setæ. Mandibles variable, with or without teeth. Maxillæ with the inner lobe densely ciliate internally, the outer densely ciliate at the truncate apex. Maxillary palpi with 1st joint small, 2nd and 3rd about equal, the 4th variable,

usually cylindrical or pointed, but in the subgenera *Ocypus* and *Tasgius* stouter than the 3rd, dilated towards apex and truncate in the ♂, normal in the ♀. Mentum short and broad. Tongue short, emarginate in front or more or less bilobed. Paraglossæ well developed, extending beyond the tongue and strongly ciliate internally. Labial palpi rather short, the 3rd joint longer than the 2nd, usually cylindrical or pointed, but dilated and more or less securiform in *Ocypus* and *Tasgius*. Thorax more or less trapezoidal, the superior lateral line strongly deflexed in front and joining the inferior in front of the coxal cavity, the pronotal epipleura narrow, the prosternal epimera either present or absent; in some species of *Ocypus* it is present in some individuals and absent in others; when present it is less highly chitinized than the epipleura to which it is attached, and forms a yellowish triangular plate. The deflexed part of the prosternum is rather strongly carinate. Mesosternum not carinate, its process variable, either rounded behind or sharply pointed, the coxæ either contiguous or separated. The anterior metasternal process either produced to meet the mesosternum (*Staphylinus*, s. str.) or not produced between the coxæ, rounded in front and separated by an intersternal piece from the mesosternal process, its posterior process short and impressed at apex. Anterior tibiæ with or without spines externally, the middle and posterior strongly spinose. Anterior tarsi with the first four joints strongly dilated, the middle and posterior with the 1st joint as long as the following two or three together, these gradually decreasing in length, the 5th joint about as long as the 3rd and 4th together. In many of the species the anterior segments of the abdomen have in the middle a patch of black, velvety pubescence, divided along the centre by a streak or patch of yellow hairs; this arrangement of the pubescence is known as *bifariate*. The genus is found throughout the world, often on the wing, frequently on the ground or under stones, or in dung or decaying fruit, which they apparently frequent to hunt dipterous larvæ.

The following Key gives the subgenera known to me as occurring in our Fauna.

Key to the Subgenera.

1. At least the left mandible with two or more teeth. Palpi normal ..... 2.
   Mandibles edentate or with one tooth; 3rd joint of the labial palpi more or less securiform. The ♂ with the 4th joint of the maxillary palpi more or less securiform. 7.
2. Prosternal epimera present ..... 3.
   Prosternal epimera absent ..... 4.

3. Head not widened behind; the metasternum and ventral surface of the abdomen densely covered with white tomentose pubescence	Trichoderma.
Head widened behind; under surface of abdomen and metasternum normally pubescent.	Platydracus.
4. Metasternum produced to join the mesosternal process	Staphylinus, s. str.
Metasternum not so produced, separated by an intersternal piece from the mesosternal process	5.
5. Temples longer than the eyes	Goërius.
Temples shorter than the eyes	6.
6. Temples dilated. Species not tomentose	Pseudocypus.
Temples parallel. Species tomentose	Parocypus.
7. Mandibles with a tooth	Tasgius
Mandibles edentate	Ocypus.

In the following Key I have not used the above divisions, as in one or two cases the subgenus to which the species belongs is not known to me.

Key to the Species.

1. Metasternum and ventral surface of abdomen very densely covered with *white* pubescence. Head red	2.
Metasternum and ventral surface of abdomen normally pubescent	3.
2. Elytra reddish-brown variegated with dark brown	[p. 185. *xanthocephalus* Kr.,
Elytra black, the humeral angle red	*ruficeps*, sp. n., p. 186.
3. Antennæ rather long and slender, the intermediate joints much longer than broad, the penultimate at least as long as broad	4.
Antennæ shorter and stouter, the penultimate joints transverse	14.
4. Elytra red	*pendjabensis* Bernh.,
Elytra otherwise	5. [p. 209.
5. Abdomen with one or more large transverse tomentose golden patches	6.
Abdomen without such patches, at most with narrow triangular patches	8.
6. Each elytron with a large golden tomentose patch at the side margin; 4th and 5th (visible) abdominal segments with transverse patch of golden pubescence	[p. 207.
Elytra otherwise	*quadrimaculatus*, sp. n., 7.
7. Each elytron with two small indistinct patches of yellow pubescence, one at the shoulder, the other at the middle of the side margin; 4th and 6th (visible) segments with transverse patch of golden pubescence at base. Antennæ dark	*prainæ* Epp., p. 201.
Elytra without such patches; 4th and 5th (visible) segments with large transverse patch of golden pubescence. Last five joints of antennæ clear yellow	*an'ennalis*, sp. n., p. 208.

8.	4th and 5th (visible) abdominal segments with median triangular patch of greyish-yellow pubescence extending from the base to the posterior margin. Last four joints of antennæ yellow	*stevensi*, sp. n., p. 208.
	4th and 5th segments not so ornamented.	9.
9.	Shining; fore-parts blue. Legs and antennæ (except the 2nd to 4th joints) red.	*cæruleus*, sp. n., p. 203.
	Otherwise coloured	10.
10.	Dull greenish-black. Femora yellowish, tibiæ and tarsi black. Antennæ except the base, black	*olivaceus* Cam., p. 202.
	Otherwise coloured	11.
11.	Antennæ and legs bright reddish-yellow, the elytral patch very large	[p. 205. *wasmanni* Bernh.,
	At least the first five joints of the antennæ and the legs dark; elytral patch much smaller	12.
12.	Head and thorax blue-black, elytra dark blue	[p. 206. *auroguttatus*, sp. n.,
	Head and thorax black	13. [p. 206.
13.	Elytra brilliant steel-blue	*sikkimensis* Bernh.,
	Elytra less brilliant, greenish-blue	*bimaculatus*, sp. n., [p. 207.
14.	Head and thorax brilliant metallic green .	*gemmatus* Fauv.,
	Head and thorax otherwise	15. [p. 188.
15.	Elytra densely covered with golden-yellow or greenish-yellow pubescence. Large species (23–27 mm.)	16.
	Elytra otherwise	17.
16.	2nd and 5th (visible) segments with large patch of golden-yellow pubescence	[p. 187. *semipurpureus* Kr.,
	5th (visible) segment with small indistinct patch of yellow pubescence at the base, abdomen otherwise black	*goryi* Cast., p. 186.
17.	Each elytron with a large patch of golden-yellow pubescence at the side; 5th (visible) segment with large transverse patch of golden pubescence	[p. 208.
	Elytra otherwise	*trimaculatus* Fauv.,
18.	Elytra with a large patch of yellow pubescence at the postero-external angle	18. [p. 196. *maculipennis* Kr.,
	Elytra otherwise	19.
19.	Abdomen with one or more broad fasciæ of silvery or yellowish pubescence on the posterior segments	20.
	Abdomen without such fasciæ	22. [p. 198.
20.	Fore-parts black	*chrysostigma* Fauv.,
	Fore-parts otherwise	21.
21.	Thorax black, elytra red; 4th segment of abdomen with greyish fascia	[p. 203. *dehradunensis* Bernh.,
	Thorax and elytra red; 4th and 5th segments of abdomen with silvery fascia...	*dudgeoni*, sp. n., p. 196.
22.	Head and thorax very shining, not rugose (except the post-ocular region in *sparsus*); abdomen not bifariate	23.
	Head and thorax less shining, rugosely punctured; abdomen usually bifariate .	25. *sparsus*, sp. n., p. 109.
23.	Head and thorax black, elytra red.....	
	Head and thorax brassy-bronze; elytra dark	24.

24.	Abdomen with five lines of pale pubescence	*almorensis*, sp. n., [p. 204.
	Abdomen uniformly black pubescent	*aereus* Cam., p. 204.
25.	Antennæ entirely or in greater part black or blackish	30.
	Antennæ entirely red	26.
26.	Thorax with rather broad, smooth, uninterrupted line throughout the middle	*lewisi*, sp. n., p. 191.
	Thorax with smooth space behind, more or less interrupted and obsolete in front	27.
27.	Thorax black, all the margins more or less red	*bryanti* Cam., p. 190.
	Thorax otherwise	28.
28.	Head and thorax ferruginous red variegated with brassy	*indicus* Kr., p. 188.
	Head and thorax otherwise	29.
29.	Head and thorax greenish-bronze. Larger (14–15·5 mm.)	[p. 194. *submarmorellus* Schub.,
	Head and thorax shining metallic violet, the margins of the latter testaceous. Smaller (10 mm.)	[p. 192. *flavopilosus* sp. n.,
30.	Elytra black, not or scarcely metallic	31.
	Elytra reddish-brown, purplish or strongly metallic	37. [p. 187.
31.	Thorax with reddish margins	*circumcinctus* Bernh.,
	Thorax black, with more or less metallic reflex	32.
32.	1st joint of antennæ red below	33.
	Antennæ entirely black at base	34.
33.	Larger (14–16 mm.). More coarsely punctured; penultimate joints of antennæ black	*basicornis* Fauv., p. 197.
	Smaller (12 mm.). Less coarsely punctured; penultimate joints of antennæ reddish	*dohertyi*, sp. n., p. 197.
34.	Head distinctly widened behind; larger (14–17·5 mm.)	35.
	Head not widened behind; smaller (12·5 mm.)	*birmanus* Fauv., p. 198.
35.	Abdomen very distinctly bifariate, with well-defined golden-yellow spots along the middle	[p. 196. *auronotatus* Fauv.,
	Abdomen not or scarcely bifariate, with golden spots along the middle scarcely visible or absent	36.
36.	Elytra and abdomen opaque, thickly pubescent	[p. 197. *curticornis* Fauv.,
	Elytra and abdomen shining, sparingly pubescent	*subirideus* Kr., p. 199.
37.	Elytra uniformly ferruginous red, shorter than the thorax	[p. 200. *brachypterus* Kr.,
	Elytra otherwise, as long as the thorax	38.
38.	Size small (8 mm.). Elytra reddish, variegated	*parvus*, sp. n., p. 192.
	Size larger	39.
39.	Antennæ entirely dark	40.
	At least the under surface of the 1st joint reddish-yellow	43.
40.	Fore-parts entirely brassy, with violet reflex	[p. 191. *semiviolaceus*, sp. n.,
	Fore-parts otherwise	41.

41. Elytra coppery	*asemus*, Kr., p. 194.
Elytra otherwise	42.
42. Elytra brassy	[p. 194. *bengalensis* Bernh.,
Elytra purplish-coppery	*purpurascens* Cam.,
43. Only the under surface of the 1st antennal joint yellow	[p. 195. *suspectus* Fauv., p. 193.
At least the 1st joint entirely reddish-yellow	44.
44. Larger (25–30 mm.)	[p. 200. *maculicollis* Fauv.,
Smaller	45.
45. Head and thorax thickly pubescent, the sculpture scarcely visible; 1st joint of antennæ yellowish-red	[p. 193. *marmorellus* Fauv.,
Head and thorax much less pubescent, the sculpture distinctly visible	46.
46. Head and thorax ferruginous-red, with metallic reflex; the first three joints of the antennæ reddish	*decipiens* Kr., p. 189.
Head and thorax greenish-bronze, the sides of the latter reddish; 1st joint of antennæ reddish-yellow	[p. 190. *virgulatus* Fauv.,

1091. Staphylinus (Trichoderma) xanthocephalus.

Staphylinus xanthocephalus Kr.*, Arch. Naturg. xxv, 1859, i, p. 74.
Staphylinus bomfordi Epp., W. E. Z. xiv, 1895, p. 56.

Subopaque; the head red, often with a short black line on the vertex, closely covered with golden pubescence. Thorax pitchy-black, variegated with red and with bands of golden pubescence. Scutellum black, velvety. Elytra reddish, variegated with brown, the pubescence reddish, arranged in fasciæ. Abdomen black, tomentose, at the middle of the base of the first three (visible) segments with a patch of yellowish pubescence more or less distinct, the 4th and 5th densely covered with silvery pubescence, with a few very small bare black spots. Under surface of abdomen and metasternum densely covered with silvery pubescence. Antennæ black, the first four joints red. Legs brown. Length 14–16 mm.

Head transversely suborbicular, a little wider than the thorax, the eyes rather small, much shorter than the post-ocular region, closely, finely, rugosely punctured, closely covered with golden pubescence. Antennæ short, the penultimate joints strongly transverse. Thorax as long as broad, the sides retracted and slightly sinuate behind, scarcely rounded in front, the anterior angles a little prominent, the posterior rounded, behind in the middle with short shining line, the sculpture as on the head, the pubescence golden, arranged in bands and patches. Elytra longer and a good deal broader than the thorax, strongly coriaceous, the golden-red pubescence arranged in bands and spots. Abdomen with the sculpture concealed by the close pubescence.

♂: 6th ventral segment with rather broad and deep triangular excision, in front of it with a narrow, smooth, triangular impression.

Dehra Dun. Chakrata and Simla districts.

1092. **Staphylinus (Trichoderma) ruficeps**, sp. n.

Subopaque: head red, between the eyes with two small black spots, closely yellow pubescent. Thorax black, the margins spotted with dull red and with spots of yellow pubescence. Scutellum black, velvety. Elytra black, the humeral angle red, variegated with silvery pubescence. Abdomen black, the first three visible segments with distinct black bifariate pubescence, in the middle of each with triangular patch of golden pubescence, the 4th and 5th segments densely covered with silvery pubescence, with a few very small bare black spots. Under surface of the metasternum and abdomen covered with dense silvery pubescence. Antennæ black, the first two joints red. Legs black, the femora ringed with red before the apex. Length 15 mm.

In build and sculpture scarcely differing from *xanthocephalus*, but the head not so short, the post-ocular region longer, the antennæ thinner.

♂: 6th ventral segment with small obtuse excision.

Simla (*E. C. Ansorge*). Unique. In British Museum Collection.

1093. **Staphylinus (Platydracus) goryi.**

Staphylinus goryi Cast., Ét. Ent. i, 1835, p. 113; Er., Gen. Spec. Staph. 1839–40, p. 395.
Staphylinus auripennis Kr.*, Arch. Naturg. xxv, 1859, i, p. 72.

Black, dull; scutellum velvety black; elytra covered with dense greenish-yellow pubescence, except the humeral angle, a small round spot between it and the scutellum, and two others on the side margin which are black and covered with black pubescence; abdomen black, not bifariate, at the middle of the base of the 5th (visible) segment with a small patch of golden-yellow hairs. Antennæ and legs black, the anterior tibiæ externally with close yellow pubescence. Length 27 mm.

A large and striking species, not to be confused with any other Indian form. Head transverse, subtriangular, nearly as wide as the thorax, the eyes a little shorter than the temples, the base truncate, the whole surface closely covered with rather coarse umbilicate punctures; pubescence black; antennæ short, the 4th to 10th joints transverse, gradually increasing in width. Thorax slightly transverse, the sides nearly straight, the posterior angles rounded, the anterior rectangular, along the middle with an impunctate (but not

shining) interrupted line, more evident at the base, the sculpture as on the head and with black pubescence. Elytra as long as but a little broader than the thorax, strongly coriaceous, but the sculpture quite concealed by the dense pubescence. Abdomen closely and finely punctured, with close black pubescence.

♂: 6th ventral segment with a small, acute, triangular smooth impression, its base arcuately emarginate.

N. India. Deccan.

1094. **Staphylinus (Platydracus) semipurpureus.** (Plate II, fig. 4.)

Staphylinus semipurpureus Kr.*, Arch. Naturg. xxv, 1859, i, p. 73.

Head and thorax black, with strong purple-violet reflex. Scutellum black, velvety. Elytra densely covered with golden-yellow pubescence except at the base, which is black. Abdomen black, closely covered with black pubescence, the 2nd (visible) segment with a large patch of golden-yellow pubescence on each side occupying the whole length of the segment, the anterior half of the 5th densely covered with similar pubescence. Antennæ ferruginous red. Legs reddish, femora often darker. Length 23 mm.

In build similar to *goryi*, but differs in the colour and the finer puncturation of the head and thorax.

♂: 6th ventral segment with small arcuate excision, in front of it with a small impression.

Bombay. Northern India.

1095. **Staphylinus (Platydracus) circumcinctus.**

Staphylinus circumcinctus Bernh., W. Z. B. lxiv, 1914, p. 102.

Black; head, thorax, and elytra with metallic brassy reflex, the thorax bordered with red: abdomen with brown bifariate pubescence, at the middle of the base of the first five (visible) segments with a small patch of golden-yellow pubescence. Antennæ, palpi, and legs pitchy. Length 21 mm. (with extended abdomen).

Near *chinensis* Bernh., but with more brassy reflex, larger head, which, like the thorax, is more finely punctured, shorter elytra, red-margined thorax, more thickly pubescent abdomen with golden spot on the 4th and 5th segments. Head large, transverse, slightly widened behind, the temples much shorter than the eyes, closely and moderately finely punctured, before the base with short, shining, median line. Thorax broader than long, the sides slightly rounded, a little narrowed in front, with rather broad, smooth, shining space in the middle at the base, continued forward as a narrower line abbreviated in front; sculpture as on the head. Elytra about as long as

the thorax, dull, very finely and sparingly punctured, coriaceous, pubescence close and black. Abdomen closely punctured, black pubescent.

" Ind. or.," without further indication (ex *Bernhauer*).

1096. **Staphylinus (Platydracus) gemmatus.**

Staphylinus gemmatus Fauv.*, Rev. d'Ent. xiv, 1895, p. 251.

Head and thorax rather shining, metallic green, with here and there a golden-coppery reflex. Scutellum black, velvety. Elytra subopaque, pale reddish-brown. Abdomen black, slightly iridescent, not bifariate, the posterior margin of the first three, the elevated lateral margin of the first four (visible) segments entirely, and the anterior third of the 5th reddish; segments at the base with closer golden pubescence, especially at the sides, the base of the 5th entirely and yet more closely. Antennæ with the 1st and 2nd joints reddish-yellow, the latter ringed with black, the following blackish, the 10th and 11th obscurely reddish. Legs reddish-yellow. Length 21–28 mm.

Very distinct by its brilliant coloration. Head transverse, subquadrate, slightly dilated behind, a little narrower than the thorax, the base truncate, the eyes a little longer than the temples; on the vertex with a short smooth line, otherwise closely covered with coarse umbilicate punctures; pubescence scanty, yellow. Antennæ with the 3rd joint longer than the 2nd, the 4th as long as broad, the 5th to 10th transverse, gradually increasing in width. Thorax a little longer than broad, the sides gently rounded, widest about the middle, the anterior angles obtuse, the posterior rounded with the base; along the middle from the apex nearly to the base with a well-marked smooth central line, and on each side before the middle with a very small smooth, shining space; sculpture and pubescence as on the head. Elytra as long as and a little broader than the thorax, strongly coriaceous, the puncturation rather close but indistinct, the pubescence yellow, not dense. Abdomen rather closely, somewhat asperately punctured, more strongly on the last three segments.

♂: 6th ventral segment very broadly feebly excised, the margin of the excision rather broadly bevelled.

Burma: Carin Cheba, alt. 900–1100 metres (*L. Fea*).

1097. **Staphylinus (Platydracus) indicus.**

Staphylinus indicus Kr.*, Arch. Naturg. xxv, 1859, i, p. 75.
Staphylinus lineatus Walk.*, Ann. Mag. Nat. Hist. (3) iii, 1859, p. 51.

Scarcely shining: head and thorax reddish-brown, with slight brassy reflex, the temples and sides of the thorax blackish; elytra lighter, very obscurely variegated with brown;

abdomen blackish along the middle, reddish at the sides, the apex reddish-yellow; the first two (visible) segments scarcely bifariate, at the sides of all with scattered golden-yellow hairs, the under side dark. Antennæ and palpi red. Legs reddish-yellow, the femora often infuscate above. Length 12 mm.

Head subquadrate, scarcely widened behind, scarcely as broad as the thorax, the temples shorter than the eyes, the base emarginate, closely, moderately coarsely rugosely punctured, the punctures umbilicate, sparingly yellow pubescent. Antennæ rather short, the 4th to 10th joints transverse, gradually increasing in width. Thorax slightly transverse, the sides straight and parallel, the posterior angles rounded with the base; along the middle with smooth shining line, more or less interrupted at the centre and wider behind, the sculpture distinctly finer than on the head, the pubescence similar. Elytra as long as the thorax, closely, rather finely but roughly punctured, distinctly coriaceous, yellow pubescent. Abdomen finely and moderately closely punctured, the pubescence chiefly yellow.

♂: 6th ventral segment with shallow, small, arcuate emargination.

Ceylon: Kandy; Dikoya. India: Nilgiri Hills; Dehra Dun.

1098. **Staphylinus (Platydracus) decipiens.**

Staphylinus decipiens Kr.*, Arch. Naturg. xxv. 1859, i, p. 75.

Moderately shining, ferruginous, the head and thorax with slight metallic reflex, temples blackish, thorax more or less infuscate at the sides. Scutellum black, velvety; elytra more or less distinctly variegated with brown. Abdomen blackish along the middle, ferruginous at the sides and posterior margin of the segments, the 6th almost entirely reddish-yellow; first five (visible) segments with black bifariate pubescence, each at the middle of the base with distinct triangular patch of golden-yellow pubescence, at the sides with scattered golden hairs; the under surface black, iridescent, the anterior segments with the posterior margin broadly reddish, the posterior entirely reddish. Antennæ blackish, the first four joints red. Palpi and legs reddish-yellow, the femora often infuscate above. Length 12–16 mm.

Very near *indicus*, but more shining and more brightly coloured, the head and thorax much more coarsely punctured, the latter a little longer, about as long as broad; abdomen distinctly bifariate, the central patches of golden pubescence larger, the ventral segments largely reddish-yellow.

♂: 6th ventral segment with small, shallow, arcuate emargination.

Ceylon: Kandy.

1099. **Staphylinus (Platydracus) virgulatus.**

Staphylinus virgulatus Fauv., Rev. d'Ent. xiv, 1895, p. 254.

Head and thorax somewhat shining, bronze-green, the latter with all the margins narrowly reddish. Scutellum black, velvety. Elytra reddish, variegated with purplish-brown and with patchy golden pubescence. Abdomen brownish-red, darker along the middle, the first five (visible) segments very distinctly bifariate, with black and fulvous pubescence, throughout the middle of these segments with a line of golden pubescence, at the sides with scattered golden hairs. Antennæ blackish, the 1st joint reddish-yellow, the 2nd reddish, ringed with black. Legs reddish-yellow, the femora often a little infuscate above, the tibiæ and tarsi more reddish. Length 11–15 mm.

In build very similar to *indicus*, but differently coloured, the eyes larger and temples shorter, antennæ more slender, the joints less transverse; puncturation of head and thorax much coarser and more rugose, the former with a narrow smooth line on vertex, the latter with distinct line along the centre, somewhat interrupted in the middle, the puncturation less coarse than on the head; elytra strongly coriaceous and indistinctly punctured; abdomen very distinctly bifariate, the two parts widely separated and oblique, along the middle with distinct line of golden pubescence, elsewhere with scattered yellow and fulvous pubescence.

♂: 6th ventral segment with rather broad arcuate excision, with bevelled edge.

Burma: Carin Cheba, alt. 500–1000 metres; Carin Asciuii Ghécu, 1400–1500 metres (*L. Fea*). India: Bangalore.

1100. **Staphylinus (Platydracus) bryanti.**

Staphylinus bryanti Cam., E. M. M. liv, 1918, p. 104.

Dark fusco-ferruginous, with æneous reflex on the fore-parts; pubescence scarcely variegated on the elytra. Antennæ and legs reddish-testaceous. Length 13 mm.

Colour of the fore-parts very similar to *indicus*, but the puncturation of the head and thorax much coarser and the latter narrower, the abdomen distinctly bifariate. Head subquadrate, not widened behind, the eyes much longer than the temples, the base truncate, of a dark brownish-red colour with slight metallic reflex, the temples blackish; middle of disc with short smooth line, the rest of the surface covered with coarse, close, umbilicate punctures; pubescence scanty, grey and yellow. Antennæ with the 2nd and 3rd joints subequal, the 4th about as long as broad,

the 5th to 10th transverse, gradually increasing in width. Thorax slightly longer than broad, blackish, with all the margins more or less indeterminately reddish, in the middle of the base with short, shining, impunctate line : the puncturation and pubescence as on the head. Scutellum black, velvety. Elytra about as long as the thorax, similar in colour, with the base, suture, and posterior margin indeterminately reddish ; puncturation close, rugose, with a fine ground-puncturation ; pubescence mixed grey and yellow, not forming definite pattern, thicker at the postero-external angles. Abdomen dark brown, the posterior margin of the segments more reddish, bifariate on the first five segments, each of these at the base with small triangular patch of golden pubescence, at the sides of the segments with some scattered golden hairs, the general pubescence black and grey.

♂ : unknown.

Ceylon : Kandy (*G. E. Bryant*).

1101. **Staphylinus (Platydracus) semiviolaceus,** sp. n.

Scarcely shining, black, sparingly pubescent, the fore-parts with violaceous and coppery reflex, the abdomen black, feebly bifariate. Antennæ black. Legs black. Length 11·5 mm.

Of the size and build and with similar sculpture to *indicus*, but at once distinguished from this species by the colour. The abdomen is black, but with very similar pubescence to *indicus*.

Ceylon : Colombo. In British Museum Collection.

1102. **Staphylinus (Platydracus) lewisi,** sp. n.

Scarcely differing in build from *bryanti*, but with the head and thorax more ferruginous and with much stronger brassy reflex, the temples blackish as in *bryanti*, the eyes distinctly smaller and the temples longer ; the sculpture of the head and thorax is very similar, but the thorax has along the middle from base to apex a rather broad, shining, elevated, uninterrupted line, broader behind ; the pubescence is scanty and yellow. The antennæ are reddish-yellow, with less transverse penultimate joints. The ferruginous elytra are obscurely mottled with brown, the sculpture finer but with similar ground-puncturation, and there are some small irregular patches of golden-yellow pubescence. The abdomen is very similar, but the elevated side margins are ferruginous-red. Legs reddish-yellow. Length 11·5 mm.

Ceylon : Dikoya, alt. 3800–4200 feet (*G. Lewis*).

1103. **Staphylinus (Platydracus) parvus**, sp. n.

Head and thorax bronze-black, shining, with slight brassy reflex. Scutellum velvety black. Elytra dull, reddish-ochraceous, scarcely mottled with brown, and with some small scattered spots of golden-yellow pubescence. Abdomen blackish, with bifariate nigro-fulvous pubescence on the first five segments, in the middle of the base of each with a small patch of golden-yellow pubescence, at the sides with some scattered golden hairs. Antennæ black, the base of the 2nd joint and whole of the 11th reddish. Legs reddish-yellow. Length 8 mm.

Near *lewisi*, but smaller, the head and thorax darker, more coarsely punctured, the former shorter and broader, as broad as the thorax, with larger eyes and shorter temples; thorax with less developed smooth central line which is interrupted in the middle; with dark antennæ. The elytra and abdomen scarcely differ in colour and pubescence from *lewisi*.

Assam: Naga Hills, alt. 9000 feet.

1104. **Staphylinus (Platydracus) flavopilosus**, sp. n.

Head and thorax shining, brassy with strong blue and violet reflex, yellow pubescent, the margins of the latter yellow. Scutellum brown, velvety. Elytra pale brownish-yellow, faintly variegated with darker brown, the pubescence golden yellow, at the lateral margin forming a more distinct patch. Abdomen reddish-testaceous, the first three visible segments brown, bifariate, in the middle with a line of golden pubescence, at the sides with scattered golden hairs; 4th and 5th segments densely covered with short, silky, golden pubescence, their under surface in greater part black. Antennæ and legs reddish-yellow, the intermediate joints of the former scarcely infuscate. Length 10 mm.

Larger than *parvus*, more brightly coloured, more thickly pubescent, the antennæ shorter and differently coloured; very distinct by the golden sericeous appearance of the 4th and 5th segments. Head narrower than the thorax, not widened behind, the eyes very large; coarsely and rugosely punctured. Antennæ with the 4th to 10th joints transverse. Thorax with sculpture and pubescence as on the head, at the middle of the base with smooth plaque. Elytra as long as the thorax, coriaceous, and with a fine moderately close puncturation. Abdomen extremely finely and closely punctured, but much concealed by the pubescence.

♂: unknown.

Burma: Tenasserim, Tavoy (*Doherty*). In British Museum Collection. Unique.

1105. **Staphylinus (Platydracus) suspectus.**

Staphylinus suspectus Fauv.*, Rev. d'Ent. xxiii, 1904, p. 57.

Scarcely shining; the head and thorax bronze-black, with greenish reflex, the former usually with the anterior margin and internal to the eyes reddish, the temples darker; thorax with the anterior and posterior borders narrowly and obscurely reddish; scutellum black, velvety; elytra obscure greenish-black, more or less variegated with brown and greyish pubescence; abdomen blackish, the first five (visible) segments with bifariate nigro-fulvous pubescence, the central pubescence greyish-yellow and extending the whole length of the segments; at the sides with scattered golden pubescence; ventral surface entirely blackish. Antennæ with the 1st joint blackish above, yellow below, the 2nd black, with the base and apex red, the following black. Femora reddish-yellow, more or less infuscate, tibiæ and tarsi black. Length 10–12 mm.

Near *indicus*, but of darker colour, the head smaller, more dilated behind, the temples shorter, the vertex with small, smooth, shining space, the puncturation coarser. Antennæ shorter and more slender, the penultimate joints less transverse. Thorax more coarsely punctured, the abdomen distinctly bifariate.

♂: 6th ventral segment with very shallow emargination.

Nilgiri Hills. Matheran. Mahé.

1106. **Staphylinus (Platydracus) marmorellus.**

Staphylinus marmorellus Fauv.*, Rev. d'Ent. xiv, 1895, p. 253.

Scarcely shining; the head, thorax, and elytra reddish-brown, the head and thorax more or less infuscate on the disc, the post-ocular region greenish-black, the elytra more or less variegated with brown. Scutellum black, velvety. Abdomen blackish along the middle, the sides reddish, the first five (visible) segments distinctly bifariate, in the middle of the base of each with distinct triangular spot of greyish-yellow pubescence, the sides with some longer yellow hairs. Antennæ black, the 1st joint yellow. Legs reddish-yellow. Length 12–15 mm.

Very similar to *indicus*, but more brightly coloured, the temples a little shorter, the thorax a little longer, the abdomen distinctly bifariate, head and thorax less coarsely punctured and covered by much longer, closer, yellow pubescence, so that the sculpture is less evident.

♂: 6th ventral segment with shallow arcuate emargination, with slight impression in front; 5th with a subtriangular impression at the base in the middle which is more closely punctured and furnished with a small tuft of brown hairs.

Burma : Carin Cheba, alt. 900–1100 metres ; Carin Asciuii Ghécu, alt. 1400–1500 metres (*L. Fea*). Also in Sumatra and Java.

1107. **Staphylinus (Platydracus) submarmorellus.**

Staphylinus submarmorellus Schub.*, D. E. Z. 1908, p. 614.

Very near *indicus*, but the head and thorax bronze-black, with greenish reflex, more coarsely punctured, the eyes larger, the thorax a little narrower, with the anterior and posterior margins narrowly and obscurely reddish, the elytra of a darker reddish-brown, the abdomen darker, less distinctly reddish at the sides. In other respects similar to *indicus*. Length 14–15 mm.

Himalayas : Kulu. Dehra Dun.

1108. **Staphylinus (Platydracus) asemus.**

Staphylinus asemus Kr.*, Arch. Naturg. xxv, 1859, i, p. 77.
Staphylinus æneicollis Bernh., Ent. Blätt. vii, 1911, p. 87.

Head, thorax, and elytra coppery bronze, scarcely shining, the latter obscurely variegated with brownish and grey pubescence. Abdomen black, the first four segments with black, velvety, bifariate pubescence, which appears in certain lights golden brown, and in the middle of the base with small triangular patch of golden-yellow pubescence, the 5th with a larger, silvery patch ; at the sides of the segments with scattered yellowish-white pubescence. Antennæ and legs black. Length 11–13 mm.

Head subtriangular, a little widened behind, narrower than the thorax, the eyes much longer than the temples, before the base in the middle with a narrow, smooth, shining space, the rest of the surface covered with very coarse, close, umbilicate punctures. Antennæ short, the 4th to 10th joints transverse, gradually increasing in width. Thorax about as long as broad, the sides gently rounded and a little retracted behind to the rounded posterior angles ; anterior angles rectangular ; before the base in the middle with short smooth space, the rest of the surface punctured like the head. Scutellum black, velvety. Elytra as long as the thorax, strongly coriaceous, scarcely punctured. Abdomen rather closely punctured, the general pubescence rather long and black.

United Provinces : Musoorie. Bengal : Darjeeling. Assam : Shillong.

1109. **Staphylinus (Platydracus) bengalensis.**

Staphylinus bengalensis Bernh., W. Z. B. lxiv, 1914, p. 100.

Near *æneicollis* mihi [*asemus* Kr.], but the head is larger and broader, although distinctly narrower than the thorax, much

more coarsely and quite twice as sparingly punctured, shining and smooth along the middle, black, with slight greenish-metallic reflex. Thorax less narrowed in front, the sides uniformly and feebly rounded, much more coarsely and twice as sparingly punctured, shining and coloured like the head. Elytra brassy, with spots and bands of golden pubescence. Abdomen (so far as can be seen in the somewhat dirty specimen) thickly pubescent, at the middle of the base of the 5th and 6th segments with spots of thick grey pubescence. Length 13 mm.

♂: 6th ventral segment with slight arcuate emargination and a small shining space in front of it.

Bengal. Unique (ex *Bernhauer*).

1110. **Staphylinus (Platydracus) purpurascens.**

Staphylinus purpurascens Cam., E. M. M. lvi, 1920, p. 217.

Bronze-black, moderately shining, the head, thorax, and elytra with purple-coppery reflex, the abdomen feebly iridescent; first four visible abdominal segments with brown tomentose patches at the base on either side of a rather obscure golden median patch; antennæ black; femora reddish-testaceous, tibiæ and tarsi pitchy-brown. Length 12 mm.

Differs from *S. asemus* Kr. in the following respects: the head is shorter and transverse, the smooth polished space on the vertex is much larger, the puncturation is coarser and less close, the pubescence brown and scanty; the thorax is formed as in that species, the puncturation is, however, rather larger, more superficial, and much less close, a narrow, smooth, central space is present in front as well as behind, and there is a very evident purpurascent reflex. Elytra variegated with purpurascent-copper and small patches of short golden-yellow pubescence intermixed with black, the sculpture strongly coriaceous, with superficial and moderately close puncturation. Abdomen black, with slight metallic reflex, the first three (visible) segments narrowly reddish-testaceous posteriorly, the first four in the middle line at the base with a very obscure triangular patch of scanty yellow pubescence, and on either side of it with tomentose brownish patch, pubescence otherwise rather scanty and coarse, blackish, intermixed with shorter and more sparing silvery hairs; puncturation rather fine, moderately close at the bases of the anterior segments, more sparing behind.

♂: 6th ventral segment with rather broad semicircular excision.

South Coorg, Pollibetta (*T. B. Fletcher*).

1111. **Staphylinus (Platydracus) maculipennis.**

Staphylinus maculipennis Kr.*, Arch. Naturg. xxv, 1859, i, p. 77.

Nearly opaque, blackish, the head, thorax, and elytra variegated with more or less obscure purple, the apex of the latter with very distinct patch of dense, long, golden-yellow pubescence. Scutellum black, velvety. Abdomen slightly iridescent, scarcely bifariate, at the middle of the first five (visible) segments at the base with a small patch of yellow pubescence, at the sides with some scattered yellow hairs. Antennæ dark reddish-brown, the intermediate joints blackish. Femora dark brown, tibiæ and tarsi reddish. Length 11–13 mm.

Very distinct by the dense golden-yellow pubescence on the elytra behind. Head a little transverse, subquadrate, narrower than the thorax, the eyes much longer than the temples, the whole surface covered with rather large umbilicate punctures, rugose, sparingly pubescent. Antennæ with the 4th to 10th joints transverse, gradually increasing in width. Thorax scarcely transverse, the sides almost straight, the posterior angles rounded with the base; sculpture as on the head, but the punctures a little smaller; pubescence scanty. Elytra as long as the thorax, closely, moderately finely but roughly punctured, coriaceous, sparingly pubescent except behind. Abdomen rather finely and closely punctured, coriaceous, with mixed black and grey pubescence.

♂: 6th ventral segment with rather broad, shallow, arcuate emargination, with small impression in front.

Mussoorie. Dehra Dun. Bihar: Pusa.

1112. **Staphylinus (Platydracus) dudgeoni,** sp. n.

Nearly opaque, the head black, thorax and elytra red, abdomen black, the sides of the 1st (visible) segment thickly covered with silvery pubescence, the base of the 4th and 5th with complete fasciæ of similar pubescence, elsewhere with black hairs. Antennæ black, the last joint rufescent. Legs dark brown, tarsi reddish. Length 13 mm.

In build scarcely differing from *maculipennis*, but entirely different in other respects, the antennæ much shorter, the penultimate joints more transverse, sculpture of the fore-parts less coarse.

♂: unknown.

Punjab: Kangra Valley, alt. 4500 feet (*Dudgeon*).

This species is said to mimic *Mutilla emergenda*, ♀.

1113. **Staphylinus (Platydracus) auronotatus.**

Staphylinus auronotatus Fauv.*, Rev. d'Ent. xiv, 1895, p. 256.

Larger (15–17·5 mm.) than *asemus*, less coppery, more bronze-black, with very slight greenish reflex; head more

widened behind, the smooth line scarcely indicated; head and thorax scarcely as coarsely punctured; elytra blacker, obscurely variegated; abdomen with the first five (visible) segments with a larger triangular golden-yellow patch of pubescence at the middle of the base, that on the 5th segment especially broader at the base; the black bifariate pubescence rather more distinct. In other respects similar to *æneicollis*.

♂: 6th ventral segment with broad, feeble, triangular, smooth impression, its base broadly and slightly sinuate.

Burma: Carin Cheba, alt. 900–1100 metres (*L. Fea*).

1114. **Staphylinus (Platydracus) basicornis.**

Staphylinus basicornis Fauv.*, Rev. d'Ent. xiv, 1895, p. 255.

Near *auronotatus*, but with the head, thorax, and elytra blue-black, scarcely shining; thorax a little shorter and broader; puncturation of head and thorax much coarser, the smooth space on head and thorax well marked. First joint of antennæ reddish-yellow below; abdomen with the golden-yellow patch of pubescence at the middle of the base of the first four segments much less marked, the black bifariate pubescence less evident. Length 14–16 mm.

♂: 5th ventral segment with a little fossa at the middle of the base furnished with a few black hairs; 6th with rather broad and deep arcuate excision, in front of it with a narrow impression.

Burma: Teinzo; Carin Cheba; Carin Ghécu, alt. 400–1400 metres (*L. Fea*). Assam: Sylhet.

1115. **Staphylinus (Platydracus) dohertyi**, sp. n.

Closely allied to *basicornis*, but smaller (12 mm.), the head and thorax with less distinct bluish reflex, less coarsely punctured, the base of the antennæ similarly coloured, but the last four joints obscurely reddish, the 4th and 5th (visible) abdominal segments more closely and evenly covered with fulvous pubescence, the middle and posterior tibiæ brownish-yellow.

♂: 6th ventral segment broadly, deeply, arcuately emarginate.

Burma: Ruby Mines (*Doherty*). Unique. In British Museum Collection.

1116. **Staphylinus (Platydracus) curticornis.**

Staphylinus curticornis Fauv., Rev. d'Ent. xiv, 1895, p. 256.

Size and build of *basicornis*, but bronze-black, nearly dull. Antennæ entirely black, shorter and stouter. Head and thorax more closely and less coarsely punctured. Abdomen with

trace only of bifariate pubescence on the first two segments and without distinct yellow pubescence in the middle. Length 15–17 mm.

Burma: Carin Cheba, alt. 900–1100 metres (*L. Fea*); Maymyo.

1117. **Staphylinus (Platydracus) birmanus.**

Staphylinus birmanus Fauv.*, Rev. d'Ent. xiv, 1895, p. 255.

Colour and lustre of *auronotatus*, but much smaller (12·5 mm.) and narrower; head narrower, scarcely widened behind; head and thorax much less coarsely punctured, the former with indistinct smooth line on the vertex, the latter with distinct shining space at the middle of the base. Abdomen with the golden-yellow pubescence at the middle of the base of the first five (visible) segments much less distinct, and also the black bifariate pubescence; 5th segment with the posterior margin narrowly reddish and covered with short yellowish pubescence. Tibiæ and tarsi reddish-brown.

♂: 5th ventral segment with a small impression at the middle of the base furnished with a small tuft of yellow hairs; 6th with narrow emargination.

Burma: Mandalay; Bhamo; Metanja; Schwego-myo (*L. Fea*).

1118. **Staphylinus (subg. dub.) chrysostigma.**

Staphylinus chrysostigma Fauv., Rev. d'Ent. xiv, 1895, p. 252.

Parallel, subconvex, black, nearly opaque; abdomen somewhat velvety, with blackish-brown pubescence; at the middle and sides of the first four (visible) segments with scanty golden-yellow pubescence, almost the basal half of the 5th and 6th segments with a golden-yellow fascia. Metasternum closely covered with a mixture of golden and black hairs, the abdomen below more sparingly. Antennæ with the first four joints red, the following pitchy, the last two obscurely reddish-yellow. Palpi and legs red. Length 19 mm.

Head quadrate, a little wider than the thorax, the base deeply emarginate, the temples scarcely dilated, the middle of the front slightly emarginate, closely, coarsely, rugosely punctured, the punctures umbilicate, the under surface strongly but sparingly punctured. Antennæ short and stout, as long as the head, the 3rd joint a third longer than the 2nd, 4th quadrate, 6th to 10th strongly transverse. Thorax a fourth longer than broad, subparallel in front, the sides a little narrowed and sinuate behind, about a half more finely and closely punctured than the head, the punctures umbilicate. Scutellum velvety. Elytra a little shorter than the thorax, quadrate, closely, asperately rugulose. Abdomen subparallel,

the first five (visible) segments closely and finely, the 6th sparingly and rather strongly punctured.

♂: 5th ventral segment before the middle with small, feeble, subtriangular, closely punctured impression; 6th broadly, feebly, arcuately emarginate, with a small impression before the emargination.

Burma: Teinzo (*L. Fea*) (ex *Fauvel*).

1119. **Staphylinus (Platydracus) sparsus**, sp. n.

Head and thorax black, shining; scutellum black, sparingly yellow pubescent; elytra yellowish-red; abdomen black, rather shining, not bifariate. Antennæ black. Femora and tarsi pitchy, tibiæ reddish. Length 14 mm.

Distinguished from all the species of the group by the rather sparingly punctured head and thorax, at least on the disc. Head a little narrower than the thorax, a little widened behind, the eyes about as long as the temples; on the disc rather sparingly covered with moderate umbilicate punctures, between them with very fine scattered punctures, the post-ocular region closely and rugosely punctured; pubescence scanty, yellow. Antennæ short, the 4th to 10th joints transverse. Thorax transverse, the sides a little retracted in front, broadly rounded behind with the base; along the middle with rather broad, smooth space, elsewhere covered with moderate umbilicate punctures, which are larger and closer towards the sides; pubescence yellow, the sides with some long black setæ. Elytra a little longer and broader than the thorax, rather closely and rather finely punctured, the pubescence yellow. Abdomen finely and moderately closely punctured, rather shining, the pubescence yellow.

♂: unknown.

Darjeeling: Rungbong Valley (*Stevens*). Unique. In British Museum Collection.

1120. **Staphylinus (Platydracus) subirideus.**

Staphylinus subirideus Kr.*, Arch. Naturg. xxv, 1859, i, p. 78.

Black, a little shining; scutellum black, velvety; abdomen shining iridescent, not bifariate, at the base of the segments with sparing greyish-yellow pubescence, more distinct on the last three segments. Antennæ black; palpi pitchy. Legs black. Length 14 mm.

Head transverse, subtriangular, as broad as the thorax, the eyes longer than the temples, the base emarginate, covered with coarse, close, umbilicate punctures. Antennæ with the 3rd joint a little longer than the 2nd, 4th as long as broad, 5th to 10th transverse, gradually increasing in width. Thorax as long as broad, the sides gently rounded, widest about the

middle, the posterior angles rounded, the anterior rectangular, along the middle with smooth shining line, much more distinct at the base, the puncturation rather less coarse than on the head, the pubescence yellow and scanty. Elytra as long as the thorax, closely and rather coarsely punctured, not coriaceous, the pubescence as on the thorax. Abdomen very finely and very closely punctured at the base of the segments, especially the 3rd to 5th, less finely and less closely elsewhere, the general pubescence black and rather long.

♂: 6th ventral segment with broad, shallow, arcuate emargination.

"Ind. or." (without further indication).

1121. **Staphylinus (Platydracus) brachypterus.**

Staphylinus brachypterus Kr.*, Arch. Naturg. xxv, 1859, i, p. 76.

Black, a little shining; scutellum velvety-black; elytra brownish-red; abdomen not bifariate, the base of the first five (visible) segments with narrow, transverse, not very distinct band of yellow and golden-brown pubescence mixed with black, elsewhere with black pubescence sparingly mixed with yellow. Antennæ with the 1st joint black, the following obscure reddish. Palpi reddish. Legs pitchy, tarsi ferruginous. Length 12 mm.

Head a little widened behind, subtriangular, narrower than the thorax, the eyes longer than the temples, the base a little emarginate, closely covered with rather coarse umbilicate punctures. Antennæ with the 3rd joint a little longer than the 2nd, 4th about as long as broad, 5th to 10th transverse, gradually increasing in width. Thorax slightly transverse, the sides almost straight and retracted to the rounded posterior angles, the anterior angles rectangular; at the middle of the base with a shining space continued forward as a narrower and much less distinct shining line; the puncturation as on the head and with similar fine, very sparing yellow hairs. Elytra distinctly shorter than the thorax, more opaque, very closely rugosely punctured, and with fine golden-yellow pubescence. Abdomen rather finely and closely punctured at the sides of the first four (visible) segments, much more sparingly along the middle, the 5th and 6th segments uniformly and rather closely punctured.

Northern India.

1122. **Staphylinus (s. str.) maculicollis.**

Staphylinus maculicollis Fauv., Rev. d'Ent. xiv, 1895, p. 253.

Not very shining; head red, variegated with greenish-black; thorax with greenish-black markings, one at each side of the middle line, another externally, more or less sinuate, and extending from the anterior to the posterior margin

another on the middle of the anterior margin and another before the scutellum more or less cordate; scutellum black, velvety; elytra reddish-brown variegated with brown; abdomen dark brown, the 6th segment reddish, the first five distinctly black bifariate, the median basal spots small, obscure yellowish, the sides with long fulvous hairs, the base of the 6th with fulvous pubescence. Antennæ blackish, the first two joints red, the 3rd and 4th pitchy-red. Legs reddish-brown. Length 25–30 mm.

A large robust, convex species very similar to the American *maculosus* Gr. Head about as broad as the thorax, transverse, scarcely widened behind, subquadrate, the eyes oblique, about as long as the temples, moderately finely and moderately closely punctured, not rugose, pubescence yellow. Antennæ short, the 2nd and 3rd joints of equal length, 4th to 10th strongly transverse, gradually increasing in width and subserrate. Thorax about as long as broad, with a narrow smooth line along the middle throughout, a little more coarsely and a little more closely punctured than the head, the pubescence as on the head. Elytra a little longer than the thorax, coriaceous, but rather closely and distinctly punctured, with rather long yellow pubescence. Abdomen rather finely, not very closely punctured, with pubescence as above described, mixed with longer nigro-fulvous hairs.

Burma: Carin Cheba; Carin Asciuii Ghécu, alt. 900–1500 metres (*L. Fea*). Assam: Manipur.

1123. **Staphylinus (Goërius) prainæ.**

Trichocosmetes prainæ Epp., W. E. Z. xiv, 1895, p. 58.

Black, opaque; the scutellum velvety, the elytra each with two small indistinct patches of yellow pubescence, one at the shoulder, the other about the middle of the lateral margin. Abdomen with the first three visible segments with black bifariate pubescence, the 4th with a large transverse patch of yellow pubescence at the middle of the base and extending nearly to the posterior margin, the 5th with small median basal patch of fulvous pubescence, the 6th with a small median basal patch of yellow pubescence. Antennæ obscure reddish, lighter at the apex, the first two or three joints blackish. Palpi reddish. Femora black, tibiæ and tarsi reddish. Length 13–17 mm.

Head transverse, subquadrate, scarcely widened behind, scarcely broader than the thorax, the posterior angles rather broadly rounded, the eyes a little shorter than the temples, very closely, rather finely but rugosely punctured and with scanty brownish pubescence. Antennæ long, all the joints longer than broad, gradually decreasing in length, the penultimate only slightly longer than broad. Thorax a little

longer than broad, widest in front, distinctly retracted and slightly sinuate behind, the anterior angles briefly, the posterior broadly rounded with the base; without smooth central line, the sculpture and pubescence as on the head. Elytra as long as but a little broader than the thorax, similarly but more finely punctured, strongly coriaceous, sparingly pubescent. Abdomen with the sculpture indistinct owing to the thick pubescence, which is for the most part black, here and there with a few whitish hairs.

♂: 6th ventral segment with small arcuate excision, its margin impressed.

Sikkim: Darjeeling; Tukvar; Gopaldhara. Assam: Khasi Hills, Shillong.

1124. **Staphylinus (Goërius) olivaceus.**

Staphylinus olivaceus Cam., Ann. Mag. Nat. Hist. (10) ii, 1928, p. 564.

Subopaque; the fore-parts olive-green, the head with the interocular margin narrowly reddish, on each side at the base with small reddish spot covered with a scanty silvery pubescence; elytra rather darker than the head and thorax, and mottled with a silvery pubescence; abdomen olive-brown, thickly mottled with silvery pubescence, distinctly bifariate on each segment except the last. Antennæ black, the first joint more or less reddish. Legs black, the femora, especially the upper surface, more or less reddish. Length 12·5–14 mm.

Very distinct by its colour. In build scarcely differing from *S. prainæ* Epp. Head subquadrate, slightly broader than the thorax, the posterior angles rounded, the temples slightly longer than the eyes, the whole surface rather closely and rather finely punctured, coriaceous, the temples covered with silvery hairs, at the middle of the base with a narrow line of similar pubescence (often obscure). Antennæ with the penultimate joints as long as broad. Thorax slightly longer than broad, the sides straight, more retracted behind, the posterior angles rounded; sculpture as on the head; before the base with a short, shining, median line, scutellum black, tomentose, with narrow median yellowish line. Elytra as long as the thorax, of a darker tint than the head and thorax, very similarly sculptured, distinctly marbled with silvery lines and spots. Abdomen with a silvery fascia along the whole of the middle line, very distinctly bifariate, brown, the sides silvery pubescent.

♂: 6th ventral with a small triangular impression, its base crescentically excised.

Sikkim: Lachen, alt. 8500–9000 feet (25–26. iv. 1924); Tangu, alt. 11,500 feet (26. iv. 1924). Five examples.

1125. Staphylinus (Goërius) cæruleus, sp. n.

Head and thorax shining, greenish-blue: elytra more obscurely blue and less shining; scutellum not tomentose; abdomen bluish, the posterior margin of the first four (visible) segments narrowly reddish, the posterior half of the 5th and whole of 6th reddish-yellow. Antennæ with the 1st joint and base of 2nd red, the last six reddish-yellow. Legs reddish-yellow. Length 18 mm.

Very distinct by the colour, subdepressed form, etc. Head as long as broad, as broad as the thorax, the posterior angles rather broadly rounded, the eyes very small: rather closely covered with moderate umbilicate punctures, closer and rugose on the post-ocular region. Antennæ long and slender, all the joints distinctly longer than broad, gradually decreasing in length. Thorax distinctly longer than broad, the sides retracted and sinuate behind, along the middle with smooth line, the puncturation rather finer and less close than on the head, towards the sides coarser, closer, and rugose; pubescence scanty, yellow. Elytra much shorter, but a little broader than the thorax, a little widened behind, rather closely, moderately finely punctured, the pubescence yellow and not very close. Abdomen a little widened behind, closely and very finely punctured, more sparingly behind, the pubescence for the most part reddish-yellow.

♂: unknown.

Darjeeling: Gopaldhara (*Stevens*). Unique. In British Museum Collection.

1126. Staphylinus (Parocypus) dehradunensis.

Staphylinus (*Parocypus*) *dehradunensis* Bernh.*, Col. Rundsch 1915, p. 52.

Black, opaque, the head and thorax with slight metallic reflex, the scutellum black, tomentose; elytra brownish-red; abdomen with the first three visible segments black tomentose along the middle, the posterior margins and sides with yellowish-white hairs, the 4th segment almost entirely covered with close yellowish-white pubescence, the 5th and 6th black pubescent, with scattered yellowish-white hairs. Antennæ reddish, the first three joints lighter. Femora brown, the tibiæ and tarsi reddish. Length 12 mm.

Head transversely subquadrate, a little broader than the thorax, the posterior angles rather broadly rounded, the eyes longer than the temples: moderately coarsely, closely, rugosely punctured, and with a yellowish-white pubescence. Antennæ with the 3rd joint a little longer than the 2nd, 4th to 7th longer than broad, gradually decreasing in length, the 8th to 10th about as long as broad. Thorax distinctly

longer than broad, the sides almost straight and distinctly retracted behind, the sculpture and pubescence as on the head, before the base in the middle with a small and indistinct shining line. Elytra a little longer and broader than the thorax, closely, moderately finely, rugosely punctured, with a row of three or four large punctures on each disc, the pubescence as on the fore-parts. Abdomen with sculpture concealed by the thick pubescence.

♂: 6th ventral segment with angular emargination and a small shining space in front of it.

Dehra Dun. Siwaliks.

1127. **Staphylinus (Pseudocypus) almorensis**, sp. n.

Head and thorax shining brassy bronze: elytra and abdomen dull, the latter with five ill-defined longitudinal lines of yellowish-grey pubescence. Antennæ black, the last joint scarcely rufescent. Palpi and legs black. Length 16·5 mm.

In colour similar to the European *picipennis*, but with darker antennæ, more finely, less closely punctured head and thorax, longer elytra, and much less distinct lines of pale pubescence on the abdomen. Head transverse, subquadrate, not dilated behind, the posterior angles rounded, the eyes about as long as the temples, finely punctured, much more closely at the sides. Antennæ with the 4th to 7th joints longer than broad, gradually decreasing in length, the 8th to 10th a little transverse. Thorax as long as broad, narrowly smooth along the middle, finely punctured elsewhere, much more closely at the sides. Scutellum black, tomentose. Elytra as long as the thorax, very closely, rugosely punctured. Abdomen very finely and closely punctured throughout, black pubescent, with five obscure lines of yellowish-grey pubescence.

♂: unknown.

West Almora: Kali Valley, alt. 9000 feet. Punjab: Triun, alt. 9300 feet.

1128. **Staphylinus (Pseudocypus) aereus.**

Ocypus (*Pseudocypus*) *aereus* Cam., Ann. Mag. Nat. Hist. (10) ii, 1928, p. 565.

Head, thorax, and elytra shining brassy bronze; abdomen less shining, black. Antennæ and legs black. Length 12·5 mm.

In build very similar to *O. fuscatus* Gr., but the head less broadly rounded behind the eyes, more quadrate, the head and thorax more brassy, the elytra much more shining, less pubescent, the abdomen blacker, the antennæ shorter. Head subquadrate, almost as broad as the thorax, the posterior angles briefly rounded, the temples distinctly shorter than the eyes, the puncturation fine, more uniform than in *fuscatus*,

moderately close, but more sparing along the middle. Antennæ rather short, the penultimate joints distinctly transverse. Thorax as long as broad, a little wider behind, the sides almost straight, the posterior angles broadly rounded, somewhat irregularly sculptured with fine and very fine punctures, impunctate along the middle. Elytra as long as the thorax, with two large punctures on each, one near the middle of the base, the other a little in front of the posterior margin, very finely, somewhat indistinctly, moderately closely punctured, finely and sparingly pubescent. Abdomen with some irregular impressions towards the sides of the segments, very finely, rather closely punctured, black pubescent.

♂ : unknown.

Sikkim : Tangu, alt. 11,500 feet (26. iv. 1924). One example.

1129. **Staphylinus (Tasgius) wasmanni.**

Staphylinus (*Tasgius*) *wasmanni* Bernh., Arch. Naturg. lxxxiv, A, 1918, p. 184.

Deep black ; the fore-parts with slight violet reflex, the elytra blackish-green, on each with a very large patch of golden-yellow pubescence which extends from the reflexed margin, gradually tapering inwards to beyond the middle, its anterior border emarginate. Antennæ, palpi, and legs bright yellowish-red, the abdomen very closely, the rest of the body closely black pubescent, dull. Head distinctly narrower than the thorax, transversely quadrate, the posterior angles rounded, uniformly, rather coarsely and very closely punctured, posteriorly with slight trace of a smooth median line. Eyes small, much shorter than the temples. Antennæ slender, scarcely thickened towards the apex, the 3rd joint much longer than the 2nd, the following twice as long as broad, gradually decreasing in length, the penultimate a good deal longer than broad, obconical, the 11th small, pointed, emarginate. Labial palpi short, the last joint rather strongly securiform, truncate at apex, so that the species belongs to the subgenus *Tasgius*, although in facies more like an *Abemus*. Thorax narrower than the elytra, as long as broad, almost parallel, in the anterior third distinctly constricted, along the middle with extremely fine smooth line ; puncturation as on the head, dull. Elytra shorter than the thorax, finely and very closely punctured. Abdomen extremely finely and extremely closely punctured, black, tomentose, the under side more sparingly black pubescent. Length 22 mm. (with extended abdomen).

♂ (?) : 5th and 6th ventral segments each with an extremely slight emargination.

Sikkim : Darjeeling (*Christie*).

According to the description this species should be near *S. trimaculatus* Fauv., but it is very distinct by the colour, especially of the antennæ, legs, and elytra, the shape of the elytral marking, the absence of golden tomentose markings on the abdomen, and the ♂ characters (ex *Bernhauer*).

1130. **Staphylinus (Tasgius) auroguttatus**, sp. n.

Head, thorax, and elytra greasy lustrous blue-black, the latter with small golden-yellow patch of pubescence at the middle of the side, not reaching the lateral border, and extending but slightly on the disc. Abdomen not bifariate, closely covered with nigro-fulvous pubescence. Antennæ with the first four or five joints black, the following reddish. Legs black, tarsi reddish. Length 21 mm.

Scarcely differing in build and antennal structure from *quadrimaculatus*, but at once recognized by the colour and less opaque surface, smaller elytral marking, and absence of yellow patches on the abdomen. The puncturation of the head and thorax is finer, less close, and not rugose, and the latter has a well-marked smooth shining line extending along the middle from base to apex; the elytra and abdomen are very similarly sculptured, and the latter, owing to the presence of a fulvous pubescence amongst the black, shows in certain lights a reddish-brown reflex.

♂: 6th ventral segment with broad, feeble, arcuate emargination.

Bengal. In British Museum Collection. Unique.

1131. **Staphylinus (Tasgius) sikkimensis.**

Staphylinus (*Tasgius*) *sikkimensis* Bernh., Arch. Naturg. lxxxiv, A, 1918, p. 185.

Very near *wasmanni*, but differs in the dark antennæ and legs, and blue elytra with a much smaller yellow spot. The elytra are of a brilliant steel-blue colour, the golden tomentose spot is much smaller and extends only slightly inwards from the lateral margin. Unfortunately the rest of the pubescence, especially on the abdomen, is so abraded that a satisfactory description is not possible. The antennæ are longer and more slender; the head broader, fully as broad as the thorax, more sparingly and more finely punctured, along the middle with a narrower yet more distinct shining line. The thorax also appears more sparingly punctured. Length 18 mm. (abdomen not extended).

♂: 6th ventral segment with slight emargination.

Sikkim: Darjeeling. Unique (ex *Bernhauer*).

1132. **Staphylinus (Tasgius) bimaculatus**, sp. n.

Of the build and general appearance of *quadrimaculatus*, black; the head and thorax more shining, not rugose, the punctuation less coarse and less close, the latter with narrow well-defined smooth line from base to apex; elytra with here and there a slight bluish reflex, with a small spot of golden pubescence at the middle of the reflexed margin, scarcely extending on to the disc. Abdomen with black pubescence, scarcely bifariate, at the base of the segments mixed with fulvous hairs, more especially on the 4th and 5th, but without trace of golden markings. Antennæ long, dark, the intermediate joints much longer than broad, the terminal joints missing. Legs black. Length 20 mm.

♂: 6th ventral segment with shallow arcuate emargination.

Northern India (without further indication). In British Museum Collection.

Perhaps identical with *sikkimensis*.

1133. **Staphylinus (Tasgius) quadrimaculatus**, sp. n. (Plate II, fig. 5.)

Opaque, black; the elytra each with a large golden-yellow patch of pubescence occupying the whole of the middle of the reflexed margin and extending nearly to the middle of the disc. Scutellum not tomentose. Abdomen black, velvety, scarcely bifariate, the 4th (visible) segment with transverse patch of golden pubescence in the middle not reaching the lateral or posterior margins; 5th with a much smaller transverse patch at the base. Antennæ pitchy, the first three joints black. Legs black, tarsi reddish. Length 22 mm.

This species would appear to be very near *trimaculatus*, but to differ in the long antennæ and the presence of a golden-yellow patch of pubescence on the 4th segment. Head transverse, subtriangular, as broad as the thorax, the eyes small, shorter than the slightly dilated temples, the posterior angles rounded, closely covered with rather small umbilicate punctures, rugose. Antennæ rather long, reaching the middle of the thorax, all the joints longer than broad, gradually decreasing in length, the 9th and 10th obconical. Thorax a little longer than broad, the sides subparallel in front, the posterior angles broadly rounded, before the middle of the base with scarcely perceptible line, the sculpture a little finer but otherwise similar to that of the head. Scutellum not velvety, punctured like the elytra. Elytra as long as but a little broader than the thorax, finely, closely, and roughly punctured, coriaceous. Abdomen rather finely and closely punctured, coriaceous, the pubescence close and black.

♂: unknown.

Assam: Khasi Hills.

1134. **Staphylinus (Tasgius) antennalis**, sp. n.

Black, dull; the first three visible segments of the abdomen black bifariate (in certain lights fulvous); 4th and 5th with large transverse patch of golden pubescence extending almost to the posterior margin, each with a few small black spots. Antennæ blackish, the last five joints yellow. Femora blackish, tibiæ and tarsi reddish. Length 20 mm.

Closely related to *quadrimaculatus*, but a little less robust, the thorax a little narrower and longer, less deeply punctured, the antennæ a little longer and differently coloured, the elytra without yellow pubescence.

♂: unknown.

Manipur (*Doherty*). Unique. In British Museum Collection.

1135. **Staphylinus (Tasgius) stevensi**, sp. n.

Black, dull, the scutellum black, velvety, the elytra on either side with small obscure patch of greyish-yellow pubescence, the posterior margin fringed with yellow hairs; abdomen with the first three (visible) segments black bifariate, 4th with a triangular patch of greyish-yellow pubescence extending from the middle of the base to the posterior margin, the 5th with a similar but narrower patch, the 6th reddish-testaceous. Antennæ black, the last four joints yellow. Legs pitchy, the tarsi reddish. Length 15 mm.

In general facies and antennal structure similar to *prainæ*, but the securiform 3rd joint of the labial palpi removes it from this section; the head is a little widened behind, the eyes a little smaller, the sculpture of the head and thorax coarser and with fine longitudinal rugæ, the elytra less finely punctured, rugose; abdomen very finely and closely punctured throughout with close black pubescence, except as indicated above.

♂: 5th ventral segment broadly, obtusely emarginate; 6th with a triangular excision, its apex rounded and margins bevelled.

Darjeeling: Gopaldhara. Unique. In British Museum Collection.

1136. **Staphylinus (subg. dub.) trimaculatus.**

Staphylinus trimaculatus Fauv., Rev. d'Ent. xiv, 1895, p. 252.

Black, nearly opaque, with black, scarcely grey pubescence; elytra with large subhumeral golden spot extending outwards to the lateral margin and inwards scarcely beyond the middle. Abdomen somewhat velvety, the first three (visible) segments obscurely bifariate, the 5th with a transverse golden-yellow velvety patch occupying nearly the whole of the base. Antennæ pitchy towards the apex. Palpi reddish. Legs black, tarsi reddish, these and the tibiæ with reddish pubescence. Length 23 mm.

Head subquadrate, the temples a little dilated, as broad as the thorax, closely, strongly, rugosely punctured, the punctures umbilicate. Antennæ a little longer than the head, the 9th and 10th joints strongly transverse, the 11th deeply emarginate. Thorax a little longer than broad, the sides subparallel in front, scarcely more closely punctured than the head, the punctures likewise umbilicate, along the middle with obsolete, interrupted line. Elytra a little shorter but rather broader than the thorax, closely, finely, asperately punctured, the intervals finely asperate. Abdomen finely and rather densely punctured.

♂: 5th ventral segment narrowly transversely impressed in the middle, the impression covered with dense brownish-black pubescence; 6th broadly but not deeply sinuate, in front of the emargination slightly impressed.

Burma: Teinzo (*L. Fea*) (ex *Fauvel*).

1137. **Staphylinus (Ocypus) pendjabensis.**

Staphylinus (*Ocypus*) *pendjabensis* Bernh., Col. Rundsch. 1915, p. 53.

In colour similar to *S. bucharicus* Bernh.†, but very distinct by the fine and close puncturation of the fore-parts. Black, the elytra red, a little shining. Head almost broader than the thorax, strongly transverse, almost rectangular, the sides parallel with rounded angles, coarsely and closely punctured, in front more sparingly. Eyes very large, the temples scarcely half as long as their greatest length. Thorax narrower than the elytra, oblong, somewhat narrowed behind, punctured like the head, in the posterior half of the middle with a smooth shining line, broader behind. Elytra shorter than the thorax, widened behind and more finely and closely punctured. Abdomen moderately coarsely and rather closely punctured. Length 12 mm.

♂: 6th ventral segment with rather shallow triangular excision.

Punjab: Shahpur. Unique (ex *Bernhauer*).

Genus **ONTHOLESTES** Ganglb.

Ontholestes Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 417.
Leistotrophus Kr., Naturg. Ins. Deutsch. ii, 1856–58, p. 532; Fauv., Faun. Gallo-Rhen. iii, 1872, p. 396; Muls. et Rey, Ann. Soc. Agric. Lyon, 1875, p. 225 (nec Perty).
Schizochilus Thoms., Skand. Col. ii, 1860, p. 141.
Staphylinus, Fam. vi, Er., Gen. Spec. Staph. 1839–40, p. 359.

Biology.—Rupertsberger, Biol. Lit. Käf. Eur. 1894, p. 121; Xambeu, Ann. Soc. Linn. Lyon, xli, 1894, p. 141; id., Le Naturaliste, xvi, 1894, p. 117; Schaupp, Bull. Brooklyn Soc. ii, 1879, p. 30; iv, 1881, p. 9.

† *S. bucharicus* has ferruginous-red antennæ and legs, with the femora pitchy at the base.

Facies resembling the tomentose species of *Staphylinus*, but with the anterior angles of the thorax prominent, the antennæ more slender. Labrum bilobed. Mandibles with simple or bicuspid tooth. Tongue more or less bilobed. Maxillary palpi with the 2nd and 3rd joints about equal, the 4th shorter and more slender. Labial palpi rather slender, the 2nd and 3rd about equal in length, the 3rd more slender, pointed. Prosternal epimera membranous, triangular. Mesosternum produced about half the length of the coxæ, keeled, broadly rounded behind, the coxæ rather widely separated, the anterior process of the metasternum produced between the coxæ rounded, not meeting the mesosternum, but separated from it by a short intersternal piece. Tibiæ spined, the anterior normal. First four joints of anterior tarsi strongly dilated. First joint of the posterior tarsi a little longer than the two following together. The species of this genus are found throughout the world, frequenting droppings and predaceous on the dipterous larvæ.

Key to the Species.

1.	Penultimate joints of antennæ distinctly transverse	2.
	Penultimate joints of antennæ fully as long as broad	3.
2.	Larger (12 mm.). Labrum testaceous	*marmoratus* Er., p. 210.
	Smaller (10·5 mm.). Labrum black	*aurosparsus* Fauv., [p. 211.
3.	Tibiæ black; 10th and 11th joints of antennæ blackish	*tenuicornis* Kr., p. 211.
	Tibiæ reddish-yellow; 10th and 11th joints of antennæ reddish-yellow	[p 212. *variegatus*, sp. n.,

1138. **Ontholestes marmoratus.**

Staphylinus marmoratus Er., Gen. Spec. Staph. 1839–40, p. 926.
Leistotrophus marmoratus Kr., Arch. Naturg. xxv, 1859, i, p. 68.

Black, variegated with velvety brown; base of the antennæ, palpi, and legs testaceous, the femora black in the middle. Length 5 lin.

Build of the European *murinus*, black, scarcely shining. Antennæ with the 3rd joint about a half longer than the 2nd, the 4th longer than broad, the following transverse, black, the first four joints testaceous. Palpi testaceous. Labrum testaceous. Head, thorax, and elytra variegated with close, depressed, velvety fulvous and brown pubescence. Head a little broader than the thorax, subdepressed. Thorax narrower than the elytra, somewhat narrowed towards the base, a little longer than broad, the sides straight, the posterior angles rounded with the base, the anterior acute and depressed. Scutellum with large black velvety patch. Elytra scarcely longer than the thorax. Abdomen on the two anterior segments with fulvous velvety pubescence variegated with black,

the rest with fine black velvety pubescence, the base variegated with ashy pubescence; the ventral surface with the base of the segments covered with ashy pubescence and also the metasternum. Legs testaceous, the femora black above and with a black ring at the middle (ex *Erichson*).

Ceylon (teste *Kraatz*). The type is from Java.

1139. **Ontholestes aurosparsus.**

Leistotrophus aurosparsus Fauv., Rev. d'Ent. xiv, 1895, p. 245.

Scarcely shining; the head and thorax greenish-bronze variegated with short golden pubescence; scutellum black, velvety; elytra greenish-bronze variegated with black, the pubescence short and golden, arranged in spots and lines, near the middle of the side margin and here and there with very small tufts of silvery pubescence. Abdomen black, with slight bluish reflex, velvety, the first two (visible) segments bifariate, at the middle of the base with small patch of golden hairs, at the sides with more numerous golden hairs; 3rd (visible) segment with three small triangular spots of yellowish-grey pubescence at the base, the 4th with rather large patch of silvery pubescence at each side, 5th with bi-emarginate silvery fascia at the base. Antennæ black, the first four joints reddish, often more or less marked with black. Legs reddish-yellow, the femora and tibiæ more or less extensively black or blue-black. Length 10·5 mm.

About the size of the smaller examples of the European *murinus*, but with stouter, differently coloured antennæ, more transverse head with larger eyes, narrower and longer thorax, the puncturation less coarse, and the legs largely reddish-yellow. Head a little wider than the thorax, transverse, eyes very large; puncturation close, rugose, somewhat elongate. Thorax a little longer than broad, the sides retracted and a little sinuate behind, the anterior angles acute, before the scutellum with small shining plaque, the sculpture as on the head. Elytra as long as the thorax, coriaceous, with obsolete, not very close punctures.

♂: 5th ventral segment broadly, scarcely perceptibly emarginate; 6th with deep acute triangular impression, its base obtusely emarginate.

Burma: Carin Asciuii Ghécu, alt. 1200–1400 metres. Bengal: Kurseong. Sikkim: Darjeeling. United Provinces: Dehra Dun; Mussoorie. Assam: Shugnu.

1140. **Ontholestes tenuicornis.**

Leistotrophus tenuicornis Kr., Arch. Naturg. xxv, 1859, i, p. 68.

Head, thorax, and elytra dull greenish-bronze, variegated with short brownish and grey pubescence. Scutellum black,

velvety. Abdomen black, with the first four visible segments black bifariate, in the middle and at the sides with golden-yellow pubescence, the 5th with short, scanty, silvery pubescence along the base. Antennæ with the first five joints reddish-yellow, the following infuscate. Anterior femora testaceous above, black below, the middle and posterior testaceous, largely variegated with black; tibiæ and tarsi pitchy. Length 12 mm.

Distinguished at once from all the Indian species by the slender antennæ. Head a little broader than the thorax, transversely suborbicular, the eyes very large, occupying practically the whole side of the head, the whole surface very closely, rather finely rugosely punctured. Antennæ with the 3rd joint nearly twice as long as the 2nd, the 5th scarcely shorter than the 4th, the following gradually becoming shorter, but with the penultimate fully as long as broad. Thorax a little longer than broad, the sides straight, retracted behind, the anterior angles acute, prominent, the posterior rounded; before the scutellum with a very small shining plaque, the sculpture as on the head. Elytra a little longer and broader than the thorax, coriaceous, with rather close, fine, and indistinct punctures. Abdomen rather finely and rather closely punctured.

♂: 6th ventral segment with acute triangular impression, its base obtusely emarginate.

Chakrata district, alt. 7000–8000 feet.

1141. **Ontholestes variegatus**, sp. n.

Near *tenuicornis*, but more brightly coloured, with longer reddish-testaceous antennæ, only the 6th to 9th joints black. Head and thorax greenish-bronze, rather thickly variegated with golden pubescence; head broader and thorax longer than in *tenuicornis*, the sides more sinuate behind, the anterior angles, adjacent part of the lateral margin, and the base reddish, elytra bronze-black, the humeral angles and whole of the reflexed margin and the posterior border narrowly red, the surface variegated with golden hairs; abdomen black, the raised margin of the first three visible segments reddish, entirely red below, their posterior margin above spotted with red, black bifariate, in the middle and at the sides with sparing golden pubescence; 4th and 5th segments black, the pubescence black, 6th segment yellow behind. Legs reddish-yellow, the femora above with a small blackish spot. Length 11·5 mm.

♂: unknown.

Burma: Karen Mts. (*Doherty*). Unique. In British Museum Collection.

Genus **THORACOSTRONGYLUS** Bernh.

Thoracostrongylus Bernh., Tijdsch. Ent. lviii, 1915, p. 233.
Paramichrotus Cam., *in litt.*

This group was founded by Bernhauer on *Leistotrophus birmanus* Fauv. Very similar in general appearance to *Ontholestes*, but at once distinguished by the completely rounded anterior angles of the thorax. In it must be placed certain species referred to *Amichrotus* by Fauvel, from which it differs in the 2nd joint of the maxillary palpi not being abnormally thickened at the apex. Head large, transverse, the eyes usually large and prominent. Labrum short, divided to the base into two rounded lobes. Mandibles long and slender, obtusely angulate at the middle. Maxilla with the outer lobe densely ciliate at apex, the inner internally. Maxillary palpi long and slender, 2nd elongate, curved, normally dilated towards the apex, the 3rd about half as long as the 2nd, 4th cylindrical pointed, as long as the 3rd. Mentum short, strongly transverse, a little narrowed in front. Tongue short and broad, with small emargination in front. Paraglossæ well marked, extending beyond the tongue. Labial palpi long, the 1st joint moderate, cylindrical, the 2nd twice as long, the 3rd scarcely shorter than the preceding, fusiform. Prosternum finely carinate. Superior lateral line of thorax not much deflexed, joining the inferior in front of the coxal cavity. Mesosternum with fine short keel at the base, its process narrow and pointed, extending about half the length of the coxæ, these narrowly separated, the metasternum scarcely advancing between them. Tibiæ finely and sparingly spinose. Anterior tarsi with the first four joints a little dilated in both sexes; middle and posterior with the 1st joint about as long as the three following together, these gradually decreasing in length. The sculpture of the head and thorax in all the species is very close and rugulose.

Key to the Species.

1.	Elytra each with two ridges	*costatus* Fauv., p. 217.
	Elytra without ridges	2.
2.	Head and thorax blue	*semicyaneus* Fauv., [p. 216.
	Head and thorax otherwise	3.
3.	Thorax red	4.
	Thorax black or brassy	5.
4.	Abdomen black, the posterior margin of 5th segment yellow	*ruficollis*, sp. n., p. 216.
	Abdomen with the first three segments red, black along the middle	*elegans* Cam., p. 214.
5.	Elytra red, with large cyaneous marking on each	*distinctus*, sp. n., p. 215.
	Elytra blackish with coppery reflex, variegated with brown and grey pubescence	*birmanus* Fauv., p. 214.

1142. **Thoracostrongylus birmanus.**

Leistotrophus birmanus Fauv.*, Rev. d'Ent. xiv, 1895, p. 246.

Subopaque ; head and thorax brassy, variegated with golden and greyish pubescence except at the sides of the thorax, which are glabrous and more shining. Scutellum black, velvety ; elytra opaque, slightly coppery, the reflexed margin reddish-yellow, the disc variegated with yellow, brown, and grey pubescence. Abdomen black, velvety, mixed with fulvous pubescence, the posterior margin of the first two (visible) segments and the elevated side margins of the first four reddish ; middle and sides of the first two segments with some very scanty golden hairs, the 3rd to the 5th with larger and more distinct triangular patch of golden pubescence in the middle of the base. Antennæ black, the 1st joint yellow, the 2nd to 4th often red. Legs reddish-yellow, the femora with more or less broad blackish ring, the knees often infuscate. Length 8–10 mm.

Head transverse, suborbicular, much wider than the thorax, the eyes very large, the post-ocular region very short ; vertex with a small shining plaque, otherwise very closely, rather finely and rugosely punctured. Antennæ slender, the 3rd joint about twice as long as the 2nd, 4th to 6th longer than broad, the following about as long as broad. Thorax distinctly longer than broad, the sides in front and the anterior angles rounded, behind strongly retracted and a little sinuate, before the scutellum with short, obsolete, shining line, the sculpture finer and closer than on the head. Elytra scarcely as long as the thorax, square, very closely, rather finely rugosely punctured. Abdomen transversely impressed at the base of the first two segments, rather closely punctured.

♂ : 5th ventral segment broadly and feebly emarginate; 6th deeply, broadly, arcuately emarginate, in front with a smooth space.

Burma : Carin Cheba, Carin Asciuii Ghécu, alt. 900–1500 metres (*L. Fea*). Darjeeling, Gopaldhara.

Described as a *Leistotrophus* (*Ontholestes*) by Fauvel ; it is, however, at once distinguished from this genus by the rounded anterior angles of the thorax and the other structural characters.

1143. **Thoracostrongylus elegans.** (Plate II, fig. 6.)

Amichrotus elegans Cam., E. M. M. lvi, 1920, p. 218.
Amichrotus andrewesi Fauv., *in litt.*

Head bronze-black, with greenish reflex; thorax red; elytra red ; the posterior margin narrowly testaceous, with a large blue-black spot near the postero-external angles ; abdomen with the first three (visible) segments red, the first two of them

with a large black spot in the middle extending to the posterior border, the 3rd with a smaller spot at the base, the 6th and 7th (4th and 5th visible) segments black, the latter narrowly testaceous posteriorly, the 8th with the base yellow and apex black. Antennæ black with the first three joints reddish and the last three or four yellow ; legs reddish-testaceous. Length 11–12 mm.

Differs but little in build from *A. sarawakensis* Bernh., which should be referred to the present genus, but on the average larger and with the temples more gradually rounded and the head much more finely punctured. Head transversely suborbicular, the eyes large and prominent, the temples short ; the disc with a small smooth shining space, the front between the antennal tubercles coarsely coriaceous, scarcely punctured, the rest of the surface closely covered with moderate umbilicate punctures ; mandibles reddish, long, falciform, with an obtuse tooth near the base of each ; palpi reddish. Antennæ with the 3rd joint longer than the 2nd, the 4th and 5th a little longer than broad, the 6th to the 10th about as long as broad and not increasing in width, the 11th oval. Thorax longer than broad, widest in front, the sides narrowed and sinuate posteriorly, red, scarcely shining, closely punctured as on the head, pubescence fine and yellow. Scutellum red. Elytra scarcely as long as but broader than the thorax, quadrate, red, the posterior margin narrowly yellow, fringed with golden pubescence intermixed with longer black hairs, near the postero-external angles with a large, oval, blue-black spot, not extending to the suture or on to the reflexed margin ; sculpture very fine, dense, and granular, pubescence moderately fine yellow on the red and black on the spot. Abdomen of the colour above indicated, fairly closely and finely punctured except on the 8th segment, which is nearly smooth ; pubescence very distinct and intermixed with longer black hairs, black and golden, the latter especially noticeable on the 5th (true) segment, where it forms a transverse fascia across the posterior half.

♂ : 6th ventral segment with crescentic impression at the posterior margin, which is triangularly excised.

Sidapur, Coorg (*T. B. Fletcher*). Nilgiri Hills (*Andrewes*).

1144. **Thoracostrongylus distinctus**, sp. n.

Head and thorax dull, black, scarcely metallic ; scutellum black ; elytra dark ferruginous red, with a large bluish-black marking occupying the posterior two-thirds, leaving only the narrow sutural and lateral margins red, the posterior margin yellow. Abdomen more shining, with the first three (visible) segments red, the following black, the posterior margin of the

5th yellow. Antennæ black, the last four joints pale yellow. Femora pitchy, tibiæ and tarsi more or less reddish. Length 11·5 mm.

In size and build very similar to *elegans*, but with differently coloured thorax and abdomen, eyes much smaller, puncturation of head and thorax coarser, the former without smooth plaque on the vertex; elytra much less finely punctured, more shining, abdomen much less pubescent, the puncturation much less fine and less close. The antennæ with the penultimate and intermediate joints longer.

♂: 5th ventral segment with large, somewhat crescentic impression, thickly covered with yellow hair; 6th with small arcuate excision.

Burma: Ruby Mines (*Doherty*).

1145. **Thoracostrongylus ruficollis**, sp. n.

A little larger than *distinctus* and differing in the dark ferruginous red thorax, which is also a little shorter and broader, the elytra almost entirely black, only the shoulders, base, and sutural margin narrowly red, the posterior margin yellow; scutellum red. Abdomen black, rather shining, the posterior margin of the 5th (visible) segment yellow, the 1st segment much more coarsely punctured, elsewhere finely and closely. The structure and colour of the antennæ are similar to *distinctus*; the legs similarly coloured. Length 12 mm.

♂: 5th ventral segment with tuft of long yellow hairs in the middle; 6th very slightly, broadly emarginate.

Burma: Ruby Mines (*Doherty*). Unique. In British Museum Collection.

1146. **Thoracostrongylus semicyaneus.**

Amichrotus semicyaneus Fauv., Rev. d'Ent. xiv, 1895, p. 269.

Head, thorax, and elytra blue, the basal fourth of the latter, reflexed, sutural and apical margins narrowly and obscurely orange-red; abdomen with the first three (visible) segments obscure reddish; scarcely infuscate in the middle. Antennæ black, the 1st joint pitchy-red with red apex, 8th to 10th pale yellow. Legs red, tarsi brown. Length 11·5 mm.

A little smaller than *costatus*, the antennæ a little more slender, the head smaller, more closely and finely punctate-rugulose, in the middle with a very small, nearly smooth space; thorax with obsolete keel at the middle of the base; elytra very closely, finely, asperately punctured, less dull than in *costatus* and without ridges; abdomen more sparingly punctured, the base of the anterior segments scarcely carinate

in the middle, but with the impression in front and on each side with a little keel.

Burma: Tenasserim, Mt. Mooleyit, alt. 1800–1900 metres. (*L. Fea*) (ex *Fauvel*).

1147. Thoracostrongylus costatus.

Amichrotus costatus Fauv., Rev. d'Ent. xiv, 1895, p. 269.

Elongate, convex, opaque, the abdomen scarcely shining. Head black, thorax dull red; scutellum red, with obscurely pitchy border; elytra bluish-violet, the basal third, suture, apical and reflexed margins obscure orange-red; abdomen with the first three (visible) segments obscure red at the sides, black along the middle, 4th and 5th black, the posterior margin narrowly pale yellow, 6th entirely yellow; anal styles with the basal half yellow, the rest black. Antennæ black, the base of the 2nd joint red, the 9th and 10th pale yellow. Legs pitchy, the femora, anterior tarsi and apex of the posterior obscure red. Length 12·5 mm.

Head rather large, transverse, subsemicircular, very closely and rugosely punctured, the front in the middle between the antennæ more strongly punctured, the frontal margin coriaceous; eyes rather small. Thorax rather narrower than the head, scarcely longer, similarly closely, finely, and rugosely punctured, the sides strongly rounded in front, strongly, obliquely retracted behind, with a scarcely visible sulcus in the middle before the base. Scutellum closely and obsoletely punctured. Elytra nearly twice as broad, but scarcely longer than the thorax, very closely and very finely asperately punctured, with two scarcely acute ridges on each, one suboblique on the disc not reaching the apical margin, the other subhumeral; the red part of the elytra is covered with short, close, golden pubescence. Abdomen very closely and very finely punctured and covered with a very fine black pubescence, the first four (visible) segments bi-impressed at the middle of the base, the impressions sparingly and rather strongly punctured, in the middle with more or less carinate tubercle, on each side with a short sulcus. Wings brownish-hyaline.

Burma: Carin Ghécu, alt. 1300–1400 metres (*L. Fea*) (ex *Fauvel*).

Genus **EUCIBDELUS** Kr.

Eucibdelus Kr., Arch. Naturg. xxv, 1859, i, p. 70, tab. ii, fig. 3.

Tomentose species with pubescent espinous tibiæ, the anterior strongly dilated and clavate. Head more or less orbicular, the neck broad. Labrum transverse, bilobed, the lobes triangular. Mandibles pointed, each with a broad flat tooth. Maxillary palpi with 1st joint small, the 2nd and 3rd slightly

curved and thickened towards apex, of equal length, 4th more slender, fusiform, a little longer than the preceding. Lobes of the maxillæ densely ciliate. Tongue small, membranous, deeply and acutely emarginate. Paraglossæ well developed, extending beyond the tongue, densely ciliate. Labial palpi moderately long, the 1st and 2nd joints almost equal in length, the 3rd longer, fusiform. Thorax with the anterior angles obtuse. Prosternum subcarinate, the deflexed part short. Superior lateral line strongly deflexed and joining the inferior in front of the anterior coxal cavities. Pronotal epipleura rather narrow; epimera wanting. Mesosternum simple, its process short, broadly rounded behind, extending but little between the coxæ, these rather widely separated behind. Metasternum not produced between the middle coxæ. Legs rather slender, the anterior tibiæ clavate, all pubescent and devoid of spines. Anterior tarsi with the first four joints strongly dilated; middle and posterior rather long, the 1st joint shorter than the two following together, 2nd to 4th gradually decreasing in length, 5th longer than the 1st. The above account is taken from the type-species of the genus.

Differs from *Rhyncochilus* in the shorter, less produced labrum, the shorter 1st joint of the middle and posterior tarsi, the following being scarcely dilated, whilst the 5th joint is distinctly longer than the 1st.

Key to the Species.

1.	Antennæ long and slender, the penultimate joints not transverse	2.
	Antennæ shorter, clavate, the penultimate joints transverse	4.
2.	Elytra ferruginous red, variegated with brown	3.
	Elytra greenish, with brown cruciform marking on the apical third of the suture.	*varius* Fauv., p. 220.
3.	Anterior angles of the thorax distinct, obtuse; less closely punctured; more shining	*gracilis* Kr., p. 219.
	Anterior angles of thorax completely rounded; more closely punctured; duller.	[p. 219. *angusticeps* Bernh.,
4.	Fore-parts orange-red	*bicolor* Fauv., p. 222.
	Otherwise coloured	5.
5.	Elytra ferruginous, with large blue-black marking posteriorly	*gratus*, sp. n., p. 221.
	Elytra otherwise	6.
6.	Elytra variable, greenish-ferruginous to reddish-testaceous	*fœx* Fauv., p. 220.
	Elytra greenish-bronze	7.
7.	Larger (12 mm.). First four joints of antennæ obscurely reddish; 5th segment entirely covered with greyish-yellow pubescence	*stevensi*, sp. n., p. 222.
	Smaller (9 mm.). First seven joints of antennæ clear red; 5th segment with basal fascia of golden pubescence	[p. 223. *birmanus*, sp. n.,

1148. **Eucibdelus gracilis.**

Eucibdelus gracilis Kr.*, Arch. Naturg. xxv, 1859, i, p. 71, tab. ii, fig. 3.

Moderately shining; head, thorax, and scutellum leaden-black, with greenish reflex, labrum reddish; elytra ferruginous, variegated with black and with spots and lines of yellow and grey pubescence; abdomen olivaceous, tomentose, the posterior and elevated side margins of the first four (visible) segments and almost the whole of the last two reddish, the middle and sides of the first four segments clothed with golden and silvery pubescence, the 5th and 6th almost entirely covered with golden pubescence. Antennæ red, the last four joints blackish. Legs reddish-testaceous, the anterior femora blackish below. Length 15 mm.

Head suborbicular, convex, distinctly wider than the thorax, the eyes small; closely and moderately finely punctured, behind the eyes with two large setiferous punctures, the front on each side lightly impressed; pubescence short, scanty, yellow. Antennæ slender, rather long, the 3rd joint longer than the 2nd, 4th to 7th longer than broad, gradually decreasing in length, the following about as long as broad. Thorax longer than broad, subcylindrical, a little narrowed and slightly sinuate on each side behind, the anterior angles obtuse, somewhat tuberculiform, the posterior obtusely rounded; at the base on each side of the middle with a small impression, along the middle behind with a smooth line, externally before the centre on each side with a small smooth shining plaque; sculpture and pubescence as on the head. Scutellum blackish, with yellow pubescence. Elytra distinctly longer and broader than the thorax, very finely, closely punctured, with bands and spots of yellow and silvery pubescence. Abdomen with the first four visible segments impressed on each side of the middle, very finely, closely punctured.

Almora: Dhauli Ganga, alt. 9520 feet.

1149. **Eucibdelus augusticeps.**

Eucibdelus angusticeps Bernh., Arch. Naturg. lxxxiv, 1918, A, p. 186.

Near *gracilis*, but the head is much narrower and longer, much longer than broad, more strongly narrowed behind, the posterior angles not indicated, much more gently rounded; the puncturation is considerably more than twice as dense, much duller. The antennæ are less infuscate towards the apex. The thorax narrower and longer, rather strongly narrowed in front, not with blunt anterior angles as in *gracilis*, but gently and completely rounded. The puncturation is very close, fully three times closer than in *gracilis*, much duller,

the shining plaques smaller. Elytra a little longer, but very similarly variegated. The last segment of the abdomen entirely covered with thick golden pubescence. Length 13 mm. (abdomen not extended). No secondary sexual characters visible.

Sikkim: Darjeeling (*Christie*). Received from Wasmann (ex *Bernhauer*.)

1150. **Eucibdelus varius.**

Eucibdelus varius Fauv., Rev. d'Ent. xiv, 1895, p. 247.

Larger and broader than *gracilis*, the antennæ longer and more slender, the head quite different, broad, transverse, with sinuate truncate base, a little more strongly rugulose, the labrum much shorter, thorax longer, a third narrower than the head, much broader at the anterior third, a little more strongly and more sparingly rugose-punctate, the disc somewhat uneven, sparingly variegated with greyish-red hairs, without smooth spaces other than the narrow interrupted median keel; scutellum bordered with red hairs; elytra broader, greenish, the suture and about the apex pitchy, variegated with grey fleecy hairs in front and at the middle, so as to form four spots in front and a common cruciform sutural marking on the apical third; reflexed margin obscurely red, the disc finely punctured, almost alutaceous; apical margin near the suture and the angles plicate. Abdomen much wider, greenish, the 3rd to 5th † black bifariate, the base and sides silvery; 3rd to 4th at the apex with golden hairs, 6th covered with silvery pubescence, except for the apical third and two small black spots, 7th grey pubescent, except at apex; wings brown, iridescent.

♂: 7th [6th] ventral segment quite different, broadly, deeply, arcuately excised, with slight triangular impression in front. The ground-coloration varies from bronze-black to bronze-brown, so also the femora and coxæ. Length 15·5–17 mm.

Burma: Carin Cheba, alt. 900–1100 metres (*L. Fea*) (ex *Fauvel*).

1151. **Eucibdelus feæ.** (Plate II, fig. 7.)

Eucibdelus feæ Fauv., Rev. d'Ent. xiv, 1895, p. 247.

Smaller and a half narrower than *gracilis*, very elongate, the antennæ much shorter, clavate; head shorter, subquadrate, greenish-black, the base more truncate, scarcely more finely punctured; thorax more narrowed in front, much more closely

† In Fauvel's descriptions seven segments are enumerated in the abdomen, his 2nd being the 1st visible segment of most authors.

punctured, rugose, scarcely uneven, greenish-black, the sub-basal keel longer, smooth, without other smooth plaques; elytra greenish-ferruginous, the shoulders, margins, and extreme apex red, variegated with brown, grey, and golden hairs, so that two spots in the middle near the suture, two externally, another on the anterior third, another before the apex, and two behind the scutellum appear brown; abdomen much more slender, black, 2nd to 4th segments variegated with golden-grey pubescence, 5th to 7th scarcely grey-pubescent, the 5th with three silvery basal spots, 6th with the basal half covered with silvery pubescence; legs shorter, pitchy or ferruginous, the anterior tibiæ and tarsi reddish-testaceous, the former much shorter and more clavate.

♂: 7th [6th] ventral segment broadly, deeply, arcuately emarginate, narrowly smooth in front of the emargination. Length 10–12 mm.

Very variable in colour; the elytra only, or likewise the head and thorax, becoming reddish-testaceous, sometimesi nfuscate on the disc; the anterior femora sometimes broadly reddish towards the apex, or the anterior and middle legs becoming entirely reddish-testaceous.

Burma: Carin Cheba, alt. 900–1100 metres (*L. Fea*) (ex *Fauvel*).

1152. **Eucibdelus gratus**, sp. n.

Moderately shining; head black, with scanty silvery pubescence; thorax black, with leaden reflex, sparingly covered with golden pubescence; scutellum black, with scanty golden hairs. Elytra ferruginous-red, nearly the posterior half occupied by a large blue-black marking, leaving the margins however, narrowly ferruginous, on each near the apex of the scutellum with a small brown spot and another, less distinct, external to it; pubescence long, forming bands, chiefly golden in front and silvery behind. Abdomen black, the first three (visible) segments, especially at the sides, thickly covered with golden and silvery pubescence, the 4th with scanty silvery pubescence at the base and sides, elsewhere with black and fulvous pubescence, the 5th with the basal half covered with silvery, the rest with black and fulvous pubescence, the 6th with sparing black and fulvous hairs. Antennæ red. Middle and posterior legs black, with reddish tarsi; anterior femora black, except at extreme apex, the tibiæ and tarsi reddish-yellow. Length 11 mm.

Smaller and narrower than *gracilis*, the head narrower and more quadrate, more closely, more coarsely punctured. Antennæ much shorter, the 7th to 10th joints transverse.

Thorax more rounded and more narrowed in front, the anterior angles completely rounded, median smooth line longer, the base without impressions, the smooth lateral plaques similar; sculpture as on the head. Elytra a little longer and broader than the thorax, very finely and rather closely punctured. Abdomen closely and finely punctured.

Sylhet Dist.: Chandkhira.

1153. **Eucibdelus bicolor.**

Eucibdelus bicolor Fauv., Rev. d'Ent. xiv, 1895, p. 248.

Of the size and slender form of *feæ*, distinct from all the others by the colour and puncturation; more shining, orange-red, the pectus and abdomen black; head and thorax reddish-testaceous; antennæ less clavate, the joints scarcely transverse; head subquadrate, densely and finely, the thorax more strongly, densely, and rugulosely punctured, elytra sparingly and finely, abdomen rather densely and finely punctured: thorax and elytra rather densely golden pubescent; thorax a little shorter and rather narrower than the head, more strongly rounded and narrowed in front, with scarcely perceptible median line; elytra broad, a third longer and twice as broad as the thorax, almost alutaceous between the punctures; 2nd to 4th abdominal segments variegated with silvery grey pubescence, the basal half of the 5th and 6th silvery pubescent; anterior tibiæ less clavate; wings brown, iridescent.

♂: 7th [6th] ventral segment more narrowly and less deeply arcuately emarginate, with slight impression in front of it. Length 12 mm.

Burma: Carin Cheba, alt. 900–1100 metres (*L. Fea*) (ex *Fauvel*).

1154. **Eucibdelus stevensi,** sp. n.

Rather shining, greenish-bronze; temples behind, extreme reflexed margin of the thorax, reflexed margin of the elytra, suture, and posterior margin narrowly reddish. Antennæ blackish, the first four joints obscurely reddish. Legs reddish, the femora more or less infuscate. Length 12 mm.

Size and build of *feæ*, and with similarly constructed antennæ, but much more shining, much more finely punctured, the pubescence much finer, shorter, less dense, and of a greyish-yellow colour, the 5th segment uniformly covered with this pubescence.

♂: 6th ventral segment broadly arcuately emarginate.

Darjeeling: Gopaldhara (*Stevens*). Unique. In British Museum Collection.

1155. **Eucibdelus birmanus**, sp. n.

Head and thorax shining black, with slight metallic reflex, the post-ocular region red, the sides of the thorax rather broadly red in front, narrowly behind, both with a scanty yellowish pubescence. Scutellum black, the pubescence yellow. Elytra shining greenish-bronze, the shoulders, reflexed and posterior margins red, the latter very narrowly, variegated with golden and silvery hairs. Abdomen shining, the first four visible segments black, the raised side margins reddish, the first three of them with golden pubescence at the base, posterior margin and sides; in the latter region with some silvery hairs also; the 4th segment with very small patch of golden hairs at the middle of the base and at the sides with silvery hairs, elsewhere with black pubescence, the 5th reddish, with a transverse fascia of golden pubescence at the base, the sides with silvery hairs, the 6th reddish, with scanty black pubescence, the 5th and 6th ventral segments red. Antennæ red, the last three joints black. Legs reddish-yellow. Length 9 mm.

Head a little longer than broad, the post-ocular region long and gradually retracted behind, the vertex with a small smooth plaque, puncturation in front close and rugose, elsewhere less close and not rugose. Antennæ rather short, the 7th to 10th joints transverse. Thorax longer than broad, the sides rounded and dilated in front, along the middle posteriorly with smooth line, and towards either side with irregular small smooth space, the puncturation moderately fine and moderately close, not rugose. Elytra longer and broader than the thorax, finely and moderately closely punctured, more sparingly behind. Abdomen finely and rather closely punctured.

♂: unknown.

Burma: Ruby Mines (*Doherty*). In British Museum Collection.

Genus **RHYNCOCHILUS** Shp.

Rhyncocheilus Shp., Ann. Mag. Nat. Hist. (6) iii, 1889, p. 120.
Rhyncochilus Fauv., Rev. d'Ent. xiv, 1895, p. 120.

Elongate, tomentose species, with much-produced labrum, split to the base, the lobes subtriangular and furnished with long setæ.

Differs from *Eucibdelus* in the prominent labrum and the 1st joint of the posterior tarsi being distinctly longer than the two following together and longer than the 5th. Mandibles slender, pointed, the right with a more or less bicuspid molar, the left with a long sharp tooth and a molar behind. Maxillary palpi with 2nd and 3rd joints about equal in length, lightly curved and a little thickened at apex, the 4th scarcely shorter

than the 3rd, pointed. Tongue broad, membranous, rounded in front, and with acute triangular emargination in the middle. Paraglossæ large, rod-shaped, densely ciliate. Labial palpi with 1st and 2nd joints moderate, of about equal length, the 2nd dilated at apex, the 3rd a little shorter and narrower than the preceding, fusiform. Thorax with superior lateral line strongly deflexed, joining the inferior behind the coxal cavity, the pronotal epipleura very narrow. Prosternum with short deflexed part broadly truncate or rather broadly rounded behind. Mesosternum not keeled, more or less broadly rounded behind, the intermediate coxæ more or less widely separated; the anterior process of the metasternum rather broad, produced between the coxæ, but not meeting the mesosternum; the posterior process small and emarginate at apex. Tibiæ without spines, ciliate, the anterior more or less clavate. Anterior tarsi strongly dilated, patellate: middle and posterior with the 1st joint distinctly longer than the 2nd and 3rd together; 2nd to 4th gradually decreasing in length, the 3rd and 4th sometimes more or less cordate, the 5th joint shorter than the 1st.

The genus is known only from the Oriental region.

Key to the Species.

1.	5th (visible) abdominal segment with more or less distinct fascia of silvery pubescence	2.
	5th segment with fascia of golden pubescence	10.
2.	Posterior half of 5th segment yellow. Size and build of *aureus*	3.
	5th segment concolorous black or brown	4.
3.	Fore-parts orange or ferruginous-red	5.
	Fore-parts otherwise	*aureus* F., p. 225.
4.	11th joint of antennæ yellow	*chrysites* Fauv., p. 227.
	11th joint of antennæ black	*antennalis*, sp. n., [p. 231.
5.	Last four joints of antennæ yellow	6.
	Penultimate joints of antennæ black	
6.	Post-ocular region and lateral margins of the thorax rather broadly red	*assamensis*, sp. n., [p. 229.
	Head and thorax concolorous, black or bronze-black	7.
7.	Anterior tibiæ black, the apex obscurely testaceous	*argenteus* Fauv., p. 231.
	Anterior tibiæ reddish-yellow	8.
8.	First two or three joints of antennæ red	9.
	First two or three joints of antennæ blackish, only the extreme base and apex reddish. Legs dark, the anterior tibiæ reddish-yellow, with a small brown spot near apex	*tibialis*, sp. n., p. 233.
9.	Elytra pitchy, with metallic reflex. Legs reddish-yellow	*javanicus* Epp., p. 228.
	Elytra greenish-bronze. Legs pitchy, the anterior tibiæ reddish-yellow	*germanus*, sp. n., p. 232.
10.		*rugulipennis*, sp. n., [p. 226.

10. 7th to 10th joints of antennæ serrate. Large robust species ..... *dohertyi*, sp. n., p. 226.
Antennæ not serrate ..... 11.
11. First two joints of antennæ reddish-yellow; build of *aureus* ..... *andrewesi* Cam., p. 226.
First six or seven joints of antennæ reddish. *kraatzi* Epp., p. 230.

1156. **Rhyncochilus aureus.**

Staphylinus aureus F.*, Mant. Ins. i, 1787, p. 219; Ol., Ent. iii, 1794, 42, p. 7, tab. 2, fig. 1; Er., Gen. Spec. Staph. 1837–40, p. 344; Kraatz, Arch. Naturg. xxv, 1859, i, p. 74, note.

Shining; the fore-parts reddish-yellow, the head and thorax variegated with short golden pubescence, the former before the base with obscure indeterminate brown marking; scutellum black, velvety, at the base with some golden hairs; elytra rather closely covered with long fleecy golden pubescence, here and there with bare brown spots. Abdomen black, velvety, the posterior margin of the first two (visible) and the elevated lateral margins of the first three segments reddish-yellow, the first two segments rather closely covered with golden pubescence, except on each side of the middle; 3rd and 4th with a few golden hairs at the sides, elsewhere covered with black, grey, and fulvous hairs; 5th across the middle with interrupted fascia of silvery pubescence, elsewhere with black and fulvous hairs, the 6th with more sparing similarly coloured hairs. Metasternum yellowish-red, with thick golden pubescence. Antennæ with the first two joints reddish-yellow, the 3rd with the basal half black, the rest red, the 4th red, or with the first five joints entirely reddish, the following black, the 11th yellow. Legs reddish-yellow, the anterior coxæ and femora often blackish. Length 19 mm.

Head subquadrate, very slightly widened behind in the ♂, more so in the ♀, as broad as the thorax, the eyes much shorter than the temples, very finely, very closely, somewhat roughly punctured except in the basal region, where the puncturation is less close. Antennæ reaching the base of the thorax, the 3rd joint much longer than the 2nd, 4th to 7th longer than broad, gradually decreasing in length, the 8th to 10th scarcely transverse (♂) or a little longer than broad (♀). Thorax transverse, trapezoidal, the anterior angles rounded, prominent, the sides straight, distinctly retracted behind to the rounded posterior angles; before the scutellum with a very small impunctate space, and on each side about the middle with a more obvious one; the puncturation is similar to that of the head but coarser. Elytra much longer and broader than the thorax, uneven, extremely finely, not very closely punctured. Abdomen extremely finely, closely punctured.

♂: 6th ventral segment with rather broad and deep arcuate emargination; 5th very feebly, broadly emarginate. *Antennæ* shorter.

Ceylon. India: Sylhet; Kanara. Burma: Tenasserim. Also in Java, Sumatra, Borneo, and Siam.

1157. **Rhyncochilus andrewesi.** (Plate II, fig. 8.)

Rhyncocheilus andrewesi Cam., E. M. M. liv, 1918, p. 105.

Very similar to *aureus*, but with the last joint of the antennæ black, the 1st and 2nd reddish-yellow, the base and apex of the 3rd narrowly reddish, sometimes the first four joints entirely reddish-yellow; labrum bright orange-red; the ground-colour of the head and thorax is darker, and they are more coarsely punctured, the 3rd (visible) abdominal segment is more thickly covered at the sides with golden pubescence, and the 5th segment is almost entirely covered with golden pubescence except for four small black spots and the apical margin; the femora, except at apex, are entirely dark, rarely the posterior femora entirely reddish-yellow. Length 19 mm.

♂: 5th ventral segment with small arcuate emargination; 6th crescentically emarginate. Antennæ shorter, the penultimate joints a little transverse.

♀: 6th ventral segment with small arcuate emargination. Antennæ longer, the penultimate joints as long as broad.

Nilgiri Hills (*H. L. Andrewes* and *T. V. Campbell*).

1158. **Rhyncochilus dohertyi,** sp. n.

Shining; the fore-parts reddish-yellow, sparingly clothed with golden hairs, the head and thorax obscurely fusco-maculate; scutellum with black velvety apex, elsewhere covered with golden hairs; abdomen reddish-brown, the first five (visible) segments rather extensively covered with golden pubescence, mixed at the sides with silvery hairs, the 4th and 5th each with two small bare spots, the 6th sparingly covered with golden hairs. Antennæ with the first six joints reddish-yellow, the rest black. Legs reddish-yellow. Length 21 mm.

A large robust species, similar in the colour of the fore-parts to *aureus*, but larger and more robust, head and thorax more shining, much less closely punctured, less pubescent, the latter longer, antennæ longer, differently coloured, the four penultimate joints serrate, abdomen differently coloured.

♂: unknown.

Burma: Ruby Mines (*Doherty*). In British Museum Collection.

1159. **Rhyncochilus rugulipennis,** sp. n.

Nearly dull; the fore-parts dark brown, variegated with golden and silvery pubescence, the labrum reddish-yellow,

frontal margin, antennal tubercles and post-ocular region reddish; anterior margin of the thorax narrowly, antero-lateral region broadly reddish, scutellum black, velvety, narrowly bordered with red, at the base with silvery hairs. Elytra dark brown, the humeral region broadly, the reflexed margin narrowly yellowish, before the posterior margin externally with transverse yellowish spot. Abdomen black, the posterior margin of the first three (visible) segments obscurely reddish, the posterior half of the 5th and whole of 6th segments yellow; the first four visible segments at the base and sides with sparing silvery pubescence, the 5th completely covered with similar pubescence, except for four small bare spots at the base. Antennæ with the first seven joints reddish-yellow, the rest black. Anterior femora black, the apex yellow, middle and posterior yellow, rather broadly infuscate at the base; anterior tibiæ testaceous, the middle and posterior pitchy-yellowish at the base; anterior tarsi pitchy, the others testaceous. Length 16 mm.

Facies of *aureus*, but differently coloured, head shorter, not enlarged behind, temples much shorter. Antennæ shorter, the penultimate joints more transverse; thorax narrower and more uneven; elytra much more uneven.

♂: 6th ventral segment with shallow arcuate emargination.

Burma: Ruby Mines (*Doherty*). In British Museum Collection.

1160. Rhyncochilus chrysites.

Rhyncochilus chrysites Fauv., Rev. d'Ent. xiv, 1895, p. 248.

An elegant species. Slender, about a half narrower than *aureus*, ferruginous, the abdomen and 7th to 11th joints of antennæ black, the first four or five joints, femora and tibiæ reddish-testaceous, the labrum and first four antennal joints with sparing golden hairs; head, neck, thorax, breast, base of scutellum, elytra, and the 2nd to 4th [1st to 3rd visible] abdominal segments above variegated with golden pubescence; labrum large, convex, shining, sparingly punctured; antennæ long, as long as the head and thorax, the first four joints elongate, the 6th pitchy, 7th to 10th dilated, 8th to 10th equal, transverse; the front bi-impressed, rather closely, strongly punctured, rugose, with impunctate median line; thorax cylindrical, short, much narrower than the head, a little longer than broad, strongly narrowed and rounded in front, closely, rugosely punctured, the base transversely impressed, with abbreviated, subelevated, smooth median line; scutellum, except at the base, opaque, velvety; elytra broad, twice as broad as the thorax, the variegation almost as in *aureus*, but less uneven and more convex, extremely finely punctured; abdomen about half as wide as the elytra, the 3rd to 5th

very strongly convex, the base transversely impressed, 3rd and 4th with brown median spot ringed with golden hairs, 5th at the middle of the base with golden spot, at the sides variegated with golden and silvery pubescence; 6th closely covered with silvery pubescence except for the apical third and two small black spots on the middle; the 2nd to 4th segments below closely covered with silvery pubescence and with black spots, the 5th and 6th more or less silvery at the base. Length 21 mm.

♂: unknown.

Burma: Teinzo (*L. Fea*) (ex *Fauvel*).

1161. **Rhyncochilus javanicus.**

Eucibdelus javanicus Epp.*, D. E. Z. 1895, p. 394.
Rhyncochilus limbatus Fauv., Rev. d'Ent. xiv, 1894, p. 250.

Head and thorax black, slightly shining, sparingly variegated with short silvery and yellow hairs; scutellum black, velvety at the base, with some yellow hairs; elytra pitchy, more shining and with slight greenish reflex, the reflexed margin entirely, the apical and sutural very narrowly reddish; the disc with fasciæ of long, fleecy, silvery pubescence, one extending from the shoulder to the middle of the suture, another from thence to the outer margin, and another short one from the middle of this to the sutural angle, so that two bare patches are formed, one about the middle externally and the other near the suture behind. Abdomen black, shining, the first four (visible) segments convex, extremely finely punctured and almost glabrous along the middle, the base transversely impressed and there closely, rugosely punctured; at the base and sides of these segments with mixed yellow and silvery hairs, the posterior margin with some golden ones. 5th covered with dense silvery pubescence except at the posterior margin, and with two black spots in the fascia itself; 6th with a few whitish hairs, its posterior margin slightly, broadly emarginate. Under surface covered with silvery pubescence. Antennæ black, the first three joints red. Legs reddish-yellow, the coxæ and base of the femora blackish. Length 14–17 mm.

A narrow elongate species near *argenteus*, but with shorter head, larger eyes, conical labral lobes, differently coloured elytra, and more slender abdomen. Head about as long as broad, broader than the thorax, the sides gently rounded and retracted to the base; eyes prominent; labral lobes narrow and conical; bi-impressed in front, the fundus of the impression smooth, in the middle of the front with smooth oval space, elsewhere closely, moderately coarsely, rugosely punctured, in front more coarsely. Antennæ with the 3rd

joint a good deal longer than the 2nd, 4th a little longer than broad, the following scarcely transverse, subserrate. Thorax a little longer than broad, the sides rounded and a little dilated in front, retracted and a little sinuate behind, in the middle before the scutellum with a raised shining space, externally about the middle on each side with a smaller one, the disc with puncturation very similar to that of the head, but more sparing towards the margins. Elytra half as long again as the thorax and a good deal broader, longer than broad, extremely finely and rather closely punctured, except on the reflexed and posterior margins. Abdomen about half as wide as the elytra, the first four (visible) segments extremely finely punctured along the middle.

♂ : 5th ventral segment broadly and feebly emarginate ; 6th with rather broad and deep semi-oval excision.

♀ : 6th ventral segment broadly and feebly emarginate.

Both Eppelsheim and Fauvel have described the ♀ sexual characters as the ♂.

Burma : Carin Cheba, alt. 900–1100 metres (*L. Fea*). Also in Java.

1162. **Rhyncochilus assamensis,** sp. n.

Head and thorax black, rather shining, variegated with golden pubescence, the post-ocular region and anterior and posterior margins of the thorax narrowly, the side margins broadly reddish. Scutellum blackish, the pubescence silvery. Elytra reddish, about the middle with transverse silvery fascia, elsewhere with scanty golden pubescence. Abdomen somewhat shining, pitchy, the posterior and elevated side margins reddish, at the base and sides of the first four visible segments with silvery pubescence, at the posterior margins with a few golden hairs, 5th segment with transverse fascia of silvery pubescence occupying the whole surface except the posterior margin, the 6th with scattered yellow hairs. Antennæ with the first five joints and apex of the last red, the rest black. Legs yellow, the anterior and intermediate femora a little infuscate towards the base. Length 14 mm.

Somewhat resembling *javanicus* in size and build, but with broader, squarer head, longer thorax, different coloration, etc. Head about as long as broad, the post-ocular region feebly rounded and scarcely retracted, bi-impressed in front, moderately finely and rather closely punctured. Antennæ rather long, the penultimate joints about as long as broad. Thorax narrower than the head, longer than broad, the sides nearly straight, retracted behind, with smooth median line on the posterior half, less finely and more closely punctured than the head except at the sides, where the punctures

are finer and more sparing. Elytra broader and longer than the thorax, moderately finely, closely punctured, more finely and sparingly behind and at the sides. Abdomen narrower than the elytra, finely and rather closely punctured.

♂: 6th ventral segment with broad, shallow, arcuate emargination.

Assam: Patkai Mts. (*Doherty*). Unique. In British Museum Collection.

1163. **Rhyncochilus kraatzi.**

Eucibdelus kraatzi Epp., D. E. Z. 1895, p. 392.

Head and thorax nearly opaque, black, variegated with short golden pubescence; labrum red. Scutellum black, velvety, at the base with some golden hairs. Elytra pitchy, with greenish and bluish reflex, the shoulders, reflexed sides, and posterior margins reddish; across the middle with a sinuate fascia of golden pubescence which includes a larger bare spot externally and two smaller ones internally, in front and behind the fascia with a scattered golden pubescence. Abdomen slender, black, shining and convex along the middle of the first four segments, at the base and sides thickly covered with golden pubescence, at the apical margin with a few golden hairs; 5th, except for the apical region and four small black spots, thickly covered with golden pubescence; 6th with a few golden and black hairs. Antennæ with the first four, five, or six joints red, the rest black. Legs reddish-yellow. Length 15·5–17·5 mm.

Narrow and elongate. Head longer than broad, broader than the thorax, a little narrowed behind, the posterior angles broadly rounded, in front bi-impressed; eyes small; very closely, moderately finely, rugosely punctured. Antennæ with the 6th to 10th joints slightly transverse, subserrate. Thorax a little longer than broad, about as long as the head, the sides a little dilated and rounded in front, retracted and a little sinuate behind, in the middle behind with smooth raised line; the puncturation as on the head. Elytra much longer and broader than the thorax, as long as broad, finely and very closely punctured except on the reflexed sides and posterior margin, where it is very sparing. Abdomen a good deal narrower than the elytra, very finely and very closely punctured, in the impressions more coarsely. Under surface covered with greyish-yellow pubescence.

♂: 5th ventral segment broadly and feebly emarginate; 6th with deep, broad, semicircular excision.

Burma: Pegu; Maymyo. Eppelsheim has described the ♀ as the ♂.

1164. **Rhyncochilus antennalis**, sp. n.

Opaque, the fore-parts bronze-black with slight greenish reflex, variegated with blackish spots, the head and thorax with short, scanty golden and silvery pubescence; scutellum black, velvety, at the base with some golden hairs; elytra red below the shoulders, with short golden pubescence, more distinctly variegated with small spots of silvery pubescence than the head and thorax. Abdomen black, velvety, the posterior margin of the first four (visible) and the elevated lateral margins of the first five segments ferruginous red; the first four segments almost bifariate, the first two very closely covered with silvery pubescence, the 3rd and 4th much more sparingly; 5th, except for the narrow apical margin, almost entirely covered with close silvery pubescence, on each side of the middle with a small black spot; 6th much more sparingly covered. Metasternum rather, the ventral segments less closely covered with silvery pubescence, the posterior margins ferruginous. Antennæ with the first four joints red, the last four yellow, the others black. Legs reddish-yellow, the coxæ and apex of the tibiæ blackish; tarsi reddish. Length 13 mm.

Somewhat resembling *javanicus* in build, but less shining, the head broader, the eyes larger and more prominent, the lobes of labrum less conical, thorax longer and narrower, etc. Head broader than the thorax, subquadrate, the posterior angles broadly rounded, the eyes prominent, in front with two shining impressions, elsewhere moderately finely, very closely and rugosely punctured. Antennæ elongate, the 4th to 10th joints all longer than broad, the 8th to 10th scarcely differing in length. Thorax a little longer than broad, the sides rounded and dilated in front, retracted and sinuate behind, before the scutellum with an oval shining space, elsewhere punctured, like the head. Elytra distinctly longer and broader than the thorax, the puncturation finer than on the thorax, but equally close and rugose. Abdomen with very fine, close puncturation concealed under the pubescence.

♂: unknown.

Shillong (*Y. R. Rao*).

1165. **Rhyncochilus argenteus.**

Rhyncochilus argenteus Fauv., Rev. d'Ent. xiv, 1895, p. 249.

Elongate, greenish-black, the frontal margin and the reflexed margin of the elytra below the shoulder red; mouth, basal part of the antennæ, and anterior tarsi either reddish-pitchy or obscure red, the anterior femora below and the apex of the anterior tibiæ obscurely testaceous; head and thorax sparingly

variegated with golden and silvery pubescence: elytra with band of long fleecy silvery pubescence extending from the shoulder to the middle of the sutural margin, from thence sinuate and widened externally to the reflexed margin, with a larger greenish-black spot externally and four smaller scarcely perceptible ones internally. Abdomen with the 2nd to 4th [1st to 3rd visible] segments at the base, and on each side covered with silvery pubescence, the apical margin with a few golden hairs, 5th [4th visible] in the middle with patch of greyish-golden pubescence, at the sides scarcely silvery; 6th [5th] except for the apical third covered with silvery pubescence, in the middle with two black spots; 7th [6th] with patch of scanty silvery pubescence on each side at the base. Labrum large, convex, somewhat shining, sparingly asperate, and with yellow setæ. Antennæ long, a little shorter than the head and thorax, the first three joints long, the 5th to 11th or 7th to 11th black, the last acuminate: head oblong, convex, rather coarsely and closely rugosely punctured, in front rather deeply bi-impressed and more coarsely rugosely punctured, with a smooth abbreviated median line: thorax cylindrical, short, almost a third narrower than the head, a little longer than broad, somewhat dilated in the anterior third, from thence narrowed and constricted to the apex, closely, strongly, rugosely punctured, more sparingly in front, before the base and on each side at the middle with an elevated smooth space, along the middle with smooth, more or less narrow, scarcely raised, shining interrupted line. Scutellum black, velvety, at the base with golden and greyish hairs. Elytra broad, twice as broad as the thorax, longer than broad, rather convex, closely and very finely punctured, the shoulders and apical margin almost smooth: abdomen a third narrower than the elytra, the 3rd to 5th [2nd to 4th] segments with convex disc, the base transversely impressed, 7th [6th] with the apex broadly and rather deeply emarginate. Length 15–18 mm.

♂: unknown.

Burma: Teinzo: Carin Cheba (*L. Fea*) (ex *Fauvel*).

1166. **Rhyncochilus germanus**, sp. n.

Head, thorax, and elytra somewhat shining bronze-black, the elytra with the shoulders, reflexed and posterior margins (the latter very narrowly) red. Head and thorax variegated with scanty golden and silvery pubescence: elytra with dense fascia of long silvery hairs across the middle enclosing a large bare spot externally and two or three smaller ones internally. Scutellum black, velvety, with some golden hairs at the base; abdomen narrow, convex along the middle,

black, shining, the first three (visible) segments at the base and sides with silvery pubescence, 4th with a rather large patch of similar pubescence in the middle, 5th with transverse fascia of the same across the middle, the base and apical margins with black hairs, 6th with a few black and grey hairs. Femora reddish, the anterior tibiæ testaceous, the middle and posterior blackish. Antennæ with the 1st, 2nd and 4th joints red, the 3rd pitchy, the rest black, the penultimate joints shortly oval. Head gradually narrowed behind, bi-impressed in front, rather closely, rugosely punctured, especially in front, with a short, narrow, smooth median line. Thorax about as long as broad, the sides a little dilated and rounded in front, closely rugosely punctured, before the base with a smooth raised median line and two small shining plaques on each side, one about the middle and one near the base. Elytra a good deal broader and a little longer than the thorax, closely and finely punctured except behind and on the reflexed margin. Abdomen much narrower than the elytra, closely punctured at the base of the segments. Length 13 mm.

♂ : 5th ventral segment with broad feeble emargination ; 6th with small arcuate emargination. This species would appear to be closely allied to *argenteus*, but to differ in the colour of the antennæ and legs and the more extensive red colour of the reflexed margin of the elytra.

Assam : Patkai Mts. (*Doherty*). Unique. In British Museum Collection.

1167. **Rhyncochilus tibialis**, sp. n.

This species would appear to be very closely allied to *argenteus*, but to differ in the following respects : the legs are black, only the anterior tibiæ being reddish-yellow, with a small brown spot near the apex ; the reflexed margin of the elytra is red to the posterior angles, and its posterior margin is also very narrowly reddish, the 6th (visible) abdominal segment is gently rounded behind. Length 15·5 mm.

♂ : unknown.

Assam.

Genus **TRICHOCOSMETES** Kr.

Trichocosmetes Kr., Arch. Naturg. xxv, 1859, i, p. 69.

Allied to *Rhyncochilus*, but distinguished from it by the shorter transverse labrum and by the intermediate and posterior tibiæ being spinose. The labrum is transverse, bilobed to the base, and more prominent in front in the middle ; the structure of the other parts of the mouth appears to be similar to *Ontholestes*. The superior lateral line of the thorax is strongly

deflexed not far from the base, the pronotal epipleura very narrow and epimera absent. Prosternum carinate. Mesosternal process broadly rounded behind, the coxæ distant, the metasternum scarcely produced between them. Anterior tibiæ clavate, the middle and posterior slender and furnished with fine spines. Anterior tarsi with the first four joints strongly dilated and patellate in both sexes, the middle and posterior with the 1st joint as long as the three following together, these gradually decreasing in length. Only one species is known; the insect described as *prainæ* by Eppelsheim is a *Staphylinus*.

Found on the wing and running on the ground, and is apparently predaceous.

1168. **Trichocosmetes leucomus.**

Staphylinus leucomus Er., Gen. Spec. Staph. 1839–40, p. 362; Kraatz, Arch. Naturg. xxv, 1859, i, p. 70, tab. 2, fig. 2 *a–b*.
Staphylinus cinctus Redt. in Hügel, Kaschmir, iv, 2, 1848, p. 504, tab. 23, fig. 6.

Head and thorax nearly opaque bronze-black, obscurely variegated with short silvery pubescence. Scutellum black, velvety, at the base with some yellow hairs. Elytra more shining posteriorly, with a large patch of long silvery pubescence, in its middle with a bare black spot, in front and behind with scattered silvery and fulvous hairs, the reflexed margin covered with long silvery hairs. Abdomen with the first four (visible) segments black bifariate, these markings narrowly bordered with silvery and fulvous hairs; 5th covered with black, fulvous, and silvery hairs, the latter especially at the base; 6th thickly covered with silvery pubescence. Antennæ black, the first two joints red. Legs blackish, covered with fine silvery pubescence. Under surface closely covered with white pubescence. Length 15·5 mm.

Head a little transverse, subquadrate, a little broader than the thorax, the posterior angles broadly rounded, the eyes rather large; closely and rugosely punctured; the labrum rugosely punctured. Antennæ slender, the 3rd joint a good deal longer than the 2nd, 4th to 7th a little longer than broad, obconical, gradually decreasing in length, 8th to 10th slightly transverse. Thorax a little longer than broad, the sides rounded in front, almost straight and retracted behind, all the angles rounded, in the centre with a smooth shining line interrupted in the middle, the sculpture as on the head. Elytra longer and about twice as broad as the thorax, finely and densely punctured. Abdomen extremely finely and closely punctured.

Nepal. Simla Hills: Fagu: Kotgarh, alt. 7000–8000 feet.

Genus **PARAPALÆSTRINUS** Bernh.

Parapalæstrinus Bernh., W. E. Z. xl, 1923, p. 63.
Seleucus Fauv., Rev. d'Ent. xxii, 1903, p. 157 (præocc.).

Tomentose, rugosely punctured species, with facies recalling *Staphylinus*. Labrum short, transverse, bilobed to the base, setose. Mandibles stout, pointed, both with a bicuspid tooth, the cusps pointed. Maxillary palpi with small 1st joint, 2nd and 3rd rather short, about equal in length and a little thickened towards apex, 4th a little longer and narrower than the 3rd, cylindrical, truncate. Tongue rather deeply triangularly emarginate in front. Labial palpi rather short, the 1st and 2nd joints about equal in length, the 3rd nearly twice as long, scarcely wider than the 2nd, oval. Thorax with the superior lateral line strongly deflexed a little before the base and joining the inferior against the coxal cavity; pronotal epipleura narrow; epimera wanting. Prosternum carinate, the deflexed part short, truncate. Mesosternum short, its process short, broadly rounded behind, not much produced between the coxæ, these widely separated. Metasternum not extending between the coxæ, separated from the mesosternum by an intersternal piece. Anterior tibiæ very strongly clavate, with fringe of long hairs along the apical border, the middle and posterior normal, with a few spines. Anterior tarsi with the first four joints strongly dilated and patellate in both sexes, the middle and posterior with the 1st joint about as long as the three following together, these gradually decreasing in length. The genus is known only from India.

Key to the Species.

1. Elytra red; abdomen with silvery pubescence ..... *mutillarius* Er., p. 235.
   Elytra metallic ..... 2.
2. Abdomen with silver-grey pubescence. Smaller (14 mm.) ..... *waageni* Epp., p. 236.
   Abdomen with golden-grey pubescence. Larger (20 mm.) ..... *paradoxus*, sp.n., p. 237.

1169. **Parapalæstrinus mutillarius.** (Plate II, fig. 9.)

Palæstrinus mutillárius Er., Gen. Spec. Staph. 1839–40, p. 924; Kraatz, Arch. Naturg. xxv, 1859, i, p. 72.

Head and thorax black, scarcely shining, the former with scanty, short, silvery pubescence, the latter with the anterior and posterior margins closely covered with similar pubescence, elsewhere very scanty. Scutellum black, with yellow hairs. Elytra red, with short golden-red pubescence, the posterior margin fringed with long silvery hairs. Abdomen black, tomentose, the sides and posterior margin of the 1st (visible)

segment, the sides of the 2nd and whole of the 4th thickly covered with silvery pubescence, the 6th sparingly yellow pubescent. Metasternum and first four ventral segments closely covered with silvery hairs. Antennæ black. Legs pitchy, with silvery pubescence. Length 12–14·5 mm.

Head orbicular, convex, a little broader than the thorax, the eyes small, rather strongly, closely punctured, somewhat rugose. Antennæ slender, the 3rd joint a good deal longer than the 2nd, 4th to 8th all longer than broad, decreasing in length, the 9th and 10th a little transverse. Thorax about as long as broad, wider in front, the sides almost straight and retracted behind, all the angles rounded; in the middle behind sometimes with a small, smooth, shining line; sculpture as on the head. Elytra a little longer and much broader than the thorax, strongly coriaceous, and with a few large setiferous punctures. Abdomen with the sculpture concealed by the thick pubescence.

♂: 5th ventral segment with scarcely visible arcuate emargination; 6th broadly, deeply, arcuately excised.

Bengal. United Provinces: Dehra Dun; Mussoorie.

1170. **Parapalæstrinus waageni.**

Palæstrinus waageni Epp., D. E. Z., 1895. p. 396.

Black; the head, thorax, and elytra greenish-black, very closely, finely rugosely punctured, densely covered with golden-fulvous pubescence; abdomen above black, tomentose, the apex of the 1st and base of the 4th and 5th segments with fascia of ashy-grey pubescence, below with the first four segments covered with ashy pubescence with black spots, the last two black. Length 6½ lin.

In the pubescence of the fore-parts agreeing with *Palæstrinus sykesi*, in that of the abdomen and in the more slender maxillary palpi resembling *P. mutillarius*, in size midway between the two. Black; head, thorax, and elytra of dark metallic colour, closely covered with golden-red pubescence, the abdomen black, tomentose, with three silvery-grey fasciæ, one at the posterior margin of the 1st segment and one at the base of the 4th and 5th segments. Head somewhat rounded, broader than long, the eyes not prominent, behind them with slight emargination, the posterior angles broadly rounded, the base distinctly emarginate, convex, extremely closely, finely punctured, somewhat striate, with close golden-red pubescence, dull, black with metallic reflex, the under side black, shining, sparingly, rather coarsely, but superficially punctured. Palpi black, rather short, the last joint almost longer and scarcely broader than the 3rd, truncate, much more slender than in *Palæstrinus sykesi* ('Staphylinfauna von Ostindien,' tab. ii.

fig. 1*a*) and more like the description of *P. mutillarius* Er. ('Gen. et Spec. Staph.' p. 924). The antennæ are about half as long again as the head, filiform, the 3rd joint about half as long again as the 2nd and 4th, the three following almost equal in length, not quite twice as long as broad, the last four gradually decreasing in length, but not becoming broader, longer than broad, the 11th joint shorter, its apex obliquely emarginate. Thorax narrower than the head and fully a third narrower than the elytra, a little longer than broad, the sides rounded and widened in front, behind the middle retracted and emarginate, with bluntly rounded anterior and posterior angles, truncate in front, rounded behind, convex, dark, metallic, much more closely and more finely punctured than the head, slightly striate, thickly covered with golden-red pubescence, in the middle behind with broad and smooth line, scarcely visible in front. Scutellum large, triangular, black, velvety. Elytra broader than the thorax, with the same colour, puncturation, and pubescence. Abdomen narrower than the elytra, covered with black tomentose pubescence and with scanty, long, outwardly directed hairs, at the posterior margin of the 1st and at the base of the 4th and 5th segments with a transverse fascia of silver-grey hairs, on the under surface of the first four segments covered with ashen-grey pubescence, with numerous bare black spots and with longer outstanding hairs arising from larger punctures. Sternum covered with a decumbent silver-grey pubescence, closer and finer than on the abdomen. Legs black, the anterior tibiæ strongly dilated, smooth above, below covered with long golden-yellow pubescence, the middle and posterior tibiæ with spines and greyish-yellow, rather close, not very fine hairs; the anterior tarsi slightly dilated, much narrower than the tibiæ, tomentose below; posterior tarsi with the 1st joint longer than the three following together and almost twice as long as the 5th.

♂: 5th ventral segment with narrow, feeble emargination; 6th much more broadly, deeply arcuately emarginate, with a slight impression in front of it.

Calcutta. One ♂ (*Waagen*) (ex *Eppelsheim*).

1171. **Parapalæstrinus paradoxus,** sp. n.

Scarcely shining; the head greenish-bronze, thorax and elytra dark blue with violet reflex, the reflexed margin of the latter red, all thickly covered with pale golden pubescence. Scutellum covered with fulvous and yellow hairs. Abdomen black, tomentose, with (apparently) all the segments covered at the base and sides with pale golden-yellow pubescence. Antennæ and legs black, the latter closely covered with silvery pubescence. Length 20 mm.

This species has the facies of *Palæstrinus sykesi*, but on account of the structure of the palpi it cannot be associated

with that genus. It would appear to be very near *waageni*, but to differ from that species in the large size, colour, and the red reflexed margin of the elytra. The specimens before me have the abdomen badly worn, and it is possible that broad fasciæ may occur on the 4th and 5th segments. Head roundish, slightly transverse, broader than the thorax, the eyes small, on the vertex with trace of smooth line, moderately coarsely, very closely, rugosely punctured. All the joints of the antennæ longer than broad, the 10th only slightly so. Thorax about as long as broad, widened and rounded in front, sinuate and retracted behind, in the middle behind with rather broad smooth shining line, the puncturation similar to that of the head, but finer. Elytra slightly longer and a good deal broader than the thorax, transverse, the posterior margin at the external angle obliquely truncate, the puncturation very similar to that of the thorax.

♂: 5th ventral segment with small, feeble, arcuate emargination; 6th with broad, deep, arcuate emargination.

India (without further indication). In British Museum Collection.

Genus **PALÆSTRINUS** Er.

Palæstrinus Er., Gen. Spec. Staph. 1839–40, p. 343; Lacord., Gen. Col. ii, 1855, p. 74.

This genus has the facies and characters of *Parapalæstrinus*, and only differs from it in the dilated, almost globular 4th joint of the maxillary palpi in both sexes. So far it is only known from India and Ceylon.

1172. Palæstrinus sykesi.

Palæstrinus sykesi Er., Gen. Spec. Staph. 1839–40, p. 344; Kraatz, Arch. Naturg. xxv, 1859, i, p. 71, tab. 2, fig. 1 *a–b*.
Palæstrinus sykesi Er., var. *kraatzi* Fauv., Rev. d'Ent. xxii, 1903, p. 156.

Head and thorax black with greenish reflex, thickly covered with golden pubescence. Scutellum black, velvety, with some fulvous hairs. Elytra bluish-black, with sparing golden and silvery pubescence. Abdomen black, the 1st segment covered with golden pubescence, the 2nd only at the sides, the 4th to 6th at the base. Antennæ black, the 1st joint sometimes reddish. Femora and anterior tibiæ reddish, the other tibiæ pitchy. Length 15 mm.

Var. *kraatzi*: 4th and 5th segments entirely covered with golden pubescence.

Head suborbicular, broader than the thorax, convex, the eyes small, closely and rugosely punctured, the punctures here and there longitudinally confluent. Antennæ moderate, the 3rd joint a little longer than the 2nd, 4th to 8th a little longer than broad, gradually decreasing in length, 9th and 10th

about as long as broad. Thorax a little longer than broad, convex, the sides retracted and a little sinuate behind, scarcely rounded in front, along the middle with smooth shining line somewhat obsolete in front; on the sides punctured like the head, on the disc less rugosely, the punctures there varying in size, more shining than the head. Elytra a little longer and a good deal broader than the thorax, coarsely, closely, rugosely punctured. Abdomen very finely and very closely punctured, the sculpture for the most past concealed by the pubescence.

♂: 6th ventral segment with very broad arcuate emargination.

Northern India. The variety is found in Ceylon.

Genus **MENŒDIUS** Fauv.

Menœdius **Fauv.**, Rev. d'Ent. xxii, 1903, p. 155.

Closely allied to *Palæstrinus*, but distinct by the 3-dentate mandibles and the difference in the maxillary palpi in the sexes, the ♂ only having the 4th joint dilated and cupuliform, whilst in the ♀ it is cylindrical and narrower than the 3rd. The last joint also of the labial palpi is about as long as the 2nd. In other respects the structural characters are similar.

Key to the Species.

1.	Dull species with red elytra.....	2.
	Shining species with black elytra, only the humeral angles reddish	*abnormalis*, sp. n., p. 240.
2.	Abdomen with yellow pubescence	*andrewesi* Fauv., p. 239.
	Abdomen with silvery pubescence.....	*subsimilis*, sp. n., p. 240.

1173. Menœdius andrewesi.

Menœdius andrewesi Fauv.*, Rev. d'Ent. xxii, 1903, p. 157.

Head and thorax black, nearly opaque, the former with some yellow hairs behind the eyes, the latter with a transverse curved fascia of golden hairs before the middle. Scutellum black, velvety, with some golden hairs at the base. Elytra dark ferruginous red or more or less blackish, with scattered golden-red and grey hairs. Abdomen black, velvety, the first three visible segments at the sides with golden pubescence (less distinct on the 3rd), the anterior half of the 4th and base of the 5th and 6th segments with broad golden fascia. Antennæ blackish, the last three joints obscurely rufescent. Legs reddish-brown. Length 10–15 mm.

Head suborbicular, broader than the thorax, the eyes small, coarsely and closely punctured. Antennæ scarcely as long as the head and thorax, 3rd joint a little longer than the 2nd, 4th to 8th a little longer than broad, gradually decreasing

in length, 9th and 10th about as long as broad. Thorax a little longer than broad, the sides but little rounded in front, retracted and sinuate behind, in the middle behind with a smooth shining space scarcely indicated in front, more closely and a little more finely punctured than the head. Elytra as long as but a good deal broader than the thorax, as long as broad, rather coarsely, closely, and rugosely punctured, internal to the shoulders with a more or less distinct row of three or four larger punctures. Abdomen very finely and very closely punctured.

♂: 5th ventral segment with broad, feeble emargination; 6th with rather deep and broad arcuate emargination.

Nilgiri Hills: Coonoor (*H. E. Andrewes*).

1174. **Menœdius subsimilis**, sp. n.

In colour and build similar to *andrewesi*, but larger and more robust (11·5–15 mm.), the head more orbicular, the post-ocular region more broadly rounded, sculpture a little coarser, the pubescence greyish-yellow. Antennæ longer, the penultimate joints slightly longer than broad. Thorax formed as in *andrewesi*, the sculpture and pubescence as on the head. Scutellum covered with yellowish pubescence. Elytra dull red, at the base and along the suture obscurely blackish, the sculpture much as in *andrewesi*, the pubescence golden red, rather closer than in that species. Abdomen very finely, rather closely punctured, the sides of the first three (visible) segments, and the base of the 4th and 5th thickly covered with silvery pubescence, elsewhere with a rather close ferruginous and black pubescence.

♂: head less transverse. 5th ventral segment with triangular impression at the middle of the posterior margin: 6th with rather broad and deep arcuate emargination.

India (without further indication). In British Museum Collection.

1175. **Menœdius abnormalis**, sp. n.

Head black, shining, convex, orbicular, wider than the thorax, the eyes very small, the post-ocular region much longer, the whole surface covered with longitudinal, confluent, rugose sculpture and silvery pubescence, at the sides with some long setæ. Antennæ dull ferruginous red, darker in the middle, the 3rd joint longer than the 2nd, the 4th to 10th all longer than broad, gradually decreasing in length, the penultimate joints only slightly longer than broad. Thorax shining, with slight metallic reflex, a little longer than broad, the sides retracted and a little sinuate behind, dilated and

rounded in front, throughout the middle with narrow impunctate space, the rest of the surface with more or less confluent longitudinal rugæ and rugose puncturation, the pubescence and setæ as on the head. Scutellum black, velvety. Elytra as long as but broader than the thorax, quadrate, black, moderately shining, the humeral angles more or less broadly rufescent, with moderately coarse, close, rugose puncturation, and pubescence and setæ as on the thorax. Abdomen black, shining, the posterior margin of the segments reddish, their base finely and very closely punctured, the base and sides of the segments covered with thick silvery pubescence, along the middle much less pubescent, the sides with long setæ. Legs reddish, the tibiæ darker and covered with silvery hairs.

♂: 5th ventral segment broadly and slightly emarginate; 6th broadly and rather deeply, arcuately emarginate, impressed in front of the emargination.

India (without further indication). In British Museum Collection, ♂ and ♀.

Genus **NADDIA** Fauv.

Naddia Fauv. in Harold, Col. Hefte, ii. 1867, p. 117.
Caranistes Er., Gen. Spec. Staph. 1839–40, p. 925 (nec Schönh.): Lac., Gen. Col. ii. 1855, p. 75.

Closely allied to *Staphylinus*, but at once distinguished from it by the deeply emarginate base of head, so that the posterior angles appear to be produced backwards. The maxillary palpi are shorter, the 2nd and 3rd joints being short, subequal, and obconical, the 4th about twice as long as the 3rd, cylindrical and truncate. The mandibles are stout and pointed, the right with a bicuspid, the left with an obtuse tooth. The tongue is similar. Prosternal epimera present. Mesosternal process rounded behind, not meeting the metasternum, which is not produced between the coxæ, these narrowly separated. In other respects similar to *Staphylinus*.

The genus is so far only known from the Oriental region.

Key to the Species.

1.	Elytra red	*rufipennis* Bernh.,
	Elytra otherwise	2. [p. 244.
2.	Elytra greenish-coppery	*miniata* Fauv., p. 243.
	Elytra black or blue-black	3.
3.	Elytra densely covered with orange-red pubescence	*decipiens*, sp. n., p. 242.
	Elytra otherwise	4.
4.	Legs black; 4th and 5th abdominal segments each with small triangular patch of silvery pubescence at the middle of the base, the latter segment black	[p. 243. *assamensis*, sp. n.,
	Legs reddish-brown; 4th and 5th segments without such patches, the latter with its posterior margin ferruginous red	[p. 242. *westermanni* Er.,

1176. Naddia westermanni.

Caranistes westermanni Er., Gen. Spec. Staph. 1839–40, p. 925.

Black, dull; the fore-parts occasionally with obscure bluish reflex, the head and thorax with fine greyish-yellow pubescence, at the sides with long black hairs. Scutellum black, velvety. Elytra obscurely reddish at the shoulders, the pubescence as on the fore-parts, the posterior margin fringed with longer greyish-yellow and fulvous pubescence. Abdomen with the first three segments with black, velvety, and fulvous pubescence, at the sides with greyish pubescence, 4th and 5th with fine uniform greyish and fulvous pubescence, the posterior border of the last ferruginous, 6th segment ferruginous, more sparingly pubescent. Metasternum closely covered with silvery hairs. Antennæ black, the 1st joint reddish. Legs reddish-brown, the coxæ darker. Length 16 mm.

Head larger than the thorax, quadrate, eyes small, temples parallel, the base deeply emarginate, the posterior angles rounded and produced, closely, rugosely punctured. Antennæ a little longer than the head, the 3rd joint twice as long as 2nd, 4th to 8th a little longer than broad, gradually decreasing in length, 9th and 10th a little transverse, the penultimate joints compressed. Thorax scarcely longer than broad, the sides almost straight and a little retracted behind, the posterior angles rounded, the anterior obtuse, prominent, the anterior margin obliquely truncate on each side, before the middle of the base with fine shining line, the sculpture similar to but much finer than that of the head. Elytra a little longer than the thorax, about as broad as the head, with close rugose sculpture, finer than that of the thorax. Abdomen extremely finely, closely punctured.

♂: 6th ventral segment with small arcuate emargination.

Bengal. Burma: Rangoon.

1177. **Naddia decipiens**, sp. n.

Black, nearly dull, the disc of the elytra densely covered with orange-red pubescence. Legs and first four joints of the antennæ black, the rest wanting. Length 16 mm.

In size and build scarcely differing from *westermanni*, but with the sculpture of the thorax coarser and with a smooth, shining, raised line throughout the whole of the middle; the elytra are very similarly sculptured and appear dull red owing to the dense orange-red pubescence. The abdomen presents no fascia or spots of pubescence, which is uniformly distributed, grey and black.

♂: 6th ventral segment with arcuate emargination.

Assam (*Badgley*). Unique. In British Museum Collection.

1178. **Naddia assamensis**, sp. n.

General facies of *westermanni*, but a little narrower and without trace of bluish reflex, the head narrower and a little widened behind; antennæ shorter, the 4th to 6th joints scarcely longer than broad; thorax more coarsely punctured; elytra entirely black; abdomen with the 4th and 5th (visible) segments each with a small triangular patch of silvery pubescence at the middle of the base, the sides also with similar pubescence, 5th segment entirely black, only the 6th ferruginous. Legs black. In all other respects similar to *westermanni*. Length 16 mm.

♂: unknown.

Assam: Shillong, alt. 5000 feet.

1179. **Naddia miniata.**

Naddia miniata Fauv., Rev. d'Ent. xiv, 1895, p. 250.

Robust, parallel, a little convex, elytra rather flat, subopaque, black, mouth and tarsi pitchy, apex of palpi reddish-testaceous; front between the eyes, temples, margins of thorax from the middle to the apex, 2nd to 4th [1st to 3rd] segments at the sides, 6th [5th] across the base, pectus, and abdomen below more or less covered with silvery pubescence; elytra greenish-coppery, the whole disc closely covered with orange-red pubescence, the reflexed margins grey pubescent; antennæ peculiar, stout, shorter than the head and thorax, scarcely thicker at the apex than at the base, the 2nd and 3rd joints rather narrower, 3rd a little longer than the 2nd, 4th to 8th subequal, scarcely transverse, 9th and 10th a little shorter, 11th scarcely reddish at the apex; head parallel, convex, a little narrower than the elytra, scarcely broader than long, deeply emarginate at the base, the temples scarcely widened, closely and coarsely, in front more sparingly and more coarsely, rugosely punctured, the anterior margin smooth, below very coarsely rugosely punctured; eyes large, convex; thorax as broad as the head, scarcely longer than broad, the disc on each side slightly, the sides more strongly impressed, these in front narrowed and sinuate, with close, strong, vermiculate puncturation, in the middle with smooth raised line; scutellum black, velvety; elytra a little longer than broad, closely and finely rugose, at the apex with brown cilia; abdomen subparallel, rather shining, the 5th and 6th [4th and 5th] segments densely covered with brownish-grey pubescence, dull, scarcely iridescent; 3rd to 6th [2nd to 5th] closely and very finely, 7th [6th] more strongly and sparingly punctured, somewhat shining.

♂: 6th [5th] ventral segment narrowly emarginate; 7th [6th] with moderate, rather broad, less deep emargination, with rounded apex.

♀: unknown. Length 18 mm.

Burma: Tenasserim, Thagata (*L. Fea*) (ex *Fauvel*).

1180. **Naddia rufipennis.**

Naddia rufipennis Bernh., Col. Rundsch. 1915, p. 54.

Near *miniata*, but smaller, and with differently coloured elytra and much finer and closer puncturation of the fore-parts. Black, dull, the fore-parts with dark golden hairs, the elytra dark red with red-gold pubescence and sparing black setæ; abdomen black, velvety, the 3rd [2nd] segment, the sides of the following, the 6th [5th] in almost the entire breadth and as far as the posterior third, and the base of the 7th [6th] covered with pale golden pubescence. Head broader than the thorax, almost as long as broad, rather coarsely, very closely striate-punctate. Thorax narrower than the elytra, as long as broad, nearly parallel, the posterior angles rounded, a little emarginate behind the anterior angles, very closely but much more finely punctured than the head, with rather broad, raised, median shining line. Elytra a good deal longer than the thorax, extremely closely rugose and with sparing scattered setiferous punctures. Abdominal puncturation concealed under the thick velvety pubescence. Length 14·5 mm.

Upper Burma. Unique (ex *Bernhauer*).

Genus **PHYSETOPS** Mannerh.

Physetops Mannerh., Brachél. 1830, p. 32; Nordm., Symb. 1837, p. 14, tab. 1, fig. 4; Semenow, Rev. Russe d'Ent. vi, 1906, pp. 53–57.

Ocypus Fam. ii, Er., Gen. Spec. Staph. 1839–40, p. 414.

Large, parallel, cylindrical, black, almost glabrous species, with more or less quadrate head and stout neck. Labrum short, transverse, divided to the base by a narrow, acute, triangular emargination into two lobes. Mandibles long, lightly curved, sulcate externally and with a tooth internally. Maxillary palpi with the 1st joint small, 2nd and 3rd subequal, slightly curved and thickened towards apex, 4th shorter and narrower than the 3rd, cylindrical and truncate. Tongue obtusely emarginate in front. Labial palpi with the 1st and 2nd joints short, the 3rd longer, compressed and subsecuriform. Epimera of prosternum absent. Mesosternum simple, its process short, acute, not much produced between the coxæ, these narrowly separated. Metasternum not produced between the coxæ. Tibiæ spinose. Anterior tarsi with the first four joints a little dilated in both sexes, middle

and posterior with the 1st joint about as long as the 2nd and 3rd together. Last joint of antennæ not emarginate. The genus is found in Southern Europe, Turkestan, Afghanistan, etc.

1181. **Physetops giganteus.**

Physetops giganteus Semenow, Rev. Russe d'Ent. vi, 1906, p. 55.

Shining, black, cylindrical. Antennæ with the first four or five joints black, the following rufescent. Legs black, tarsi pitchy. Length 23–35 mm.

Head subquadrate, slightly transverse, as wide as the thorax, the eyes shorter than the temples, these closely, coarsely and rugosely punctured, the disc rather closely and moderately coarsely punctured, behind each eye with a row of two or three larger punctures. Antennæ rather short, the 2nd joint a little shorter than the 3rd, 4th to 10th transverse, gradually increasing in width, the 11th oval, pointed, not emarginate. Thorax slightly longer than broad, widest in front, the sides nearly straight, the angles rounded, the puncturation about as close as but a little finer than that of the head, much closer and coarser towards the sides. Scutellum closely punctured except at apex. Elytra scarcely longer than the thorax, scarcely longer than broad, rather closely, subrugosely punctured, with fine striæ between the punctures. Abdomen closely, subrugosely punctured in front, more finely and less rugosely behind.

According to Semenow the ♂ has the 6th ventral segment deeply sinuate in the middle.

Baluchistan. Also in Afghanistan and Transcaspia.

Genus **BARYGNATHUS** Bernh.

Barygnathus Bernh., D. E. Z. 1902, p. 31; Fauv., Rev. d'Ent. xxi, 1902, p. 41.

Facies of *Tolmerinus*, the head oval, with rather slender neck. Labrum short, bilobed to the base. Mandibles stout, pointed, obtusely angulate internally, sulcate externally. Maxillary palpi with the 2nd joint a little longer than 3rd, this very short, 4th about three times as long, cylindrical, a little narrowed towards the apex. Labial palpi short, the 3rd joint strongly securiform. Superior lateral line of thorax not deflexed till near the front, united with the inferior adjacent to the coxal cavity; the epipleura rather broad, epimera wanting. Mesosternal process narrow and pointed, extending about half the length of the coxæ, these contiguous; metasternum rounded in front, not produced between the coxæ. Tibiæ pubescent, with only a few fine spines. Anterior tarsi

simple in both sexes, the middle and posterior with the 1st joint about as long as the three following together, these gradually decreasing in length.

1182. Barygnathus opacus.

Barygnathus opacus Bernh., D. E. Z. 1902, p. 31.

Black, dull; the abdomen somewhat shining and strongly iridescent. Antennæ with the first two joints red, the last two yellow, the intermediate black. Legs pitchy, the tarsi reddish. Length 11 mm.

Readily recognized by the coloration. Head oval, much narrower than the thorax, the eyes large, longer than the post-ocular region, rather coarsely, very closely, rugosely punctured, and with a fine yellowish pubescence and some long black hairs. Antennæ with the 3rd joint a little longer than the 2nd, the following a little longer than broad, gradually decreasing in length, the penultimate scarcely transverse, the 11th pointed, scarcely emarginate. Thorax a little longer than broad, the sides parallel, the angles broadly rounded, without trace of smooth median line, the sculpture similar to but finer than that of the head, the pubescence similar. Scutellum yellow pubescent. Elytra a little shorter but broader than the thorax, coarsely, closely, rugosely punctured, the pubescence yellow at the base and shoulders, black elsewhere. Abdomen with the sides of the 1st (visible), the whole base of the 4th, and base and apex of the 5th segments covered with yellow pubescence, elsewhere with black hairs; moderately finely and closely punctured.

♂: 6th ventral segment with very slight arcuate emargination.

Ceylon: Nalanda.

Genus **WASMANNELLUS** Bernh.

Wasmannellus Bernh., Arch. Naturg. lxxxiv, A, 1918, p. 186.

This interesting new genus occupies the same position in the STAPHYLINI that *Tympanophorus* does in the XANTHOPYGI. With the last-named genus it has also a similar facies except for the larger head, but the lateral lines of the thorax are completely united in front and the systematic position is near *Physetops*, from which, however, it is quite distinct by the different facies, antennal structure, maxillary palpi, head, etc., and especially in the posterior tibiæ being without spines; from *Barygnathus* Bernh. it is distinguished by the short last joint of the maxillary palpi and the tarsal structure. From the species of *Staphylinus* with the 3rd joint of the labial palpi securiform it differs in the absence of spines on the

posterior tibiæ. The head is comparatively large, scarcely narrower than the thorax: the antennæ elongate, linear: mandibles short, with a short strong tooth at the inner border. Maxillary palpi rather slender, the last joint narrowed towards the apex and truncate, a good deal shorter than the 3rd. Last joint of the labial palpi distinctly securiform. Thorax convex, the anterior angles strongly depressed. The lateral lines unite before reaching the anterior angles, the epipleura are very broad, the inferior lateral line strongly deflexed. Legs moderately long, the anterior tibiæ have only a few short spines near the apex on the outer margin, the middle are strongly spinose, the posterior without spines externally. Tarsi rather short, the anterior rather strongly dilated, the 1st joint of the posterior tarsi shorter than the three following together. The habits are unknown. The genus comes at the end of the STAPHYLINI before *Tympanophorus* (ex *Bernhauer*).

1183. Wasmannellus tristis.

Wasmannellus tristis Bernh., Arch. Naturg. lxxxiv, A. 1918, p. 187.

Black, opaque: the last three antennal joints reddish; the legs pitch-black, the upper surface of the head and thorax sparingly, that of the elytra and abdomen closely, covered with black pubescence, the side margin of the elytra with a small grey spot, the 6th † dorsal segment with a large, the 7th † with a much smaller, triangular patch of silver-grey pubescence at either side of the middle. Head as broad as the thorax, broader than long, slightly widened behind, with briefly rounded posterior angles, very closely covered with large umbilicate punctures, the interspaces confluent, without trace of a smooth median line. Antennæ rather slender, the 3rd joint much longer than the 2nd, the following oblong, gradually decreasing in length, the penultimate only slightly transverse at their widest aspect, the 11th joint emarginate, with pointed apex. Thorax almost as broad as the elytra, longer than broad, parallel, with strongly rounded posterior angles, the sculpture as on the head, dull, behind in the middle with short smooth line. Elytra scarcely shorter than the thorax, finely and closely, distinctly roughly punctured, at the posterior margin with rather long yellowish-white hairs. Abdomen very finely and closely punctured, but puncturation difficult to see under the close pubescence. Length 13 mm. (abdomen not extended).

♂: 6th ventral segment extremely slightly emarginate.

Sikkim: Darjeeling (*Christie*). Unique. Received from Wasmann (ex *Bernhauer*).

† 5th and 6th respectively in our enumeration.

Subtribe 2. *CRASPEDOMERI.*

Craspedomeri Bernh., Ent. Blätt. vii. 1911, p. 88.

This group connects the STAPHYLINI with the XANTHOPYGI in the structure of the thorax. In it the superior lateral line is continued directly forwards to the anterior angles as in the XANTHOPYGI, yet at the same time an oblique line extends from it across the epipleura to join the inferior against the coxal cavity. In other words, the superior lateral line may be said to bifurcate; the inferior division is, however, much less defined than the upper. The head is without an infra-orbital ridge and the pronotal epipleura are horizontal. Only one genus is so far known.

Genus **CRASPEDOMERUS** Bernh.

Craspedomerus Bernh., Ent. Blätt. vii. 1911, p. 88.

Facies of the larger species of *Philonthus* with subquadrate heads. Labrum triangularly emarginate to the base, the lobes with broad membranous border. Mandibles slender, each with a small tooth. Maxillary palpi rather long, the 1st joint small, 2nd elongate, curved and thickened towards apex, 3rd about as long, less thickened, 4th longer than the 3rd, fusiform, pointed. Tongue small, rounded in front. Labial palpi slender, 2nd joint about twice as long as the 1st, 3rd a little longer than the 2nd, pointed. Thorax with the lateral lines as above described; pronotal epipleura narrow; epimera absent. Prosternum elevated in the middle, the deflexed part truncate behind. Mesosternal process acute, extending about half the length of the coxæ, these narrowly separated. Metasternum not produced between the coxæ, rounded in front. Anterior tibiæ not spinose externally, the middle and posterior with spines. Anterior tarsi with the first four joints strongly dilated in the ♂, scarcely dilated in the ♀, middle and posterior tarsi with the 1st joint about as long as the three following together. The species known to me are found under dead leaves near streams.

Key to the Species.

1.	Elytra metallic	2.
	Elytra reddish-brown	3.
2.	Antennæ with the 8th to 10th joints yellow, the 11th blackish; fore-parts with distinct wavy ground-sculpture	[p. 250.] *violaceipennis* Cam.,
	Antennæ with the last five joints yellow; fore-parts without such ground-sculpture.	[p. 250.] *cæruleipennis*, sp. n.,
3.	Head and thorax blue with coppery reflex; last five joints of antennæ yellow	[p. 249.] *glenoides* Schub.,
	Head and thorax bronze-black; last four joints of antennæ variable, reddish-yellow to blackish	[p. 249.] *bernhaueri* Cam.,

1184. Craspedomerus bernhaueri.

Craspedomerus bernhaueri Cam., Trans. Ent. Soc. Lond. 1926, p. 364.

Shining; head and thorax bronze-green; elytra brick-red; abdomen black iridescent, the posterior margin of the 7th segment narrowly, the 8th broadly rufescent. Antennæ black, the last two or three joints obscure fusco-testaceous: maxillary palpi with the last joint testaceous, the preceding blackish. Legs reddish. Length 12–13 mm.

Head broad, transversely subquadrate, in the ♂ a little broader than, in the ♀ as broad as the thorax, the temples rather broadly rounded, closely and finely punctured, setiferous; median interocular punctures nearer to each other than to the lateral ones, behind the anterior border with two finer punctures; disc impunctate, the base and sides behind the eyes rather closely sculptured, with fine and moderately fine punctures; ground-sculpture distinct, more or less transverse and wavy. Antennæ with 3rd joint much longer than 2nd, the following all longer than broad, gradually decreasing in length, the penultimate but little longer than broad, 11th as long as 10th. Mandibles dark brown. Thorax a little longer than broad, widest in front, the sides (viewed from above) gradually narrowed posteriorly in a nearly straight line, the posterior angles rounded, viewed laterally slightly sinuate; the whole of the middle line broadly impunctate throughout, the sides rather closely set with moderately fine punctures, rather smaller externally; ground-sculpture as on the head; pubescence scanty, yellowish, the sides with a long black seta and several shorter ones. Scutellum pitchy, closely and finely punctured. Elytra less shining than the fore-parts, as long as but a little wider than the thorax, about as long as broad, very finely and closely punctured, and with a fine yellowish pubescence. Abdomen a little narrowed behind, finely and closely punctured at the bases of the segments, more sparingly towards the posterior margins, 7th and 8th segments much more sparingly and more evenly punctured, pubescence black, stiff, moderately close, and with a few longer black setæ.

♂: Head broader; anterior tarsi more dilated. 6th ventral segment with small triangular excision, the sides narrowly impressed.

Chakrata district. In damp places near streams.

1185. Craspedomerus glenoides.

Philonthus glenoides Schub.*, D. E. Z. 1908, p. 622.

This species differs from *bernhaueri* in the narrower head, the five yellow joints of the antennæ, the more coppery reflex of the head and thorax, the elytra with a dark transverse

fascia across the middle, and the last two segments of the abdomen entirely reddish-yellow. Length 11 mm.; breadth 2·5 mm.

Kulu.

1186. **Craspedomerus violaceipennis.**

Craspedomerus violaceipennis Cam., Ann. Mag. Nat. Hist. (10) ii, 1928, p. 566.

Head and thorax shining brassy-bronze; elytra less shining, metallic violet; abdomen black, slightly iridescent, the whole of the last and the posterior half of the preceding segment reddish-testaceous. Antennæ black, the 8th, 9th, and 10th joints pale yellow. Legs reddish-testaceous. Length 11 mm.

Distinct from all others by the colour of the elytra and antennæ. ♂: head large, transverse, subquadrate, slightly broader than the thorax, the posterior angles rounded, the temples a little longer than the flat eyes; the sides and base moderately finely and moderately closely punctured in the middle, and on the front practically impunctate; ground-sculpture fine, wavy, subtransverse. Antennæ with all the joints longer than broad, gradually decreasing in length from the 3rd, the penultimate not much longer than broad. Thorax a little longer than broad, the sides straight and parallel, the posterior angles broadly rounded; along the middle with a broad impunctate space, the rest of the surface rather closely and moderately finely punctured like the head. Scutellum finely and closely punctured, black. Elytra as long as the thorax, very finely and closely punctured, finely and closely pubescent. Abdomen very finely, moderately closely punctured, more sparingly behind, black pubescent. 6th ventral segment with a small crescentic impression, its base with a small notch. Anterior tarsi strongly dilated.

♀: head smaller, less transverse, as broad as the thorax; anterior tarsi less dilated.

Sikkim: Karponang, alt. 10,000 feet (20. iv. 1924); Phadam Chen, alt. 9000 feet (30. iii. 1924). Tibet: Chumbi Valley, alt. 11,000 feet (2. iv. 1924); Yatung, alt. 10,000 feet (16. iv. 1924). Several examples.

1187. **Craspedomerus cæruleipennis,** sp. n.

Shining; head green, thorax greenish-blue; elytra blue; abdomen black: the posterior margin of the 5th and whole of 6th segment reddish-yellow. Antennæ with the 1st and base of the 2nd and 3rd joints red, the following black, the last five yellow. Legs reddish-yellow. Length 12 mm.

Size and build of *violaceipennis*, but of different colour, the puncturation on the head and thorax coarser and closer,

elytra scarcely as long as the thorax, more coarsely punctured, not coriaceous, and so more shining. Abdomen more finely and rather less closely punctured. Penultimate joints of the antennæ a little longer.

♂ : 6th ventral segment with acute triangular impression, its base with a rectangular emargination.

Sikkim : Rungbong Valley.

Subtribe 3. *XANTHOPYGI.*

Xanthopygina Shp., B. C.-A. i. 2, 1882–87 (1884), p. 342 (+*Creophilus* Mannh.).

This subtribe has the superior lateral line of the thorax continued directly to the anterior angles without being united in any way to the inferior line in its course, the pronotal epipleura are more or less horizontal, and the head usually without an infra-orbital ridge. The tarsi are all 5-jointed and the labial palpi 3-jointed except in the aberrant genus *Holisomimus*, in which the tarsal formula is 4, 4, 5 as in the BOLITOCHARINI, and the labial palpi 2-jointed as in some genera of that tribe ; the straight frontal margin, however, and the insertion of the antennæ indicate its position amongst the STAPHYLININÆ.

Key to the Genera.

1.	Tarsal formula 4, 4, 5 ; labial palpi 2-jointed ; small, parallel, depressed species	HOLISOMIMUS Cam., p. 263.
	Tarsal formula 5, 5, 5 ; labial palpi 3-jointed	2.
2.	Labial palpi with the 3rd joint more or less securiform or dilated	3.
	Labial palpi with the 3rd joint fusiform or conical	5. [p. 251.
3.	Dull rugose species	TYMPANOPHORUS Nordm.,
	Shining, non-rugose species	4.
4.	Antennæ lamellate	AGACERUS Fauv., p. 255.
	Antennæ filiform	PAMMEGUS Fauv., p. 253.
5.	Antennæ serrate	QUEDIOSOMA Cam., p. 256.
	Antennæ not serrate	6.
6.	Tomentose species ; prosternal epimera present	[p. 258. CREOPHILUS Mannh.,
	Species not tomentose ; prosternal epimera absent	[p. 261. PHILONTHOPSIS, gen. n.,

Genus **TYMPANOPHORUS** Nordm.

Tympanophorus Nordm., Symb. 1837, p. 9 ; Er., Gen. Spec. Staph. 1839–40, p. 402 (*Staphylinus* Fam. xii) ; Kraatz, Naturg. Ins. Deutschl. ii, 1856–58, p. 541 ; Sharp, B. C.-A. i, 2, 1882–87 (1884), p. 342 ; Fauv., Rev. d'Ent. xxi, 1902, p. 42.

Diaphoetes Waterh.*, Proc. Zool. Soc. Lond. 1884, p. 214 ; Fauv., Rev. d'Ent. xxi, 1902, p. 41.

Fore-parts dull and rugose. Head small. Labrum short, transverse, bilobed, membranous in front, setose. Mandibles

fascia across the middle, and the last two segments of the abdomen entirely reddish-yellow. Length 11 mm.; breadth 2·5 mm.

Kulu.

1186. **Craspedomerus violaceipennis.**

Craspedomerus violaceipennis Cam., Ann. Mag. Nat. Hist. (10) ii. 1928, p. 566.

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Distinct from all others by the colour of the elytra and antennæ. ♂: head large, transverse, subquadrate, slightly broader than the thorax, the posterior angles rounded, the temples a little longer than the flat eyes; the sides and base moderately finely and moderately closely punctured in the middle, and on the front practically impunctate; ground-sculpture fine, wavy, subtransverse. Antennæ with all the joints longer than broad, gradually decreasing in length from the 3rd, the penultimate not much longer than broad. Thorax a little longer than broad, the sides straight and parallel, the posterior angles broadly rounded; along the middle with a broad impunctate space, the rest of the surface rather closely and moderately finely punctured like the head. Scutellum finely and closely punctured, black. Elytra as long as the thorax, very finely and closely punctured, finely and closely pubescent. Abdomen very finely, moderately closely punctured, more sparingly behind, black pubescent. 6th ventral segment with a small crescentic impression, its base with a small notch. Anterior tarsi strongly dilated.

♀: head smaller, less transverse, as broad as the thorax; anterior tarsi less dilated.

Sikkim: Karponang, alt. 10,000 feet (20. iv. 1924); Phadam Chen, alt. 9000 feet (30. iii. 1924). Tibet: Chumbi Valley, alt. 11,000 feet (2. iv. 1924); Yatung, alt. 10,000 feet (16. iv. 1924). Several examples.

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Shining; head green, thorax greenish-blue; elytra blue; abdomen black; the posterior margin of the 5th and whole of 6th segment reddish-yellow. Antennæ with the 1st and base of the 2nd and 3rd joints red, the following black, the last five yellow. Legs reddish-yellow. Length 12 mm.

Size and build of *violaceipennis*, but of different colour, the puncturation on the head and thorax coarser and closer,

elytra scarcely as long as the thorax, more coarsely punctured, not coriaceous, and so more shining. Abdomen more finely and rather less closely punctured. Penultimate joints of the antennæ a little longer.

♂ : 6th ventral segment with acute triangular impression, its base with a rectangular emargination.

Sikkim : Rungbong Valley.

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Xanthopygina Shp., B. C.-A. i, 2, 1882–87 (1884), p. 342 (+*Creophilus* Mannh.).

This subtribe has the superior lateral line of the thorax continued directly to the anterior angles without being united in any way to the inferior line in its course, the pronotal epipleura are more or less horizontal, and the head usually without an infra-orbital ridge. The tarsi are all 5-jointed and the labial palpi 3-jointed except in the aberrant genus *Holisomimus*, in which the tarsal formula is 4, 4, 5 as in the BOLITOCHARINI, and the labial palpi 2-jointed as in some genera of that tribe ; the straight frontal margin, however, and the insertion of the antennæ indicate its position amongst the STAPHYLININÆ.

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	Shining, non-rugose species	4.
4.	Antennæ lamellate	AGACERUS Fauv., p. 255.
	Antennæ filiform	PAMMEGUS Fauv., p. 253.
5.	Antennæ serrate	QUEDIOSOMA Cam., p. 256.
	Antennæ not serrate	6.
6.	Tomentose species ; prosternal epimera present	[p. 258. CREOPHILUS Mannh.,
	Species not tomentose ; prosternal epimera absent	[p. 261. PHILONTHOPSIS, gen. n.,

Genus **TYMPANOPHORUS** Nordm.

Tympanophorus Nordm., Symb. 1837, p. 9 ; Er., Gen. Spec. Staph. 1839–40, p. 402 (*Staphylinus* Fam. xii) ; Kraatz, Naturg. Ins. Deutschl. ii, 1856–58, p. 541 ; Sharp, B. C.-A. i, 2, 1882–87 (1884), p. 342 ; Fauv., Rev. d'Ent. xxi, 1902, p. 42.

Diaphoetes Waterh.*, Proc. Zool. Soc. Lond. 1884, p. 214 ; Fauv., Rev. d'Ent. xxi, 1902, p. 41.

Fore-parts dull and rugose. Head small. Labrum short, transverse, bilobed, membranous in front, setose. Mandibles

rather short, pointed, obtusely angulate internally. Maxillary palpi rather short, the 1st joint small, 2nd and 3rd subequal, slightly curved, thickened towards apex, 4th about as long as but narrower than the 3rd, pointed. Labial palpi with the first two joints very small and short, the 3rd much dilated, semiglobular, the apex truncate and excavate. Tongue membranous, short and broad, rounded in front, with small emargination in the middle. Gular sutures converging and united behind. Neck on each side below with a keel. Thorax with the superior and inferior curved lines continuing to the under surface of the anterior angles and not connected, the epipleura broad ; epimera absent. Mesosternal process acute, extending about half the length of the coxæ ; metasternum extending a short distance between the coxæ, rounded in front and not meeting the mesosternum, the coxæ moderately separated. Legs rather short, Tibiæ spinose. Anterior tarsi simple in both sexes, the first four joints gradually decreasing in length ; middle and posterior with 1st joint as long as the three following together, these gradually decreasing in length, the 5th joint shorter than the 1st. The genus has but few species which are found in the warmer parts of both hemispheres.

Key to the Species.

1.	Eyes longer than the temples ; thorax with shining space before the base	2.
	Eyes as long as the temples ; thorax with raised shining line along the middle	*longiceps* Bernh., p. 253.
2.	Legs dark ; 6th dorsal segment black.....	*rugosus* Waterh., p. 252.
	Legs reddish-yellow ; 6th dorsal segment reddish-yellow	*analis*, sp. n., p. 253.

1188. Tympanophorus rugosus.

Diaphoetes rugosus Waterh.*, Proc. Zool. Soc. Lond. 1884, p. 214, tab. 16, fig. 1.
Tympanophorus argentatus Fauv., Rev. d'Ent. xxi, 1902, p. 42.

Black, moderately shining. Antennæ feruginous-red. Legs pitchy, tarsi reddish. Length 11·5 mm.

Head narrower than the thorax, transversely quadrate, eyes large, much longer than the temples, these short ; closely covered with umbilicate punctures, rugose ; pubescence coarse, yellowish. Antennæ rather short, the 2nd and 3rd joints of equal length, 4th square, 5th to 10th transverse, gradually increasing in width, 11th narrower and slightly longer than 10th. Thorax scarcely transverse, the sides gently rounded, equally retracted in front and behind, the angles rounded, before the middle of the base with a small smooth shining space, otherwise rugosely punctured like the head, the punctures on the disc more or less longitudinally confluent, and with similar pubescence. Scutellum triangular,

transversely striate. Elytra scarcely shorter, but broader than the thorax, coarsely, closely, rugosely punctured, with rather coarse grey and yellow pubescence. Abdomen a little narrowed behind, closely covered with a rather coarse aciculate puncturation. The 1st visible segment and the posterior margin of the 5th segment with a fringe of yellow hairs, elsewhere with more scattered yellow pubescence.

Burma. Also in Sumatra and Timor Laut. Larat (type).

1189. **Tympanophorus analis**, sp. n.

Very closely allied to *rugosus*, but smaller (10–11·5 mm.) and narrower, the thorax with the sides straight behind, not evenly rounded from apex to base as in *rugosus*; sculpture a little coarser, elytra distinctly more coarsely punctured, abdomen with the posterior margin of the 5th (visible) and whole of 6th segment reddish-yellow, the puncturation of the 4th and 5th segments coarser and distinctly more rugose; legs reddish-yellow. Last ventral segment entirely, posterior margin of the 5th narrowly reddish-yellow. In other respects scarcely differing from *rugosus*.

Ceylon: Kandy. In British Museum Collection.

1190. **Tympanophorus longiceps.**

Tympanophorus longiceps Bernh., Tijdsch. Ent. lviii, 1915, p. 235.

Near *rugosus*, but differs in the longer head and temples, the flatter, not prominent eyes, narrower thorax, with the sides more uniformly and less rounded and more finely and closely punctured, with distinct shining median line and space before the scutellum, and finer and less closely punctured elytra. Head longer than broad, the temples as long as the eyes. The thorax with smooth strongly raised narrow median line throughout, widened before the scutellum. Length 10 mm. (fully extended).

♂: 5th ventral segment in the middle deeply crescentically impressed, its fundus furnished with small tubercles; 6th very broadly and feebly emarginate.

West Himalayas: Murree. Waagen's Collection (ex *Bernhauer*).

Genus **PAMMEGUS** Fauv.

Pammegus Fauv., Rev. d'Ent. xiv, 1895, p. 271; xxi, 1902, pp. 41, 42.

In build somewhat resembling *Tympanophorus*, but at once distinguished by the non-rugose shining head and thorax, being more like the European genus *Euryporus* in this respect. Head small, orbicular. Labrum bilobed, setose. Mandibles stout, pointed, obtusely angulate internally. Maxillary palpi with the 1st joint small, 2nd short, dilated towards apex,

3rd shorter, obconical, 4th fusiform, more than twice as long as the preceding. Tongue bilobed. Labial palpi short, the first two joints transverse, the 2nd broader than the 1st, the 3rd dilated and cupuliform. Thorax narrowed in front, the superior and inferior lateral lines not connected, the pronotal epipleura rather broad. Mesosternal process acute, pointed, margined and carinate in the middle, extending about half the length of the coxæ, these contiguous behind. Metasternum not produced between the coxæ, rounded in front. Abdomen with the first four ventral segments furnished with spines along the posterior margin. Tibiæ all spinose. Anterior tarsi simple in both sexes; middle and posterior with the joint as long as the three following together. The genus is so far known only from the Oriental region.

1191. **Pammegus flavipes.**

Euryporus flavipes Fauv., Not. Leyden Mus. vi, 1884, p. 241.
Pammegus flavipes var. *ruficollis* Fauv., Rev. d'Ent. xiv, 1895, p. 272.
Pammegus flavipes Fauv., var. *andrewesi* Cam., E. M. M. lvii, 1921, p. 271.

Black, shining; abdomen somewhat iridescent, the posterior margin of the last two segments reddish-testaceous. Antennæ black, the 1st joint pitchy, the base of the 2nd and 3rd red. Legs yellow. Length 9–10 mm.

Var. *ruficollis*. Thorax red, a little more closely and strongly punctured.

Var. *andrewesi*. Tibiæ blackish.

Apparently somewhat variable as regards the colour of the thorax, which passes from black to red, and also in its punctuation.

Head orbicular, narrower than the thorax, the eyes very large, the disc impunctate, elsewhere with rather large setiferous punctures. Antennæ with the 3rd joint a little longer than the 2nd, 4th and 5th a little longer than broad, 6th and 7th as long as broad, 8th and 10th slightly transverse, 11th short, oval, emarginate. Thorax a little transverse, widest behind, the sides gently rounded and distinctly retracted in front, all the angles rounded, on either side of the middle with a more or less distinct row of seven or eight small punctures and externally with five or six others placed obliquely, the ground-puncturation extremely fine and very scanty. Elytra as long as but a little broader than the thorax, coarsely and closely punctured, transversely rugose, the pubescence depressed, brownish-black. Abdomen with aciculate puncturation, rather close and strong on the anterior segments, less close and finer behind; pubescence blackish.

♂: 6th ventral segment with shallow subtriangular excision, the edge bevelled.

The insect has somewhat the facies of *Philonthus fumarius* Er.
Sikkim : Darjeeling. Dehra Dun. Nilgiri Hills. Manipur. Also in Sumatra and Deli.
The var. *ruficollis* is found in Burma (Teinzo).

Genus **AGACERUS** Fauv.

Agacerus Fauv., Rev. d.Ent. xiv. 1895, p. 245.
Eurycerus Fauv., l.c. p. 244.

Elongate, subparallel, winged. Head transversely orbiculate, the base constricted, neck indistinct, eyes small, transverse. Labrum large, produced, somewhat transverse, bilobed, furnished with long setæ, the lobes united behind. Mandibles stout, ciliate internally at the base, the right before the apex broadly unidentate, the left bidentate. Maxillæ with the internal lobe internally and the external at the apex ciliate. Maxillary palpi filiform, the 1st joint short, the 3rd scarcely half as long again as the 2nd, 4th very short, as long as the 1st, conical. Mentum very short, transverse, tongue membranous, emarginate in the middle and longitudinally sulcate, sparingly setose beneath. Labial palpi with the first two joints equal, third half as long again as the 2nd, broad, subsecuriform, with the apex obliquely truncate. Antennæ rather approximate, inserted above and internal to the base of the mandible, the border between in the ♂ rather strongly arcuately emarginate, the antennæ very short, geniculate, lamellate, the 6th to 11th joints very short, gradually forming a very broad club, the last with the apex emarginate. Thorax oblong, the apex truncate, the anterior angles deflexed. Scutellum large, triangular. Elytra at the apex internally somewhat obliquely truncate. Abdomen a little narrowed towards apex, the posterior margins of the segments somewhat pectinate. Legs short, stout, the middle coxæ rather widely separated, the mesosternum triangular, scarcely keeled, its apex subarcuately truncate ; metasternum produced behind, middle tibiæ arcuately dilated externally, with close, short spines, the tarsi flattened, short, the claws slender, very short, scarcely dentate, posterior tarsi at apex a little produced on each side, the 5th joint much shorter than the 1st ; the anterior dilated, broader than the tibiæ, pubescent beneath.

The species on which this aberrant genus is based is very remarkable by the structure of the antennæ, which are geniculate, and equally in that of the palpi and tarsi. Its position is near *Hasumius*, which follows *Emus* (*Creophilus*). In the brilliant black body, red elytra, lamellate antennæ, and in having the apical margins of the abdomen partly pectinate, it simulates the African genus *Homorocerus* (ex *Fauvel*).

1192. Agacerus pectinatus.

Agacerus pectinatus Fauv., Rev. d'Ent. xiv. 1895, p. 245.

Very black, very shining, sparingly pubescent; elytra bright red; palpi, labrum, 4th to 11th joints of antennæ, anterior coxæ, and tarsi pitchy; 3rd joint of the antennæ three times longer than the 2nd, 5th more transverse than the 4th, 6th twice, 10th three times broader than long, 11th larger, its apex completely arcuately emarginate, the emargination internally obsoletely bidentate: head broad, the sides subparallel from the eyes to the middle, from thence strongly constricted to the base, irregularly and strongly punctured and with scarcely perceptible punctures in between; front between the antennæ arcuately emarginate; neck on each side with a more or less obsolete impression; thorax rather narrower than the head, somewhat narrowed from the anterior third to the apex, from thence completely rounded and strongly narrowed to the base, the sides and base margined, in front on either side slightly transversely impressed, the anterior and lateral margins punctured, with a group of punctures behind the obtusely rounded anterior angles, another in each impression, a few others on either side behind the middle, otherwise smooth except for some scattered, scarcely perceptible punctures; before the base with a shortly sulcate impression; scutellum strongly, sparingly punctured; elytra somewhat broader than the thorax and almost a third longer, sparingly and coarsely punctured, and with a somewhat golden pubescence; abdomen at the base sparingly, towards the apex more closely covered with substrigose punctures, the 2nd to 5th segments transversely impressed at the base, 4th scarcely, 5th rather strongly pectinate-crenate at the apical margin, sparingly covered with fulvous golden hairs; 5th to 7th ventral segments pectinate at the apex, the 7th more finely; 7th narrowly and rather deeply excised, the apex of the excision rounded.

♀: head smaller, its anterior margin truncate, scarcely emarginate between the antennæ, these less clavate, the 11th joint narrower, less transverse, more narrowly emarginate, scarcely dentate internally; thorax narrower, the segments more closely and more finely pectinate. Length 19–21 mm.

Burma: Carin Cheba, alt. 900–1100 metres (*L. Fea*) (ex *Fauvel*).

Genus **QUEDIOSOMA**.

Quediosoma Cam., Trans. Ent. Soc. Lond. 1926, p. 366.

Somewhat similar in facies to *Quedius lævigatus* Gyll. Neck broad, about half the width of the head, this exserted; gular sutures feeble, united behind; infra-orbital keel evanescent behind; antennæ serrate from the 4th to 9th joints. Labrum transverse, rounded in front, acutely triangularly excised in the

middle of the anterior border. Mandibles rather slender, pointed, each with an obscure tooth about the middle, basal half with ciliated membrane. Maxillary palpi with the 1st joint very short, 2nd moderately elongate, lightly curved and thickened apically, 3rd about as long as the preceding, 4th as long as but narrower than 3rd, pointed. Outer lobe of maxilla broad, densely ciliate at apex; inner lobe pointed, densely ciliate at apex and along inner border. Labial palpi elongate, 1st joint a little shorter than 2nd, 3rd a little longer than preceding, pointed. Tongue small, rounded in front. Paraglossæ well developed, extending to the apex of 1st joint of labial palpi. Prosternum obtusely rounded behind; epipleura strongly reflexed, the inner margin not united with the lateral border of the pronotum in front, the anterior angles of the pronotum not much produced beyond those of the prosternum. Epimera wanting. Mesosternum triangular, bluntly pointed behind and extending to the posterior third of the coxæ, these rather widely separated. Intersternal piece short, separated from the metasternum by a fine suture and similarly separated from the mesosternum. Anterior tibiæ finely pubescent, intermediate and posterior with a few fine spines. Anterior tarsi with the first three joints dilated in both sexes; intermediate and posterior with 1st joint a little longer than 2nd and 3rd together, 2nd, 3rd, and 4th gradually decreasing in length, 5th shorter than 1st.

1193. **Quediosoma sericoilius.** (Plate II, fig. 11.)

Philonthus sericoilius Cam., E. M. M. lvi. 1920, p. 216.
Quediosoma termitophaga Cam., Trans. Ent. Soc. Lond. 1926, p. 367.

Black, shining, the anterior angles and margins (very narrowly) of the thorax rufescent. Elytra reddish-testaceous, less shining than the fore-parts. Abdomen black, extremely finely and densely punctured and pubescent, sericeous. Antennæ reddish-testaceous, the intermediate joints more or less infuscate; palpi and mandibles reddish. Legs reddish-testaceous. Length 8·2 mm.

Head broad, transversely subquadrate, almost as broad as the thorax in the ♂, a little narrower in the ♀; temples short, the posterior angles rounded, the eyes large; interocular punctures equidistant, disc on either side with a curved row of four fine punctures, temples finely and sparingly punctured, before the base on either side with a puncture, all the punctures with black setæ. Antennæ with the 3rd joint a little shorter than 2nd, the 4th to 9th obconical, serrate, about as long as broad, 10th as long as broad, 11th oval, longer than 10th. Thorax as long as broad, the sides (seen from above) nearly straight, narrower in front than behind, the posterior angles broadly rounded, the anterior deflexed, rounded; disc on

either side with a row of five fine punctures, externally with an irregular group of five or six others equally fine, sides with a few fine setæ. Scutellum pitchy, very finely and closely punctured, finely pubescent. Elytra a little broader than the thorax, as long as broad, very finely and rather closely punctured and with a fine yellow pubescence, the sides with a few black setæ. Abdomen with the first five (visible) segments exceedingly finely and densely punctured and pubescent, sericeous as in *Philonthus idiocerus*, 6th shining, finely and sparingly punctured. Pro-, meso-, and metasterna entirely reddish.

♂: 6th ventral segment with triangular excision.

Nilgiri Hills (*Andrewes*) (type). Dehra Dun. I have only found this species after exposing the combs of *Hodotermes obesus*, when it quickly appears on the scene and attacks the young; under no other circumstances have I met with it.

Genus **CREOPHILUS** Mannerh.

Creophilus Mannerh., Brachél. 1830, p. 16; Steph., Ill. Brit. Ent. v, 1832, p. 202; Kraatz, Naturg. Ins. Deutsch. ii, 1856–58, p. 528; Thoms., Skand. Col. ii, 1860, p. 140; Muls. et Rey, Ann. Soc. Agric. Lyon, 1875, p. 220; Olliff, Proc. Linn. Soc. N.S. Wales, (2) ii, 1887, p. 491; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 414.

Staphylinus Fam. ii, Er., Gen. Spec. Staph. 1839–40, p. 347.

Staphylinus Groupe 2, *Creophilus* Jacq. du Val, Gen. Col. d'Eur. ii, 1857–58, p. 34.

Emus Groupe 1, *Creophilus* Fauv., Faun. Gallo-Rhén. iii, 1872, p. 395; Fauv., Synopsis des *Creophilus* in Tijdsch. voor Ent. xviii, 1874–75, pp. 53–60.

Biology.—Westwood, Int. Mod. Classif. Ins. i, 1839, p. 168, figs. 16. 1–8; Chapuis et Candèze, Mém. Liége, 1853, p. 399, tab. 2, figs. 1 *a*, 1 *b*; Schiödte, Nat. Tidsskr. (3) iii, 1864–65, pp. 195–197; p. 206, tab. 10, fig. 8; Muls. et Rey, Ann. Soc. Agric. Lyon, 1875, p. 224; Meinert, Ent. Medd. 1892, p. 201; Rupertsberger, Biol. Lit. Käf. Eur. 1894, p. 120; Mjöberg, Ark. Zool. ii, 1905, no. 17, p. 28.

Somewhat resembling *Staphylinus*. Head and thorax shining, the elytra and abdomen more or less tomentose. Labrum transverse, deeply triangularly emarginate in the middle, the lobes rounded, setose. Mandibles long and prominent, each with a bicuspid tooth, externally sulcate in the basal half. Maxillary palpi with the 1st joint small, 2nd and 3rd curved and thickened towards apex, the 3rd a little shorter, 4th as long as or a little longer than the 3rd, fusiform. Mentum very short and broad, feebly and broadly emarginate in front. Tongue broad, slightly emarginate in the middle. Labial palpi with 1st and 2nd joints about equal, the 3rd longer than the preceding, fusiform. Superior and inferior lateral lines of thorax continued to below the anterior angles without joining, the pronotal epipleura rather broad, the epimera

small, membranous, triangular. Deflexed part of prosternum short, feebly emarginate behind. Mesosternum short, its process broadly rounded behind, the metasternum in front produced as a broad process to meet the mesosternum, the coxæ widely separated. Tibiæ all spinose. Anterior tarsi with the first four joints dilated in both sexes; middle and posterior with the 1st joint nearly as long as the three following together. The genus is found throughout the world and frequents carrion, apparently feeding on the dipterous larvæ there found. Only two species are found in our Fauna, one of them being practically cosmopolitan.

Key to the Species.

Entirely black, the elytra and abdomen variegated with silvery pubescence ..	*maxillosus* L., p. 259. *sikkimensis* Wend., p. 260.
Elytra ferruginous, with long golden-brown pubescence	*villipennis* Kr., p. 261.

1194. **Creophilus maxillosus.**

Staphylinus maxillosus L., Syst. Nat. ed. x, 1758, p. 421; Er., Käf. Mark Brand. i. 1837–39, p. 432; id., Gen. Spec. Staph. 1839–40, p. 348; Kraatz, Naturg. Ins. Deutsch. ii. 1856–58, p. 529; Jacq. du Val, Gen. Col. d'Eur. ii, 1857–59, tab. 13, fig. 62; Thoms., Skand. Col. ii, 1860, p. 141; Fauv., Tijdsch. voor Ent. xviii. 1874–75, p. 55; id., Faun. Gallo-Rhen. iii, 1872, p. 395; Muls. et Rey, Ann. Soc. Agric. Lyon, 1875, p. 222; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 415.
Staphylinus anonymus Sulz., Kennz. Ins. 1761, p. 17, tab. 7, fig. 49.
Staphylinus balteatus De Geer, Ins. iv, 1774, p. 18, tab. 1, figs. 7, 8.
Staphylinus fasciatus Fuessly, Verzeichn. Schweiz. Ins. 1775, p. 21.
Staphylinus nebulosus Fourcr., Ent. Paris, 1785, p. 165.
Creophilus maxillosus L., var. *arcticus* Er., Gen. Spec. Staph. 1839–40, p. 348.
Creophilus bicinctus Mannerh., Bull. Mosc. xvi, 1843, ii, p. 229.
Creophilus orientalis Motsch., Ét. Ent. vi, 1857, p. 67.
Creophilus maxillosus L., var. *canariensis* Bernh., Munch. Kol. Zeitschr. iii, 1908, p. 334.
Creophilus maxillosus L., var. *ciliaris* Steph., Ill. Brit. Ent. v, 1832, p. 202; Er. in Germ. Zeitschr. iii, 1841, p. 408; *fulvago* Motsch., Schrenck's Reise, ii, 1860, p. 120; *imbecillus* Shp., Trans. Ent. Soc. Lond. 1874, p. 28.
Creophilus maxillosus L., var. *cinerarius* Er., Gen. Spec. Staph. 1839–40, p. 350.
Creophilus maxillosus L., var. *medialis* Shp., Trans. Ent. Soc. Lond. 1874, p. 28.
Creophilus maxillosus L., var. *pulchellus* Meier, Ent. Nachr. xxv, 1899, p. 99.
Creophilus maxillosus L., var. *subfasciatus* Shp., Trans. Ent. Soc. Lond. 1874, p. 28.
Staphylinus maxillosus L., var. *villosus* Gr., Col. Micr. Brunsv. 1802, p. 160; Er., Gen. Spec. Staph. 1839–40, p. 349; Talbot, Ohio Journ. Sci. xxviii, 1928, p. 261 (*Creophilus*); *fasciatus* Cast., Ét. Ent. i, 1835, p. 111.

A very variable species, as may be surmised from the synonymy. Head and thorax very black, shining; scutellum

velvety; elytra with broad silvery-grey undulating fascia across the middle, which on each elytron has a longitudinal row of four or five small black spots, the posterior border with long black hairs. Abdomen with the 1st (visible) segment covered with mixed black and silvery hairs; 2nd with more or less distinct undulating silvery fascia, the elevated side margin in part covered with silvery hairs; 3rd and 4th with the base and sides and elevated margins thickly covered with silvery pubescence, but leaving a transverse black space across the middle behind, where the pubescence is black; 5th with indistinct transverse silvery fascia near the posterior border, the elevated side margins black; 6th with mixed black and silvery hairs; under surface of abdomen thickly covered with silvery pubescence. Antennæ and legs black, the latter with fulvous pubescence. Length 14–22 mm.

Head large, as broad or (in large ♂ examples) broader than the thorax, transverse, the posterior angles rounded, the eyes large, longer than the temples, along the base with some large punctures, elsewhere finely, rather sparingly punctured, except towards the front, where the punctures are much closer and less fine, and with an extremely fine, rather close ground-puncturation. Antennæ rather short, the 2nd and 3rd joints equal, 4th to 10th transverse, the 7th to 10th very strongly so, 11th short, emarginate. Thorax strongly transverse, the sides straight, strongly retracted behind, the posterior angles broadly, the anterior briefly rounded, along the margins and at the angles closely and distinctly punctured, elsewhere with an extremely fine and rather close ground-puncturation as on the head, with fine scattered punctures here and there; the anterior angles thickly covered with blackish hairs. Elytra distinctly longer and a little broader than the thorax, very finely and very closely punctured. Abdomen very finely and very closely punctured.

♂: 5th ventral segment with broad, feeble emargination; 6th rather broadly and deeply arcuately emarginate, the edge bevelled; base of the anterior femora below with a blunt tooth.

Simla Hills. Almost cosmopolitan.

1195. **Creophilus sikkimensis.**

Creophilus sikkimensis Wendeler, Neue Beitr. Syst. Insekt. iv, 1927, p. 8.

Extremely like *maxillosus*, but differing as follows: the anterior margin of the clypeus is elevated; between it and the frontal margin is a depression bounded on each side by a ridge; the front on the anterior third with a much more distinct ground-puncturation. Between the fine puncturation

of the thorax is a very sparing, irregular, strigose shagreening visible by a magnification of 40.

♂: the emargination of the 5th ventral segment forms an angle of 90°, whilst in *maxillosus* it is 70–75°; the preceding segment is distinctly more finely and closely punctured.

♀: unknown.

Length 20 mm.

A single ♂, labelled "Sikkim," sent by Alexander Heyne as *maxillosus* (ex *Wendeler*).

1196. **Creophilus villipennis.**

Creophilus villipennis Kr., Arch. Naturg. xxv, 1859, i, p. 67; Bugnion, Rev. Suisse Zool. xix, 1911, p. 135, tab. 2, 3.

Head and thorax very black, shining; scutellum black, covered with yellow hairs; elytra ferruginous, blackish towards the base, closely covered with long reddish-yellow pubescence; abdomen black, the posterior margin of the first four (visible) segments fringed with long golden-yellow hairs, elsewhere covered with black and fulvous pubescence; metasternum and ventral surface of the abdomen covered with greyish-yellow pubescence. Antennæ and legs black. Length 20 mm.

Very different in colour from *maxillosus*, but similar in build. The eyes much larger, the base of the head with greyish-yellow pubescence, the sculpture very similar to that of *maxillosus*, the antennæ scarcely differing. Thorax with the sides much less thickly pubescent, the pubescence greyish-yellow, the puncturation as on the head. Elytra as closely as but rather more coarsely punctured than in *maxillosus*; abdomen equally closely but rather more finely punctured than in that species.

♂: 6th ventral segment with crescentic emargination, the edge bevelled; anterior femora obtusely angulate below at the base.

Northern India. Deccan. Also in Sumatra and Nias.

PHILONTHOPSIS, gen. n.

Facies of a large *Philonthus*, with quadrate head, the palpi long and slender as in *Hesperus*. Infra-orbital ridge absent. Labrum transverse, with membranous anterior border, triangularly emarginate. Mandibles long and slender, each with a small sharp tooth about the middle. Maxillary palpi long, the 1st joint small, 2nd elongate, lightly curved and thickened towards apex, 3rd shorter, 4th distinctly longer than the 3rd, fusiform. Tongue small, simple. Labial palpi long, slender, the 1st joint rather short, 2nd nearly

twice as long, 3rd much longer. Prosternum simple, truncate behind; pronotal epipleura horizontal, epimera absent. Mesosternum simple, its process truncate behind, extending about half the length of the coxæ, these rather widely separated. Metasternum with the anterior process rounded in front and not produced between the coxæ, separated from the mesosternum by an intersternal piece. Tibiæ spinose. Anterior tarsi simple in both sexes, the middle and posterior elongate, with the first four joints gradually decreasing in length, the 1st about as long as the two following together. Only one species can at present be referred to this genus.

1197. **Philonthopsis antennalis**, *sp. n.*

Shining; the fore-parts blue; the elytra brighter, and here and there with purple reflex. Scutellum black. Abdomen deep black. Antennæ black, the last four joints pale yellow, the apex of the 11th infuscate. Legs black. Length 11 mm.

Var. *æneipennis*. Elytra green, here and there with blue reflex.

Very similar in facies and colour to *Philonthus cyanelytrius*, but with the head and thorax of brighter blue colour, the thorax a little longer, with straighter sides. Head in ♂ broad, transversely suborbicular, as wide as the thorax, the eyes as long as the post-ocular region, in the ♀ more quadrate, less transverse, as broad as the thorax, in both sexes bi-impressed in front and with a transverse row of four interocular punctures, the median more widely separated from each other than from the lateral, the post-ocular region with a few punctures; ground-sculpture strigose. Antennæ slender, the 3rd joint distinctly longer than the 2nd, the 4th to 7th longer than broad, gradually decreasing in length, the 8th to 10th slightly transverse. Thorax in ♂ slightly broader than long, in ♀ about as long as broad, the sides very slightly rounded and a little retracted in front, the anterior angles rounded, on the disc with dorsal row of four or five punctures on each side and two others obliquely placed externally, behind the anterior angles with a larger puncture, and with the usual marginal rows of punctures; ground-sculpture as on the head. Scutellum closely punctured. Elytra a little longer and broader than the thorax, rather closely and rather coarsely punctured and with a scanty grey pubescence. Abdomen moderately finely and rather closely punctured at the base of the first four segments, on the following very sparingly and finely punctured, the pubescence grey and scanty.

♂: 6th ventral segment obtusely emarginate, the emargination narrowly bordered.

Darjeeling Dist.: Ghum, alt. 8000 feet. The variety is from Tonglu, 10,074 feet, on the Nepal–Sikkim frontier.

Genus **HOLISOMIMUS** Cam.

Holisomimus Cam., Trans. Ent. Soc. Lond. 1920, p. 283.

Small, depressed, parallel species: in the insertion of the antennæ and build of the front margin of the head and depressed form resembling *Holisus* Er., but with structure of the mouth-parts and tarsi as in *Anomognathus*, and apparently connecting the XANTHOPYGI with the BOLITOCHARINI.

Antennæ distant, situated on the straight front margin of the head, just external to the level of the inner margin of the mandibles. Eyes small and flat. Mandibles long, stout, prominent, the right pointed at the apex and with a tooth at the middle of the inner margin, the left thickened at the apex, which is excavated internally. Maxillary palpi 4-jointed, the 1st joint small, the 2nd elongate, lightly curved and slightly thickened towards the apex, the 3rd a little longer than the 2nd, the 4th subulate, about half as long as the 3rd. Outer lobe of the maxilla elongate, truncate at the apex, which is ciliate; inner lobe narrower than the outer, uncinate at the apex, strongly pectinate along the inner margin. Tongue broad, membranous, gradually narrowed towards the apex, which is divided for a short distance into two bluntly pointed lobes. Labial palpi 2-jointed, the 1st joint elongate, cylindrical, notched internally near apex, the 2nd narrower and a little shorter than the 1st, the apex rounded. Mentum (*pars antica*) short, transverse, broadly emarginate in front. Temples not bordered below. Gular sutures coalescing posteriorly. Prosternum large, triangular, obtusely pointed behind. Pronotal epipleura horizontal, the superior and inferior lateral lines distinct throughout. Mesosternal process very short, scarcely extending between the intermediate coxæ, which are contiguous. Femora stout. Tarsal formula 4, 4, 5; the anterior and intermediate pairs with the first three joints short and subequal, the 4th rather longer than the three preceding together: the posterior pair with the first four joints short and subequal, the 5th about as long as the three preceding together.

1198. **Holisomimus parvus** Cam.

Holisus parvus Cam., Trans. Ent. Soc. Lond. 1918, p. 85.

Depressed, linear, shining pitchy-brown; elytra obscure testaceous, the margins darker; the first three joints of the antennæ fusco-testaceous; legs testaceous. Length 2–3 mm.

Head large, a little longer than broad; temples parallel, the posterior angles briefly rounded; eyes small; front truncate; puncturation (for a small species) rather large superficial,

feebly umbilicate and rather close on the disc, temples almost impunctate; pubescence fine, sparing; mouth parts pitchy-testaceous. Antennæ rather short, the 2nd and 3rd joints of equal length, the 4th as broad as long, the 5th slightly transverse, the following joints gradually but slightly increasing in breadth, 11th oval. Thorax narrower than the head, slightly transverse, trapezoidal, widest at anterior angles, narrowed in a straight line to the rounded posterior angles; disc broadly but feebly impressed posteriorly: puncturation very fine and not very close; pubescence fine, less sparing than on the head. Elytra slightly widened behind, a little longer than broad, wider than the thorax, obscure testaceous, more or less infuscate about the scutellum and sides; puncturation and pubescence very similar to that of the thorax. Abdomen a little widened behind, the first three visible segments finely and moderately closely, the following much more more finely and sparingly punctured; pubescence fine and sparing.

Siwaliks: Asarori. The type is from Singapore. Also in Penang. It is found under bark.

Tribe 3. QUEDIINI.

Quediini Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 378; Reitt., Faun. Germ. ii, 1909, p. 106; Rambousek, Act. Soc. Ent. Boh. v, 1908, pp. 37–55; Porta, Riv. Col. Ital. v, pp. 85–116, 125–153.
Staphylinini Subtrib. iii, *Oxyporini* Er., Gen. Spec. Staph. 1839–40, p. 522 (excl. *Oxyporus*).
Staphylinini 1. Unterabt. *Quediiformes* Kr., Naturg. Ins. Deutsch. ii, 1856–58, p. 473.
Staphylinina Subtrib. *Quediides* Thoms., Skand. Col. ii, 1860, p. 171.
Staphylinini Sect. iii, *Quedii* Fauv., Faun. Gallo-Rhén. iii, 1872, p. 489.
Staphyliniens 2 branche *Quédiaires* Muls. et Rey, Ann. Soc. Agric. Lyon, (4) viii, 1875, p. 606.
Staphylinini 1. Subtrib. *Quediaria* Lynch, Bol. Ac. Cordoba, vii, 1884, p. 125.
Staphylinini Subtribe 1, *Quediini* Leconte & Horn, Class. Col. North Amer. ed. 2, 1883, p. 95.
Staphylininæ Group *Quediina* Shp. B. C.-A. i, 2, 1884, p. 320.
Quediini G. Horn, Trans. Amer. Ent. Soc. vii, 1878, p. 149.

This tribe is distinguished by the anterior angles of the thorax being considerably produced beyond the level of the anterior margin of the prosternum and by the pronotal epipleura being strongly reflexed, so that it approaches the lower surface of the pronotum; the superior and inferior lateral lines do not meet. The head (except in *Ctenandropus*) is furnished below with an infra-orbital ridge.

Key to the Genera.

1.	Antennæ strongly geniculate	2.
	Antennæ not geniculate	3.
2.	3rd joint of labial palpi subsecuriform. Head rather large, with two setigerous punctures towards the front; species more parallel	[p. 306. ANCHOCERUS Fauv.,
	3rd joint of labial palpi narrow, short, conical. Head small; species narrowed in front and behind	[p. 302. ACYLOPHORUS Nordm.
3.	Tarsal formula 5, 4, 4	ATANYGNATHUS
	Tarsal formula 5, 5, 5	4. [Jacobson, p. 308. VELLEIUS Mannh.,
4.	Antennæ serrate	5. [p. 279.
	Antennæ not serrate	6.
5.	3rd joint of labial palpi securiform.....	8.
	3rd joint of labial palpi not securiform ..	
6.	Antennæ filiform; intermediate coxæ contiguous	7.
	Antennæ thickened towards apex; intermediate coxæ separated	[p. 274. SECURIPALPUS Schub.,
7.	Abdomen with the anterior segments transversely impressed at the base; the impression limited on each by a small oblique ridge; mandibles obtusely angulate internally	[p. 276. BARYPALPUS, gen. n.,
	Abdomen with the segments not impressed at base; mandibles each with bicuspid tooth	ALGON Shp., p. 269.
8.	4th joint of maxillary palpi subulate; prosternal epimera absent	10.
	4th joint of maxillary palpi not subulate; prosternal epimera present	9.
9.	Antennæ slender; tibiæ more or less spinose	[p. 280. QUEDIUS Steph.,
	Antennæ subclavate; tibiæ pubescent, scarcely spinose	[p. 277. CYRTOTHORAX Kr.,
10.	Head constricted behind and with strong infra-orbital ridge	[p. 265. HETEROTHOPS Steph.,
	Head not constricted behind and without infra-orbital ridge; 1st joint of middle tarsi pectinate in ♂.	[p. 268. CTENANDROPUS Cam.,

Genus **HETEROTHOPS** Steph.

Heterothops Steph., Ill. Brit. Ent. v, 1832, p. 256; Er., Käf. Mark Brand. ii, 1837–39 (1839), p. 480; id., Gen. Spec. Staph. 1839–40, p. 515; Lacord., Gen. Col. ii, 1854, p. 83; Kraatz, Naturg. Ins. Deutsch. ii, 1856–58, p. 483; Jacq. du Val, Gen. Col. d'Eur. ii, 1857–59, p. 38; Thoms., Skand. Col. ii, 1860, p. 180; Rye, E. M. M. iv, 1868, p. 256; Fauv., Faun. Gallo-Rhén. iii, 1872, p. 535; Muls. et Rey, Ann. Soc. d'Agric. Lyon, (4) viii, 1875, p. 808; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 385; Germain, Ann. Univ. Santiago de Chile, cxiii, 1903, p. 414.

Trichopygus Nordm., Symb. Mon. Staph. 1837, p. 137.

BIOLOGY.—Muls. et Rey, Ann. Soc. d'Agric. Lyon, (4) viii, 1875, pp. 816–817; Rey, Ann. Soc. Linn. Lyon, xxxiii, 1886, p. 148; Rupertsberger, Biol. Lit. Käf. Eur. 1894, p. 119.

Somewhat resembling the smaller species of *Quedius*, but differing from that genus in the subulate terminal joints of the

palpi and the absence of prosternal epimera. Somewhat narrowed in front and behind, head constricted behind and with strong infra-orbital crest. Labrum transverse, scarcely emarginate, furnished with very strong setæ. Mandibles short and stout, each with a small bicuspid tooth. Maxillary palpi rather short, the 2nd and 3rd joints of about equal length, slightly thickened towards apex, the 4th shorter than the 3rd, subulate. Inner and outer lobes of the maxilla densely ciliate. Tongue membranous, nearly semicircular. Paraglossæ stout, covered with spines. Labial palpi short, the 2nd joint about twice as long as the 1st, rather stout, the 3rd a little shorter, subulate. Prosternum short, convex; epimera wanting. Mesosternum short, convex, triangular, rounded behind, scarcely extending half the length of the coxæ, these contiguous behind. Legs rather short. Anterior tibiæ usually without spines, the middle and posterior with a few. Anterior tarsi with the first three joints rather, the 4th less strongly dilated; middle and posterior with 1st joint as long as the two following together, the 2nd to 4th gradually decreasing in length. The genus is found throughout the world in moss, dead leaves, etc., near water.

Key to the Species.

1. Thorax reddish-yellow	*flavicollis* Motsch.,	
Thorax black	2.	[p. 266.
2. Elytra concolorous	*hindustana*, sp. n.,	
Elytra with the posterior margin narrowly reddish	3.	[p. 267.
3. Elytra and abdomen rather sparingly punctured	*oculata* Fauv., p. 267.	
Elytra and abdomen closely punctured	*persimilis*, sp. n., p. 267.	

1199. **Heterothops flavicollis.**

Heterothops flavicollis Motsch., Bull. Mosc. xxxi, 1858, ii, p. 660.

Build of [the European] *H. quadripunctula* [Gr.], but narrower. Reddish-testaceous, with the last seven joints of the antennæ, head, elytra, and the middle abdominal segments more or less infuscate, the apex of the elytra and part of the suture clearer than the rest. Thorax elongate, anterior angles very rounded, a row of five punctures on each side of the disc and four others at the sides anteriorly. Scutellum large, triangular, with some obsolete punctures. Elytra a half broader than the thorax, but of same length, slightly enlarged towards the apex, puncturation rather strong, sparingly grey pubescent, suture with a longitudinal impression on each side. Abdomen as broad as the elytra, covered with long ashy hairs, base of the segments closely punctured. Anal styles blackish, with long hairs.

"Indes orientales" (ex *Motschoulsky*).

1200. **Heterothops oculata.**

Heterothops oculata Fauv., Rev. d'Ent. xiv, 1895, p. 275.
Heterothops indica Cam., Trans. Ent. Soc. Lond. 1926, p. 365.

Black, shining: the palpi, posterior margins of the elytra and of the last two abdominal segments narrowly reddish. Antennæ blackish, the 1st joint often reddish. Legs reddish-testaceous, the femora at the base and tibiæ more or less infuscate. Length 4·2–5 mm.

Size and colour of *H. prævia* Er. (Europe), but narrower in front, and with much smaller, regularly oval head, the eyes nearly twice as large and the post-ocular region more narrowed, against each eye with three small punctures and one larger, post-ocular. Antennæ more slender, thorax narrower, conical, much more narrowed in front, where it is as broad as the head; scutellum and elytra much more sparingly punctured, the latter a little broader but scarcely longer than the thorax; abdomen more strongly and more sparingly punctured, less pubescent. Head oval, as broad as the thorax in front, the eyes large, much longer than the temples. Antennæ with the penultimate joints about as long as broad. Thorax with two punctures on either side of the middle, one near the anterior margin, the other a little behind and internal to it. Elytra scarcely longer but a little broader than the thorax, finely and rather sparingly punctured. Abdomen moderately finely and moderately closely punctured.

♂: 6th ventral segment with small acute excision. As in the European *prævia*, the colour of the base of the antennæ and legs is somewhat variable.

Burma: Mt. Mooleyit, alt. 1800–1900 metres (*Fea*) (type). Also from Dehra Dun, Mussoorie, Chakrata, Simla Hills, and Darjeeling districts.

1201. **Heterothops persimilis**, sp. n.

Very similar to *oculata*, but differing in the following respects: the eyes are smaller and less prominent, about as long as the post-ocular region, the antennæ slightly shorter and a little thicker, the penultimate joints slightly transverse, the elytra very finely and closely punctured.

Simla Hills: Kotgarh, alt. 7000 feet.

1202. **Heterothops hindustana**, sp. n.

At once distinguished from the preceding species by the elytra being concolorous; the antennæ are a little longer, but with the penultimate joints slightly transverse; the thorax is less strongly narrowed in front, the elytra and abdomen are closely and finely punctured as in *persimilis*.

Chakrata district: Korawa Khud, alt. 9000 feet.

Genus **CTENANDROPUS** Cam.

Ctenandropus Cam., Trans. Ent. Soc. Lond. 1926, p. 348.

Facies of a minute *Platyprosopus* Mannerh. Head almost as wide as the thorax, scarcely narrowed behind, porrect and inserted into the thorax. Eyes small, flat, situated anteriorly; anterior border of the front truncate, antennæ freely inserted on the front border above the base of the mandible and nearer to the eyes than to each other; gular sutures very fine, separated throughout, slightly converging behind. Labrum transverse, corneous, the angles broadly rounded, broadly, scarcely perceptibly emarginate. Mandibles straight, curved at the tip, each with a small blunt tooth directed forwards and inwards. Inner lobe of the maxilla elongate, the inner margin densely ciliate, without teeth; outer lobe truncate in front, ciliate, and with five or six longer cilia externally. Maxillary palpi 4-jointed, the 1st joint very small, 2nd moderate, widened towards apex, 3rd cylindrical, longer and narrower than the preceding at apex, 4th subulate, about half as long as 3rd. Labial palpi 3-jointed, the 1st joint about twice as long as broad but stout, 2nd narrower and a little shorter than the 1st, 3rd long, acicular, much narrower than but fully as long as the preceding. Tongue entirely membranous, broad, triangular, the apex rather broadly rounded. Paraglossæ well developed, fusiform, extending for three-fourths the length of the 1st joint of the labial palpi and closely covered with very short bristles. Mentum transverse, truncate anteriorly. Prosternum short, without transverse suture or keel, broadly rounded behind, the pronotal epipleura narrow, not visible when viewed laterally, epimera wanting. Mesosternum short, sharply pointed behind, the intermediate coxæ contiguous posteriorly. Tarsi 5, 5, 5; the anterior with the first three joints short, broader than long, the 4th much narrower, about as long as broad, 5th elongate, fully as long as the three preceding together; middle with 1st joint about twice as long as 2nd, 2nd and 3rd equal, a little longer than broad, 4th a little shorter than 3rd, 5th elongate; in ♂ the 1st joint furnished beneath with a comb of short stiff black bristles; posterior with the first four joints moderately long, gradually decreasing in length, the 5th longer than the two preceding together; claws simple. Abdomen bordered. Elytra not sinuate.

1203. **Ctenandropus nigriceps.**

Ctenandropus nigriceps Cam., Trans. Ent. Soc. Lond. 1926, p. 349.

Shining, subdepressed; head black, impunctate; thorax and abdomen fusco-testaceous, 5th and 6th segments infuscate, elytra pitchy. Antennæ, palpi, and legs testaceous. Length 2·75 mm.

Head black, shining, almost as broad as the thorax, as long as broad, the sides almost straight, posterior angles not visible; eyes small and flat. Sculptures consisting of a puncture near inner border of each eye, two or three on the temples and one on either side before the base, all setiferous; ground-sculpture fine, strigose. Antennæ with 2nd and 3rd joints of equal length, 4th to 6th a little longer than broad, 7th to 10th slightly transverse. Thorax scarcely longer than broad, the sides for the anterior three-fourths nearly parallel, posteriorly narrowed, the posterior angles completely rounded with the base, anterior margin truncate; the disc with a puncture on either side, anterior border with a puncture on either side and another against the lateral margins, these with a row of fine setiferous punctures; ground-sculpture as on the head, in certain lights sericeous. Elytra more or less pitchy, as long as and scarcely broader than the thorax, a little longer than broad, finely, closely, subasperately punctured and finely pubescent, the sides with two or three setæ. Abdomen nearly parallel, very finely and closely punctured and pubescent, more sparingly on the last two segments, the sides and apex, especially the latter, with long black setæ.

♂: 1st joint of the middle tarsi furnished below with a comb of short black bristles.

Siwaliks: Asarori; Timli. Andaman Islands: Port Blair. Also in the Malay Peninsula, Sumatra, and the Philippines. A subcortical species of sluggish habit. Has been bred at the Forest Research Institute, Dehra Dun, from logs of *Sterculia villosa* from Thano (Siwaliks).

Genus **ALGON** Shp.

Algon Shp., Trans. Ent. Soc. Lond. 1874, p. 22.
Creophilopsis Cam., E. M. M. lvii, 1921, p. 272.

Labrum bilobed; mandibles slender at the apex, at the middle each with a broad, stout, bicuspid tooth. Maxillary palpi 4-jointed, 1st joint small, 2nd elongate, gradually dilated towards apex, the 3rd considerably shorter than the preceding, narrow at the base and widened distally, the 4th a little longer than the 3rd, cylindrical, the apex truncate; tongue short and broad, entire, the anterior margin rounded. Labial palpi 3-jointed, the 1st joint rather short, the 2nd a little shorter than the preceding, dilated towards the apex, the 3rd compressed, triangular, the distal border truncate, a little longer than the 2nd. Antennæ filiform; gular sutures united in the middle. Superior curved line of the thorax but little deflexed, not uniting with the inferior; epimera small, membranous; mesosternal process short, acuminate, the sides bordered; metasternal process broadly rounded, not nearly meeting the mesosternum, from which it is separated by a

rather long intersternal piece; middle coxæ contiguous. Tibiæ spinose; anterior tarsi strongly dilated, spongy beneath; tarsi 5, 5, 5, the middle pair with the 1st joint rather long, about as long as the three following together, the 2nd to the 4th short, gradually decreasing in length, the posterior pair with the 1st joint elongate, as long as the three following united, the 2nd, 3rd, and 4th gradually decreasing in length. In facies this genus is intermediate between *Quedius* and *Ocypus*.

Key to the Species.

1.	At least the fore-parts black, with or without metallic reflex	2.
	Otherwise coloured	5.
2.	Abdomen brassy	*semiæreus* Cam., p. 272.
	Abdomen black	3.
3.	Eyes large, longer than the post-ocular region; elytra with distinct coriaceous ground-sculpture	4.
	Eyes small, shorter than the post-ocular region; elytra without ground-sculpture.	[p. 274. *brevipennis*, sp. n.,
4.	Larger (13 mm.). Eyes large, post-ocular region short	*uniformis*, sp. n., p. 273.
	Smaller (10 mm.). Eyes very large, post-ocular region absent	*oculatus*, sp. n., p. 273.
5.	Elytra brilliant green; antennæ ferruginous-red, all the joints longer than broad	*immsi* Bernh., p. 272.
	Elytra greenish- or golden-coppery, the reflexed margin blue or green	6.
6.	Head, thorax, and reflexed margin of the elytra blue	7.
	Head and thorax golden-coppery; reflexed margin of the elytra green	[p. 271. *semiaureus* Fauv.,
7.	Larger (15 mm.). Legs black	*tricolor* Fauv., p.270.
	Smaller (10-5 mm.). Legs ferruginous-red.	*psittacus* Fauv., p. 271.

1204. **Algon tricolor.**

Algon tricolor Fauv., Rev. d'Ent. xiv, 1895, p. 272.

Colour brilliant. Very black, very shining, with a scanty greyish pubescence; the thorax below, palpi, last three joints of the antennæ, and tarsi reddish, the head above, thorax, and reflexed margin of the elytra blue, elsewhere greenish-coppery. Abdomen less shining, somewhat coppery and iridescent. Antennæ as long as the head and thorax, the joints elongate, the 9th and 10th nearly twice as long as broad; head short, orbicular, very finely and sparingly punctured, with some rather large punctures behind the posterior angles, another internal to the eye; eyes very large. Thorax a third wider than the head, slightly transverse, semilunar, rather strongly narrowed in front, sparingly and very finely punctured, with a row of three punctures in front on each side. Scutellum with close, subsquamous sculpture;

elytra rather closely and coarsely punctured, abdomen with close, strong, acicular punctures. Elytra scarcely transversely quadrate, a little broader than the thorax before the apex, with some very small punctures sparingly distributed between the large ones.

♂: unknown.

♀: 7th [6th] ventral segment at the apex broadly but very slightly sinuate. Length 15 mm.

Burma: Teinzo (*L. Fea*) (ex *Fauvel*).

1205. **Algon psittacus.**

Algon psittacus Fauv., Rev. d'Ent. xiv, 1895, p. 273.

Smaller than *tricolor*; the legs and margins of the abdominal segments ferruginous red, palpi, antennæ, and tarsi red. Antennæ shorter and more slender; head and thorax narrower, more convex, eyes more convex; head behind more closely punctured, the interocular puncture absent. Thorax a little longer, less narrowed in front, more closely punctured. Scutellum more sparingly, elytra more coarsely punctured. Abdomen with the punctures scarcely aciculate, a third more sparing and a half finer. Elytra a little shorter than the thorax, with smaller punctures much more scanty.

♂: 7th [6th] ventral segment rather broadly, deeply, and triangularly incised. Length 10·5 mm.

India (ex *Fauvel*).

1206. **Algon semiaureus.** (Plate 111, fig. 2.)

Algon semiaureus Fauv., Rev. d'Ent. xiv, 1895, p. 273.
Creophilopsis semiæneus Cam., E. M. M. lvii, 1921, p. 273.

Rather robust, parallel, shining metallic-green, with strong golden-coppery reflex, the abdomen black; palpi reddish; antennæ reddish-brown, the first two and the last joints reddish-testaceous; legs pitchy-brown. Length 14–18 mm.

Head transversely quadrate, the eyes large, their diameter much greater than the length of the temples; the posterior angles rounded; neck very broad; puncturation of the vertex and front very fine and sparing, mixed with larger punctures on the temples and behind the eyes, where on either side there is a large setiferous pore. Antennæ long, all the joints distinctly longer than broad, the 4th to the 7th differing little amongst themselves, the 8th, 9th, and 10th gradually diminishing in length. Thorax slightly transverse, the sides nearly straight, feebly converging in front, the anterior angles rounded, the posterior angles effaced; disc with a single small puncture on either side, the rest of the surface exceedingly finely and rather sparingly punctured. Scutellum black, finely and rather closely punctured. Elytra as long and as

broad as the thorax, transverse, metallic green with coppery reflex ; on either side of the suture with a somewhat obsolete row of larger punctures, otherwise moderately finely and not very closely punctured (except on the reflexed sides, which are closely punctured), with yet finer punctures sparingly interspersed. Abdomen closely and finely punctured throughout, rather more sparingly so behind, rather closely clothed with black pubescence.

♂ : anterior tarsi strongly dilated. 6th ventral segment with an obtuse excision of the posterior margin.

Burma : Hakachin Hills, 12. xi. 1909 (*F. F. F. Venning*). Bengal : Kurseong, Kombir, Darjeeling (*Christie*).

1207. **Algon immsi.**

Algon immsi Bernh., Col. Rundsch. iv, 1915, p. 54.

Readily recognized by the fine and unusual colour. Deep black ; the head and thorax black-blue to black-violet, the elytra bright brilliant green, very shining ; antennæ and palpi ferruginous red, the legs pitch-black with lighter tarsi. Head smaller than the thorax at the anterior border, transverse, the posterior angles slightly indicated, the eyes rather large, the temples short, exceedingly finely and very sparingly punctured, shining. Antennæ rather long, all the joints much longer than broad, not thickened towards the apex. Thorax broader than the elytra, about a fourth broader than long, strongly convex, with rounded sides and completely rounded posterior angles, in front distinctly narrowed,extremely finely and very sparingly punctured, near the anterior angles with one or two umbilicate punctures ; on the left side before the middle in the unique example is a deep depression which is probably accidental. Elytra about half as long as the thorax, widened behind, moderately strongly, sparingly and unequally punctured, with scattered, very fine punctures in between. Abdomen finely and closely punctured, with a close black pubescence. Length 11 mm.

♂ : 6th ventral segment deeply, triangularly emarginate.

Kumaon : Binsar, alt. 7700 feet, 25. v. 1912 (*Imms*) (ex *Bernhauer*).

1208. **Algon semiæreus.**

Algon semiæreus Cam., Ann. Mag. Nat. Hist. (10) ii, 1928, p. 567.

Shining ; head, thorax, and elytra black, abdomen brassy-bronze. Antennæ with the first four joints pitchy-brown, the rest testaceous. Legs pitch-black. Length 12 mm.

Head subtriangular, narrower than the thorax, the posterior angles rounded, very finely, moderately closely punctured

at the sides and base, almost impunctate elsewhere. Antennæ rather short, the penultimate joint as long as broad. Thorax large, convex, almost as long as broad, widest behind at the broadly rounded posterior angles, and narrowed gradually towards the front, with a very fine, scarcely perceptible, scattered puncturation. Elytra shorter and narrower than the thorax, transverse, with an irregular, moderately fine, close puncturation. Abdomen parallel, rather closely and moderately coarsely punctured at the bases of the segments, more finely elsewhere; 6th ventral segment with slight crescentic emargination. Anterior tarsi dilated.

Sikkim: Darjeeling, alt. 7000 feet (11–20. iii. 1924). One example.

1209. **Algon uniformis**, sp. n.

Black, moderately shining. Antennæ red. Legs brown, tarsi reddish. Length 13 mm.

Head transverse, narrower than the thorax, the eyes longer than the post-ocular region, which is a little rounded and strongly retracted to the neck. Eyes with two small juxta-ocular punctures, a few others on the post-ocular region and along the base; ground-sculpture fine, coriaceous. Antennæ rather long, the 9th and 10th joints as long as broad, the others longer than broad. Thorax a little transverse, the sides gently rounded, a little retracted in front, the anterior and posterior angles rounded, the latter broadly, towards the sides in front with two or three very small indistinct punctures and the usual marginal ones; ground-sculpture as on the head. Scutellum finely punctured, coriaceous. Elytra narrower and a little shorter than the thorax, with a row of four or five larger but superficial punctures along the suture, on the disc with a few others, and along the reflexion itself with a row of fine punctures, otherwise with a moderately close, superficial puncturation less evident externally; ground-sculpture very distinct and coriaceous. Abdomen a little narrowed at apex, finely and moderately closely punctured, more sparingly behind. The fore-parts almost glabrous, the abdomen finely but not very closely grey pubescent.

♂: unknown.

Darjeeling Dist.: Ghum, Tiger Hill, alt. 8000 feet.

1210. **Algon oculatus**, sp. n.

Colour and lustre of *uniformis*, but smaller (10 mm.): the antennæ more slender, but of the same colour and structure, the eyes larger, occupying the whole side of the head, thorax narrower, scarcely transverse, the sides more parallel, the disc

on each side with a row of four punctures, the first of them on the anterior margin itself and three others near the anterior angles. Scutellum closely punctured. Elytra as broad as but shorter than the thorax, with a row of four sutural and five humeral punctures, the reflexed margin with about six more, the whole surface strongly coriaceous and impunctate. Abdomen more finely punctured than in *uniformis*.

♂ : unknown.

Darjeeling Dist. : Mangpu (*Cameron*). Unique.

1211. **Algon brevipennis**, sp. n.

Shining: head and abdomen black, the latter slightly iridescent, thorax and elytra pitchy. Antennæ with the 1st joint pitchy, the rest reddish-yellow. Legs reddish. Length 16 mm.

This species has, in its build, a remarkable resemblance to the European *Ocypus brunnipes* F., except that the elytra are shorter in *A. brevipennis*. Head quadrate, a little narrower than the thorax, the posterior angles rounded, the eyes small, much shorter than the post-ocular region, finely and sparingly punctured, especially in front, the temporal region with a few larger punctures, the ground-sculpture fine and coriaceous. Antennæ rather long, the penultimate joints scarcely transverse. Thorax as long as broad, the sides almost straight, a little retracted behind, the anterior angles briefly, the posterior broadly rounded, sparingly and much more finely punctured than the head, the ground-sculpture similar. Scutellum finely punctured. Elytra distinctly shorter and a little narrower than the thorax, transverse, rather closely, moderately finely punctured. Abdomen moderately finely and moderately closely punctured throughout, the pubescence greyish.

Ceylon : Bogawantalawa (*Lewis*). Unique. In British Museum Collection.

Genus **SECURIPALPUS** Schub.

Securipalpus Schub., D. E. Z. 1908, p. 613.

Labrum bilobed. Maxillary palpi with the last joint pointed, the labial with the last joint securiform. Middle coxæ separated. Elongate, linear, subdepressed. Head narrower than the thorax, subtriangular, rather flat, scarcely constricted at the base. Labrum bilobed, the lobes rounded, the margins setiferous. Maxillary palpi moderate, the 2nd joint elongate, 3rd thickened, the last acuminate; labial palpi with the first two joints stout, the 3rd rather strongly securiform.

Antennæ moderate, from the 5th joint thickened towards the apex. Thorax as broad as the elytra, transverse, transversely convex, slightly narrowed in front, completely margined, the anterior angles deflexed, the posterior completely rounded. Scutellum large and triangular. Elytra as long as the thorax. Abdomen elongate, not narrowed behind. Legs moderate, all the tibiæ strongly spinose externally, the internal apical spines elongate; tarsi 5-jointed, the anterior with the first four joints a little dilated, 5th very elongate, almost longer than the rest (ex *Schubert*).

1212. **Securipalpus rudepunctatus.**

Securipalpus rudepunctatus Schub., D. E. Z. 1908, p. 613.

Black, shining, submetallic; the mouth, antennæ, tibiæ, and tarsi brownish-red; thorax impunctate; elytra very strongly, sparingly punctured. Length 10 mm.; width 2·5 mm.

This insect has the appearance of a *Quedius*, but differs in the structure of the mouth-parts, and forms a new genus near *Astrapæus* Gr. Head somewhat triangular, the eyes scarcely prominent, longer than the rounded temples, in front at the inner edge of the eye and behind near the neck on each side with a large puncture; behind the insertion of the antennæ with a fine seta and two larger ones on the temporal region, at the sides with a sparing, scarcely visible puncturation, on the temples and at the sides of the constriction of the neck with a few punctures. Antennæ reddish-brown, rather short and stout, from the 5th joint with thicker yellowish pubescence, the 3rd joint distinctly longer than the 2nd, the following gradually becoming shorter and broader, the penultimate about a half broader than long, the 11th larger than the preceding. Thorax, except for the acicular margined punctures, without trace of sculpture. The large scutellum in front closely and rugosely, elsewhere strongly and rather sparingly punctured. Puncturation of the elytra on the disc is extremely coarse and sparing, but not deep, in the small impression at the shoulder, near the scutellum, along the suture, and on the reflexed margins less coarse but closer. Abdomen at the base of the segments with rather large, close, umbilicate punctures extending to the sides and leaving the apical third more or less impunctate; on the ventral surface the puncturation is closer at the sides; both the upper and under surfaces of the abdomen are clothed with rather long, yellowish hairs which are closer towards the sides. The single specimen appears to be a ♀; the anterior tarsi are moderately dilated, and the abdomen shows no sexual characters.

Kulu, alt. about 3500 metres (ex *Schubert*).

BARYPALPUS, gen. n.

Parallel, subcylindrical species. Infra-orbital ridge wanting. Labrum short, transverse, bilobed, setose. Mandibles rather short, obtusely angulate internally. Maxillary palpi rather short, 2nd joint curved and thickened towards apex, 3rd shorter, obconical, 4th a little longer, oval, pointed. Labial palpi with the first two joints very short, 3rd longer than the first two joints together and considerably wider, flattened and grooved internally and truncate at apex. Thorax convex, nearly cylindrical, the superior and inferior lateral lines continued to the prosternum without connexion; epimera membranous, semicircular. Mesosternal process acute, margined, scarcely carinate, extending about half the length of the coxæ, these narrowly separated in front. Metasternum in front narrowly rounded, not produced between the coxæ. Anterior tarsi with the first four joints strongly dilated in both sexes; middle and posterior with the 1st joint about as long as the three following together. Tibiæ all strongly spinose. Abdomen with the first three visible segments transversely impressed at the base, the impression limited on each side by an oblique ridge.

1213. **Barypalpus ruficornis**, sp. n.

Black, shining, the posterior margin of the abdominal segments and nearly all the 6th reddish. Antennæ and legs reddish-testaceous. Length 10 mm.

In build somewhat resembling the European *Staphylinus ater* Gr., but much smaller and with different sculpture. Head a little transverse, subquadrate, with rounded posterior angles, narrower than the thorax, the eyes small, against their inner margin with two or three punctures, the post-ocular region with five or six more, elsewhere extremely finely, scarcely perceptibly and sparingly punctured. Antennæ slender, 4th to 7th joints longer than broad, gradually decreasing in length, the 8th to 10th slightly transverse, 11th short, oval, slightly emarginate. Thorax convex, a little longer than broad, the sides almost straight, slightly retracted in front, all the angles rounded, like the head scarcely perceptibly punctured. Scutellum closely punctured. Elytra as long and as broad as the thorax, with a subhumeral row of six or seven larger punctures, externally almost impunctate, internally finely and not very closely punctured. Abdomen almost parallel, moderately finely and closely punctured, the punctures nearly all elongate, the last two segments more finely and less closely punctured: pubescence yellowish, sparing.

♂: 6th ventral segment with small, shallow, arcuate excision.

Burma: Ruby Mines (*Doherty*).

Genus **CYRTOTHORAX** Kr.

Cyrtothorax Kraatz, B. E. Z. ii, 1858, p. 366; Fauv., Bull. Soc. Linn. Norm. (3) ii, 1877–78, pp. 163, 166.

Closely allied to *Quedius*, but with subclavate antennæ and pubescent, scarcely spinose tibiæ. Moderately large, winged species, with very large and prominent eyes. Labrum transverse, rounded in front, with small excision in the middle of the anterior margin, from thence with a median impression to the base. Mandibles curved, pointed, bidentate. Maxillary lobes densely ciliate. Maxillary palpi rather long, the 1st joint small, the 2nd lightly curved and a little thickened towards the apex, 3rd a little shorter, 4th fusiform, longer than the 3rd. Tongue short, rounded in front. Paraglossæ distinct. Labial palpi with the 2nd joint a little shorter than the 1st, 3rd fusiform, about twice as long as the preceding. Prosternum scarcely depressed behind, acutely pointed. Epimera narrow, acute triangular, corneous. Mesosternum simple, its process acute and extending about half the length of the coxæ, these contiguous behind. Anterior process of the metasternum not produced between the coxæ. Tibiæ pubescent, scarcely spinose. Anterior tarsi with the first four joints dilated in both sexes; middle and posterior with the 1st joint a little longer than the 2nd and 3rd together, the 2nd to 4th decreasing in length.

The genus is found in the eastern and western tropics, the species frequenting fungus.

Key to the Species.

Elytra with orange-red spot on the disc ... *vulneratus* Fauv., p. 277.
Elytra with V-shaped yellow mark on the disc ..... *signatus*, sp. n., p. 278.

1214. Cyrtothorax vulneratus.

Cyrtothorax vulneratus Fauv., Bull. Soc. Linn. Norm. (3) ii, 1877–78, p. 165.

Size of *buphthalmus* Er. [Mexico], but much narrower, especially in front; subparallel, black, shining, the head with very slight greenish reflex. Antennæ pitchy, the first five and the 11th joints almost entirely red. Legs testaceous, the base of the anterior coxæ, a line below the anterior femora, and the apex of the posterior infuscate. Elytra with an orange-red spot on the disc, narrowed towards the margin and there connected with the humeral, apex of suture, posterior margin, and external angle more broadly reddish-yellow. Antennæ a little more slender, head smaller, sparingly and finely punctured, the thorax at the anterior angles more finely punctured; scutellum strongly and sparingly punctured, elytra

sparingly, coarsely rugosely punctured. Abdomen with the segments scarcely iridescent, the base biserially punctured, at the sides sparingly punctured. Front of head with circumflex impression, posteriorly with a little keel. Thorax not broader than the head, scarcely broader than long, the sides slightly, obliquely narrowed, from the anterior third narrowly bordered, red scarcely translucid, the whole disc strongly convex. Elytra square, a little broader than the thorax, scarcely uneven, scarcely sinuate below the shoulders, the apical margin almost straight, truncate, near the external angle with foveolate depression, the disc smoother on the macula and at the posterior margin. Abdomen less narrowed, a little iridescent, the 6th and 7th segments sparingly punctured. Length 7·5 mm.

♂: 7th [6th] dorsal segment narrowly, subtriangularly incised, the 7th [6th] ventral segment less produced, truncate.

♀: unknown.

Burma: Mt. Mooleyit (*L. Fea*). Cochin China (ex *Fauvel*).

1215. **Cyrtothorax signatus**, sp. n. (Plate III, fig. 1.)

Shining, black; the thorax with the sides narrowly and obscurely reddish; elytra obscurely reddish at the base, the humeral angle and a V-shaped marking before the middle yellow, the posterior part of the suture and the reflexed margin obscurely reddish. Abdomen slightly iridescent and more pitchy. Antennæ with the first three joints yellow, their apex a little infuscate, the following fusco-ferruginous. Legs reddish-yellow, the femora a little infuscate in front, the tibiæ along the outer margin. Length 11 mm.

Head a little narrower than the thorax, transverse, eyes very large and prominent, at the inner margin in front with a bipunctate impression and with a few smaller punctures behind, otherwise with only some very fine and scattered punctures; in the middle anteriorly with a short sulcus. Antennæ with the 5th to 10th joints transverse, gradually increasing in width. Thorax strongly transverse, semicircular, rather coarsely and rugosely punctured about the acute anterior angles, more posteriorly with a few scattered punctures along the sides: on either side before the middle with an impression, between this and the anterior margin with a puncture, otherwise with a few scarcely visible, very scattered punctures. Scutellum with a few punctures at the base. Elytra a little longer but narrower than the thorax, uneven, with coarse and close punctures except on the base, the V-shaped mark, and the posterior margin, which are smooth. Abdomen narrowed behind, the base of the first four segments closely punctured, almost smooth otherwise, the 5th more uniformly punctured, the 6th sparingly punctured, the pubescence

grey and scanty, at the sides with long black setæ. The fore-parts practically glabrous except for the setæ.

Ceylon : Dikoya, alt. 3800–4200 feet (*G. Lewis*). Unique. In British Museum Collection.

Genus **VELLEIUS** Mannh.

Velleius Mannh., Brachél. 1830, p. 16 ; Steph., Ill. Brit. Ent. v, 1832, p. 201 ; Boisd. et Lacord., Faun. Ent. Paris, 1835, p. 356 ; Nordm., Symb. 1837, p. 16 ; Jacq. du Val, Gen. Col. d'Eur. ii, 1857–59, p. 37 ; Thoms., Skand. Col. ii, 1860, p. 172 ; Fauv., Faun. Gallo-Rhén. iii, 1872, p. 490 ; Muls. et Rey, Ann. Soc. d'Agric. Lyon, (4) viii, 1875, p. 608 ; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 388.

Biology.—Henslow in Newman, Zoologist, vii, 1849, pp. 2584–2586 ; Schiödte, Naturh. Tidsskr. (3) iii, 1864–65, pp. 203, 304, tab. 10, figs. 9–16 ; Rouget, Mém. Ac. Dijon, (3) i, 1873, pp. 201–229 ; Fauv., Faun. Gallo-Rhén. iii, 1872, pp. 490–491 ; Erné, Mitt. Schweizer Ent. Ges. iv, 1876, pp. 562–566 ; v, 1878, pp. 369–371 ; Viturat, Pet. Nouv. Ent. ii, 1876, p. 62 ; Rupertsberger, Biol. Käf. Eur. 1880, pp. 119–120 ; Rabe, Ent. Blätt. vii, 1911, p. 149 ; Reineck, Ent. Rundsch. xxvii, 1910, p. 89.

This genus has the characters of *Quedius* for the most part, but differs by the antennæ being serrate from the 4th joint, in the European and Japanese species very strongly, in our species much less. The labrum is bilobed. Mandibles with biscuspid tooth. Tongue divided in the middle, membranous. Paraglossæ densely ciliate. Labial palpi with the joints subequal in length, the 3rd narrowed towards the apex. This genus is associated with hornets, the larvæ feeding in the detritus of the nest. It is represented in Europe, China, and Japan by typical species ; the Indian species is abnormal in the build of the antennæ and perhaps in other respects, but the single type is not available for detailed examination.

1216. **Velleius inquietus.**

Velleius inquietus Champ.*, E. M. M. lxi, 1925, p. 107.

Black, shining. Head quadrate, narrower than the thorax, the eyes much shorter than the temples, impressed towards the front in the middle, behind and internal to the eye with a large puncture, otherwise practically impunctate. Antennæ short and stout, not reaching the base of the thorax, the 4th to 10th joints strongly transverse, gradually increasing in width, subserrate. Thorax strongly transverse, the sides rounded, obliquely impressed postero-laterally, and with a puncture on each side of the disc before the middle, otherwise practically impunctate. Scutellum smooth. Elytra as wide as but a good deal longer than the thorax, finely and rather closely punctured, grey pubescent. Abdomen slightly iridescent, finely and moderately closely punctured. The whole insect with sparing long black setæ. Length 14 mm.

Kumaon : Sunderdhunga, alt. 9000 feet (*H. G. Champion*).

Genus **QUEDIUS** Steph.

Quedius Steph., Ill. Brit. Ent. v. 1832, p. 214; Boisd. et Lacord., Faun. Ent. Paris, 1835, p. 356; Er., Käf. Mark Brand. i, 1837–39, p. 483; id., Gen. Spec. Staph. 1839–40, p. 523; Lacord., Gen. Col. ii, 1854, p. 84; Kraatz, Naturg. Ins. Deutsch. ii, 1856–58, p. 486; Jacq. du Val, Gen. Col. d'Eur. ii, 1857–59, p. 37; Fauv., Faun. Gallo-Rhén. iii, 1872, p. 492; Muls. et Rey, Ann. Soc. d'Agric. Lyon, (4) viii, 1875, p. 613; Epp., Mitt. Schweizer Ges. v, 1877–80 (1880), pp. 577–586; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 391; Gridelli, Att. Accad. Ven.-Trent. Istriana, xii, xiii, (3) 1922, pp. 123–140; id., Mem. Soc. Ent. Ital. iii, 1924, p. 5; viii, 1929, p. 19.

Subgen. *Cyrtoquedius* Bernh., Arch. Naturg. lxxxii, 1916, A, 6, p. 92.

Subgen. *Ediquus* Muls. et Rey, Ann. Soc. d'Agric. Lyon, (4) viii, 1875, p. 616.

Subgen. *Euryquedius* Reitt., Fauv. Germ. ii, 1909, p. 108.

Subgen. *Indoquedius*, nov., p. 300 *infra*.

Subgen. *Loncovilius* Germain, An. Univ. Chile, cxiii, 1903, p. 51.

Subgen. *Microsaurus* Steph., Ill. Brit. Ent. v, 1832, p. 435; Thoms., Skand. Col. ii, 1860, p. 174. *Quedius* Muls. et Rey, Ann. Soc. d'Agric. Lyon, (4) viii, 1875, p. 621.

Subgen. *Prionidus* Bernh., W. E. Z. xxvi, 1907, p. 287.

Subgen. *Quedionuchus* Shp., B. C.-A. i, 2, 1882–87 (1884), p. 136.

Subgen. *Quedius*, s. str., Thoms., Skand. Col. ii, 1860, p. 173. *Microsaurus* Muls. et Rey, Ann. Soc. d'Agric. Lyon, (4) viii, 1875, p. 685.

Subgen. *Sauridus* Muls. et Rey, l. c. p. 700.

Subgen. *Raphirus* Steph., Ill. Brit. Ent. v, 1832, p. 241; Thoms., Skand. Col. ii, 1860, p. 177; Muls. et Rey, Ann. Soc. d'Agric. Lyon, (4) viii, 1875, p. 759.

Subgen. *Tenebrobius* Ramb., Col. Rundsch. iv, 1915, p. 130.

Biology: Bouché, Naturg. Ins. 1834, p. 180, tab. 8, figs. 1–8; Waterh., Trans. Ent. Soc. Lond. i, 1836, p. 32, tab. 3, fig. 2; Perris, Ann. Soc. Ent. Fr. (3) i, 1853, p. 570, tab. 17, figs. 37–43; Schiödte, Nat. Tidsskr. (3) iii, 1864–65, p. 205, tab. 10, figs. 17–22; Riley, Fourth Ann. Report Ins. State Missouri, 1872, p. 21, fig. 12; Fauv., Faun. Gallo-Rhén. iii, 1872, p. 493; Muls. et Rey, Ann. Soc. d'Agric. Lyon, (4) viii, 1875, pp. 647–648, tab. 6, fig. 31; pp. 679–680, tab. 6, fig. 32; pp. 772–773, tab. 6, fig. 33; pp. 777–778; Lesne, Ann. Soc. Ent. Fr. (6) x, 1890, pp. 179–180, figs. 10, 11; Rey, Ann. Soc. Linn. Lyon, xxxiii, 1886, p. 148; id., Sep. Essai d'Étud. Larv. Col. 1887, p. 18; Xambeu, Mœurs et Métamorph. Ins. 2. Mém. in L'Échange, 1892, pag. spec. 4–7; id., Rev. d'Ent. xiii, 1894, p. 285; xvii, 1898, p. 34; xix, 1900, p. 49; xx, 1901, p. 44; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 393; Joy, E. M. M. xlii, 1906, p. 200; Scriba, D. E. Z. 1911, p. 174; Rupertsberger, Biol. Lit. Käf. Eur. 1894, p. 120; Wickham, Ann. Rep. Indiana Dep. 1896, p. 198; W. Kolbe, Zeitschr. f. Ent. Breslau, xxi, 1896, p. 2; Mjöberg, Zeitschr. Wiss. Ins. Biol. ii, 1906, p. 138; Beier, Zool. Jahrb. Abt. Syst. lv, 1928, pp. 347, 350.

Small to moderately large shining species with facies recalling the species of *Philonthus*, with round or oval head. Head narrower than the thorax, the eyes small, moderate or very large, with well marked infra-orbital ridge and fused gular sutures. Against the inner margin of the eye with two or three punctures, the temples with a few others, behind and internal to the eye with two or three more in an oblique row

sometimes also with two or more punctures towards the front in a transverse row. Antennæ variable. Labrum transverse, with strong setæ, usually emarginate in the middle of the anterior margin, occasionally (*Quedius*, s. str.) with rounded anterior margin and median impressed line. Mandibles rather stout, curved and pointed, with one or two teeth internally and ciliate membrane behind. Inner lobe of the maxilla internally and outer lobe at apex thickly covered with long hairs. Maxillary palpi rather slender, 1st joint small, 2nd elongate, slightly curved and a little thickened towards the apex, 3rd usually shorter than the 2nd, 4th usually longer than the 3rd, gradually pointed. Tongue short, membranous, rounded in front. Paraglossæ distinct, strongly ciliate. Labial palpi short, the first two joints subequal, the 3rd longer than the 2nd, more or less fusiform. Thorax usually more or less conical, narrower in front, the anterior angles briefly, the posterior broadly rounded, on the disc anteriorly on each side usually with a row of two or three punctures converging behind, and often with one or more externally, besides the usual marginal punctures. Prosternum short, usually keeled in the middle; epimera triangular, horny and covering the stigma. Pronotal epipleura strongly reflexed, the superior and inferior lateral lines not at all connected. Mesosternum with pointed process extending about half the length of the coxæ, these contiguous behind. Metasternum separated by an intersternal piece from the mesosternal process. Abdomen not keeled at the base below; anal styles well developed. Middle and posterior tibiæ with spines externally. Anterior tarsi with the first four joints dilated in both sexes, middle and posterior with 1st joint longer than 2nd, 2nd to 4th gradually decreasing in length.

The genus is found throughout the world in various situations. The following key gives the subgenera occurring in our Fauna.

Key to the Subgenera.

1.	Eyes shorter or only slightly longer than the temples, the labrum bilobed	2.
	Eyes much longer than the temples.....	4.
2.	Eyes very small, much shorter than the temples	EDIQUUS, p. 282.
	Eyes a little shorter or slightly longer than the temples.....	3.
3.	Elytra with two or three rows of larger punctures	[p. 290. QUEDIONUCHUS.
	Elytra without such rows	MICROSAURUS, p. 282.
4.	Eyes large, occupying about three-quarters of the side of the head	SAURIDUS, p. 291.
	Eyes very large and prominent, occupying nearly the whole side of the head	5.
5.	Thorax strongly transverse, convex, the sides almost straight and but little retracted in front; facies of *Cyrtothorax*	INDOQUEDIUS, p. 300.
	Thorax conical, the sides converging in front: facies of *Philonthus*	RAPHIRUS, p. 293.

1217. **Quedius (Ediquus) placidus**, sp. n.

Black, shining, the elytra sometimes pitchy. Scutellum smooth. Antennæ blackish, the first two joints reddish. Femora and tarsi reddish, tibiæ blackish. Length 8 mm.

In build similar to the European *puncticollis* Thoms., but differently coloured, the antennæ longer, the abdomen much less closely punctured. Head oval oblong, narrower than the thorax, eyes small, shorter than the post-ocular region, with a single juxta-ocular puncture, a larger one behind and internal to the eye, another on the post-ocular region, and one or two near the base on each side. Antennæ with the 5th to 10th joints transverse, gradually increasing in width. Thorax scarcely transverse, the sides very slightly rounded and a little retracted in front, with dorsal row of three nearly equidistant punctures, externally usually with another. Scutellum smooth. Elytra as long as but narrower than the thorax, with trace of larger punctures, four sutural and four humeral, in a row, otherwise finely and moderately closely punctured. Abdomen a little narrowed behind, finely and moderately closely punctured.

♂: 6th ventral segment with small arcuate emargination.

Darjeeling Dist.: Ghum, Rongdong Valley.

Key to the Species of the Subgenus Microsaurus.

1.	Metallic green species, with strongly iridescent abdomen	*chlorophanus* Er. [p. 283.
	Otherwise coloured	2.
2.	Elytra red	3.
	Elytra black or pitchy	5. [p. 289.
3.	Abdomen entirely black	*ochripennis* Mén.,
	Abdomen with the apex reddish-yellow	4.
4.	Antennæ entirely dark	*fulgidus* F., p. 288.
	Antennæ with the first four joints reddish-yellow	*cruentus* Ol., p. 289.
5.	Abdomen entirely black	6.
	Abdomen with the apex reddish-yellow	11.
6.	Antennæ entirely black or blackish	7.
	Antennæ black, with the 8th to 10th joints pale yellow	*peraffinis*, sp. n., p. 286.
7.	Thorax with distinct oblique impression at the posterior angles	8.
	Thorax not or scarcely impressed at the posterior angles	9.
8.	Elytra with double puncturation of larger punctures, with smaller ones between	*spectabilis* Kr., p. 284.
	Elytra with uniform puncturation	*beesoni*, sp. n., p. 285.
9.	Abdomen rather sparingly punctured, along the apical region of the segments almost impunctate. Smaller (7·2 mm.)	*stevensi*, sp. n., p. 288.
	Abdomen rather closely and uniformly punctured. Larger (12 mm.)	10.

10. Elytra more deeply and closely punctured.	*sodalis* Cam., p. 287.
Elytra more finely and superficially punctured	*adjacens* Cam., p. 287.
11. Antennæ entirely black	*mimeticus*, sp. n.,
Antennæ otherwise	12. [p. 286.
12. Antennæ with the first six joints reddish; the following five pale yellow	*antennalis*, sp. n.,
Antennæ with the first seven joints black.	13. [p. 285.
13. Antennæ with the last four joints pale yellow	14.
Antennæ with the 8th to 10th joints pale yellow, the 11th black	*notabilis*, sp. n., p. 286.
14. Broader species; the thorax deeply and obliquely impressed postero-laterally	*birmanus*, sp. n., p. 284.
Narrower species; the thorax not impressed postero-laterally	15.
15. Larger (11 mm.) and more robust; penultimate joints of antennæ as long as broad	[p. 286. *apicicornis* Epp.,
Smaller (8·75 mm.) and narrower; penultimate joints of antennæ transverse	[p. 290. *flavoterminatus*, sp. n.,

1218. Quedius (Microsaurus) chlorophanus

Quedius chlorophanus Er., Gen. Spec. Staph. 1839–40, p. 532; Kraatz, Arch. Naturg. xxv, 1859, i, p. 66.

Metallic green, shining; the abdomen iridescent, anus ferruginous. Length 4 lin.

Build of *fulgidus*, shining, metallic green. Antennæ black, almost a half longer than the head and thorax, scarcely thickened towards the apex, the 3rd joint longer than the 2nd, 4th to 10th subequal, the last ovate, acuminate. Mandibles and palpi with pitchy apex. Head half as wide as the thorax, subovate, somewhat depressed, above the eyes on each side with three punctures, between the eyes on each side with a single puncture. Eyes moderate, somewhat prominent. Thorax as broad as the elytra, one-third broader than long, the sides rounded, slightly narrowed towards the apex, the base gently rounded, apex truncate, anterior angles almost rectangular, deflexed, the posterior obtuse, slightly convex, the lateral margin somewhat explanate, disc with dorsal series of three punctures, the first two nearer each other, at the sides with four others, besides the marginal punctures. Scutellum very smooth. Elytra as long as the thorax, regularly, not very closely punctured, and with sparing grey pubescence. Abdomen distinctly narrowed towards apex, sparingly punctured, finely pubescent, strongly iridescent, the apex of the 5th and whole of the 6th segments ferruginous red. Legs and tarsi pitchy, the anterior tarsi in both sexes strongly dilated.

Bengal. Hope Museum (ex *Erichson*).

The type of this species, as well as of others which should be in the Hope Museum, Oxford, cannot now be found.

1219. **Quedius (Microsaurus) birmanus**, sp. n.

Shining, black; the abdomen scarcely iridescent, the posterior half of the 5th and whole of the 6th segment reddish-yellow. Antennæ black, the last four joints yellow. Legs black, tarsi reddish. Length 11·5 mm.

Much broader and more robust than *beesoni*, the elytra more coarsely punctured, etc. Head transverse, narrower than the thorax, eyes a little longer than the temples, with two juxta-ocular punctures, between the posterior one and the neck with two others. Antennæ rather long, the intermediate joints longer than broad, gradually decreasing in length, the penultimate fully as long as broad. Thorax distinctly transverse, the sides rounded, more retracted in front than behind, the posterior angles broadly rounded and distinctly impressed, the dorsal row composed of three punctures. Scutellum with very fine transverse striæ. Elytra as long as but narrower than the thorax, coarsely and rugosely punctured. Abdomen rather finely and rather closely punctured; pubescence scanty, greyish.

♂: unknown.

Burma: Ruby Mines (*Doherty*). Unique. In British Museum Collection.

1220. **Quedius (Microsaurus) spectabilis.**

Quedius spectabilis Kr., Arch. Naturg. xxv, 1859, i, p. 66.

Very black, shining; tarsi pitchy, elytra deeply and sparingly punctured, the abdominal segments closely and finely punctured. Length 6 lin.

Larger than *Q. lateralis*, the head and thorax a little narrower. Antennæ a little longer than the head, the 3rd joint a little longer than the 2nd, 4th to 10th broader, the penultimate slightly transverse, the 11th oblong, the apex pointed.

Head narrower than the thorax, subovate, sparingly and very finely punctured, on each side above the eyes with two larger punctures, in front on each side at the ocular margin with a single puncture. Thorax a little narrower than the elytra, almost longer than broad, narrowed in front, the anterior angles strongly depressed, the posterior angles rounded with the base, a dorsal series of three equally distant punctures, on each side before the middle with two or three punctures close together, besides the marginal punctures. Scutellum smooth. Elytra almost a third longer than the thorax, deeply and sparingly punctured, at the sides a little more closely but less deeply, the narrow space between the deep punctures of disc and the less deep lateral ones impunctate, the spaces between the punctures sparingly and very finely punctured. Abdomen a little narrowed towards the apex, closely and finely punctured, finely black pubescent. Legs black, tarsi pitchy.

Northern India (*Bacon*) (ex *Kraatz*).

The type of this insect should be in the Hope Museum, Oxford, but has apparently been lost.

1221. **Quedius (Microsaurus) beesoni**, sp. n.

Black, shining. Scutellum smooth at apex, finely transversely striate at the base. Abdomen slightly iridescent. Antennæ and legs black, tarsi brown. Length 13 mm.

Very similar in build to the European *lateralis* Gr., but with the eyes a little smaller, sides of the thorax more rounded, the elytra a little shorter, more shining, much less finely punctured, the abdomen less closely punctured. Head orbicular, narrower than the thorax, the eyes slightly longer than the temples, which have a single large puncture and a curved row of very fine close ones; at the ocular margin with two large punctures. Antennæ with the penultimate joints scarcely transverse. Thorax transverse, the sides evenly rounded, retracted in front, the posterior angles completely rounded with the base, slightly obliquely impressed: dorsal row of three punctures and two others externally. Elytra about as long as but a little narrower than the thorax, moderately coarsely and moderately closely punctured on the disc, more finely and more closely on the reflexed margin. Abdomen finely and rather closely punctured.

♂: 6th ventral segment with subtriangular impression at the apex, the base of the impression arcuately emarginate.

Chakrata district, alt. 7000—9000 feet. Darjeeling Dist.: Ghum, Rongdong Valley.

This species would appear to be closely allied to *spectabilis*, but does not quite conform to the description given. As, however, the type is lost, it is impossible to decide the matter.

1222. **Quedius (Microsaurus) antennalis**, sp. n.

Shining; head and thorax black, the lateral margins pitchy; scutellum black impunctate; elytra dark reddish-brown; abdomen black, the posterior half of the 5th and whole of the 6th segment reddish-yellow. Antennæ with the first three joints red, the following yellow, the 4th and 5th slightly infuscate. Legs black, tarsi reddish. Length 12 mm.

In build very similar to *beesoni*, but with broader thorax, longer antennæ, the penultimate joints a little longer than broad; elytra a little less coarsely punctured; abdomen much more sparingly punctured.

♂: 6th ventral segment with small arcuate emargination.

Darjeeling: Gopaldhara, alt. 4720 feet (*H. Stevens*). Unique. In British Museum Collection.

1223. **Quedius (Microsaurus) mimeticus**, sp. n.

This insect only differs from *beesoni* in the 6th abdominal segment being yellow.

Darjeeling Dist.: Ghum, Rongdong Valley. In *Polyporus*.

1224. **Quedius (Microsaurus) notabilis**, sp. n.

Shining, black; the abdomen slightly iridescent, the 6th segment yellow. Antennæ black, the 8th to 10th joints yellow. Legs black. Length 12 mm.

Scarcely differing from *beesoni* in build, but at once recognized by the longer, differently coloured antennæ, the penultimate joints of which are as long as broad, and the yellow apex of the abdomen; the elytra and abdomen are a little more coarsely punctured. In all other respects similar to *beesoni*.

♂: 6th ventral segment with an acute triangular smooth impression, the base of which is obtusely emarginate.

Darjeeling Dist.: Ghum, Rongdong Valley. In *Polyporus*.

1225. **Quedius (Microsaurus) peraffinis**, sp. n.

This insect only differs from *notabilis* in the abdomen being entirely black. I am unable to find other differential characters, and it is, perhaps, a variety of *notabilis*. It is found in the same district and habitat.

♂: unknown.

1226. **Quedius (Microsaurus) apicicornis.** (Plate III, fig. 3.)

Quedius (*Microsaurus*) *apicicornis* Epp. *, D. E. Z. 1895, p. 391.

Black, shining; the abdomen iridescent, the posterior margin of the 5th (visible) segment broadly and the whole of the 6th reddish-yellow. Antennæ black, the last four joints pale yellow. Legs black, tarsi reddish. Length 11 mm.

Much resembling the European *mesomelinus* Marsh. in build, but a little larger, the eyes larger and more prominent, the antennæ more slender and differently coloured, etc. Head suborbicular, narrower than the thorax, the eyes large and rather prominent, about as long as the post-ocular region, against the inner margin of each with a puncture, behind with a curved row of three large punctures between its posterior border and the neck, temples with a single puncture. Antennæ rather slender, the penultimate joints about as long as broad. Thorax broader than long, the sides rounded and retracted in front, the posterior angles broadly rounded, slightly obliquely impressed, with a dorsal row of three punctures placed anteriorly and two others placed obliquely and external to them. Scutellum impunctate. Elytra as broad as but a little longer

than the thorax, moderately finely and moderately closely punctured. Abdomen slightly narrowed behind, the first two (visible) segments almost smooth in the middle, elsewhere rather finely and rather closely punctured.

♂ : 6th ventral segment with small acute triangular excision, the margin bevelled.

Sikkim : Darjeeling district, Tiger Hill, alt. 8000 feet.

1227. Quedius (Microsaurus) sodalis.

Quedius (*Microsaurus*) *sodalis* Cam., Trans. Ent. Soc. Lond. 1926, p. 367.

Entirely black, shining ; thorax narrower than elytra, with a dorsal row of three punctures and externally with three others. Scutellum smooth ; elytra moderately coarsely, rather closely punctured. Antennæ and mouth-parts dark. Femora and tarsi pitchy-brown, tibiæ black. Length 12 mm.

Near *mesomelinus* Marsh., but the eyes a little larger and temples shorter and less rounded, antennæ longer and more slender, the penultimate joints as long as broad, the thorax narrower and the sides less rounded ; the puncturation of the elytra is much less fine and deeper. Temples scarcely rounded, shorter than the eyes, with one or two punctures, against the eyes with two others, before the base on either side with two more placed obliquely. Antennæ with 3rd joint almost twice as long as 2nd, 4th to 7th slightly longer than broad, gradually decreasing in length, 8th to 10th about as long as broad. Thorax about as long as broad, the sides but slightly rounded, not impressed, narrower in front, disc with a dorsal row of three punctures on either side and externally with three others, of which the first two are nearer together and near the anterior margin, between these and the anterior angles with another. Scutellum smooth. Elytra scarcely wider than the thorax, as long as broad, moderately coarsely, deeply and moderately closely punctured and with a fine greyish pubescence. Abdomen parallel, finely and moderately closely punctured and pubescent throughout, scarcely more sparingly behind.

Simla Hills : Fagu, alt. 8000 feet. Under stone.

1228. Quedius (Microsaurus) adjacens.

Quedius (*Microsaurus*) *adjacens* Cam., Trans. Ent. Soc. Lond. 1926, p. 368.

Very near *sodalis*, but differing as follows : the temples are more rounded, the sides of the thorax more rounded, the puncturation of the elytra much finer and more superficial ; the legs, including the tarsi, are entirely black. From *mesolinus* Marsh. it is distinguished by the shorter temples, longer

antennæ, less rounded sides of the thorax, and entirely black legs; the puncturation of the elytra is similar to that of *mesomelinus*.

♂: 6th ventral segment with small smooth impression in the middle of the posterior border, the base of which is crescentically emarginate.

Chakrata district: Deoban, alt. 9300 feet. Under dry dung.

1229. Quedius (Microsaurus) stevensi, sp. n.

Closely allied to *sodalis*, but differing in the smaller size (7·2 mm.), shorter but similarly constructed antennæ, longer thorax, more superficially and more sparingly punctured elytra, much less closely punctured abdomen, the posterior part of the segments being nearly impunctate.

♂: unknown.

Sikkim: Rungbong Valley (*H. Stevens*). Unique. In British Museum Collection.

1230. Quedius (Microsaurus) fulgidus.

Staphylinus fulgidus F., Mant. Ins. i. 1787, p. 220; Er., Käf. Mark Brand. i. 1837–39, p. 486; (*Quedius*) id., Gen. Spec. Staph. 1839–40, p. 525 (ex parte); Kraatz, Naturg. Ins. Deutsch. ii. 1856–58, p. 492 (ex parte); Fauv., Faun. Gallo-Rhén. iii. 1872, p. 505; Muls. et Rey, Ann. Soc. d'Agric. Lyon, (4) viii. 1875, p. 657; Ganglb., Käf. Mitt.-Eur. ii. 1895, p. 399; Joy, E. M. M. xlii. 1906, p. 201.

Quedius assimilis Nordm., Symb. 1837, p. 78.

Quedius bicolor Redt., Faun. Austr. ed. 3, 1872, p. 201.

Quedius hæmopterus Steph., Ill. Brit. Ent. v. 1832, p. 217.

Quedius iracundus Say, Trans. Amer. Phil. Soc. iv. 1834, p. 449.

Quedius quadripunctatus Thoms., Skand. Col. ix. 1867, p. 159; Rye, Ent. Ann. 1869, p. 27; Mars., L'Abeille, viii. 1871, p. 288.

Staphylinus rufitarsis Marsh., Ent. Brit. 1802, p. 512.

Staphylinus variabilis Gyll. var. *c* Ins. Suec. ii. 1808–28, p. 304.

Quedius fulgidus F., var. *castaneipennis* Hochh., Bull. Nat. Mosc. xliv, ii. 1871, p. 131.

Quedius fulgidus F., var. *peranxius* Muls. et Rey, Ann. Soc. d'Agric. Lyon, (4) viii, 1875, p. 661.

Shining, black: the elytra red, the posterior margin of the abdominal segments narrowly reddish. Antennæ brown, the first three joints blackish. Legs reddish-brown, tarsi lighter. Length 8–10 mm.

Head subquadrate, narrower than the thorax, eyes rather large, flat, a little longer than the temples, at the inner margin of each with a puncture and another between the posterior edge of the eye and the neck, temples with a few small punctures, the whole surface extremely finely, sparingly, scarcely perceptibly punctured, distinctly coriaceous. Antennæ with the 6th to 10th joints slightly transverse. Thorax transverse, the sides gently rounded and retracted to the rectangular anterior angles, the posterior rounded;

disc on each side in front with row of three punctures, externally with a group of three or four more. Scutellum smooth. Elytra a little longer and a little narrower than the thorax, moderately finely and moderately closely punctured. Abdomen finely and moderately closely punctured, grey pubescent.

♂: head larger, more transverse. 6th ventral segment with small obtuse emargination, in front of it with a smooth impression; 4th and 5th each with a small impression in the middle line furnished with a tuft of *yellow* hairs.

Northern India. Widely distributed throughout the world.

1231. **Quedius (Microsaurus) cruentus.**

Staphylinus cruentus Ol., Entom. iii, 1794, 42, p. 27, tab. 5, fig. 49; Er., Gen Spec. Staph. 1839–40, p. 527; (*Quedius*) Kraatz, Naturg. Ins. Deutschl. ii, 1856–58, p. 495; Fauv., Faun. Gallo-Rhén. iii, 1872, p. 508; Muls. et Rey, Ann. Soc. d'Agric. Lyon, (4) viii, 1875, p. 661; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 399.
Quedius analis Steph., Ill. Brit. Ent. v, 1832, p. 435.
Quedius erythropterus Steph., l. c. p. 226.
Staphylinus fulgidus Marsh., Ent. Brit. 1802, p. 503.
Quedius hæmorrhous Steph., Ill. Brit. Ent. v, 1832, p. 217.

Black, shining, the elytra red, the posterior margin of the 5th and whole of the 6th abdominal segments reddish-yellow. Antennæ black, the first two or three joints red. Legs reddish. Length 7·5–9 mm.

Closely allied to *fulgidus*, but differs in the shorter, stouter, differently coloured antennæ, the penultimate joints of which are much more strongly transverse, and in the whole of the 6th segment being reddish-yellow. In other respects like *fulgidus*.

♂: 6th ventral segment emarginate, with impression in front of the emargination; 5th slightly emarginate.

India (without further indication). Also in Europe.

1232. **Quedius (Microsaurus) ochripennis.**

Quedius ochripennis Mén., Cat. Rais. 1832, p. 145; Fauv., Faun. Gallo-Rhén. iii, 1872, p. 504; Muls. et Rey, Ann. Soc. d'Agric. Lyon, (4) viii, 1875, p. 651; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 398.
Quedius asseda Muls. et Rey, Ann. Soc. d'Agric. Lyon, (4) viii, 1875, p. 655.
Quedius floralis Boisd. et Lacord., Faun. Ent. Paris, i, 1835, p. 380.
Quedius fulgidus Hochh., Bull. Mosc. xxii, 1849, i, p. 148.
Quedius lactus Fald., Faun. Transc. i, 1835, p. 127.
Staphylinus nitidus Gr., Col. Micr. Brunsv. 1802, p. 31 (ex parte).

Very closely allied to *fulgidus*, but differs in the entirely black abdomen, darker legs, only the tarsi reddish, in the thorax having external to the dorsal row of punctures two or three others in a row; the elytra and abdomen are a little less finely and less closely punctured. Length 7·5–10 mm.

♂: head larger, more transverse. 6th ventral segment rather broadly emarginate, smooth before the emargination; 4th and 5th in the middle line with small tuft of *black* hairs.

Simla Hills. Also in Europe.

1233. **Quedius (Microsaurus) flavoterminatus**, sp. n.

Shining, black; the posterior margin of the 5th and whole of the 6th abdominal segments reddish-yellow. Antennæ black, the 8th to 11th joints pale yellow. Legs black, tarsi reddish. Length 8·75 mm.

In size and build very similar to *fulgidus*, but differently coloured, the head more transverse, the eyes more prominent; the arrangement of the large punctures is similar, but the fine scattered puncturation found in that species is absent. Antennæ shorter, the penultimate joints more transverse; thorax as in *fulgidus*, but with scarcely perceptible oblique impression postero-laterally. Scutellum smooth. Elytra and abdomen more sparingly punctured than in *fulgidus*.

♂: unknown.

Darjeeling Dist.: Rangirum, alt. 6000 feet (*J. C. M. Gardner*). Unique.

1234. **Quedius (Quedionuchus) lineipennis**, sp. n.

Shining, black; the elytra, first two abdominal segments (and occasionally the 3rd at the base), and posterior margin of the 5th red. Antennæ with the first three joints brown, the rest reddish-yellow. Legs reddish-yellow. Length 11 mm.

A depressed, rather broad species, much more so than the European *cinctus* Payk. Head transverse, a little narrower than the thorax, the eyes moderate, a little longer than the temples, with two large punctures against the inner margin and two smaller ones between them; temples with a few punctures, along the anterior margin with a very fine scattered puncturation. Antennæ short, the 6th to 10th joints transverse. Thorax transverse, the sides distinctly rounded and equally retracted in front and behind, the anterior angles rectangular, the posterior obtusely rounded; disc without dorsal row of punctures, only the marginal present. Scutellum pitchy-black, finely punctured. Elytra as long and as broad as the thorax, with two rows of four or five punctures, one sutural, the other near and parallel to the side border, the reflexed margin with a few punctures, otherwise impunctate and with scarcely visible ground-sculpture. Abdomen with the first two segments rather finely and closely punctured at the base and sides, smooth in the middle, the following more sparingly but more uniformly punctured.

♂: 6th ventral segment with very small arcuate emargination.

Burma: Ruby Mines (*Doherty*). In British Museum Collection.

Key to the Species of the Subgenus Sauridus.

Larger (8·5 mm.). Elytra black or pitchy ... *ripicola* Cam., p. 291.
Smaller (6·5 mm.). Elytra metallic green ... *gardneri*, sp. n., p. 292.

1235. Quedius (Sauridus) ripicola.

Quedius (*Sauridus*) *ripicola* Cam., Trans. Ent. Soc. Lond. 1926, p. 369.

Black, shining; scutellum smooth. Head with four interocular punctures, the median very superficial or obsolete. Antennæ dark. Legs black. Length 8·5 mm.

In immature specimens the margins of the thorax, apex of scutellum, and elytra are reddish-brown, and the legs and base of the antennæ reddish-brown. The original description has been made from one of these.

Of the general facies and colour of *umbrinus* Er., but larger, the eyes smaller, the temples less rounded, straighter, the front with four punctures, antennæ much longer, puncturation of the elytra less fine and less close, that of the abdomen not so fine. Eyes longer than the temples, these very slightly rounded, with four or five setiferous punctures, median interocular punctures very superficial, sometimes obsolete, a little nearer the lateral ones than each other, disc with three obliquely placed post-ocular punctures on either side. Antennæ slender, 3rd joint longer than 2nd, 4th to 6th a little longer than broad, gradually decreasing in length, 7th to 10th about as long as broad. Thorax slightly transverse, narrower in front, the sides feebly rounded, the posterior angles completely rounded; disc on either side with an oblique row of three punctures situated anteriorly, two others externally and three intermediately. Scutellum smooth. Elytra as long as but a little narrower than the thorax, a little longer than broad, moderately coarsely and moderately closely punctured, with fine yellow pubescence. Abdomen gradually narrowed posteriorly, scarcely iridescent, finely, moderately closely punctured, more finely and sparingly behind, pubescence fine and grey.

♂: 6th ventral segment with small, smooth triangular impression in the middle of the posterior border, the base of it feebly crescentically emarginate.

Mussoorie, Chakrata and Simla districts, alt. 6000–9000 feet. Sikkim. Darjeeling Dist.: Lopchu. At the margins of streams.

An example from Sikkim in the Deutsches Entomologisches Institut, Berlin-Dahlem, has a less punctured abdomen.

1236. **Quedius (Sauridus) gardneri**, sp. n.

Shining, black: scutellum smooth; elytra greenish-blue. Antennæ and legs black. Length 6·5 mm.

Head short, oval, narrower than the thorax, the eyes about twice as long as the temples, with two juxta-ocular punctures. Antennæ short, the penultimate joints slightly transverse. Thorax conical, the sides almost straight and a good deal retracted in front, with dorsal row of three punctures. Elytra as long as but a little broader than the thorax, finely and moderately closely punctured and with a fine yellow pubescence. Abdomen distinctly narrowed behind, very finely and sparingly punctured, along the middle almost smooth; pubescence grey and scanty.

♂: unknown.

Darjeeling Dist.: Lepchajagat, alt. 7000 feet (*J. C. M. Gardner*).

Key to the Species of the Subgenus Raphirus.

1. Head and elytra with coarse, confluent, rugose puncturation; the thorax with large coarse punctures ..... 13.
   Fore-parts with normal sculpture ..... 2.
2. Elytra dark green with three rows of punctures on the disc ..... *chatterjeei* Cam., p. 295.
   Elytra without rows of punctures ..... 3.
3. Abdomen at the sides of the segments with tufts of yellowish pubescence ..... 4.
   Abdomen without such tufts ..... 6.
4. Antennæ black. Larger (9 mm.) ..... *aureipilis*, sp. n., p. 294.
   Antennæ reddish-yellow. Smaller (6–7 mm.) ..... 5.
5. Legs dark. Elytra more closely and more finely punctured ..... [p. 294.
   Legs yellow. Elytra less closely and less finely punctured ..... *aureiventris* Bernh.,
6. Antennæ dark, at most obscurely reddish towards apex ..... *muscicola*, sp. n., p. 295.
   Antennæ clear reddish-yellow, at least in part; brown species ..... 7.
7. Elytra blue or greenish-blue ..... 12.
   Elytra black, at most with the shoulders and posterior margin reddish ..... 8.
8. Abdomen closely punctured; antennæ shorter, entirely black ..... 9.
   Abdomen sparingly punctured; antennæ longer, obscurely reddish towards the apex ..... [p. 293. *himalayicus* Bernh.,
9. Elytra with at least the posterior margin reddish-yellow ..... [p. 294. *sikkimensis*, sp. n.,
   Elytra entirely dark ..... 10.
10. Elytra with the shoulders distinctly reddish-yellow; antennæ pitchy, shorter and thinner ..... 11.
    Elytra with the shoulders not or scarcely lighter; antennæ black, longer and stouter ..... *fluviatilis* Cam., p. 297.

[p. 296 *kashmiricus*, sp. n.,

11.	Scutellum distinctly punctured; abdomen iridescent	*assamensis*, sp. n., [p. 293.
	Scutellum practically smooth; abdomen not iridescent	*anomalus* Cam., p. 295.
12.	Larger (10 mm.). Antennæ brown, the last five joints yellow; all the joints much longer than broad	*aberrans*, sp. n., p. 299.
	Smaller (5-3 mm.). Antennæ entirely reddish-yellow, the penultimate joints transverse	*dohertyi*, sp. n., p. 297.
13.	Antennæ entirely black	*rugosus*, sp. n., p. 298.
	Antennæ at least partly reddish-yellow...	14.
14.	Greenish-black species	*intricatus* Fauv., p. 298.
	Bright metallic green species	*mussoorieusis*, sp. n., [p. 299.

1237. Quedius (Raphirus) himalayicus.

Quedius (*Sauridus*) *himalayicus* Bernh., Col. Rundsch. iv, 1915, p. 55.

Shining, black, the elytra blue. Antennæ and legs black, tarsi reddish. Length 9–10 mm.

Head transversely suborbicular, narrower than the thorax, the eyes very large, temples very short, near the inner margin of the eye with two large punctures, one towards the front and one behind. Antennæ slender, the penultimate joints a little longer than broad. Thorax slightly transverse, the sides gently rounded and retracted in front, the anterior angles rectangular, the posterior rounded, on each side in front with dorsal row of three punctures converging behind, externally often with another puncture. Scutellum coriaceous, punctured. Elytra a little longer and about as broad as the thorax, rather closely, moderately coarsely punctured, grey pubescent. Abdomen scarcely narrowed behind, closely and moderately finely punctured, with greyish-yellow pubescence.

♂: 6th ventral segment with obtuse excision with a smooth impression in front of it.

Kumaon: Bhowali (type). Mussoorie district. Assam: Naga Hills, Laimatak. Sikkim; Rungbong Valley. Murree Hills: Thobba.

1238. Quedius (Raphirus) assamensis, sp. n.

Entirely black, shining; scutellum punctured, abdomen iridescent. Antennæ pitchy, the first three joints narrowly reddish at base. Femora pitchy, tibiæ blackish, tarsi reddish. Length 9 mm.

Exactly similar in size, build, and antennal structure to *himalayicus*, but differs in the entirely black, more finely and closely punctured elytra; the abdomen is also more finely and closely punctured.

♂: 6th ventral segment impressed behind, the base of the impression arcuately emarginate.

Assam: Naga Hills, alt. 4000 feet (*S. N. Chatterjee*).

1239. **Quedius (Raphirus) sikkimensis**, sp. n.

Colour and size of *himalayicus*, but the antennæ longer and more slender, blackish at the base, with the last four or five joints reddish, and much longer than broad. Scutellum black, more strongly punctured, elytra more sparingly punctured, abdomen much more sparingly punctured.

♂: 6th ventral segment with shallow arcuate emargination.

Sikkim: Lachung, alt. 9000–10,000 feet, 3. iv. 20. (*H. Stevens*).

1240. **Quedius (Raphirus) aureipilis**, sp. n.

Black, shining, the scutellum punctured; abdomen slightly iridescent, at the sides thickly covered with golden-yellow hairs. Antennæ dark, the base of the first two joints reddish. Femora pale yellow, tibiæ blackish, tarsi reddish. Length 9 mm.

A little larger than *chatterjeei*, but of similar build except for the head, which is much broader and devoid of interocular punctures; the penultimate joints of the antennæ are slightly longer than broad, the elytra closely, moderately finely, uniformly punctured, and with golden-yellow hairs, the abdomen more finely and more closely punctured.

♂: 6th ventral segment with triangular smooth impression at apex, the base of the impression arcuately emarginate.

Assam: Naga Hills, Laimatak (*S. N. Chatterjee*).

1241. **Quedius (Raphirus) aureiventris.**

Quedius (Raphirus) aureiventris Bernh., Col. Rundsch. iv, 1915, p. 56.

Head and thorax black, shining; elytra olivaceous, with golden pubescence; abdomen iridescent, at the sides of the segments with spots of golden-yellow hairs. Antennæ and legs reddish-yellow, the former more or less infuscate towards the apex, the tibiæ blackish. Length 4·75–6 mm.

Closely allied to the European *auricomus* Kiesw., but with longer antennæ, punctured scutellum, more closely punctured and differently coloured elytra, and more closely punctured abdomen. Head round, narrower than the thorax, eyes very large, temples very short; eyes with two juxta-ocular punctures. Antennæ with the penultimate joints about as long as broad. Thorax about as long as broad, the sides retracted in front, on each side with a dorsal row of three punctures, the 2nd nearer to the 3rd than the to 1st. Scutellum finely punctured. Elytra as long as but a little broader than the thorax, closely and finely punctured, with fine golden pubescence. Abdomen narrowed behind, very finely and closely punctured.

♂: 6th ventral segment with rather broad and moderately deep arcuate emargination, in front of it with a smooth impression.

Kumaon: Binsar, alt. 7000 feet (type). Also Mussoorie and Chakrata districts, Darjeeling and Kashmir, up to 9000 feet. The insect lives in the moss on boulders in the mountain streams.

1242. **Quedius (Raphirus) muscicola**, sp. n.

Shining, black; the fore-parts with strong metallic reflex. Scutellum finely punctured. Abdomen with tufts of golden pubescence at the sides of the segments. Antennæ and legs reddish-yellow. Length 6–7 mm.

Closely allied to *aureiventris*, similarly coloured, the antennæ of the same structure, but a little narrower, the elytra much more coarsely, the abdomen much more finely punctured, and the legs entirely reddish-yellow.

♂: 6th ventral segment with small rectangular excision without impression.

Darjeeling Dist.: Ghum, Tiger Hill, alt. 8000–9000 feet, in stream moss.

1243. **Quedius (Raphirus) anomalus.**

Quedius anomalus Cam., Trans. Ent. Soc. Lond. 1926, p. 370.

Very black, shining; thorax with dorsal row of three punctures; elytra moderately coarsely and moderately closely punctured, with row of six sutural, six humeral, and two intermediate larger punctures. Antennæ and legs black. Length 10 mm.

In general facies very similar to *picipes* Mannh. [Europe], except that the head is shorter and more orbicular and the eyes larger and temples shorter. The elytra are less finely and a little less closely punctured, the abdomen is not iridescent, and is rather more coarsely and less thickly punctured. The two large intermediate punctures are placed about the level of the 4th and 5th of the sutural row. The antennæ have the same build as *picipes*, the penultimate joints longer than broad.

♂: 6th ventral segment with rather large triangular excision.

Mussoorie district: Dhobi Ghat.

1244. **Quedius (Raphirus) chatterjeei.**

Quedius chatterjeei Cam., Trans. Ent. Soc. Lond. 1926, p. 376.

Black, shining; the anterior angles of the thorax often more or less testaceous, the elytra shining metallic green, with four rows of larger punctures. Antennæ and mouth parts

black, coxæ and femora testaceous, the tibiæ and tarsi pitchy. Length 5·5–8·75 mm.

Build and average size of *paradisianus* Heer. Head suborbicular, very slightly broader than long, eyes large, temples very short, very finely punctured, in front with four interocular punctures, of which the median are nearer to the lateral than to each other, posteriorly with two large postocular punctures on either side. Antennæ with 3rd joint considerably longer than 2nd, 4th and 5th a little longer than broad, 6th and 7th about as long as broad, 8th to 10th scarcely transverse. Thorax formed as in *paradisianus* Heer, the disc with an oblique row of three punctures on either side, a row of three others along the anterior margin, two others external to the dorsal row, of which the posterior one is on a level with the hindmost of the dorsal series and another against the lateral margin itself. Scutellum impunctate. Elytra a little longer and broader than the thorax, about as long as broad, with a sutural row of seven, a discal row of six, a humeral row of nine punctures, and traces of a subhumeral row, the rest of the disc extremely finely and very sparingly, the reflexed margins less finely and much more closely punctured. Abdomen shining, gradually narrowed from base to apex, scarcely iridescent, very finely and closely punctured at the bases of the segments, more sparingly towards the apices, and with a fine yellow, not close pubescence.

♂: 6th ventral segment with smooth triangular impression extending nearly the whole length of the segment medially, the base of it with a triangular excision.

Mussoorie and Chakrata districts, alt. 6000–9000 feet. Under dead leaves at the margins of streams.

1245. **Quedius (Raphirus) kashmiricus**, sp. n.

Shining, black; the scutellum smooth; elytra less shining, the suture and apical margin narrowly and obscurely reddish. Antennæ black. Legs reddish-yellow, the femora more or less infuscate. Length 7·2 mm.

Build of the European *nitipennis* Steph., but larger and more robust, the elytra longer; the antennæ are similarly constructed. Head orbicular, narrower than the thorax, eyes very large, with two juxta-ocular punctures. Antennæ with the penultimate joints about as long as broad. Thorax as long as broad, a little narrowed in front, with dorsal row of three punctures. Elytra a little longer than the thorax, finely and rather closely punctured (much less finely than in *nitipennis*). Abdomen a little narrowed behind, finely and rather closely punctured.

♂: 6th ventral segment with small arcuate excision.

Kashmir: Gulmarg, alt. 8000 feet.

1246. **Quedius (Raphirus) fluviatilis.**

Quedius (Raphirus) fluviatilis Cam., Trans. Ent. Soc. Lond. 1926, p. 369.

Black, shining; head orbicular, without frontal punctures. Elytra pitchy, the shoulders and postero-external angles more or less broadly, suture and posterior margins narrowly rufo-testaceous. Posterior margins of the abdominal segments occasionally very narrowly reddish. Antennæ pitchy, the 1st joint fusco-testaceous. Legs reddish-testaceous. Length 7–8 mm.

Only differs from *semiæneus* Steph. [Europe] in the colour, the shorter and less densely punctured elytra, and the much less densely punctured, non-sericeous abdomen. The antennal structure is practically the same.

Head orbicular, narrower than the thorax, eyes very large, temples very short; each eye with two juxta-ocular punctures, frontal punctures absent. Antennæ with the penultimate joints scarcely transverse. Thorax scarcely longer than broad, narrowed in front, with dorsal row of three punctures on each side. Scutellum smooth. Elytra about as long as and a little broader than the thorax, rather finely and rather closely punctured. Abdomen narrowed behind, very finely, rather closely punctured, finely grey pubescent.

♂: 6th ventral segment with a small crescentic emargination in the middle of the posterior border.

Chakrata district, alt. 6000–9300 feet. At the borders of streams.

1247. **Quedius (Raphirus) dohertyi**, sp. n.

Shining: head black, thorax and elytra pitchy-brown, the latter with slight metallic reflex; abdomen black, the elevated side margins and under surface reddish. Antennæ and legs reddish-testaceous. Length 5·3 mm.

In size and build very similar to the European *semiæneus* Steph., but with broader head, longer antennæ, much less finely punctured elytra, and much more sparingly punctured abdomen. Head orbicular, eyes very large, with two juxta-ocular and a pair of interocular punctures. Antennæ with the penultimate joints a little longer than broad. Thorax almost as long as broad, not much narrowed in front, and with a dorsal row of three punctures and another external to it. Scutellum punctured. Elytra about as long as the thorax, moderately finely and rather closely punctured. Abdomen a little narrowed behind, very finely and sparingly punctured, almost smooth along the middle.

Burma: Ruby Mines (*Doherty*). Unique. In British Museum Collection.

1248. **Quedius (Raphirus) intricatus.**

Quedius intricatus Fauv., Rev. d'Ent. xiv. 1895, p. 274.

Unique in colour and sculpture; facies somewhat like the European *boops* Gr.; elongate, not very shining, greenish-black, the head except for a plaque in the middle behind, the sides of the thorax broadly, and the reflexed margin of the elytra, green, the rest of the elytra violaceous-black; abdomen greenish-opalescent; palpi except the pitchy apex, antennæ, femora, and anterior coxæ almost entirely yellow, tarsi pitchy. Antennæ short, scarcely extending beyond the middle of the thorax, 2nd and 3rd joints equal, 8th to 10th slightly transverse; head short oval, rather strongly irregularly rugose-punctate, with a smooth median space. Eyes very large, neck punctured; thorax somewhat oblong, not very uneven, a little longer than broad, rather broader behind than the head, narrowed in front, the anterior angles completely deflexed, the posterior indicated but obtuse, the sides punctured like the head, sparingly covered with silvery pubescence, the disc with coarse, transverse, vermicular sculpture, with three smooth spaces, two before the middle, the third before the middle of the strongly curved base; scutellum finely transversely vermiculate; elytra a little longer than broad, with sparing, patchy, golden pubescence, with strong, transverse, vermiculate sculpture; abdomen narrowed, the base of the segments closely and very finely, elsewhere sparingly punctured, on each side with a golden patch of hairs. Wings whitish iridescent. Length 7 mm.

Burma: Carin Ghécu, alt. 1300–1400 metres (*L. Fea*) (ex *Fauvel*).

1249. **Quedius (Raphirus) rugosus.**

Quedius (Raphirus) rugosus Cam., E. M. M. lvii. 1921, p. 273.

Shining; head and elytra dark metallic green, thorax purplish-green; abdomen black, with the pubescence golden; fore-parts coarsely and rugosely punctured; antennæ and legs dark, the coxæ and femora more or less testaceous; palpi pitchy. Length 6 mm.

Scarcely differing in size or build from *auricomus* Kies., but remarkable for the coarse rugose sculpture of the fore-parts. Head suborbicular, with the eyes nearly as broad as the thorax; eyes very large; temples scarcely visible; coarsely, closely, and rugosely punctured, front with a small, nearly smooth space. Antennæ short, the 3rd joint longer than the 2nd, the 4th a little longer than broad, the 6th to the 10th scarcely differing amongst themselves, and as long as broad. Thorax about as long as broad, the sides gently rounded, convergent in front; on either side of the middle line with

an irregular row of eleven or twelve very large umbilicate punctures, laterally with closely placed, irregular, confluent, larger and smaller punctures, near the basal margin and external to the dorsal row more or less smooth. Scutellum smooth. Elytra a little longer and broader than the thorax, as long as broad, puncturation coarse, close and confluent, almost forming transverse rugæ; pubescence scanty and coarse, yellow. Abdomen pointed, black, rather finely and not very closely punctured, finely transverse strigose; pubescence rather coarse and moderately close, black, the first five segments on either side with a patch of distinct golden hairs.

♂: 6th ventral segment with semicircular excision, the surface in front glabrous.

Darjeeling Dist.: Lebong, alt. 5000 feet (*H. M. Lefroy*; ix. 1908); Ghum, Rongdong Valley. West Almora (*H. G. Champion*).

1250. **Quedius (Raphirus) mussooriensis**, sp. n.

Shining; head and thorax brilliant metallic green, the elytra darker bluish-green. Scutellum smooth, black. Abdomen black with golden pubescence, thicker at the sides. Antennæ with the first two joints yellow, the following infuscate. Palpi yellow. Femora and anterior coxæ yellow, tibiæ and tarsi blackish. Length 7 mm.

In build and antennal structure similar to *rugosus*, but the head and thorax of brighter green colour, the palpi and base of the antennæ yellow, the sculpture of the head and thorax not quite so coarse. In other respects similar.

♂: unknown.

Mussoorie district.

1251. **Quedius (Raphirus) aberrans**, sp. n.

Head and thorax shining, pitchy-black, the latter with the lateral margins very narrowly and obscurely reddish, before the scutellum with two small reddish spots; elytra and abdomen less shining, the former reddish-yellow, the latter brown. Antennæ with the first six joints blackish, the following yellow. Legs reddish-yellow, the femora reddish. Length 10 mm.

Somewhat differing in appearance from the genus on account of the build of the thorax and the tibiæ without spines. It makes an approach to the subgenus *Indoquedius*. Head orbicular, narrower than the thorax, the eyes very large and prominent, temples very short, against the inner margin of the eye with three punctures, a little behind and internally with another, the whole surface with a very fine, indistinct, scattered puncturation. Antennæ very long and slender, extending to the middle of the elytra, all the joints

longer than broad. Thorax as long as broad, the sides very slightly rounded, equally retracted in front and behind, all the angles rounded, the posterior more broadly; on the anterior border near the middle on each side with a small puncture, and a little behind and internally with a larger one, external to this with a third, the whole surface covered with a very fine, indistinct, scattered puncturation. Scutellum reddish, closely punctured. Elytra a little longer and broader than the thorax, closely, moderately coarsely punctured, grey pubescent. Abdomen closely and rather finely punctured, grey pubescent.

♂: 6th ventral segment with smooth triangular impression, its base with slight arcuate emargination.

Sikkim: Rungbong Valley (*H. Stevens*). Unique. In British Museum Collection.

Key to the Species of the Subgenus Indoquedius.

1.	Antennæ entirely reddish-yellow	2.
	Antennæ dark, the last two joints yellow ...	*oculatus* Fauv., p. 300.
2.	Larger (8·5–9 mm.). Antennæ longer; abdomen finely, sparingly punctured	*filicornis* Epp., p. 301.
	Smaller (7 mm.). Antennæ shorter; abdomen more uniformly punctured	[p. 301. *bipunctatus* Epp.,

1252. Quedius (Indoquedius) oculatus.

Quedius oculatus Fauv., Rev. d'Ent. xiv, 1895, p. 274.

In size and build somewhat like *robustum* Scrib., but with the eyes as in the genus *Cyrtothorax* and readily recognized. Black, very shining, convex, with sparing grey pubescence and long blackish setæ, the abdomen iridescent, labrum, palpi, femora and anterior coxæ, knees and tarsi, red, the rest of the legs and first two joints of the antennæ pitchy, the latter with the 10th and 11th joints testaceous. Antennæ slender, setose, a little shorter than the head and thorax, the joints elongate, the terminal twice as long as broad; head and thorax either almost smooth or sparingly and scarcely perceptibly punctured, the former large, transversely orbicular, with four punctures against the eye and another internally near the neck, a few very small ones on the temple; thorax a little broader than the head, scarcely narrowed in front, the anterior angles rectangular, as seen from above, the disc in front on each side with one or two punctures; scutellum rather closely and strongly punctured, elytra coarsely and sparingly punctured; abdomen narrowed behind, at the base more strongly, at the apex more finely and sparingly punctured; elytra short, transversely quadrate.

♂: 7th [6th] ventral segment at apex broadly but not deeply emarginate, with triangular smooth impression in front of it. Length 8–8·75 mm.

Thorax and elytra more or less, mouth, antennæ, legs, and margins of the abdominal segments red in immature examples.

Burma : Carin Cheba, alt. 900–1100 metres ; Carin Asciuii Ghécu, alt. 1400–1500 metres (*L. Fea*). Tonkin.

This species is very near *filicornis* Epp., but this latter differs in the abdominal segments being smooth on the posterior half, except on the apical margin. It should be near *juno* and *præditus* Shp. from Japan, but I do not know these species (ex *Fauvel*).

This and the following species have a facies somewhat resembling the genus *Cyrtothorax*.

1253. **Quedius (Indoquedius) filicornis.** (Plate III, fig. 4.)

Quedius filicornis Epp., W. E. Z. xiv, 1895, p. 55.
Quedius (Raphirus) conicus Champ.*, E. M. M. lviii, 1922, p. 33.

Robust, convex, black, shining, sparingly pubescent, narrowed behind. Antennæ, palpi, and legs reddish-yellow. Length 8·5–9 mm.

Head large, round, narrower than the thorax, the eyes very large, the temples very short ; along the inner margin of the eye with four small punctures, before the base on each side with another, otherwise impunctate. Antennæ slender, all the joints longer than broad, gradually decreasing in length from the 3rd. Thorax distinctly transverse, convex, the sides almost straight and slightly retracted in front, the posterior angles broadly rounded ; on each side with a large puncture towards the front and a small one on the anterior margin, otherwise impunctate except for the usual marginal punctures. Scutellum closely and rather coarsely punctured. Elytra narrower than but about as long as the thorax, transverse, coarsely and moderately closely punctured. Abdomen narrowed behind, slightly iridescent, finely, sparingly punctured, more closely at the base of the segments.

♂ : 6th ventral segment with small triangular impression, its base scarcely emarginate.

Sikkim. Kumaon. Mussoorie and Chakrata districts, alt. 5000–6000 feet.

1254. **Quedius (Indoquedius) bipunctatus.**

Quedius bipunctatus Epp., D. E. Z. 1895, p. 390.

This species is very closely allied to *filicornis*, but is a little smaller (7 mm.) ; the antennæ are not so long and slender, the abdomen is more uniformly covered with a fine, not very close puncturation, and the elytra are more closely and less coarsely punctured.

♂ : 6th ventral segment emarginate, with triangular smooth impression in front of the emargination.

Bihar : Parasnath.

Genus **ACYLOPHORUS** Nordm.

Acylophorus Nordm., Symb. Mon. Staph. 1837, p. 127; Er., Käf. Mark Brand. 1837–39 (1839), p. 482; id., Gen. Spec. Staph. 1839–40, p. 519; Lacord., Gen. Col. ii, 1854, p. 84; Kraatz, Naturg. Ins. Deutschl. ii, 1856–58, p. 479; Jacq. du Val, Gen. Col. d'Eur. ii, 1857–59, p. 38; Thoms., Skand. Col. ii, 1860, p. 181; Fauv., Faun. Gallo-Rhén. iii, 1872, p. 542; Muls. et Rey, Ann. Soc. d'Agric. Lyon, (4) viii, 1875, p. 831; J. Leconte, Proc. Amer. Philosoph. Soc. xvii, 1878, p. 388; Ganglb., Käf. Mitt.-Eur. ii. 1895, p. 380.

Rhygmacera Motsch., Bull. Mosc. xviii, 1845, i, p. 40; xxxi, 1858, ii, p. 656.

Shining species of moderate size, narrowed in front and behind, with strongly geniculate antennæ. Head small, oval, constricted behind, the neck stout; infra-orbital ridge well marked. Antennæ slender, the 1st joint very long. Labrum rounded in front, with a very small, shallow emargination in the middle of the anterior border. Mandibles long, slender, curved, pointed; near the base each with a large tricuspid tooth, the cusps pointed. Inner and outer lobes of maxilla short, densely ciliate. Maxillary palpi moderate, 1st joint small, 2nd and 3rd obconical, the latter shorter than 2nd, 4th longer than the 3rd, oval, pointed. Labial palpi short, 1st joint scarcely longer than broad, 2nd much longer and thicker than the 1st, enlarged towards apex, 3rd much narrower and shorter than 2nd, conical. Tongue short, membranous, rounded in front; paraglossæ not extending beyond the tongue, ciliate. Thorax narrowed in front, convex, the sides, base, and angles rounded; epimera of prosternum absent. Mesosternal process acute, extending about two-thirds of the length of the coxæ, which are contiguous behind. Metasternum not extending between the middle coxæ. Abdomen not keeled below at the base, pointed, anal styles well developed. Middle and posterior tibiæ spinose externally. Anterior tarsi not dilated, the first two joints very short, the 3rd and 4th a little longer, the 5th almost as long as all the preceding together; claws slender, but little curved; middle and posterior with the 1st joint elongate, almost as long as the three following together, these gradually decreasing in length. The genus is found throughout the world near water.

Key to the Species.

1. Thorax bright red		*ruficollis* Motsch.,
Thorax in greater part black or pitchy ...	2.	[p. 303.
2. Head closely and finely punctured		*puncticeps* Fauv.,
Head not or very finely and sparingly punctured	3.	[p. 303.
3. Antennæ reddish-yellow, with the 4th joint black; small species (3·75 mm.) ...		*microcerus* Fauv.,
Antennæ otherwise; larger species	4.	[p. 305.

4.	Penultimate joints of antennæ testaceous ..	5.
	Penultimate joints of antennæ blackish ...	7. [p. 304.
5.	Elytra reddish or brownish-red.....	*furcatus* Motsch.,
	Elytra black, the suture and posterior margin sometimes narrowly and obscurely reddish	6.
6.	Smaller (7 mm.). Elytra black; legs yellow	[p. 304. *flavipes* Motsch.,
	Larger (9·75 mm.). Elytra with suture and posterior margin obscurely reddish. Legs reddish	*beesoni* Cam., p. 304.
7.	Head short oval; tibiæ black	*tibialis*, sp. n., p. 305.
	Head long oval; legs reddish	*microcephalus*, sp. n., [p. 305.

1255. **Acylophorus ruficollis.**

Rhegmacera ruficollis Motsch., Bull. Mosc. xxxi, 1858, ii, p. 657.
Acylophorus ruficollis Kr., Arch. Naturg. xxv, 1859, i, p. 65.

Shining, black; thorax red, abdomen iridescent, the posterior margin of the 5th segment broadly reddish. Antennæ with the basal half of the 1st and the penultimate joints reddish-yellow, otherwise infuscate. Legs reddish. Length 7–8 mm.

Head short oval, narrower than the thorax, the eye a good deal longer than the post-ocular region, which is subangulate and finely and closely punctured; juxta-ocular punctures two in number on each side. Antennæ elongate, the 2nd and 3rd joints subequal, 4th to 7th slightly longer than broad, gradually decreasing in length, 8th to 10th gradually more transverse, 11th short. Thorax as broad as the elytra at the base, slightly transverse, the sides gently rounded and retracted in front, with a pair of punctures a little before the middle. Scutellum closely punctured. Elytra a little longer than the thorax, coarsely and rather closely punctured, grey pubescent. Abdomen a little narrowed behind, closely, finely punctured at the base of the segments, more sparingly elsewhere, the pubescence grey and rather fine.

Ceylon: Colombo. Also in Penang.

1256. **Acylophorus puncticeps.**

Acylophorus puncticeps Fauv., Rev. d'Ent. xiv, 1895, p. 275.

A little smaller than [the European] *wagenschieberi* Kiesw., pitchy, the head black, elytra pitch-black, with closer, long, brownish, dull pubescence, mandibles, base of the 1st antennal joint, base of thorax, and margins of the abdominal segments broadly reddish; legs light red, palpi and last two or three joints of the antennæ and tarsi reddish-testaceous; 1st joint of antennæ thicker, head regularly oval, closely and finely punctured, the anterior border and a small median space in front almost smooth; temples rounded, not subangulate; thorax much smaller, shorter, much more arcuately narrowed in front,

anterior angles obsolete, the disc with two small punctures; scutellum more densely and more finely, elytra more closely and more strongly rugulose, at the base much more closely and finely punctured; abdomen with longer, closer, and softer blackish-brown pubescence, at the base of the segments finely and closely, the sides sparingly, punctured, smooth along the middle and apical margins; 2nd to 5th segments at the apical margin with long, close, fine grey cilia; anal styles long, stout, diverging, the lower pair red. Length 8 mm.

Burma: Carin Ghécu, alt. 1300–1400 metres, Feb.–Mar. (*L. Fea*) (ex *Fauvel*).

1257. **Acylophorus flavipes.**

Rhygmacera flavipes Motsch., Bull. Mosc. xxxi, 1858, i, p. 657.

Near the European *glabricollis* Hbst., of similar build, the same puncturation and colours with the exception of the legs and the terminal joints of the antennæ, which are entirely testaceous. Thorax smaller, more strongly rounded in front, the anterior angles more rounded; elytra shorter; ligatures of the abdominal segments whitish-yellow, 5th segment unicolorous, black, anus with yellow border.

"Indes orientales" (ex *Motschoulsky*).

1258. **Acylophorus furcatus.**

Rhygmacera furcatus Motsch., Bull. Mosc. xxxi, 1858, i, p. 657.

Head black, shining; thorax pitchy; elytra brownish-red; abdomen black, iridescent, the posterior margin of the 5th and 6th segments narrowly reddish. Antennæ reddish-yellow, the 1st joint towards apex and the 2nd to 6th joints infuscate. Legs pale reddish. Length 5·5 mm.

Very similar in build to *ruficollis*, but differently coloured, with shorter, more closely punctured elytra, the abdomen more strongly iridescent and less closely punctured and with coarser pubescence. The antennæ are similarly constructed.

Mussoorie district: Dhobi Ghat.

1259. **Acylophorus beesoni.**

Acylophorus beesoni Cam., Trans. Ent. Soc. Lond. 1926, p. 371.

Black, shining, the margins of the thorax and posterior margins of the elytra more or less narrowly rufescent. Abdomen gradually pointed, iridescent, the posterior margins of the 7th and 8th segments sometimes obscurely rufescent. Antennæ with the 1st joint reddish, 2nd and 3rd infuscate, the following testaceous. Legs reddish. Length 9·75 mm.

Very near *furcatus* Motsch., but larger and more robust, with longer, lighter antennæ, the head and temples a little

longer, the abdomen less pointed, the elytra rather less roughly punctured, the abdomen rather more closely punctured. Head narrow, oval; temples shorter than eyes, closely and finely punctured, disc near border of the eye with a large puncture. Antennæ with the 2nd and 3rd joints of equal length, 4th to 7th a little longer than broad, gradually decreasing in length, 8th and 9th about as long as broad, 10th and 11th transverse. Thorax transverse, widest behind, sides moderately rounded and narrowed in front, posterior angles completely effaced, disc bipunctate, occasionally with a puncture behind the anterior angle and another between this and the discal puncture; against the lateral margin towards the front with a large puncture. Scutellum finely asperately punctured. Elytra about as broad as the thorax, slightly transverse, closely, finely, asperately punctured and finely grey pubescent. Abdomen finely and rather closely punctured and pubescent. Anal styles black.

Mussoorie district: Kali Gad. In damp places near streams.

1260. **Acylophorus microcephalus**, sp. n.

Shining, black; the abdomen iridescent. Antennæ with the 1st joint reddish-yellow, infuscate towards apex, the following blackish. Legs reddish. Length 6–7 mm.

A little larger than *furcatus* and with differently coloured elytra; very narrow oval head; shorter, more transverse thorax, with more rounded sides; transverse, less closely punctured elytra; and less finely punctured abdomen. The antennæ are a little shorter than in *ruficollis*, but similarly constructed.

Mussoorie district: Arni Gad and Kali Gad.

1261. **Acylophorus tibialis**, sp. n.

Size and colour of *microcephalus*, but at once distinguished by the much broader, short oval head, as in *furcatus*, distinctly longer elytra, which are as long as broad, coarser pubescence of the abdomen, black tibiæ, the antennæ longer and stouter but similarly constructed, with darker 1st joint.

Burma: Ruby Mines (*Doherty*). In British Museum Collection.

1262. **Acylophorus microcerus.**

Acylophorus microcerus Fauv., Rev. d'Ent. xiv, 1895, p. 276.

Of small size and readily recognized by the build and colour of the antennæ. Narrow, convex, shining, pitchy, with rather close, short, yellowish pubescence; thorax at the apex and around the posterior angles, shoulders, suture, and apical margin of the elytra, 2nd to 5th abdominal segments broadly, the 6th and 7th except the base, middle tibiæ, and posterior legs red; palpi, first three joints of antennæ, anterior legs,

middle femora, coxæ and tarsi all testaceous. Antennæ with the 4th joint black, 5th to 11th dull, obscure reddish-testaceous, slender, short, the 3rd joint a little longer than broad, 4th and 5th subquadrate, 6th to 10th broader, transverse. Head small, narrow, elongate, eyes rather small: thorax short, almost twice as broad as long, the sides strongly arcuately retracted almost from base to apex, with the usual two discal punctures, four transversely placed behind the anterior margin and one at the middle laterally; scutellum sparingly and very finely, elytra closely and strongly rugulose; abdomen more closely punctured at the base than at the finely punctured apex; elytra transverse, as long and as broad as the thorax; anal styles stout, rather long, diverging. Length 3·75 mm.

Burma: Bhamo, July (*L. Fea*) (ex *Fauvel*).

Genus **ANCHOCERUS** Fauv.

Anchocerus Fauv., Rev. d'Ent. xxiv, 1905, p. 141.

Next to *Acylophorus*, but differing in the structure of the labial palpi and the tarsi and of more parallel build, with larger, more oblong, or quadrate head, scarcely constricted behind and with two setigerous punctures towards the front placed closely together. Labial palpi with the first two joints short, obconical, 3rd a little longer, slightly enlarged towards apex, which is obliquely truncate, subsecuriform. Prosternum carinate. Middle and posterior tarsi with the 1st joint more elongate than in *Acylophorus*, almost as long as the four following together.

The genus is known only from the Oriental region; its habits appear to be similar to those of *Acylophorus*.

Key to the Species.

1.	Antennæ entirely testaceous	*monticola* Cam., p. 307.
	Antennæ testaceous, the intermediate joints infuscate	2.
2.	Head broader, finely but distinctly punctured	*birmanus* Fauv., p. 306.
	Head much narrower, scarcely perceptibly punctured	*bipunctatus* Cam., [p. 308.

1263. **Anchocerus birmanus.** (Plate III, fig. 5.)

Anchocerus birmanus Fauv., Rev. d'Ent. xxiv, 1905, p. 141.

Black, shining; the posterior margin of the 5th and 6th abdominal segments narrowly and obscurely reddish. Palpi reddish-yellow. Antennæ with the first two or three joints and the last reddish, the rest blackish. Legs reddish, the tibiæ blackish. Length 9·5–13 mm.

Head large, convex, narrower than the thorax, slightly dilated behind the eyes, these much shorter than the temples; towards the front with two large setiferous punctures placed near together, before the base on each side with two others

placed obliquely, the temples with three or four more; the whole surface with a very fine and rather closer puncturation. Antennæ long and slender, the 3rd joint distinctly shorter than the 2nd, 4th to 6th longer than broad, subequal, 7th to 9th gradually decreasing in length, 10th scarcely transverse, 11th about as long as the preceding. Thorax convex, slightly transverse, the sides almost straight and gradually retracted in front, the anterior angles obtuse, the posterior rounded; on the disc before the middle with two widely separated punctures, behind the anterior angles with two or three others, the whole surface more finely and rather more sparingly punctured than the head. Scutellum finely punctured. Elytra a little broader than but scarcely as long as the thorax, rather closely and moderately coarsely punctured. Abdomen a little narrowed behind, rather finely and rather closely aciculately punctured.

♂: 6th ventral segment very finely crenulate.

Burma: Tenasserim. Also in Java.

1264. **Anchocerus monticola.**

Anchocerus monticola Cam., Trans. Ent. Soc. Lond. 1926, p. 371

Black, shining; head subquadrate, eyes small, temples long, scarcely rounded, very finely and closely punctured, front with two large approximate punctures, juxta-ocular punctures wanting, two others on either side before the base, very finely and rather closely punctured except on the disc, which is very sparingly punctured. Antennæ entirely testaceous, 2nd joint much longer than 3rd, 4th to 8th all a little longer than broad, gradually decreasing in length, 9th and 10th slightly transverse, 11th as long as the preceding. Thorax slightly transverse, narrowed in front, the sides feebly, the posterior angles broadly rounded; disc bipunctate, externally adjacent to the margin and towards the front with two others, puncturation finer and more sparing than on the head. Scutellum very finely, closely punctured. Elytra as long as but scarcely as wide as the thorax, square, moderately finely, moderately closely, simply punctured, very shortly pubescent. Abdomen gradually narrowed from base to apex, more finely and more closely punctured than the elytra, not iridescent; 7th and 8th segments narrowly obscurely rufescent behind and more sparingly punctured. Styles black. Legs reddish. Length 8·75–13 mm. (excluding the styles).

♂: 6th ventral segment broadly rounded.

Differs from *A. birmanus* Fauv. in the shorter, entirely testaceous antennæ, smaller eyes, more parallel-sided thorax, black anal styles, less finely and more closely punctured abdomen, and the ♂ characters.

Mussoorie district: Kali Gad. In damp leaves near the streams.

1265. **Anchocerus bipunctatus.**

Acylophorus bipunctatus Cam., E. M. M. lvi, 1920, p. 219.

Pitchy-black, shining, the posterior margins of the abdominal segments obscurely pitchy, the last entirely pitchy-red. Antennæ testaceous, the 3rd to 6th joints infuscate. Legs reddish-testaceous. Length 9 mm.

Differs from *birmanus* in the much narrower oblong-oval head, which is distinctly longer than broad and scarcely perceptibly punctured, narrower thorax, more attenuated in front and without puncturation other than the usual ones. Head oblong-oval, the front with two large punctures and one or two others on either side near the base, and a very fine, scarcely visible scattered puncturation. Antennæ with elongate 1st joint, the 3rd shorter than the 2nd, the 4th to the 8th longer than broad, gradually decreasing in length, 9th and 10th scarcely transverse, 11th as long as the preceding. Thorax transverse, widest joint before the rounded posterior angles, the sides gently rounded and narrowed anteriorly, the disc on either side just before the middle with a single rather large puncture and two others near the anterior angles. Elytra a little broader but scarcely as long as the thorax, moderately coarsely punctured, finely pubescent. Abdomen elongate, gradually pointed, scarcely iridescent, closely and rather finely punctured except on the last segment, which is sparingly punctured. Anal styles pitchy.

Nilgiri Hills (*H. L. Andrewes*). Type in my own collection.

Genus **ATANYGNATHUS** Jacobson.

Atanygnathus Jacobson, Käf. Russl. vii, 1909, p. 521.
Tanygnathinus Reitt., Faun. Germ. ii, 1909, p. 105.
Tanygnathus Er., Käf. Mark Brand. 1837–39 (1839), i, p. 417; id., Gen. Spec. Staph. 1839–40, p. 288; Lacord., Gen. Col. ii, 1854, p. 60; Kraatz, Naturg. Ins. Ins. Deutschl. ii, 1856–58, p. 477; Jacq. du Val, Gen. Col. d'Eur. ii, 1857–59, p. 29; Thoms., Skand. Col. ii, 1860, p. 182; Fauv., Faun. Gallo-Rhén. iii, 1872, p. 543; Muls. et Rey, Ann. Soc. d'Agric. Lyon, (4) viii, 1875, p. 837; Sharp, B. C.-A. i, 2, 1882–87 (1884), p. 321; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 379; Cam., E. M. M. lii, 1916, p. 206.

Somewhat resembling the genus *Tachyporus* in build. Narrowed in front and behind, the head small, oblong, much narrower than the thorax, scarcely constricted behind, and inserted in the thorax; eyes rather large, not prominent, finely bordered below; gular sutures separated. Labrum transverse, emarginate in front in the middle and furnished with long setæ. Mandibles long and very slender, decussate, curved and pointed, the right with a small sharp tooth behind the middle, the left with a broader molar tooth. Maxillæ with the inner lobe narrow and elongate, closely ciliate along

the inner edge; outer lobe extending beyond the inner, its apex densely ciliate internally, externally with stouter curved setæ less closely placed. Maxillary palpi very long, the 1st joint very small, 2nd lightly curved, elongate, 3rd cylindrical, a little longer than 2nd, 4th slightly longer than the preceding, narrowed from base to apex, which is membranous. Mentum slightly transverse, a little narrowed in front, the anterior margin truncate. Tongue small, membranous, rounded in front. Paraglossæ not extending beyond the tongue, strongly ciliate. Labial palpi elongate, the 1st joint cylindrical, 2nd about twice as long, 3rd shorter and thinner than the preceding, the apex membranous. Thorax transverse, convex, narrowed in front, the angles rounded. Prosternum short, rounded behind, pronotal epipleura strongly reflexed, epimera absent. Mesosternal process short, triangular, scarcely reaching the middle of the coxæ, these narrowly separated behind. Anterior metasternal process not extending between the coxæ. Legs moderate, the anterior and posterior tibiæ with a few, the middle with more numerous spines. Anterior tarsi 5-jointed, the first three joints short, subequal, dilated in the ♂, the 4th a little longer, 5th about as long as the 2nd to 4th together; middle and posterior 4-jointed, the 1st joint almost as long as the 2nd and 3rd together, these subequal, 4th a little longer than the 1st. Claws slender, slightly curved.

The genus is found throughout the world in damp places.

Key to the Species.

1.	Posterior margin of the elytra broadly and distinctly reddish	*terminalis* Er., p. 309.
	Posterior margin of the elytra not or very narrowly and obscurely reddish	2. [p. 311.
2.	Thorax about twice as broad as long.....	*brevicollis* Fauv.,
	Thorax about a third broader than long...	3.
3.	Antennæ entirely testaceous	*fuscus* Kr., p. 310.
	Antennæ with the intermediate joints distinctly infuscate	*piceus* Motsch., p. 310.

1266. **Atanygnathus terminalis.**

Tanygnathus terminalis Er., Käf. Mark Brand. 1837–39 (1839), p. 418; id., Gen. Spec. Staph. 1839–40, p. 228, tab. 1, fig. 4; Kraatz, Naturg. Ins. Deutsch. ii, 1856–58, p. 478; Jacq. du Val, Gen. Col. d'Eur. ii, 1857–59, tab. 11, fig. 53; Thoms., Skand. Col. ii, 1860, p. 183; Fauv., Faun. Gallo-Rhén. iii, 1872, p. 544; Muls. et Rey, Ann. Soc. d'Agric. Lyon, (4) viii, 1875, p. 839; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 380.

Tanygnathus terminalis Er., var. *pictus* Motsch., Bull. Mosc. xxvi, 1858, iii, p. 213.

Tanygnathus terminalis Er., var. *ruficollis* Kr., Arch. Naturg. xxv, 1859, i, p. 64.

Shining; head black, thorax dark brown, with the margins narrowly and obscurely reddish or brownish-red, with the

disc darker; elytra black, the posterior margin reddish; abdomen black, iridescent, the posterior margin of the segments reddish. Antennæ with the first and last three or four joints yellow, otherwise infuscate. Palpi yellow. Legs reddish-yellow. Length 4–5 mm.

Var. *pictus*. Head and anterior three-fourths of the elytra black, with a black spot on the reflexed margin bordered with yellow, otherwise of pale testaceous colour.

Var. *ruficollis*. Thorax entirely bright red or red, with the apical margin more or less infuscate.

Head much narrower than the thorax, the eyes longer than the temples, the sides with a few setæ; practically impunctate. Antennæ rather long and slender, 2nd to 10th joints all longer than broad, very gradually decreasing in length, 11th oval, a little longer than the 10th. Thorax about a third broader than long, as broad behind as the base of the elytra, the sides slightly rounded and retracted in front, the angles rounded, on the disc before the middle with two setiferous punctures. Scutellum closely and finely punctured. Elytra slightly longer than the thorax, finely, closely, and roughly punctured, finely pubescent. Abdomen pointed, very finely and very closely punctured except towards the posterior margins, pubescence fine and close, the sides setiferous.

♂: first three joints of the anterior tarsi dilated. 6th ventral segment slightly emarginate.

Widely distributed in India and the Oriental region, also in Europe and North Africa (type-form).

1267. **Atanygnathus piceus.**

Tanygnathus piceus Motsch., Bull. Mosc. xxvi, 1853, iii, p. 213.

Size and build of *terminalis*, but of darker colour, the head and elytra black, the posterior margin narrowly and scarcely perceptibly reddish, the thorax and abdomen dark reddish-brown. The elytra are more finely and more closely punctured. The antennæ are similarly constructed, the base testaceous, the following joints blackish, the last four or five often yellow.

India (without further indication). Also in Singapore, Malay Peninsula, etc.

The description of this species is taken from a specimen in the Berlin Museum.

1268. **Atanygnathus fuscus.**

Tanygnathus fuscus Kr.*, Arch. Naturg. xxv, 1859, i, p. 65.

This only differs from *piceus* in the antennæ being entirely testaceous or scarcely perceptibly infuscate in the middle; the elytra are concolorous.

India (without further indication).

1269. **Atanygnathus brevicollis.**

Tanygnathus brevicollis Fauv.*, Rev. d'Ent. xiv. 1895. p. 276.

Shining ; head black, thorax pitchy, the margins more or less obscurely reddish ; scutellum reddish ; elytra black, the suture and apical margin very narrowly and obscurely reddish ; abdomen pitchy, somewhat iridescent, the posterior margin of the segments reddish. Antennæ with the 1st and last two or three joints yellow, the rest blackish. Legs yellow. Length 5–5·5 mm.

Larger and more robust than *terminalis*, broader in front and differently coloured ; antennæ more slender ; thorax much broader, almost twice as broad as long, the sides more rounded, more retracted in front ; elytra and abdomen less closely and less finely punctured.

Burma : Carin Ghécu, alt. 1300–1400 metres ; Carin Asciuii Ghécu, 1400–1500 metres ; Tenasserim, Thagata (*L. Fea*). Assam : Naga Hills. Mussoorie district and Siwaliks.

Subfamily IX. TRICHOPHYINÆ.

Trichophyinæ Ganglb., Käf. Mitt.-Eur. ii. 1895, p. 324.
Trichophyina Thoms., Skand. Col. iii. 1861, p. 111 ; ix. 1867, p. 136.
Tachyporini Sect. iii. *Trichophyæ* Fauv., Faun. Gallo-Rhén. iii. 1872, p. 618.
Trichophyens Muls. et Rey, Ann. Soc. d'Agric. Lyon, (4) viii, 1875, p. 210 ; Rey, Ann. Soc. Linn. Lyon, xxix. 1882, p. 118.

Facies somewhat resembling *Tachyporus*. Antennæ 11-jointed, inserted in front of the eye, with the first two joints strongly dilated, the following very slender and furnished with long fine hairs. Elytral epipleura not separated by a keel from the dorsal surface. Tibiæ pubescent. All the tarsi 5-jointed.

This subfamily contains only a single genus of but few species —one European, one American, and the rest Indian.

Genus TRICHOPHYA Mannerh.

Trichophya Mannerh., Brachél. 1830, p. 73 ; Kraatz, Naturg. Ins. Deutschl. ii, 1856–1858, p. 388 ; Jacq. du Val, Gen. Col. d'Eur. ii, 1857–59, p. 27 ; Fauv., Faun. Gallo-Rhén. iii, 1872, p. 618 ; Rey, Ann. Soc. Linn. Lyon, xxix, 1882, p. 119 ; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 325.
Trichophyus Er., Käf. Mark Brand. i. 1837–39 (1839), p. 402 ; id., Gen. Spec. Staph. 1839–40, p. 267 ; Lacord., Gen. Col. ii, 1855, p. 57 ; Thoms., Skand. Col. iii, 1861, p. 112.

Head subtriangular, prominent, constricted behind, the neck stout ; eyes not bordered below ; gular sutures obsolète.

Antennæ with the first two joints strongly dilated, the following very slender and furnished with long hairs. Labrum transverse, rounded in front. Mandibles short and stout, not prominent, acutely pointed, each with a small sharp tooth behind the apex. Inner lobe of maxilla narrow, uncinate at apex, its inner margin behind furnished with long hairs, near the apex with some fine spines; outer lobe densely ciliate at apex. Maxillary palpi rather long, the 1st joint very small, 2nd rather long, fusiform, 3rd distinctly shorter and much thicker than the 2nd, obconical, the 4th nearly as long as the 3rd, gradually pointed, the apex membranous. Mentum transverse, trapezoidal, truncate in front. Tongue short and broad, broadly and feebly emarginate in front, at each side with a small notch. Paraglossæ apparently wanting or rudimentary. Labial palpi short, the 1st joint stout, a little longer than broad, slightly narrowed towards apex, 2nd small, much shorter and narrower than the 1st, 3rd slender, much narrower and longer than the 2nd. Thorax strongly transverse, scarcely narrower than the elytra, the sides rounded. Pronotal epipleura horizontal, wider behind, epimera wanting. Prosternum short, pointed between the coxæ, the depressed part truncate behind. Mesosternum elevated along the middle, its process short and acute, not reaching the middle of the coxæ, these narrowly separated. Metasternum not produced between the middle coxæ. Elytral epipleura not separated by a keel from the dorsal surface. Abdomen gradually narrowed behind, the 1st ventral segment keeled. Legs rather short, tibiæ finely pubescent; anterior tarsi with the 1st joint longer than 2nd, 2nd to 4th short, subequal, 5th about as long as the 2nd to 4th together: middle with the 1st joint a little longer than 2nd and 3rd together, these short, subequal, 5th about as long as 2nd to 4th together; posterior with the 1st joint as long as the three following together, these gradually decreasing in length. All the claws rather sharply angulate near the base.

The species are found in moss and under loose bark.

Key to the Species.

1. Thorax with distinct oblique impression at the posterior angles ..... 2.
   Thorax not or scarcely impressed at the posterior angles ..... 3.
2. Fore-parts less coarsely punctured ..... *pilicornis* Gyll., [p. 313.
   Fore-parts more coarsely punctured ..... *rudis* Cam., p. 313.
3. Penultimate joints of the antennæ much longer than broad ..... *obsoleta* Cam., p. 314.
   Penultimate joints of antennæ not much longer than broad ..... *antennalis*, sp. n., p. 314.

1270. **Trichophya pilicornis.**

Aleochara pilicornis Gyll., Ins. Suec. ii. 1810, p. 417.
Trichophyus pilicornis Er., Käf. Mark Brand. i, 1837–39 (1839), p. 403; id., Gen. Spec. Staph. 1839–40, p. 268; Kraatz, Naturg. Ins. Deutschl. ii, 1857–58, p. 390; Jacq. du Val, Gen. Col. d'Eur. ii, 1857–59, tab. 11, fig. 51; Thoms., Skand. Col. iii, 1861, p. 112; Fauv., Faun. Gallo-Rhén. iii, 1872, p. 618; Rey, Ann. Soc. Linn. Lyon, xxix, 1882, p. 121; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 326.
Trichophya huttoni Woll., Ins. Mader. 1854, p. 572, tab. 13, figs. 6 *a*–8.

Black, rather shining, the elytra occasionally pitchy. Antennæ fusco-testaceous. Legs yellowish-red. Length 2·5–3 mm.

Head subtriangular, much narrower than the thorax, eyes occupying the whole of the sides, closely, moderately finely punctured. Antennæ long and slender, pilose, all the joints much longer than broad. Thorax nearly twice as broad as long, widest about the middle, the sides rounded, equally retracted in front and behind, slightly emarginate before the rounded posterior angles, these distinctly, obliquely impressed; sculpture as on the head. Elytra distinctly longer and a little broader than the thorax, closely, rather finely, but roughly punctured. Abdomen a little narrowed behind, very finely, rather closely punctured. The whole insect covered with a fine greyish pubescence.

Simla Hills. Chakrata district, alt. 6000–8000 feet. In moss and under bark. Also in Europe and Madeira.

1271. **Trichophya rudis.**

Trichophya rudis Cam., Trans. Ent. Soc. Lond. 1926, p. 171.

Shining black, the thorax obliquely impressed at the posterior angles, elytra pitchy-black. Antennæ and legs brownish-testaceous. Length 2·5 mm.

Differs from *pilicornis* Gyll. in the longer, less transverse thorax and coarser puncturation of the fore-parts. Head closely punctured. Antennæ with the first two joints dilated, the following very slender and elongate. Thorax transverse (5·5 : 3·5), widest about the middle, the sides uniformly rounded, the posterior angles obtuse and distinctly obliquely impressed, closely, moderately finely punctured. Elytra longer (5 : 3·5) and broader than the thorax, a little longer than broad, as closely but more roughly punctured than the thorax. Abdomen finely, closely punctured and finely pubescent.

Simla Hills: Gahan. Chakrata district: Binal Gad, Kanasar, Dodora Khud, alt. 7000–8000 feet.

1272. **Trichophya obsoleta.**

Trichophya obsoleta Cam., Trans. Ent. Soc. Lond. 1926, p. 121.

Shining black, thorax not impressed at the posterior angles. Antennæ testaceous, the first two joints scarcely infuscate. Legs testaceous. Length 2 mm.

Very similar in build to *rudis*, but smaller, less robust, and more depressed, the thorax not impressed at the posterior angles, and the puncturation of the fore-parts much less coarse.

Chakrata district: Binal Gad, alt. 7000–8000 feet.

1273. **Trichophya antennalis**, sp. n.

Similar in colour and of the somewhat depressed build of *obsoleta*, but smaller (1·75 mm.), and at once distinguished by the much shorter antennæ, the penultimate joints being only slightly longer than broad; the thorax is more retracted in front than behind and the posterior angles without impressions, the sculpture is a little closer than in *obsoleta*, but equally coarse.

Simla Hills: Gahan, alt. 7000 feet.

Subfamily X. TERMITODISCINÆ.

Termitodiscinæ Wasmann, Zeit. f. wiss. Zool. ci, 1912, p. 91.

This subfamily comprises small, shining, setiferous, scale-like species, broad in front and pointed behind, with a facies much resembling the King Crab (*Limulus*). The head is completely concealed below the thorax, which is large and semicircular; the elytra are shorter than the thorax, deeply emarginate behind, and with strongly reflexed epipleura the abdomen; pointed behind and bordered above. Head small, eyes rather large, infra-orbital ridge absent; gular sutures separated. Antennæ stout, fusiform or compressed and clavate, 11-jointed; the 1st joint cylindrical, 2nd short, narrow at the base, dilated at apex, clavate, 3rd transverse, forming a shallow cup, 4th to 10th connate, 11th more or less conical. Labrum transverse, truncate in front, the sides rounded and retracted behind. Mandibles short, stout, pointed, edentate, with fine ciliate membrane internally extending from the base nearly to apex. Inner and outer lobes of the maxilla narrow, the outer extending beyond the inner, both furnished with fine, lightly curved spines. Maxillary palpi with the 1st joint very small, 2nd slightly curved and a little thickened towards the apex, 3rd stouter and longer, oval, 4th much shorter, narrower and conical. Tongue membranous, short and broad, slightly produced in the middle into a small point carrying three short setæ. Labial palpi short, the 1st joint short and stout, the 2nd narrower, about half as long, the 3rd narrower and cylindrical, a little longer than the 2nd. Mentum transverse,

the sides rounded, deeply and broadly emarginate in front. Prothorax semicircular, the sides and apical margin forming a continuous curve, the base truncate. Prosternum very short, forming a transverse rod; pronotal epipleura very strongly deflexed, apparently largely fused with the under surface of the pronotum; epimera absent. Mesosternum short and broad, deeply emarginate in front, its process short and pointed; metasternum short, its anterior process long and slender, reaching the mesosternal process, the intermediate coxæ narrowly separated. Scutellum small, rounded behind. Elytra very short, transverse, the epipleura strongly reflexed. Abdomen pointed, margined above at the sides. Anterior coxæ larger than the femora. Femora and tibiæ strongly compressed, finely spinose. Tarsi 4, 4, 5; the anterior and middle with the first three joints short, the 4th a little longer than the three preceding together; the posterior tarsi longer, the first four joints subequal, about twice as long as broad, the 5th as long as the two preceding together. All the claws slender and but slightly curved. The subfamily is associated with termites, and doubtless hostile to them. It is also represented in Africa. It comprises two genera.

Key to the Genera.

Antennæ elongate, fusiform, extending well beyond the thorax ..... DISCOXENUS Wasm., [p. 315.

Antennæ very short and broad, not or scarcely extending beyond the thorax ..... TERMITODISCUS Wasm., [p. 317.

Genus **DISCOXENUS** Wasm.

Discoxenus Wasm., Zool. Jahrb. Suppl. vii, 1904, p. 655; id., Zeit. f. wiss. Zool. ci, 1912, p. 92.

General characters of the subfamily. The antennæ fusiform, projecting considerably beyond the thoracic margin.

Key to the Species.

1. Antennæ strongly pointed, the penultimate joint much longer than broad, the last narrow, almost subulate, fully three times as long as broad. Disc of the elytra and base of the abdomen with transverse rows of numerous long yellow setæ ..... 2.

Antennæ only moderately pointed, the penultimate joint not longer than broad, the last blunt, clavate, twice as long as broad; 4th to 7th joints transverse. Disc of elytra and base of the abdomen with very sparing setæ. The exposed part of the antennæ only as long as the thorax. Elytra only half as long as the thorax. Reddish-brown, the elytra darker. Antennæ brown, with the last joint yellow. Length 1·8 mm. (without antennæ) ..... *crassicornis* Wasm., [p. 317.

2. Larger (almost 2·5 mm.). Elytra only about a third shorter than the thorax. Elytra and base of the abdomen with numerous long, depressed yellow setæ. Antennæ very stout and strongly pointed, the exposed part longer than the thorax, the 4th to 7th joints transverse, the last very narrow and pointed, nearly four times as long as broad. Bright reddish-brown, with darker elytra; base and apex of the antennæ bright yellow. Length 2·3 mm.: breadth 1·2 mm. ..... *lepisma* Wasm., p. 316.

Smaller (under 2 mm.). Elytra about half as long as the thorax; the exposed part of the antennæ not longer than the thorax, the last joint three times as long as broad. 3.

3. Antennæ moderately pointed, the 5th to 7th joints not transverse. Disc of elytra with a few almost recumbent yellow setæ. Pitch-brown, the elytra darker, the apex of antennæ only slightly yellow. Length 1·8–1·9 mm..... *assmuthi* Wasm., [p. 316.

Antennæ strongly pointed, 4th to 7th joints transverse. Disc of elytra thickly covered with erect yellow setæ. Reddish-brown, with pitch-brown elytra. Base and apex of the antennæ yellow. Length 1·8 mm. ..... *acuticornis* Wasm., [p. 317.

The above Key is after Wasmann.

1274. **Discoxenus lepisma.** (Plate III, fig. 6.)

Discoxenus lepisma Wasm.*, Zool. Jahrb. Suppl. vii, 1904, p. 656.

Shining reddish-yellow, the elytra darker. Antennæ brown, the base and apex yellow. Legs reddish-yellow. Length 2·5 mm; breadth 1·2 mm.

Antennæ stout and pointed, the exposed part longer than the thorax, the 4th to 7th joints transverse, the 8th to 10th about as long as broad. Thorax sparingly covered with erect setæ, otherwise impunctate and glabrous. Elytra half as long as the thorax, strongly transverse, sparingly covered with longer yellow and more depressed setæ than on the thorax. Abdomen with rather sparing yellow setæ and a fine coriaceous ground-sculpture.

Ahmednagar district: Kendal, with *Termes obesus* subsp. *wallonensis* Wasm. Dehra Dun; Mothronwala.

1275. **Discoxenus assmuthi.**

Discoxenus assmuthi Wasm., Zool. Jahrb. Suppl. vii, 1904, p. 656.

Very near *lepisma*, but much smaller and especially narrower (length 2 mm.; breadth ·7 mm.).

Antennæ more slender, the 4th to 6th joints not transverse. Elytra about half as long as the thorax. Abdomen very closely

covered with setæ. Pitch-brown, thorax and elytra often darker, the whole upper surface between the setæ very shining.

Bombay Pres.: Khandala. With *Termes obesus* Ramb. (*Assmuth*) (ex *Wasmann*).

1276. **Discoxenus crassicornis.**

Discoxenus crassicornis Wasm., Zool. Jahrb. Abt. f. Syst. xxxix. 1916, p. 179, tab. 4, fig. 6.

Reddish-brown, shining, impunctate, the elytra brown, the sides with yellow setæ, those at the sides of the abdomen longer, the apex not very thickly covered with black setæ; the elytra and base of the abdomen with sparing yellow, nearly decumbent setæ. Antennæ brown, the last joint testaceous, strongly thickened from the 3rd joint, the joints connate, towards the apex somewhat obtusely acuminate, the exposed part scarcely as long as the thorax, 4th to 9th joints transverse, 8th to 10th scarcely longer than broad, 11th conical, obtuse, almost twice as long as broad. Prothorax semicircular, moderately convex. Elytra half as long as the thorax, strongly transverse. Abdomen somewhat flattened, pointed, distinctly bordered. Length 1·8 mm.; breadth ·7 mm.

Near *assmuthi*, but the antennæ much less pointed, the 4th to 7th joints transverse.

Ceylon: Peradeniya, 28. xii. 1911. Two specimens from a nest of *Odontotermes redemanni* (ex *Wasmann*).

1277. **Discoxenus acuticornis.**

Discoxenus acuticornis Wasm., Zool. Jahrb. Abt. f. Syst. xxxix, 1916, p. 179.

Similar to *crassicornis*, but the antennæ longer and more strongly pointed, the 4th to 6th joints transverse, 10th almost twice as long as broad, 11th acute, three times longer than broad. Elytra and base of the abdomen closely covered with erect yellow setæ. Length 1·8 mm.; breadth ·7 mm.

Ceylon: Peradeniya, 27. xii. 1911. A single example from a nest of *Odontotermes obscuriceps* (ex *Wasmann*.)

Genus **TERMITODISCUS** Wasm.

Termitodiscus Wasm., D. E. Z. 1899, p. 147; id., Zeit. f. wiss. Zool. ci, 1912, pp. 91–94; id., Zool. Jahrb. Abt. f. Syst. xxxix, 1916, p. 179; tab. 4, figs. 8, 9, 10; tab. 5, figs. 8 *c*, 9 *a*, 10 *a*.

Characters of the subfamily. The antennæ very short and compressed, not or scarcely extending beyond the margin of the thorax.

Key to the Species.

1. Larger (length 1·6–1·9 mm.; breadth 1–1·2 mm.)	2.
Smaller (length 1–1·4 mm.; breadth ·7–·8 mm.)	3.
2. Club of antennæ 2½ times as long as broad, the last joint shorter than the rest of the club	*heimi* Wasm., p. 318.
Club of antennæ twice as long as broad, the last joint as long as the rest of the club	*escherichi* Wasm., [p. 318.
3. Larger (1·4 mm.) and brighter coloured. Last joint of antennæ a little shorter than the rest of the club	*butteli* Wasm., p. 319.
Smaller (1 mm.) and darker. Last joint of antennæ much shorter than the rest of the club	*minutus* Cam., p. 319.

1278. **Termitodiscus heimi.**

Termitodiscus heimi Wasm.*, D. E. Z. 1899, p. 147; id., Zeit. f. wiss. Zool. ci, 1912, p. 94, tab. 5, fig. 4; id., Zool. Jahrb. Abt. f. Syst. xxxix, 1916, p. 180, tab. 4, figs. 8, *a*, *b*; tab. 5, fig. 8 *c*.

Shining brown, the head black, the margins of the thorax and apex of the abdomen yellow. Antennæ and legs yellow. Length 1·8–1·9 mm.; breadth 1·2 mm.

Head glabrous, the rest of the upper surface covered with short, depressed, yellow setæ, the apex of the abdomen with several black setæ. Club of antennæ fusiform, almost equally narrowed at the base and apex, fully 2½ times longer than broad, broadest about the middle, the last joint about one-third shorter than the rest of the club. According to Wasmann, the ♂ has the 6th ventral segment deeply divided, bilobed; 5th with the posterior margin triangularly produced in the middle; 5th (visible) dorsal segment with 3-dentate posterior margin.

Ahmednagar district: Sangamner, Wallon. With *Odontotermes obesus* and *wallonensis*.

1279. **Termitodiscus escherichi.**

Termitodiscus escherichi Wasm.* in Escherich, Term. Leben. Ceylon, 1911, p. 231; id., Zeit. f. wiss. Zool. ci, 1912, p. 94; id., Zool. Jahrb. Abt. f. Syst. xxxix, 1916, p. 181, tab. 4, fig. 9; tab. 5, fig. 9 *a*.
Termitodiscus escherichi var. *picea* Wasm., l. c. p. 181.

Shining, yellowish-brown, the abdomen reddish-yellow. The var. *picea* is pitchy-black, only the margins of the thorax yellow. The species is a little smaller (length 1·6 mm.) and narrower (breadth 1 mm.) than *heimi* and (in the type-form) more brightly coloured. The antennal club is very broad, broadest near the apex, and about twice as long as the breadth of the last joint, which is very nearly as long as the rest of the club.

Ceylon : Peradeniya, with *Odontotermes redemanni* Wasm. The var. *picea* is likewise from Ceylon, but is associated with *O. ceylonicus* Wasm.

1280. **Termitodiscus butteli.**

Termitodiscus butteli Wasm.*, Zool. Jahrb. Abt. f. Syst. xxxix, 1916, p. 181, tab. 4, fig. 10; tab. 5, fig. 10 *a*.

Shining, reddish-yellow ; antennæ and legs yellow. Length 1·4 mm. ; breadth ·8 mm.

Colour, etc., of *escherichi*, but smaller and narrower, the club of the antennæ narrower, more than twice as long as broad, fusiform, widest in the middle, the last joint a little shorter than the rest of the club.

Ceylon : Peradeniya. With *Odontotermes obscuriceps* Wasm.

1281. **Termitodiscus minutus.**

Termitodiscus minutus Cam., Trans. Ent. Soc. Lond. 1926, p. 171.

Minute, subdepressed, shining yellowish-brown, the lateral and anterior margins of the thorax yellow ; thorax, elytra, and abdomen clothed with short, stiff, yellow, backwardly directed hairs. Length 1 mm. ; breadth ·5 mm.

The smallest species of the genus. Differs from *T. butteli* Wasm. by the colour, different build, and rather longer antennal club with shorter terminal joint. Head completely concealed beneath the thorax, impunctate, shining. Antennæ with the 1st joint moderate in length, the following forming a club gradually increasing in width from the base to the middle of the last joint, about three times as long as broad, the 10th joint semi-oval. Thorax nearly semicircular, transverse (5 : 3), overlapping the base of the elytra, the posterior angles acute, finely but not closely punctured, each puncture with a short stiff yellow hair, which is directed backwards. Elytra much shorter than the thorax (1 : 3 along the suture), strongly transverse, with asperate punctures which are a good deal closer than those of the thorax and furnished with a similar hair. Abdomen narrower than the elytra, strongly contracted from the base to apex, the sculpture much less distinct but about as close as that of the elytra and with similar stiff hairs, the sides moderately reflexed, without long setæ.

Dehra Dun. In the nest of a termite.

Subfamily XI. PYGOSTENINÆ.

Pygosteninæ Wasm., Verhand. Deutsch. Zool. Ges. 1902, pp. 91–93; id., Zool. Jahrb. Abt. f. Syst. xxxix, 1916, p. 170; id., Ent. Mitt. xv, 1926, p. 113.
Pygostenini Fauv., Rev. d'Ent. xviii, 1899, p. 5.

Fusiform species of small size; the head exposed, the antennæ 11-jointed, very thick and pointed, inserted below the head in a depression, the 1st joint cupuliform and more or less emarginate, the following connate. Abdomen with the first four (visible) segments distinctly bordered, the 5th more narrowly and at the base only.

Only one genus is so far known in our Fauna.

Genus DORYLOXENUS Wasm.

Doryloxenus Wasm., W. E. Z. xix, 1898, p. 101, figs. 1–4; Fauv., Rev. d'Ent. xviii, 1899, p. 10; Wasm., Zool. Jahrb. Abt. f. Syst. xiv, 1900, pp. 263–265; id., Zool. Jahrb. Supp. vii, 1904, pp. 649–655 (Key to Species); id., Compte Rendu, vi Congr. Intern. Zool. 1904 (1905), pp. 431–447; id., Ent. Mitt. xv, 1926, p. 115 (figs.).
Mimocete Fauv., Rev. d'Ent. xviii, 1899, p. 7 (Key to Species); Wasm., Zool. Jahrb. Abt. f. Syst. xiv, 1900, pp. 263–265; id., Zool. Jahrb. Supp. vii, 1904, pp. 649–658; Kraatz, D. E. Z. 1899, p. 363 (note).
Phocasoma Kraatz, D. E. Z. 1899, p. 363.

Fusiform, convex, shining species, the head exposed, inserted in the thorax, with which the curve of the side is continuous. Scutellum concealed. Elytra emarginate behind.

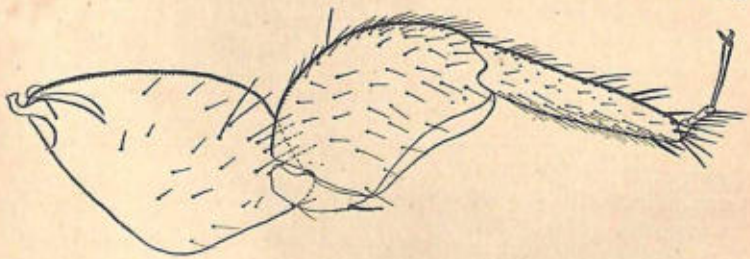


Fig. 5.—Anterior leg of *Doryloxenus brevicornis* Cam.

Abdomen pointed, the first four (visible) segments strongly bordered, the 5th more narrowly and only at the base; apex with black setæ. Labrum somewhat produced, slightly transverse, narrowed in front, the anterior margin rounded, with a small triangular emargination in the middle and furnished with a few small setæ. Mandibles slightly curved, the apical half slender and pointed, edentate and furnished with a fine ciliate membrane. Inner and outer lobes of the maxilla narrow, the latter produced a little beyond the inner, the inner

margins and apices furnished with curved spines. Maxillary palpi with the 1st joint small, 2nd slightly curved, thickened towards apex, 3rd cylindrical, about twice as long as the 2nd, 4th much narrower, pointed, shorter than the 3rd. Mentum transverse, narrowed in front, the anterior margin truncate. Tongue short and broad, rounded in front, in the middle of the anterior border with a small notch. Labial palpi with the 1st joint long and cylindrical, the 2nd narrower, about half as long, the 3rd yet narrower, as long as the 2nd, truncate. Pronotum transverse, convex, narrowed in front, the epipleura strongly deflexed. Prosternum well developed, broadly rounded behind. Mesosternum strongly keeled, its process very narrow and acute, meeting the anterior process of the metasternum, which is produced between the coxæ, these being narrowly separated. Elytra broadly emarginate behind, the epipleura narrow. Femora stout, grooved to receive the tibiæ, these setiferous, at the apex with some spines. Tarsi 4-jointed, the first three joints subequal in length, but decreasing considerably in breadth, the apex of the first two deeply excavated to receive the base of the following; these joints are furnished with strong spines, the 4th joint very long and narrow, nearly twice as long as the preceding together, entirely membranous, but furnished with two slightly curved and lightly chitinized claws. It will be seen that the account of the tarsal structure is very different from that given by Fauvel and Wasmann; the 4th joint is very delicate, and in many preparations which I have made has been broken off, in which case the tarsus is as represented by Wasmann in W. E. Z. xvii. 1898, p. 101. The latter author regards *Mimocete* and *Doryloxenus* as distinct, but the differences are, I think, scarcely to be regarded as generic. The genus is also found in Africa, where it is associated with species of *Dorylus*; with us, however, it is found with termites, and is doubtless inimical to them.

Key to the Species.

1.	Anterior abdominal segments each with four long setæ in a transverse row	2.
	Anterior abdominal segments each with eight long setæ in a transverse row.....	9.
2.	Thorax and elytra with the sides furnished with long setæ. Anterior abdominal segments each with four setæ	*butteli* Wasm., p. 324.
	Thorax and elytra without such setæ	3.
3.	Apex of abdomen furnished with long, stout, black setæ	4.
	Apex of abdomen furnished with short, slender, yellow setæ	[p. 323. *splendidus* Wasm.,
4.	Eyes visible from above	5.
	Eyes not visible from above	8.
5.	Head broadly impressed in front	6.
	Head flat or slightly convex	7.

6.	Larger (2·4–2·5 mm.) and broader, the setæ longer and stouter	*transfuga* Wasm., [p. 322.
	Smaller (2·2–2·3 mm.) and narrower, the setæ shorter and finer	*termitophilus* Wasm., [p. 322.
7.	Longer (2·5 mm.) and narrower; antennæ longer and less stout	*peradeniyæ* Wasm., [p. 323.
	Shorter (2·2 mm.) and broader; antennæ shorter and thicker	*brevicornis* Cam., p. 322.
8.	Larger (2·5 mm.) and more robust	*ceylonicus* Wasm., [p. 323.
	Smaller (1·4 mm.) and narrower	*proximus*, n. n., p. 324.
9.	Larger (2·3 mm.)	*phoca* Fauv., p. 324.
	Smaller (1·1–1·2 mm.)	10.
10.	Thorax and elytra with a very short, very fine erect pubescence; apical abdominal setæ fine and yellow	*cutermitis* Wasm., [p. 325.
	Thorax and elytra practically glabrous; apical abdominal setæ stouter and black.	*longesetosus* Cam., [p. 325.

1282. **Doryloxenus transfuga.**

Doryloxenus transfuga Wasm.*, Zool. Jahrb. Suppl. vii, 1904, p. 654.

Shining reddish-yellow, the head and elytra a little darker. Head impressed in front; eyes visible from above. Antennæ thick and pointed, about as long as the head and thorax together. Thorax scarcely twice as broad as long. Elytra at the suture a little shorter than the thorax. Abdomen strongly pointed, the first four visible segments each with a transverse row of four long dark setæ at the posterior margin. Anal setæ black. Length 2·4–2·5 mm.; breadth 1 mm.

Bombay Pres.: Khandala (*Assmuth*). With *Termes obesus* subsp. *wallonensis*.

1283. **Doryloxenus termitophilus.**

Doryloxenus termitophilus Wasm.*, Zool. Jahrb. Suppl. vii, 1904, p. 655.

This appears to me to be only a small race of *transfuga*, having the same build and colour, the eyes visible from above (not invisible, as stated by Wasmann), and in other respects similar. Length 2·2–2·3 mm.; breadth ·7 mm.

Bombay Pres.: Khandala (*Assmuth*). With *Termes obesus*.

1284. **Doryloxenus brevicornis.** (Plate III, fig. 7.)

Doryloxenus brevicornis Cam., Trans. Ent. Soc. Lond. 1926, p. 172.

Convex, fusiform, shining. Head pitchy, in front more or less broadly reddish, thorax reddish, elytra pitchy, abdomen reddish. Antennæ and legs brownish-red. Length 2·75 mm. (in fully extended examples); breadth ·75 mm.

Differs from *transfuga* by the larger size and more robust build, darker, more reddish colour, shorter antennæ, and the head not impressed in front. Head slightly convex, eyes visible from above, the side margins in front of them obliquely truncate to the rounded anterior border, no perceptible sculpture, glabrous. Antennæ very thick, conical, horn-like, much shorter than the head and thorax together. Thorax transverse (7 : 4·5), the sides gently rounded, the anterior and posterior angles rounded, the former a little produced, without sculpture or pubescence. Elytra along the suture shorter than the thorax (3 : 4·5) and a little broader, the sides feebly rounded, glabrous and impunctate. Abdomen strongly pointed from base to apex, the sides strongly margined; anal setæ black, the first four (visible) segments each with a transverse row of four setæ near the posterior margin, otherwise glabrous and impunctate.

Siwaliks: Lachiwala. With a species of termite.

1285. **Doryloxenus ceylonicus.**

Doryloxenus ceylonicus Wasm.*, Zool. Jahrb. Abt. f. Syst. xxxix, 1916, p. 175, tab. 4, fig. 4.

Shining yellowish to yellowish-brown, the head and elytra darker. In the short antennæ resembles *brevicornis*, but the head is strongly impressed in front and the eyes not visible from above, the thorax shorter and more transverse, scarcely twice as broad as long. The antennæ about half as long again as the head. Length 2·5 mm.; breadth scarcely 1 mm.

Ceylon: Peradeniya. With *Odontermes redemanni* Wasm.

1286. **Doryloxenus peradenyiæ.**

Doryloxenus peradenyiæ Wasm.*, Zool. Jahrb. Abt. f. Syst. xxxix, 1916, p. 175, tab. 4, fig. 3.

Differs from *ceylonicus* in the uniform, more reddish colour, the head and elytra not darker, the former without impression in front; thorax rather less transverse. In other respects similar. Length 2·5 mm.; breadth scarcely 1 mm.

Ceylon: Peradeniya. With *Odontotermes redemanni* Wasm.

1287. **Doryloxenus splendidus.**

Doryloxenus splendidus Wasm., Zool. Jahrb. Abt. f. Syst. xxxix, 1916, p. 175, tab. 4, fig. 2.

Very shining, smooth: head a half broader than long, the sides distinctly rounded in front. Antennæ very thick, strongly pointed, a third longer than the head. Elytra along the middle a little shorter than the thorax. Abdomen with each segment (except the last) on either side with two yellow setæ, the apex scarcely furnished with long black setæ, but

with short yellow hairs. Reddish-testaceous, the head and elytra brown; antennæ brown, the base and apex yellow. Length 2·5 mm.; breadth 1 mm.

Ceylon: Peradeniya. Unique. From the comb of *Odontotermes obscuriceps* Wasm., 27. xii. 1911, no. 42. The head is slightly convex (ex *Wasmann*).

1288. **Doryloxenus proximus**, nom. nov.

Doryloxenus wasmanni Cam., Trans. Ent. Soc. Lond. 1926, p. 172 (præocc).

Very shining, fusiform, convex, impunctate and without pubescence, reddish yellow-brown. Antennæ reddish-brown, thick, pointed, scarcely longer than the head. Length 1·4 mm.; breadth ·5 mm.

A slender species. Distinguished from *D. butteli* Wasm. by the more shining surface, narrower build, and absence of setæ at the sides of the thorax and elytra. Head broadly impressed in front, eyes not visible from above. Thorax transverse (4·5 : 3), the sides gently rounded. Elytra along the suture shorter (2 : 3) than the thorax, transverse, the sides rounded, the posterior margins broadly emarginate. Abdomen strongly narrowed from base to apex, as long as the forepparts, the anterior segments each with four black setæ in a transverse row near the posterior border, at the sides with some yellow setæ, the apex with black setæ.

Dehra Dun. In the nest of a termite

1289. **Doryloxenus butteli.**

Doryloxenus butteli Wasm.*, Zool. Jahrb. Abt. f. Syst. xxxix, 1916, p. 175, tab. 4, fig. 1.

At once distinguished from all our species by the sides of the thorax and elytra being furnished with rather long yellowish setæ, a character not mentioned by Wasmann. The colour is reddish-brown, the head a little darker behind, the front impressed, the eyes visible from above. Antennæ short, a little longer than the head. Thorax about a half broader than long. Elytra at the suture shorter than the thorax, abdomen with the anterior segments each with four setæ, two on each side. Apical setæ black. Length 1·5 mm.; breadth ·7 mm.

Ceylon: Peradeniya. With *Odontotermes obscuriceps* Wasm.

1290. **Doryloxenus phoca.**

Mimocete phoca Fauv., Rev. d'Ent. xviii, 1899, p. 10.

A little larger than *M. phocæna* [Zanzibar] and much wider in front, very shining, quite smooth and glabrous; the abdomen on each side with two rows of four long pitchy setæ.

the 6th dorsal segment towards the apex with a scarcely perceptible golden pubescence. Reddish-testaceous, the antennæ except at the apex and the abdominal segments at the base infuscate, the 11th joint of the antennæ and the apex of the abdomen lighter; antennæ very thick, the visible part a little longer than the head; head larger, longer, obconical, the extreme apex truncate, subsinuate laterally, subimpressed on the disc; eyes scarcely visible from above; thorax nearly a third broader than long, short, conical, all the angles rounded, base less produced, scarcely sinuate at the sides; scutellum inconspicuous; elytra a little shorter than the thorax, subparallel, the apical border less emarginate. Length 2·3 mm.

Ceylon: Colombo. Unique. In my collection (ex *Fauvel*).

1291. Doryloxenus eutermitis.

Doryloxenus eutermitis Wasm.*, Zool. Jahrb. Ab. f. Syst. xxxix, 1916, p. 176, tab. 4, fig. 5.

A very small (length 1·1 mm.; breadth ·48 mm.), narrow, reddish-yellow species. Head impressed; eyes not visible from above; antennæ a little longer than the head. Thorax nearly twice as broad as long. Elytra at the suture about half as long as the thorax, both with an extremely fine, short, rather sparing yellow pubescence. Abdomen on each of the anterior segments with eight long yellow setæ in a transverse row near the posterior margin; the apex with fine, short yellow setæ.

Bombay Pres.: Khandala (*Assmuth*). With *Eutermes oiformis* Wasm. Unique.

1292. Doryloxenus longesetosus.

Doryloxenus longesetosus Cam., Trans. Ent. Soc. Lond. 1926, p. 172.

Very shining, fusiform, subdepressed, yellowish-red. Antennæ very short and thick, reddish-brown, the apex testaceous. Length 1·2 mm.; breadth ·4 mm.

Near *eutermitis* Wasm., but more shining, the antennæ much shorter, the apical setæ black and much longer. Head broadly impressed on the vertex, the sides and anterior border rounded in a semicircle, the eyes not visible from above, with a few extremely fine and sparing punctures, glabrous. Antennæ very short and thick, pointed, shorter than the head. Thorax transverse (3·5 : 2·3), widest behind, the sides feebly rounded, anterior margin broadly, feebly emarginate, the anterior angles rounded and a little produced, similarly punctured to the head, glabrous. Elytra along the suture much shorter than the thorax (1·3 : 2·3) but a little broader, transverse, the posterior margin deeply emarginate, the

postero-external angles produced, the sides rounded, with a few very fine punctures, glabrous. Abdomen strongly narrowed from base to apex, each of the first four (visible) segments with a transverse row of eight long yellow setæ, the last two with more numerous ones, the apex with numerous black ones.

Dehra Dun. In the nest of a termite.

Subfamily XII. TACHYPORINÆ.

Tachyporinæ Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 329; Reitt., Faun. Germ. ii, 1909, p. 90; Luze, W. Z. B. lii, 1902, p. 192.
Tachyporiens Muls. et Rey, Ann. Soc. d'Agric. Lyon, (4) viii, 1875, p. 210; Rey, Ann. Soc. Linn. Lyon, xxviii, 1881, p. 143.
Tachinides Mannerh., Précc. arrang. Brachél. 1830, p. 11.
Tachyporini Er., Käf. Mark Brand. i, 1837–39 (1839), p. 385; id., Gen. Spec. Staph. 1839–40, p. 213 (excl. *Trichophyus*, *Tanygnathus*); Kraatz, Naturg. Ins. Deutschl. ii, 1856–58, p. 377 (excl. *Trichophyus*); Pand., Ann. Soc. Ent. Fr. (4) ix, 1869, p. 266; G. Horn, Trans. Amer. Ent. Soc. vi, 1877, p. 81; Fauv., Faun. Gallo-Rhén. iii, 1872, p. 545 (excl. *Trichophya*).
Tachyporites Jacq. du Val, Gen. Col. d'Eur. ii, 1857–59, p. 22 (excl. *Trichophya*, *Tanygnathus*).
Hypocyptina+Tachyporina, Thoms., Skand. Col. iii, 1861, pp. 109, 145; ix, 1867, pp. 136, 137.

For the most part consists of species broader in front and narrowed behind. The head inserted in the thorax, scarcely constricted behind, the neck stout. Antennæ inserted in front of the eyes under the side margin, which is not thickened, usually 11-jointed except in the HYPOCYPTINI, in which they are 10-jointed. Elytra usually extending beyond the metathorax and (except in the SYMMIXINI) with a sharp ridge separating the dorsal surface from the epipleura. Epimera of the prosternum absent except in *Tachyporus*, *Tachinus*, *Tachinomorphus* and *Tachinoderus*, where it is represented by a tongue-shaped process fused to the pronotal epipleura. Abdomen usually pointed and margined above. Tarsi 5-jointed except in the HYPOCYPTINI and SYMMIXINI, where they are 4-jointed.

Key to the Tribes.

1.	Antennæ 10-jointed. Tarsi 4-jointed. Short, convex species	**Hypocyptini**, p. 426.
	Antennæ 11-jointed	2.
2.	Tarsi 4-jointed	**Symmixini**, p. 425.
	Tarsi 5-jointed	3.
3.	Elytra with deep sutural stria. Head with infra-orbital ridge. Prosternal epimera absent	**Bolitobiini**, p. 327.
	Elytra without sutural stria. Head without infra-orbital ridge	**Tachyporini**, p. 351.

Tribe 1. BOLITOBIINI.

Bolitobiini Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 358; Luze, W. Z. B. li, 1902, p. 662.
Bolitobii Horn, Trans. Amer. Ent. Soc. vi, 1877, p. 83; Zodda, Riv. Ital. Sc. Nat. xxii, 1902, pp. 86, 93, 137.
Tachyporaires 2e rameau, *Bolitobiates* Rey, Ann. Soc. Linn. Lyon, xxix, 1882, p. 13.
Tachyporini Group iv, *Bolitobii* Lec. & Horn, Class. Col. N. Amer. 1883, p. 100.

Antennæ 11-jointed. Tarsi 5-jointed. Head with infra-orbital ridge. Prosternal epimera absent. Elytra with deep sutural stria.

Key to the Genera.

1. Last joint of the maxillary palpi subulate, much shorter and narrower than the 3rd. — [p. 327. MYCETOPORUS Mannh.
   Last joint of the maxillary palpi as long as or longer than the 3rd ..... — 2.
2. 3rd joint of the labial palpi very large, stout and fusiform, much thicker than the preceding, obliquely truncate and excavate at the apex; 1st joint of the middle and posterior tarsi with some spines below .. — [Lac., p. 349. BRYOCHARIS Bois. et
   3rd joint of the labial palpi normal, not thicker than the 2nd, 1st joint of the middle and posterior tarsi without spines below ..... — 3.
3. Last joint of labial palpi almost as long as the first two joints together, a little narrower than the 2nd, which is a little shorter and narrower than the 1st ..... — [p. 333. BOLITOBIUS Mannh.,
   Last joint of labial palpi a little longer and much narrower than the 2nd, this much shorter and much narrower than the 1st.. — BRYOPORUS Kr., p. 333.

Genus **MYCETOPORUS** Mannerh.

Mycetoporus Mannerh., Brachél. 1830, p. 62; Er., Käf. Mark Brand. i, 1837–39 (1839), p. 411; id., Gen. Spec. Staph. 1839–40, p. 281; Lacord., Gen. Col. ii, 1855, p. 59; Kraatz, Naturg. Ins. Deutsch. ii, 1856–58, p. 455; Jacq. du Val, Gen. Col. d'Eur. ii, 1857–59, p. 28; Fauv., Faun. Gallo-Rhén. iii, 1872, p. 560; G. Horn, Trans. Amer. Ent. Soc. vi, 1877, p. 120; Rey, Ann. Soc. Linn. Lyon, xxix, 1882, p. 68; Ganglb., Käf. Mitt-Eur. ii, 1895, p. 367; Luze, W. Z. B. li, 1901, p. 663.

Moderately convex, shining, fusiform species. Head scarcely narrowed behind, inserted in the thorax, with well-marked infra-orbital ridge. Antennæ 11-jointed. Labrum truncate. Mandibles short, stout, curved, pointed, edentate, with fine ciliate membrane internally. Outer lobe of the maxilla dilated at apex, extending beyond the inner and furnished with hairs and fine curved spines, the inner narrow, uncinate at

apex and similarly furnished internally. Maxillary palpi with the 1st joint small, 2nd obconical, 3rd oval, about as long as the 2nd, 4th subulate, much narrower and shorter than the 3rd. Mentum transverse, trapezoidal, truncate in front. Tongue broad and short, membranous, with a small notch in the middle of the anterior border. Labial palpi short, the 1st joint broader than long, 2nd a little longer than broad, a little narrower than the 1st, 3rd about as long as the two preceding together, but narrower and cylindrical. Paraglossæ ciliate, scarcely extending beyond the tongue. Thorax narrowed in front, the epipleura very strongly reflexed. Prosternum well developed; epimera wanting. Mesosternum rather broadly and deeply emarginate in front, its process long and slender, extending fully two-thirds the length of the coxæ, and meeting a pointed process of the metasternum, the coxæ narrowly separated. Tibiæ spinose. Anterior tarsi as long as the tibiæ, the 1st joint rather long, 2nd to 4th much shorter, subequal; middle and posterior much longer than the tibiæ, all the joints elongate, gradually decreasing in length, the 5th longer than the 4th.

The genus is found throughout the world in fungus, under loose bark, etc.

Key to the Species.

1.	Elytra with one or two rows of punctures between the sutural and subhumeral rows; colour brownish-black, thorax pale yellow, elytra reddish	[p. 329. *braminus* Motsch.,
	Elytra with three rows of punctures only, sutural, subhumeral, and lateral	2.
2.	Thorax in great part or entirely yellowish-red	3.
	Thorax black	6.
3.	Thorax entirely red	4.
	Thorax with the anterior third blackish	5.
4.	Antennæ darker, the penultimate joints as long as broad; elytra reddish, more or less infuscate at base	*splendidus* Gr., p. 329.
	Antennæ entirely reddish-yellow, the penultimate joints strongly transverse; elytra black, only the lateral and posterior margins very narrowly reddish	*gratiosus*, sp. n., p. 331.
5.	Abdomen black, the posterior margin of the segments reddish	[p. 330. *fasciatocollis* Champ.,
	Abdomen red, the 5th (visible) segment, except the posterior margin, black	[p. 330. *quadriguttatus* Champ.,
6.	Elytra with the posterior margin and large humeral spot yellow	7.
	Elytra black, the posterior margin scarcely perceptibly reddish	*perniger* Cam., p. 332.
7.	Abdomen with long, stiff, semi-erect black setæ	*indicus* Cam., p. 331.
	Abdomen with normal subdepressed pubescence	[p. 332. *himalayicus* Cam.,

1293. **Mycetoporus braminus.**

Mycetoporus braminus Motsch., Bull. Mosc. xxxi, 1858, iii, p. 215.

Very near *lucidus* [*rufescens* Steph.], the antennæ elongate, not much thickened towards the apex, the abdomen narrowed behind, but usually narrower. Colour brown-black, the front of the head, 1st and 2nd joints of the antennæ, palpi, thorax, and legs very pale yellow; elytra, outer margin of the abdominal segments, and anus more reddish. Thorax smooth, shining, strongly narrowed in front, the lateral margins with some punctures, a pair anteriorly and another pair near the scutellum. Elytra broader, and a half longer than the thorax, the base indistinctly infuscate, the longitudinal impressions and puncturation as in *punctus*, the puncturation of the abdomen distinct, close and not so strong as in *punctus*. Antennæ with the 3rd joint much longer than the 2nd, 9th and 10th transverse, the last somewhat oval, obliquely pointed.

"Indes orientales" (ex *Motschoulsky*).

M. punctus Gyll. has a dorsal row of eight to ten rather fine punctures extending from near the shoulders to the posterior margin, and internal to this one or two rows of about eight others. The abdomen is sparingly but rather strongly punctured.

1294. **Mycetoporus splendidus.**

Tachinus splendidus Gr., Mon. Col. Micr. 1806, p. 24; Er., Käf. Mark Brand. i, 1837–39 (1839), p. 416 (*Mycetoporus*); id., Gen. Spec. Staph. 1839–40, p. 287 (ex parte); Kraatz, Naturg. Ins. Deutsch. ii, 1856–58, p. 466; Thoms., Skand. Col. iii, 1861, p. 165; Pand., Ann. Soc. Ent. Fr. (4) ix, 1869, p. 340; Fauv., Faun. Gallo-Rhén. iii, 1872, p. 562 (ex parte); Rey, Ann. Soc. Linn. Lyon, xxix, 1882, p. 113; J. Sahlb., Enum. Col. Brach. Fenn. 1876, p. 202; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 368; Luze, W. Z. B. li, 1901, p. 672.
Mycetoporus americanus Horn, Trans. Amer. Ent. Soc. vi, 1877, p. 122.
Mycetoporus elegans Matth., Ent. Mag. v, 1838, p. 197.
Mycetoporus inquisitus Casey, Contr. descr. syst. Col. N. Amer. 1884, p. 152.
Mycetoporus pallidus Mannerh., Brachél. 1830, p. 63.
Mycetoporus picipes Steph., Ill. Brit. Ent. v, 1832, p. 176.
Mycetoporus ruficollis Steph., l. c, p. 176.
Mycetoporus subruber Heer, Faun. Helv. i, 1838–42, p. 586.
Mycetoporus tenuis Steph., Ill. Brit. Ent. v, 1832, p. 169.
Mycetoporus testaceus Kr., Arch. Naturg. xxv, 1859, i, p. 64.

Narrow, fusiform, shining. Head black, the front yellow; thorax yellowish-red; elytra red, somewhat infuscate at the base; abdomen black, the posterior margin of the segments narrowly reddish. Antennæ blackish, the 1st joint yellow, the penultimate obscurely reddish. Legs yellow. Length 3–4 mm.

Head small, subconical. Antennæ extending beyond the level of the posterior angles of the thorax, the 3rd joint much longer than the 2nd, the penultimate as long as broad, the 11th oval, much longer than the 10th. Thorax with a pair of small punctures immediately behind the anterior margin. Elytra distinctly longer than but as broad as the thorax, with three rows of fine punctures, sutural five, subhumeral five to seven, lateral five to six. Abdomen strongly narrowed behind, the base of the segments finely and rather closely punctured, more sparingly elsewhere.

♂: 5th ventral segment with broad emargination thickly clothed with long yellow curved hairs, on each side with a few black ones; 6th deeply, arcuately emarginate, the sides of the emargination clothed with a brush of long black curved hairs extending beyond the posterior margin of the segment, which is closely set with fine yellow setæ.

"Ind. or." (without further indication). Also in Europe and North America.

1295. **Mycetoporus fasciatocollis.**

Mycetoporus fasciatocollis Champ.*, E. M. M. lviii, 1922, p. 32.

Narrow, shining, fusiform. The head black, the front yellow. Thorax reddish-yellow, the anterior third infuscate. Elytra black, a humeral spot, the apical margin and the posterior two-thirds of the reflexed margin yellow. Abdomen black, the posterior margin of the segments reddish. Antennæ black, the first two joints and apex of the last yellow. Legs yellow. Length 4·5 mm.

Head much narrower than the thorax, impunctate. Antennæ extending a little beyond the posterior angles of the thorax, the penultimate joints as long as broad. Thorax as long as broad, strongly narrowed in front, just behind the anterior margin with a pair of punctures. Elytra distinctly longer and a little broader than the thorax, longer than broad, with three rows of eight to ten very fine punctures, sutural, subhumeral, and marginal. Abdomen strongly narrowed behind, sparingly and finely punctured.

Kumaon: W. Almora (*H. G. Champion*). Chakrata and Mussoorie districts (*Cameron*).

1296. **Mycetoporus quadriguttatus.**

Mycetoporus quadriguttatus Champ.*, E. M. M. lix, 1923, p. 47.

Very closely allied to *fasciatocollis*, but at once recognized by the red abdomen, only the 5th (visible) segment being black, with reddish posterior margin. In other respects scarcely differing from *fasciatocollis*.

Kumaon: Haldwani district (*H. G. Champion*). Dehra Dun and Mussoorie districts (*Cameron*).

1297. **Mycetoporus gratiosus**, sp. n.

Shining; head black or pitchy-red, thorax, scutellum and abdomen red, the 4th and 5th (visible) segments infuscate at the base, or brownish-red with the posterior margins lighter; elytra black, the reflexed and posterior margins very narrowly reddish. Antennæ and legs yellowish-red. Length 4–4·5 mm.

Narrower than *quadriguttatus*, the thorax entirely red, the elytra and antennæ differently coloured, the latter much shorter and stouter, with the 2nd and 3rd joints subequal, the 4th and 5th a little longer than broad, 6th to 10th transverse, the penultimate about twice as broad as long, 11th as long as the two preceding together. Thorax slightly transverse, the sides but little rounded, retracted in front, the anterior and posterior pair of punctures situated a little distance from their respective margins. Elytra as broad as but scarcely longer than the thorax, with a sutural row of four or five, and subhumeral and lateral rows of seven or eight fine punctures. Abdomen finely and closely punctured at the base of the segments, more sparingly elsewhere.

Darjeeling Dist.: Ghum, Rondong Valley, alt. 8500 feet.

1298. **Mycetoporus indicus.**

Mycetoporus indicus Cam., Trans. Ent. Soc. Lond. 1926, p. 173.

Black, shining; the shoulders and posterior margin of the elytra broadly rufo-testaceous. Abdomen with the posterior margins of the segments more or less rufescent. Antennæ black, the first two joints testaceous. Legs testaceous. Length 3·5 mm.

Size and build of *niger* Fairm., but with longer antennæ; in colour nearer *reichei* Pand. Head with a very few scarcely perceptible punctures and without ground-sculpture. Antennæ rather long, thickened distally, 3rd joint shorter than 2nd, 4th to 8th all distinctly longer than broad, 9th and 10th as long as broad, 11th longer than 10th. Thorax with the marginal punctures fine, the median anterior pair situated some distance from the margin, the external nearer thereto, and with a few other scarcely perceptible ones, without ground-sculpture. Elytra a little longer than broad, with a row of nine or ten sutural punctures, eight or nine humeral, and ten or eleven along the reflexed margin; ground-sculpture wanting. Abdomen finely, not very closely punctured and without ground-sculpture; pubescence yellow, scanty and with numerous long, black, semi-erect setæ.

Dehra Dun.

1299. **Mycetoporus himalayicus.**

Mycetoporus himalayicus Cam., Trans. Ent. Soc. Lond. 1926, p. 173.

Black, shining; the anterior and posterior margins of the thorax narrowly testaceous; elytra with an oblong, longitudinal spot at the shoulders, the posterior external angles and posterior margin narrowly testaceous. Abdomen with the posterior margins of the segments narrowly rufescent. Antennæ dark, the first two joints testaceous. Legs testaceous, the posterior femora and tibiæ brownish. Length 4·5 mm.

General facies of *indicus*, but the antennæ shorter, the humeral spot less diffuse, the posterior margins of the elytra more narrowly testaceous, the sculpture of the abdomen coarser and without long black setæ. Head without sculpture. Antennæ with 3rd joint about as long as 2nd, 4th to 6th a little longer than broad, gradually decreasing in length but increasing in thickness, 7th and 8th as long as broad, 9th and 10th slightly transverse. Thorax with the median pair of punctures some distance from the anterior border, the lateral a little less distant; ground-sculpture wanting. Elytra longer than broad, with a sutural row of eight or nine, a humeral and lateral each of ten punctures; just external to the humeral series a row of five or six very fine punctures is discernible; ground-sculpture extremely fine, transversely strigose. Abdomen moderately finely and moderately closely punctured, with rather coarse sparse yellow pubescence and without ground-sculpture.

Chakrata district: Binal Gad, alt. 7000–8000 feet.

1300. **Mycetoporus perniger.**

Mycetoporus perniger Cam., Trans. Ent. Soc. Lond. 1926, p. 173.

Narrow, elongate, black, shining. Elytra with three series of punctures. Antennæ brown, the first two and the last joint testaceous. Legs reddish-brown. Length 5 mm.

Narrower than *himalayicus*, with shorter antennæ, entirely black, the postero-external angles of the elytra scarcely perceptibly lighter. Head without puncturation or ground-sculpture. Antennæ short, the 2nd and 3rd joints subequal, 4th about as long as broad, 5th to 10th transverse, gradually increasing in breadth, the penultimate twice as broad as long. Thorax with the median and lateral punctures equidistant and remote from the anterior border. Elytra as long as broad, with a sutural and humeral series each of five or six fine punctures and a lateral of eight; no visible ground-sculpture. Abdomen with moderately fine elongate punctures and a fine yellowish sparse pubescence and without ground-sculpture.

Simla Hills: Matiana, alt. 7900 feet.

Genus **BRYOPORUS** Kr.

Bryoporus Kr., Naturg. Ins. Deutsch. ii, 1856–58, p. 452; id., Berl. Ent. Zeitsch. x, 1866, p. 147; Thoms., Skand. Col. iii, 1861, p. 169; Fauv., Bull. Soc. Linn. Norm. x, 1864–65, pp. 246, 247; G. Horn, Trans. Amer. Ent. Soc. vi, 1877, p. 113; Rey, Ann. Soc. Linn. Lyon, xxix, 1882, p. 57; Casey, Contr. Col. N. Amer. i, 1884, p. 152; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 366; Luze, W. Z. B. li, 1901, p. 718.

Bryocharis Lynch, Bol. Ac. Cordoba, vii, 1884, p. 103.

Megacronus Steph., Ill. Brit. Ent. v, 1832, p. 165 (ex parte); Pand., Ann. Soc. Ent. Fr. (4) ix, 1869, p. 333 (ex parte); Fauv., Faun. Gallo-Rhén. iii, 1872, p. 553 (ex parte); Sharp, B. C.-A. i, 2, 1882–87 (1884), p. 317.

Differs from *Bolitobius* in the structure of the labial palpi; in *Bryoporus* the 1st joint is large and thickened apically, the 2nd much narrower and shorter than the 1st, the 3rd longer and much narrower than the 2nd. In other respects resembling *Bolitobius*. The species are found in moss and the genus is widely distributed, although not yet recorded from Australia and New Zealand. Only one species is so far known in our Fauna.

1301. **Bryoporus lineipennis.**

Megacronus lineipennis Fauv., Rev. d'Ent. xxiii, 1904, p. 60.

Elongate, fusiform, black, shining, the posterior margin of the elytra often very narrowly and obscurely reddish, the posterior margin of the abdominal segments rather broadly reddish. Antennæ black, the first two or three joints yellow. Legs reddish-yellow. Length 3·75–4·3 mm.

Head small. Antennæ extending a little beyond the base of the thorax, the 3rd joint longer than the 2nd, the penultimate scarcely transverse. Thorax scarcely longer than broad, with a transverse row of four punctures some distance behind the anterior margin and a similar row in front of the posterior margin; besides these there is an extremely fine and very sparing puncturation. Elytra about a quarter longer than the thorax, each with seven rows of closely placed punctures on the disc. Abdomen rather finely and sparingly punctured.

Nilgiri and Simla Hills.

Genus **BOLITOBIUS** Mannerh.

Bolitobius Mannerh., Brachél. 1830, p. 11; Er., Gen. Spec. Staph. 1839–40, p. 268; Lacord., Gen. Col. ii, 1855, p. 57; Kraatz, Naturg. Ins. Deutschl. ii, 1856–58, p. 439; Jacq. du Val, Gen. Col. d'Eur. ii, 1857–59, p. 27; Pand., Ann. Soc. Ent. Fr. (4) ix, 1869, p. 279; Fauv., Faun. Gallo-Rhén. iii, 1872, p. 546; G. Horn, Trans. Amer. Ent. Soc. vi, 1877, p. 112; Rey, Ann. Soc. Linn. Lyon, xxix, 1882, p. 31; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 361; Luze, W. Z. B. li, 1901, p. 725; lii, 1902, p. 111.

Tachinus Gozis, Rech. de l'espèce typique, 1886, p. 13.

Subgen. *Lordithon* Thoms., Skand. Col. iii, 1861, p. 171.

Subgen. *Carphacis* Gozis, Rech. de l'espèce typique, 1886, p. 14 ; *Megacronus* Thoms., Skand. Col. iii, 1861, p. 166 (nec Steph.).
Subgen. *Bolitobius*, s. str., Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 362.
Biology.—Xambeu, Rev. d'Ent. xxvii, 1898, p. 47.

Fusiform, moderately convex, shining species, with small or very small head inserted in the thorax, which is narrowed in front, the elytra usually with three rows of punctures, sutural, dorsal, and one on the epipleura. The mouth-parts differ from those of *Mycetoporus* in the 4th joint of the maxillary palpi being as long as or longer than the 3rd and not subulate, the labial palpi with the 1st joint a little longer than broad, 2nd narrower, about as long as broad, the 3rd about as long as the two preceding together, fusiform. In other respects similar to *Mycetoporus*.

It has been divided into three subgenera, based on the length of the antennæ and relative length and breadth of the head ; but, being entirely comparative, I do not use them in the Key.

Key to the Species.

1. 6th to 10th joints of the antennæ serrate, the last four yellow. Large (9 mm.) robust species ; thorax and elytra red .. *birmanus*, sp. n., p. 336.
   Antennæ not serrate ..... 2.
2. Last three joints of antennæ yellow ; thorax black, elytra red ..... 3.
   Antennæ otherwise ..... 4.
3. Head black ..... *dohertyi*, sp. n., p. 337.
   Head reddish-yellow, only the base and sides black ..... *flaviceps*, sp. n., p. 337.
4. Thorax entirely or in greater part black ; head black ..... 5.
   Thorax otherwise, reddish or fusco-testaceous ..... 21.
5. Thorax entirely black ..... 6.
   Thorax with lateral margins yellow ..... 19.
6. Elytra yellow or brownish-yellow, the suture (very narrowly) and reflexed margin black or pitchy ..... 7.
   Elytra otherwise ..... 8.
7. Elytra clear yellow ; abdomen less finely and more closely punctured ..... p. 340. *xanthopterus* Champ.,
   Elytra brownish-yellow, a little infuscate behind ; abdomen more finely and less closely punctured ..... [p. 340. *championi*, sp. n.,
8. Elytra with a yellow fascia extending from the shoulder to the postero-external region along the side margin ..... 9.
   Elytra otherwise ..... 12.
9. All the legs black or pitchy-black ; elytra with sutural series of 7 or 8, dorsal of 11 punctures ..... *vittula* Fauv., p. 337.
   Legs otherwise ; elytra with sutural and dorsal rows consisting of 5 or 6 punctures. 10.
10. All the femora yellow ; tibiæ and tarsi pitchy 11.
    Only the anterior femora and tibiæ yellow ; all the coxæ and rest of the legs black.. *femoralis*, sp. n., p. 339.

11. Larger (9 mm.). Elytral fascia dilated behind	*lambda* Fauv., p. 338.
Smaller (7 mm.). Elytral fascia not dilated behind	[p. 338. *spinipes* Champ.,
12. Penultimate joints of antennæ fully as long as broad; larger species (4·5–6 mm.)	13.
Penultimate joints of antennæ distinctly transverse; smaller species	15.
13. Elytra black, with an oblique yellow fascia extending from the shoulder to the postero-internal angle	*elegans*, sp. n., p. 344.
Elytra yellow, with a broad bisinuate black fascia occupying the posterior half and extending from the reflexed margin to the suture, but leaving the posterior margin free	14.
14. Head very narrow, longer than broad, parallel behind the eyes, the suture narrowly black from the base to the transverse fascia. Legs pale yellow	[p. 340. *distinctus* Schub.,
Head broader, dilated behind the eyes, the suture broadly black from the base to the transverse fascia. Legs darker yellow	*humeralis* Cam., p. 341.
15. Elytra yellow, with a pear-shaped or oval black spot posteriorly near the posterior margin, not connected with the black reflexed margin; base and sutural region triangularly black	16.
Elytra black, with a humeral spot and the posterior margin (sometimes very obscurely) yellow	17.
16. Larger (5 mm.) and more robust; antennæ longer, the penultimate joints less transverse	*becsoni*, sp. n., p. 343.
Smaller (4·3 mm.) and narrower, the penultimate joints more transverse	*simulans*, sp. n., p. 344.
17. Posterior margin of the elytra very narrowly and obscurely lighter	18.
Posterior margin of the elytra distinctly yellow, the postero-external angle more broadly	[p. 342. *scapularis*, sp. n.,
18. Larger (4·75 mm.) and more robust	*proximus* Cam., p. 342.
Smaller (3·3 mm.) and narrower	*monticola* Cam., p. 342.
19. Larger (8 mm.). Femora and tibiæ yellow, tarsi black	*tarsalis*, sp. n., p. 339.
Smaller (4·5–5 mm.). Legs yellow	20.
20. Larger (5 mm.) and more robust; lateral margin of thorax more broadly and distinctly yellow	*decipiens*, sp. n., p. 343.
Smaller (4·5 mm.) and narrower; lateral margin of thorax more narrowly and less distinctly yellow	[p. 343. *kashmiricus*, sp. n.,
21. Penultimate joints of antennæ fully as long as broad	22.
Penultimate joints of antennæ transverse	25.
22. Elytra black, with a pale yellow fascia from the lateral margin almost to the suture; thorax pale yellow, with triangular black spot on the anterior border almost extending to the posterior border	*indicus* Bernh., p. 347.
Elytra otherwise	23.

23. Elytra reddish-yellow, with dark spot at the scutellary region and a free oval one near the posterior margin ..... *trinotatus* Er., p. 345.
Elytra otherwise ..... 24.
24. Thorax and abdomen yellowish-red, the 5th and 6th (visible) segments blackish except behind; scutellum, base, and suture narrowly, the posterior region broadly black ..... [p. 345. *biplagiatus*, sp. n.,
Thorax yellowish-red, with broad, pitchy fascia along the middle; abdomen pitchy-black; elytra yellow; scutellum, suture (narrowly), reflexed margin (except at the shoulder), and postero-external angle rather broadly black ..... *centralis*, sp. n., p. 346.
25. Elytra yellowish-red, the whole postero-lateral region broadly black except the extreme posterior margin ..... 26.
Elytra otherwise ..... 27.
26. Abdomen with the 4th to 6th (visible) segments broadly black at the base, the triangular posterior marking of the elytra reaching the suture ..... *gratellus*, sp. n., p. 349.
Abdomen with the 5th (visible) segment black at the base, the 6th black; the postero-lateral marking of the elytra not quite reaching the suture ..... [p. 348. *transversulus* Reitt.,
27. Antennæ with 11th joint pale yellow, elongate ..... *nitidus* Motsch., p. 346.
Antennæ with 11th joint concolorous, short. 28.
28. Elytra pitchy, a triangular oblique spot at base and the posterior margin yellow. Larger (4·3 mm.) ..... [p. 347. *similensis* Cam.,
Elytra brownish-yellow, with blackish indeterminate rounded spot posteriorly. Smaller (3 mm.) and narrower ..... *difficilis*, sp. n., p. 346.

1302. **Bolitobius birmanus**, sp. n. (Plate III, fig. 8.)

Shining; head and abdomen black, the posterior margin of the 5th and 6th segments broadly reddish-yellow; thorax and elytra red. Antennæ with the 1st, apex of the 2nd, and last four joints reddish-yellow, the rest black. Legs red. Length 9 mm.

A large robust species. Head a little longer than broad. Antennæ rather short, the 3rd joint distinctly longer than the 2nd, 4th a little longer than broad, 5th to 10th transverse, distinctly serrate, 11th short, oval, a little longer than the 10th. Thorax about as long as broad, with the usual transverse row of four punctures a little behind the anterior margin and two others before the margined base. Elytra a little longer and broader than the thorax, with sutural and dorsal row of six or seven punctures, the dorsal row situated in a shallow groove, the lateral row consisting of eleven or twelve punctures. Abdomen with the first two (visible) segments nearly smooth

in the middle, elsewhere rather finely and moderately closely punctured, the 5th segment yet more closely, the punctures aciculate.

Burma : Ruby Mines (*Doherty*).

1303. Bolitobius dohertyi, sp. n.

Very similar to *birmanus*, but differing in the following respects : smaller (5 mm.) and less robust, the antennæ longer and more slender, the penultimate joints much less transverse, the 1st and last three joints yellow, the posterior margin of the first four visible segments narrowly reddish-yellow, the 5th more broadly yellow behind, the puncturation more scanty (except on the 5th segment), the tibiæ and tarsi darker, reddish-brown.

Burma : Ruby Mines (*Doherty*).

1304. **Bolitobius flaviceps**, sp. n.

Shining ; head yellow, only the post-ocular and basal regions black ; thorax and abdomen black, the posterior margin of the anterior segments narrowly, the 5th and 6th more broadly reddish ; antennæ black, the 1st and last three joints yellow. Palpi brown. Legs reddish, the tibiæ brown. Length 7–8 mm.

Head slightly longer than broad. Antennæ with the 3rd joint twice as long as the 2nd, 4th a little longer than broad, 5th stouter, obconical, 6th to 10th subequal, scarcely transverse, 11th oval, a little shorter than the 9th and 10th together. Thorax a little longer than broad, the sides almost straight and strongly retracted in front, the anterior and posterior pairs of punctures situated a little distance from the anterior and posterior margins respectively, the latter finely bordered. Elytra a little longer and broader than the thorax, with sutural and dorsal row of six or seven moderate punctures, those of the dorsal row situated in a shallow sulcus, the reflexed margin with row of six or seven finer punctures. Abdomen with the first two visible segments almost smooth in the middle, elsewhere with fine, not very close aciculate punctures, the 5th segment more closely punctured.

Burma : Ruby Mines, alt. 5000–7000 feet (*Doherty*).

1305. Bolitobius vittula.

Megacronus vittula Fauv., Rev. d'Ent. xiv, 1895, p. 277.

Belongs to the *striatus* group ; larger, very shining, black, the elytra with bluish reflex and with a narrow yellow band from the shoulder to the postero-external angle, and from thence extending a short distance along the apical margin ; palpi and apex of 1st joint of antennæ obscure reddish-yellow.

2nd and the anterior legs pitchy, 3rd pitchy-black, 11th with reddish apex; the first three joints glabrous, the 5th to 9th rather stout, transverse. Eyes rather prominent. Thorax a third longer than broad, ovate, the posterior angles entirely rounded with the bordered base, with two setigerous punctures rather near the latter. Elytra scarcely longer than the thorax, a little dilated towards the apex, deeply impressed along the suture, with a series of seven or eight minute punctures, dorsal series of eleven rather large punctures situated in a deep sulcus; the reflexed margin keeled and sulcate and with two rows of numerous asperate punctures. Abdomen obconical, closely and rather strongly aciculately punctured, the middle of the 2nd and 3rd and the apex of the 6th segments almost smooth. Length 8 mm.

Sexual differences unknown.

Burma: Carin Asciuii Cheba, alt. 800–1400 metres (*L. Fea*) (ex *Fauvel*).

1306. Bolitobius lambda.

Megacronus lambda Fauv., Rev. d'Ent. xiv, 1895, p. 277.

Rather broader than *vittula*, with the palpi, thorax, knees, tibiæ, and tarsi pitchy, all the femora, anterior coxæ, apex of 6th and 7th segments, 1st joint of antennæ, and the elytral fascia yellow; 2nd to 4th joints of antennæ and margins of the 3rd to 5th segments reddish; the subhumeral band broad, dilated from the apical third to the apex of the suture and extended also outwards to the external angle. Antennæ less stout, the first four joints glabrous, 11th pale pitchy; eyes longer, almost flat. Thorax scarcely shorter, broader behind, with two setigerous punctures rather distant from the scarcely bordered base. Elytra quadrate, with sutural series of five and dorsal of six punctures in a rather shallow sulcus. Abdomen more conical. Length 9 mm.

Sikkim: Darjeeling (*Christie*) (ex *Fauvel*).

1307. Bolitobius spinipes.

Bolitobius spinipes Champ.*, E. M. M. lviii, 1922, p. 31.

Black, shining; the elytra with narrow longitudinal yellow fascia extending from the shoulders to the postero-external angle, the reflexed margin black, the posterior margin very narrowly, scarcely perceptibly yellowish, the posterior margin of the abdominal segments very narrowly and obscurely rufescent. Antennæ with the 1st joint entirely, the 2nd and 3rd at the base, the 11th at the apex reddish-yellow. Femora yellow, the tibiæ and tarsi pitchy. Length 7 mm.

In build resembling *humeralis*, but with different coloration of the elytra. Head oval, much broader than in

distinctus. Antennæ reaching the posterior angles of the thorax, 3rd joint a little longer than 2nd, 4th scarcely longer than broad, the penultimate joints transverse, the 11th short, oval. Thorax as long as broad, the anterior median punctures situated a little behind the anterior margin, the posterior a little in front of the immarginate posterior border. Elytra a little longer and broader than the thorax, very finely alutaceous, each with three rows of very fine punctures, five or six in number, sutural, subhumeral and marginal, the subhumeral situated in a scarcely perceptible sulcus. Abdomen rather closely, moderately finely, aciculately punctured except at the middle of the first two visible segments, which is almost smooth, pubescence rather fine, greyish, depressed. Tibiæ strongly spinose.

Kumaon: Naini Tal (*H. G. Champion*).

1308. **Bolitobius femoralis**, sp. n.

Shining, black; the elytra with a dirty yellow fascia extending from the shoulder to the posterior margin, but not invading the reflexed margin; abdomen with the posterior margin of the 5th (visible) segment narrowly, scarcely perceptibly yellowish. Antennæ black, the first two joints yellow. Palpi pitchy. Anterior femora and tibiæ yellow. All the coxæ and the middle and posterior legs black; anterior tarsi pitchy. Length 6·5 mm.

Near *spinipes*, but smaller and narrower, the legs differently coloured, the sutural and subhumeral rows consisting of four or five punctures, the marginal of eight or nine; the abdomen rather more finely punctured; the antennæ longer, the penultimate joints less transverse.

Darjeeling Dist.: Ghum; Ghumpahar, alt. 9000 feet (*Cameron*).

1309. **Bolitobius tarsalis**, sp. n.

Shining; head, thorax, and abdomen black, the thorax with the lateral margin broadly yellow; elytra dirty yellow; the scutellum, suture (narrowly), lateral margins, and postero-external region indeterminately blackish. Antennæ black, the first two joints yellow. Palpi pitchy. Femora and tibiæ yellow, the coxæ and tarsi black. Length 8 mm.

Head as long as broad, the eyes large and rather prominent. Antennæ extending beyond the base of the thorax, the 3rd joint twice as long as the 2nd, 4th, 5th and 6th slightly longer than broad, the penultimate as long as broad, the 11th as long as the 9th and 10th together. Thorax transverse, the sides rather strongly rounded and retracted in front, the anterior pair of punctures situated a little behind the anterior border,

the posterior pair very close to the immarginate posterior border. Elytra a little longer and broader than the thorax, with sutural and subhumeral row of five punctures, the latter situated in a shallow sulcus, the marginal row of seven punctures. Abdomen finely and very sparingly punctured, the first two visible segments smooth along the middle.

Darjeeling district: Lepchajagat (*Cameron*).

1310. Bolitobius xanthopterus.

Bolitobius xanthopterus Champ.*, E. M. M. xlviii, 1922, p. 32.

Shining, black; the posterior margin of the abdominal segments reddish-yellow, the elytra yellow, the reflexed margin and the suture (narrowly) black. Antennæ black, the first three joints and apex of the last yellow, the 4th yellowish-brown. Legs yellow. Length 5–6 mm.

About the size and build of the European *trinotatus* Er., but differently coloured and with longer, stouter antennæ. Head rather narrow, subconical, the antennæ with the 3rd joint distinctly longer than the 2nd, the penultimate as long as broad, the 11th oval, a little longer than the 10th. Thorax about as long as broad, behind the anterior margin with a transverse row of four punctures, before the base with two others. Elytra a little longer and broader than the thorax, each with a sutural, subhumeral, and marginal row of five or six small punctures. Abdomen with the first two (visible) segments almost smooth in the middle, elsewhere with aciculate, rather close puncturation.

Kumaon: Ranikhet. Dehra Dun.

1311. Bolitobius championi, sp. n.

Shining; head, thorax, and abdomen black, the posterior margin of the segments narrowly reddish; elytra yellow, the reflexed margin for the posterior two-thirds or entirely black, the suture very narrowly and obscurely pitchy, the posterior third obscurely and indeterminately infuscate. Antennæ black, the first three joints and apex of the last yellow. Palpi and legs yellow. Length 6·5 mm.

Similar to *xanthopterus* in all respects except that the abdomen is much more finely and much less closely punctured and the elytra are infuscate posteriorly.

Darjeeling Dist.: Rongdong Valley (*Cameron*).

1312. Bolitobius distinctus.

Bolitobius distinctus Schub.*, D. E. Z. 1906, p. 381.

Black, shining; the elytra pale yellow, the suture narrowly black and with a broad black fascia, bisinuate in front and behind, situated posteriorly and extending from the reflexed

margin to the suture, so that the posterior margin is narrowly yellow; abdomen black, the posterior margin of the first four (visible) segments reddish-yellow, the posterior margin of the 5th and 6th pale yellow. Antennæ blackish, the first four joints and apex of the last yellow. Legs pale yellow, the apical part of the middle and posterior tibiæ blackish. Length 4·5–5 mm.

Remarkable in the long and narrow head, with rather large flat eyes. Antennæ moderate, the 1st joint as long as the three following together, the penultimate slightly longer than broad. Thorax about as long as broad, with a pair of punctures a little behind the anterior border and another pair before the posterior border. Elytra slightly longer and broader than the thorax, with two rows each of six fine punctures, sutural and subhumeral, and a lateral row of nine or ten. Abdomen almost smooth along the middle of the first four segments, at the sides and base of the segments with close aciculate punctures.

Kashmir: Songam. Simla Hills: Matiana; Gahan; Fagu. Chakrata district: Kanasar, alt. 6000–8000 feet. Almora: Kali Valley, alt. 9000 feet.

1313. Bolitobius humeralis.

Bolitobius humeralis Cam., Trans. Ent. Soc. Lond. 1926, p. 174.

Black, shining; elytra with a large subcordate humeral spot and the posterior margin, sutural and postero-external angles distinctly testaceous. Abdomen with the posterior margins of the anterior segments narrowly and obscurely paler, the 6th rather broadly testaceous. Antennæ with the first two and base of the 3rd joint and the apex of the last testaceous. Anterior legs reddish-testaceous, the middle and posterior femora and tibiæ brown, the latter reddish-testaceous at the bases. Length 5·75 mm.

Very similar in appearance to *distinctus* Schub., but differs in the broader, oval head and the shape of the elytral spot; build of *trinotatus* Er., but with head dilated behind the eyes. Head oval, narrowed in front, the post-ocular space rounded and slightly dilated. Antennæ with the 3rd joint longer than 2nd, 4th slender, a little longer than broad, 5th to 10th about as long as broad and differing little amongst themselves, 11th stout, oval, a little longer than 10th. Thorax impunctate (except for the usual marginal punctures) and without ground-sculpture, the base finely bordered. Elytra wider and a little longer than the thorax, a little longer than broad; at the shoulder with a large subcordate yellow spot, placed obliquely with the apex at the antero-external angle and not reaching the suture; the outer margin of the spot extends almost half the length of the elytron, the inner not

so far ; the narrow testaceous apical marking extends a short way along the suture and is dilated near the postero-external angle ; each with three rows of punctures, sutural four or five, discal four or five, marginal seven or eight. Abdomen pointed, very finely and very sparingly punctured on 3rd to 5th segments, more closely on 6th, the pubescence scanty, yellow.

Simla Hills : Gahan, alt. 7000 feet.

1314. **Bolitobius proximus.**

Bolitobius proximus Cam., Trans. Ent. Soc. Lond. 1926, p. 175.

Black, shining ; base of thorax not bordered. Elytra with large testaceous, oval, humeral spot, the posterior margin extremely narrowly and obscurely testaceous. Abdomen pointed, the posterior margins of the first four (visible) segments very narrowly rufescent. Antennæ fusco-testaceous, the first four joints testaceous, the penultimate transverse. Legs testaceous, the intermediate and posterior tibiæ more or less infuscate. Length 4·75 mm.

Build of *exoletus* Er., but narrower. Very near *humeralis* mihi, but differing in the more slender build, smaller size, narrower, squarer head, shorter, lighter antennæ, with the 6th to 10th joints distinctly transverse, the oval, non-cordate humeral spot, which, however, is similarly situated, the extremely narrow and obscurely lighter posterior border of the elytra, the posterior angles not widely testaceous, with six or seven punctures in the series and the 6th abdominal segment entirely black. From *distinctus* Schub. by the broader and much shorter head, lighter antennæ, with transverse penultimate joints, differently shaped humeral spot, and entirely black 6th abdominal segment.

Simla Hills : Gahan, alt. 7000 feet.

1315. **Bolitobius scapularis**, sp. n.

Very near *proximus*, but a little larger (5 mm.) and distinctly broader, the antennæ longer, the 4th joint distinctly longer than broad, the penultimate only slightly transverse, the 11th longer, the postero-external angles of the elytra more broadly yellow. The head is as broad as long, as in *proximus*.

Darjeeling Dist. : Rongdong Valley ; Ghum (*Cameron*).

1316. **Bolitobius monticola.**

Bolitobius monticola Cam., Trans. Ent. Soc. Lond. 1926, p. 175.

Black, shining ; elytra at the shoulders with oval yellow spot, the posterior margin scarcely perceptibly lighter. Abdomen

with the posterior margins of the first four (visible) segments narrowly rufescent. Antennæ blackish, the first five joints testaceous, the penultimate transverse. Legs reddish-testaceous, the tibiæ a little infuscate. Length 3·3 mm.

A small, narrow species, much narrower than *exoletus* Er., with a short oval head and markings of *proximus* mihi. Antennæ with 3rd joint shorter than 2nd, 4th a little longer than broad, 5th to 10th transverse. Thorax entirely black, the base not bordered. Elytra longer than the thorax, longer than broad, at the shoulders with a somewhat oval yellow spot, not reaching the suture and extending backwards for about one-third the length of the elytra, sculpture consisting of three rows of six punctures, sutural, discal and lateral. Abdomen finely, sparingly punctured, especially in the middle of the anterior segments, and with rather scanty, long yellow hairs and a few black setæ. Perhaps only a small race of *proximus*.

Simla Hills: Theog; Kotgarh, alt. 7000–7600 feet.

1317. **Bolitobius kashmiricus**, sp. n.

Very near *proximus*, similar in size and build, but with the thorax at the sides narrowly yellow, the posterior margin of the elytra more broadly yellow, the series of elytral punctures nine or ten in number. Antennæ black, the first four or five joints yellow. In other respects similar to *proximus*. Length 4·5 mm.

Kashmir: Gulmarg, alt. 8500 feet (*Cameron*).

1318. **Bolitobius decipiens**, sp. n.

Colour of *kashmiricus*, but with the lateral margin of the thorax more broadly yellow, more robust, the antennæ longer, with less transverse penultimate joints; abdomen less finely punctured. In other respects similar to *kashmiricus*. Length 5 mm.

Kashmir: Gulmarg, alt. 9000 feet (*Cameron*).

1319. **Bolitobius beesoni**, sp. n.

Shining, black; the posterior margin of the abdominal segments reddish; elytra bright yellow, the base and sutural region to the apex, a large pear-shaped free spot posteriorly, and the reflexed margin black; the black sutural marking gradually narrowed behind. Antennæ black, the first four joints yellow. Legs yellow. Length 5 mm.

A rather narrow species. Head subconical. Antennæ rather short and stout, the penultimate joints distinctly transverse. Thorax a little longer than broad, the pair of median punctures more distant from the anterior margin than the lateral one, the posterior pair very near the immarginate base. Elytra about a third longer and a little broader than the thorax, with sutural, dorsal, and marginal row of five or six punctures. Abdomen with the first four visible segments with close aciculate punctures at the base, elsewhere almost smooth, the 5th more punctured.

Mussoorie district: Mackinnon Park, 28. vii. 27 (*C. F. C. Beeson*).

1320. **Bolitobius elegans**, sp. n. (Plate III, fig. 9.)

Shining, black; the posterior margin of the abdominal segments narrowly reddish-yellow; elytra yellow, the scutellary and sutural regions nearly to the posterior margin triangularly black, the reflexed margin, a large triangular spot, with its apex extending beyond the middle towards the shoulder and fused behind with the black reflexed margin, black. Antennæ black, the first three joints yellow. Palpi and legs yellow, the extreme apex of the tibiæ infuscate. Length 6 mm.

Larger than *beesoni*, the head narrower, the antennæ much longer, the black elytral spot much more produced towards the shoulder, more numerous punctures on the elytra, and much more sparingly punctured abdomen. Head rather narrow, a little longer than broad, the eyes flat. Antennæ extending beyond the base of the thorax, the 3rd joint a little longer than the 2nd, 4th to 6th a little longer than broad, gradually decreasing in length, the penultimate fully as long as broad, the 11th oval, shorter than the two preceding joints together. Thorax scarcely transverse. Elytra distinctly longer and a little broader than the thorax, with sutural, subhumeral, and marginal rows of seven or eight fine punctures. Abdomen very finely and very sparingly punctured, the base of the 5th segment closely and less finely.

Darjeeling Dist.: Rongdong Valley: Lepchajagat (*Cameron*).

1321. **Bolitobius simulans**, sp. n.

Very like *beesoni*, but smaller (4 mm.) and distinctly narrower, the head a little longer than broad, the antennæ stouter, the black pear-shaped spot on the elytra narrower.

Darjeeling Dist.: Ghum; Rongdong Valley (*Cameron*).

1322. **Bolitobius trinotatus.**

Bolitobius trinotatus Er., Käf. Mark Brand. i, 1837–39 (1839), p. 409; id., Gen. Spec. Staph. 1839–40, p. 279; Kraatz, Naturg. Ins. Deutschl. ii. 1856–58, p. 449; Thoms., Skand. Col. iii. 1861, p. 174; Pand., Ann. Soc. Ent. Fr. (4) ix. 1869, p. 357; Fauv., Faun. Gallo-Rhén. iii, 1872, p. 549; G. Horn, Trans. Amer. Ent. Soc. vi, 1877, p. 117; Rey, Ann. Soc. Linn. Lyon, xxix, 1882, p. 44; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 364; Luze, W. Z. B. li, 1901, p. 730.
Bolitobius trimaculatus Steph., Ill. Brit. Ent. v, 1832, p. 172.
Bolitobius pœcilus Mannh., Bull. Mosc. xxv, 1852, ii, p. 312.

Shining; head black; thorax reddish-yellow; elytra yellow, the scutellary region and a subtriangular free spot at the postero-external angle black or pitchy; abdomen reddish-brown, the base of the 5th (visible) segment black. Antennæ black, the first four joints reddish-yellow. Legs yellow. Length 3·5–5·5 mm.

Antennæ with the 2nd and 3rd joints subequal, the penultimate not or scarcely transverse, 11th oval, a little longer than the 10th. Thorax about as long as broad, behind the anterior margin with transverse row of four fine punctures, of which the median pair is a little more distant from the margin than the lateral, before the base with two others very near the margin, which is finely bordered. Elytra about a third longer than the thorax, with sutural and subhumeral row of eight to ten punctures, the marginal row of about four. Abdomen very finely and very sparingly punctured.

♂: 6th ventral segment slightly longitudinally impressed along the middle throughout, at the base with a longitudinal keel or tubercle.

India (without further indication). Widely distributed in Europe.

1323. **Bolitobius biplagiatus**, sp. n.

Shining; head black, thorax yellowish-red, the anterior and posterior margins sometimes narrowly black; scutellum, base, sutural, reflexed margins, and about the posterior third of the elytra, black, the rest occupied by a large oblique yellow spot extending from the side almost to the suture. Abdomen yellowish-red, the 5th and 6th segments black, except at the posterior margin. Antennæ black, the first four or five joints and the apex of the 11th yellow. Palpi and legs yellow. Length 3·5–5·5 mm.

Somewhat resembling *trinotatus* Er., the head fully as broad as long, the antennæ similarly constructed, the penultimate joints as long as broad, but the thorax is broader, distinctly transverse, the elytra are more extensively black and with

about ten punctures in each series, the abdomen more punctured.

Darjeeling Dist.: Ghum; Ghumpahar; Lepchajagat; Rongdong Valley (*Cameron*).

1324. **Bolitobius centralis**, sp. n.

Shining; head black; thorax reddish-yellow, along the middle rather broadly pitchy; elytra yellow, the scutellum, suture (very narrowly), reflexed margin, and postero-external region broadly, black; abdomen pitchy-black, the posterior margin of the 5th (visible) segment yellowish. Antennæ black, the first three or four joints and apex of the last yellow. Legs and palpi yellow. Length 5 mm.

Near *biplagiatus*; the antennæ similarly constructed, except that the 11th joint is much longer, fully twice as long as the 10th, the thorax with median fascia, the elytra much more extensively yellow, with series of only five or six punctures, the dark, more sparingly punctured abdomen.

Darjeeling Dist.: Ghum; Rongdong Valley (*Cameron*).

1325. **Bolitobius difficilis**, sp. n.

Head black, thorax and elytra brownish-yellow, the latter with a rounded, indeterminate, obscure brown spot posteriorly, leaving the margins free; abdomen reddish-yellow, the 5th visible segment (except the posterior margin) blackish. Antennæ black, the first three or four joints yellow. Legs and palpi yellow. Length 3 mm.

Much narrower than *biplagiatus*, the penultimate joints of the antennæ distinctly transverse, the marking of the elytra less extensive and less defined, the series consisting of about six punctures. Abdomen extremely finely and very sparingly punctured.

Darjeeling Dist.: Ghum, alt. 9000 feet (*Cameron*).

1326. **Bolitobius nitidus**.

Bolitobius nitidus Motsch., Bull. Mosc. xxxi, 1858, iii, p. 215.
Bolitobius bimaculatus Kr.*, Arch. Naturg. xxv, 1859, i, p. 63.

Shining; head pitchy-black; thorax yellowish-red, the disc more or less broadly infuscate; elytra black or pitchy, at the base of each with a large round yellow spot; abdomen yellowish-red, the 3rd (visible) segment often infuscate along the middle, the base of the 4th and 5th and whole of the 6th segments pitchy. Antennæ blackish, the first four joints and the last yellow. Legs and palpi yellow. Length 4–4·5 mm.

In size and build very similar to the European *thoracicus* F., but differently coloured and with longer and more slender antennæ. Antennæ reaching a little beyond the base of the thorax, the penultimate joints scarcely transverse, the 11th as long as the 9th and 10th together. Thorax slightly transverse, narrowed in front, the anterior and posterior pair of punctures very fine, the former very near the margin, the latter almost on the margin itself. Elytra about half as long again as the thorax, with sutural and dorsal rows each of about five very fine punctures. Abdomen very finely and very sparingly punctured.

Ceylon : Dikoya. Nilgiri Hills.

1327. **Bolitobius indicus.**

Bolitobius indicus Bernh., Col. Rundsch. 1917, p. 1.

Readily distinguished from the known species, and especially from *nitidus* Motsch., by the colour of the elytra and abdomen. Black, the thorax pale yellow, with the exception of a more or less distinct triangular black mark occupying the whole of the anterior border and usually extending almost to the posterior border, the elytra with a pale yellow transverse fascia extending from the lateral margin almost to the suture, the first three (visible) segments and the posterior margin of the 5th broadly whitish-yellow, a spot on the middle of the 3rd and usually a much smaller one on the two preceding segments blackish. Antennæ black, the base and last joint, palpi and legs pale yellow, the base of the elytra, including the boss near the shoulder, black. In build resembles *exoletus* Er. [Europe], in the very sparing puncturation of the elytra like *thoracicus* F. [Europe]. Head short, antennæ long, the penultimate joints longer than broad, the 11th almost as long as the 9th and 10th together. Thorax broader than long, moderately rounded at the sides, strongly narrowed in front, the median punctures rather distant from the anterior margin. The posterior margin very finely but distinctly bordered. Elytra much longer than the thorax, very slightly iridescent. The dorsal row with only about three punctures. Abdomen strongly pointed, very sparingly punctured, the 7th segment more distinctly and less sparingly punctured. Length 3–4·2 mm.

Madura Dist. : Shembaganur (*Donckier*) (ex *Bernhauer*).

1328. **Bolitobius simlaensis.**

Bolitobius simlaensis Cam., Trans. Ent. Soc. Lond. 1926, p. 174

Shining ; head black, thorax brown, the lateral margins and base testaceous. Elytra pitchy-black, a large hastate

humeral spot and the posterior margin testaceous. Abdomen brownish-testaceous, the whole of the 1st and the posterior margins of the following segments testaceous. Antennæ blackish, the first four joints and apex of the last testaceous. Legs testaceous. Length 4·3 mm.

Build of *pygmæus* F. Head short, not much longer than broad, the temples parallel. Antennæ with 2nd and 3rd joints of equal length, 4th and 5th slightly longer than broad, 6th and 7th about as long as broad, 8th to 10th slightly transverse, 11th a little longer than 10th. Thorax not bordered at the base. Elytra longer than broad, pitchy, with a large yellow humeral spot which extends nearly half the length of the external margin and internally is prolonged towards the middle of the suture, forming a mark somewhat similar to the point of a spear; the posterior margin is narrowly testaceous, a little more broadly at the sutural and external angles, each with a row of nine fine sutural, seven or eight discal, and nine or ten marginal punctures. Abdomen with the 1st (visible) segment nearly impunctate, the following moderately finely, sparingly punctured, the 5th more closely, pubescence scanty, stiff, yellow, mixed with sparse black setæ.

Simla Hills: Gahan, alt. 7000 feet.

1329. Bolitobius transversulus.

Bolitobius transversulus Reitt., Faun. Germ. ii, 1909, p. 105 (note).

Shining; head black, thorax and elytra yellowish-red, the latter with a large triangular black spot occupying the whole postero-external region, not quite reaching the suture, and leaving the posterior margin very narrowly yellowish-red; abdomen red, the anterior half of the 5th (visible) and whole of the 6th segments black. Antennæ black, the first four joints and the apex of the last yellow. Legs yellow. Length 5 mm.

In facies resembling *nitidus*, but with shorter antennæ and elytra and differently coloured. Head broader than long. Antennæ with the 2nd and 3rd joints equal, the following slightly longer than broad, the penultimate slightly transverse, the 11th short, oval. Thorax slightly transverse, the anterior and posterior pairs of punctures very fine and situated near the respective margins, the posterior margin finely bordered. Elytra one-third longer than the thorax, the punctures extremely fine, five or six sutural and three or four dorsal, the latter not situated in a sulcus, at the reflexed margin with a row of six or seven larger ones. Abdomen very finely punctured, the first two visible segments

almost smooth in the middle, elsewhere rather sparingly punctured, more closely on the 5th segment, the punctures aciculate.

Simla Hills: Fagu; Matiana. Mussoorie district, alt. 7000–8000 feet. Darjeeling Dist.: Mangpu.

I am indebted to Dr. Bernhauer for the determination of this species, which is doubtfully regarded as a form of *thoracicus* F. by Reitter, but which I consider quite distinct. The type comes from the Caucasus.

1330. Bolitobius gratellus, sp. n.

Shining; head black; thorax reddish-yellow, the posterior margin narrowly black; elytra yellow, the scutellum, sutural region (narrowly) and a transverse sinuate fascia at the posterior third black; abdomen (including the reflexed margin) yellowish-red, the anterior half of the 3rd to 5th and the whole of the 6th visible segments black. Antennæ black, the first four joints yellow. Legs yellow. Length 5 mm.

Size and build of *transversulus*, but differently coloured, the antennæ shorter and stouter, the elytra with the dorsal row consisting of six or seven fine but distinct punctures.

Simla Hills: Gahan; Kotgarh, alt. 7000–8000 feet.

Genus **BRYOCHARIS** Boisd. et Lacord.

Bryocharis Boisd. et Lacord., Faun. Ent. Paris, i, 1835, p. 502; Thoms., Skand. Col. iii. 1861, p. 167; Rey, Ann. Soc, Linn. Lyon, xxix, 1882, p. 15; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 358; Luze, W. Z. B. li, 1901, p. 739.

Megacronus Steph., Ill. Brit. Ent. v, 1832, p. 165; Jacq. du Val, Gen. Col. d'Eur. ii, 1857–59, p. 58, tab. 10, fig. 50; Fauv., Faun. Gallo-Rhén. iii, 1872, p. 553 (ex parte); Gozis, Rech. de l'esp. typ. 1886, p. 14.

Bolitobius subgen. *Megacronus* Pand., Ann. Soc. Ent. Fr. (4) ix, 1869, p. 333 (ex parte).

Facies of the larger species of *Bolitobius*, but differs in the large subsecuriform 3rd joint of the labial palpi, the shorter, more conical 4th joint of the maxillary palpi, and the presence of fine spines on the under side of the 1st joint of the middle and posterior tarsi. In other respects similar to *Bolitobius*. The species are found in moss, and are so far only known from the Northern Hemisphere.

Key to the Species.

Elytra black, a humeral spot and the posterior margin yellow	[p. 350. *septemseriata* Champ.,
Elytra red, the reflexed margin pitchy	*bicolor* Cam., p. 350.

1331. **Bryocharis septemseriata.**

Bolitobius septemseriatus Champ.*, E. M. M. lix, 1923, p. 46.
Bryocharis humeralis Cam., Trans. Ent. Soc. Lond. 1926, p. 176.

Black, shining: the elytra with large humeral spot and posterior margin narrowly yellow and with seven rows of fine punctures. Antennæ black, the 1st and 11th joints testaceous. Legs testaceous, the apices of the tibiæ and the intermediate and posterior tarsi more or less blackish. Length 8 mm.

Scarcely differs in build from *analis* Payk. [Europe]. Head impunctate and without ground-sculpture. Antennæ with 3rd joint considerably longer than 2nd, 4th and 5th a little longer than broad, 6th and 7th as long as broad, 8th to 10th slightly transverse, 11th short, oval, not as long as the two preceding together. Thorax with median punctures further from the anterior margin than are the lateral, and with a few scarcely perceptible punctures on disc, without ground-sculpture. Elytra a little longer than broad, with seven rows of ten or twelve fine punctures. Abdomen with the 1st (visible) segment with a few fine punctures at the sides and along the posterior margin, 2nd with three rows, basal, medial and apical, all interrupted in the middle, so that this region is impunctate, 3rd and 4th with the rows not interrupted, 5th and 6th finely, uniformly, and moderately closely punctured, pubescence short, fine, and sparse, and with long black setæ.

United Provinces: Lansdowne. Simla Hills: Theog, alt. 7600 feet.

1332. **Bryocharis bicolor.**

Bryocharis bicolor Cam., Trans. Ent. Soc. Lond. 1926, p. 175.

Shining black; the elytra shining red, the epipleura and postero-external angles black, with three rows of extremely fine punctures and traces of others. Antennæ with the 1st joint and apex of the last testaceous. Legs brownish-red. Length 6·75 mm.

Broader and more robust than *analis* Payk. [Europe], with shorter antennæ and different coloration. Head impunctate and without ground-sculpture. Antennæ with the 3rd joint much longer than 2nd, 4th to 7th a little longer than broad, gradually decreasing in length, 8th as long as broad, 9th and 10th transverse, 11th not so long as the two preceding together. Thorax with median pair of punctures more remote from the anterior border than are the lateral ones, these themselves separated therefrom. Elytra a little longer than broad, with rows of exceedingly fine punctures, nine or ten sutural, four humeral (more widely separated and situated anteriorly), eight or nine discal (between which and the humeral there are five others, and along the margin eight or

nine more), occasionally with traces of five others between the discal and sutural rows. Abdomen with the first two (visible) segments with a few fine punctures towards the sides, the disc glabrous, the 3rd and 4th with some very fine punctures across the base and middle and posterior margins, 5th with moderately close, fine, elongate punctures, 6th finely, sparingly punctured; pubescence fine and sparse, with long black setæ at the posterior margins and sides.

Dehra Dun. Chakrata district: Sijla Gad, alt. 5000 feet.

Tribe 2. TACHYPORINI.

Tachyporini Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 335; Lynch. Bol. Ac. Cordoba vii, 1884, p. 101; Reitt., Faun. Germ. ii, 1909, pp. 90, 91.

Group *Tachypori* Horn, Trans. Amer. Ent. Soc. ii, 1877, p. 83.

Tachyporaires, 1er rameau *Tachyporatęs* Rey, Ann. Soc. Linn. Lyon, xxviii, 1881, p. 171.

Tribe v *Tachyporini*, Group iii *Tachypori* Lec. & Horn, Class. Col. N. Amer. 1883, p. 100.

Antennæ 11-jointed. All the tarsi 5-jointed. Head without infra-orbital ridge. Elytra without impressed sutural stria. Abdomen distinctly or indistinctly bordered above.

Key to the Genera.

1.	Last joint of maxillary palpi as long as or longer than the preceding	2.
	Last joint of the maxillary palpi small and subulate	9.
2.	Mesosternum keeled or tuberculate in the middle	3.
	Mesosternum not keeled; prosternal epimera present	8.
3.	Broad, very convex species; the elytra with regular rows of punctures	[p. 404. Olophrinus Fauv.,
	More depressed species; the elytra without rows of punctures	4.
4.	1st joint of the posterior tarsi as long as the three following together	[p. 423. Leucoparyphus Kr.,
	1st joint of the posterior tarsi not longer than the two following together	5.
5.	Prosternal epimera present; facies of *Tachinus*	6.
	Prosternal epimera absent; short and usually small species	[p. 406. Coproporus Kr.,
6.	Abdomen very narrowly and indistinctly bordered above	[p. 399. Tachinomorphus Kr.,
	Abdomen broadly and distinctly bordered above	7.
7.	Mesosternum with laterally compressed tubercle in the middle, its process keeled along the middle; elytra rather finely punctured; thorax with a curved sulcus on each side.....	[gen. n., p. 398. Pseudotachinus,

Mesosternum keeled, its process not keeled along the middle; elytra coarsely and closely punctured; thorax without lateral sulcus	[p. 396. PARATACHINUS, gen. n., [Motsch., p. 402.
8. Elytra with rows of rather large punctures; abdomen narrowly bordered	TACHINODERUS
Elytra without such rows; abdomen broadly margined	TACHINUS Gr., p. 385.
9. Abdomen finely and indistinctly bordered; the whole surface very finely and closely pubescent; anterior tibiæ with comb of fine teeth externally	CONOSOMA Kr., p. 352.
Abdomen broadly and distinctly bordered; the head and thorax at least glabrous; anterior tibiæ without comb	[p. 375. TACHYPORUS Gr.,

Genus **CONOSOMA** Kr.

Conosoma Kr., Naturg. Ins. Deutschl. ii, 1856–58, p. 431; Thoms., Skand. Col. iii, 1861, p. 147; Casey, Journ. N. York Ent. Soc. viii, 1900, p. 436; Luze, W. Z. B. lii, 1902, p. 19.

Conurus Steph., Ill. Brit. Ent. v, 1832, p. 188; Er., Gen. Spec. Staph. 1839–40, p. 218; Lacord., Gen. Col. ii, 1855, p. 53; Jacq. du Val, Gen. Col. d'Eur. ii, 1857–59, p. 23; Pand., Ann. Soc. Ent. Fr. (4) ix, 1869, p. 272; Fauv., Faun. Gallo-Rhén. iii, 1872, p. 606; Rey, Ann. Soc. Linn. Lyon, xxviii, 1881, p. 173; J. Sahlb., Enum. Col. Brach. Fenn. 1876, p. 184; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 354 (præocc.).

Conosomus Motsch., Et. Ent. vi, 1857, p. 54.

BIOLOGY.—Perris, Ann. Soc. Ent. Fr. (2) iv, 1846, pp. 332–335, tab. 9, iii, figs. 1–8; Rupertsberger, Biol. Lit. Käf. Eur. 1894, p. 119.

Convex species, broader in front and narrowed behind, covered with close, fine, depressed pubescence. Head short, deflexed, inserted into the thorax, not constricted behind. Labrum short, truncate, or slightly emarginate in front. Mandibles short, stout, pointed, internally from the base almost to the apex with a finely toothed membrane. Inner lobe of the maxilla shorter than the outer, narrow, closely covered with fine curved spines internally; the outer at the apex covered with long hairs. Maxillary palpi with the 1st joint small, 2nd moderate, 3rd longer and a little stouter, 4th subulate, much shorter and narrower than the 3rd. Tongue broad, triangularly emarginate, each lobe near the emargination with two long and strong setæ. Paraglossæ reaching the apex of the tongue, strongly ciliated within. Labial palpi with the 1st joint about twice as long as the 2nd, this very short, 3rd much narrower and much longer than the preceding. Thorax transverse, convex, broader behind, the sides finely bordered, without setiferous punctures, the base fitting closely to the elytra, the anterior angles a good deal in advance of the anterior border of the prosternum. Prosternum with the anterior part very short, the posterior

much longer, deflexed, truncate behind. Pronotal epipleura strongly deflexed, prosternal epimera well developed, fused with them externally, pointed within. Mesosternum strongly carinate, its process narrow and pointed, extending almost the whole length of the coxæ (these narrowly separated) and meeting the metasternum. Elytra with fine lateral keel. Abdomen with a median ventral keel at the base, strongly narrowed from base to apex, retractile, the sides not, or very indistinctly bordered, setiferous, the apex also setiferous. Anterior tibiæ externally finely and closely toothed, the middle and posterior sparingly spinose. Tarsi 5-jointed; the anterior as long as the tibiæ, the first three joints more or less dilated; middle and posterior slender, as long as or longer than the tibiæ, the 1st joint very long, as long as or longer than the two following together, the 2nd to 4th gradually decreasing in length. The genus is cosmopolitan, and is found in fungus, *Polyporus*, and beneath the bark of decaying trees.

Key to the Species †.

1.	Sides of the elytra without setæ	2.
	Sides of the elytra with long setæ	37.
2.	Elytra unicolorous	3.
	Elytra with spots or fasciæ, sometimes obscure	14.
3.	Black species	6.
	Reddish-brown species	4.
4.	Larger (5 mm.). Penultimate joints of antennæ fully as long as broad	5.
	Smaller (2·75 mm.). Penultimate joints of antennæ distinctly transverse	*beesoni* Cam., p. 369.
5.	Thorax strongly transverse	*subtestaceum* Cam., [p. 362.
	Thorax slightly transverse	*ceylanense* Kr. (pro [parte), p. 363.
6.	Penultimate joints of antennæ fully as long as or longer than broad	7.
	Penultimate joints of antennæ distinctly transverse	11.
7.	Antennæ testaceous, the intermediate joints sometimes infuscate	8.
	Antennæ in greater part black	10.
8.	Elytra as long as broad. Antennæ entirely reddish-yellow	*triste* Cam., p. 361.
	Elytra transverse. Antennæ with the intermediate joints sometimes infuscate.	9.
9.	Broader and more convex. Antennæ longer, the 11th joint as long as the two preceding together	*breve* Fauv., p. 363.
	Narrower and less convex. Antennæ shorter, the penultimate joints slightly longer than broad, 11th shorter than the two preceding together	[parte), p. 363. *ceylanense* Kr. (pro

† Two species are omitted from the Key, *rufum* Kr. and *dimerum* Fauv. The authors do not state whether the elytra are furnished with setæ or not.

10. Robust convex species; antennæ with the first four and the 11th joints testaceous..	*robustum* Cam., p. 362.
More slender and depressed species; antennæ with the first two joints testaceous	*unicolor* Cam., p. 358.
11. Antennæ black, the first three joints and the last yellow.....	*persimile*, sp.n., p. 366.
Antennæ reddish-yellow, the intermediate joints infuscate	12.
12. Thorax scarcely transverse	[p. 363. *kashmiricum* Bernh.,
Thorax distinctly transverse	13.
13. More robust. Antennæ with the penultimate joints less transverse; pubescence and puncturation less fine.....	[p. 365. *birmanum* Fauv.,
Narrower. Antennæ with the penultimate joints more transverse; pubescence and puncturation finer	[p. 365. *immaculatum* Steph.,
14. Head, thorax, and abdomen in greater part black or pitchy-black; the sides of the thorax reddish-yellow in *virgula* and *biguttatum*	15.
Species in greater part red, castaneous or reddish-yellow	30.
15. Elytra black, only the posterior region reddish or reddish-yellow	16.
Elytra otherwise	18.
16. Antennæ testaceous	17.
Antennæ black, the first two joints yellow, the posterior margin of the elytra with rather broad yellowish-red border, triangularly produced forwards near the suture almost to the middle. Penultimate joints of antennæ much longer than broad	[p. 361. *postpictum*, sp. n.,
17. Larger (4–5 mm.). Elytra longer than the thorax	[. 360. *marginatum* Cam.,
Smaller (2·2 mm.). Elytra scarcely as long as the thorax.....	[p. 366. *brevipenne* Motsch.,
18. Elytra black, with well-defined yellowish-red curved fascia extending from the middle of the base, narrower in front and dilated behind, where it occupies the whole of the posterior margin. Thorax with the postero-lateral region broadly reddish-yellow	*virgula* Fauv., p. 357.
Elytra otherwise	19.
19. Elytra with curved yellowish-red fascia extending from the base to near the margin and gradually narrowed behind, the margin itself black	*vittatum* Cam., p. 359.
Elytra otherwise	20.
20. Elytra with a C-shaped red or yellowish-red fascia extending from the base to the posterior margin and along it.....	21.
Elytra otherwise	24.
21. Penultimate joints of antennæ much longer than broad. Antennæ infuscate, the first three or four joints yellow. Thorax entirely black	*gracile* Kr., p. 358.
Penultimate joints of antennæ a little longer than broad.....	22.
22. Antennæ entirely testaceous; the elytral marking reddish and more obscure	23.

Antennæ with the first three joints testaceous, the rest blackish; elytral fascia more defined and yellower ..... *subgracile* Cam., p. 358.

23. Larger (4 mm.). Thorax slightly transverse ..... [p. 359.
Smaller (3·5 mm.). Thorax strongly transverse ..... *obscurevittatum* Cam., *variabile* Cam., p. 366.

24. Elytra black with red or reddish-yellow basal mark, sometimes the posterior margin very obscurely reddish ..... 25.
Elytra obscure orange-red, the base infuscate, the sides broadly, the apex narrowly blackish. Legs yellow. ..... *plagiatum* Fauv., p. 357.

25. Elytra black, with large, oval, oblique spot extending from the base towards the suture to about the level of the middle and posterior thirds and narrowed behind. Middle and posterior femora, tibiæ, and tarsi (partly) blackish. Length 5 mm. ..... [p. 357. *himalayicum*, sp. n.,
Elytra black, with red or reddish-yellow basal mark not produced behind ..... 26.

26. The red basal spot extending to the lateral margin, the epipleura, suture, and apical margin (very narrowly) obscurely reddish ..... *notatum* Fauv., p. 358.
The red basal spot not extending to the lateral margin, the epipleura black .... 27.

27. Antennæ entirely testaceous, the penultimate joints a little longer than broad, the yellowish-red basal mark extending to the scutellum and suture ..... *andrewesi*, sp.n., p. 360.
Antennæ not entirely testaceous; the basal spot not reaching the scutellum and suture ..... 28.

28. Antennæ with the penultimate joints much longer than broad, black, the first three joints and the last testaceous; elytral spot well defined, yellow, situated at the middle of the base ..... [p. 364. *biguttatum* Motsch.,
Antennæ with the penultimate joints distinctly transverse; the basal spot red, reniform, and less defined ..... 29.

29. Antennæ black, the first three joints and apex of the last testaceous; thorax with sides concolorous. Length 4·5 mm..... [p. 367. *rufoguttatum* Cam.,
Antennæ testaceous, the 4th to 10th joints infuscate; thorax with the sides reddish. Length 3·5 mm. ..... *parkeri* Cam., p. 367.

30. Obscure reddish-brown or castaneous species, the elytra with large, more or less defined reddish markings ..... 31.
Brightly coloured species, with well-defined elytral markings ..... 32.

31. Elytra with large, ill-defined reddish spot at the base, the posterior margin narrowly reddish; thorax reddish-brown. *obscurum* Cam., p.368.
Elytra with curved reddish fascia from the base to the posterior margin and extending along it, forming a C-shaped pattern; thorax yellowish-red ..... *c-rufum* Cam., p. 368.

32. Ferruginous red species, the elytra with broad, oblique, sinuate black fascia from the lateral margin to the suture ..... [p. 361. *hemisphæricum* Bernh.,
Otherwise coloured ..... 33.
33. Orange-red; the elytra black, with oblong red spot at the middle of the base (sometimes indistinct); head black; thorax with large black marking occupying the anterior two-thirds, the posterior third and postero-lateral region red; abdomen black, the posterior margin of the 4th and 5th segments yellow ..... *anale* Fauv., p. 364.
Otherwise coloured ..... 34.
34. Elytra black, with oblique red basal spot extending from the base externally to the middle of the suture; head red; abdomen black; thorax red ..... [p. 369. *fasciipenne* Epp.,
Otherwise coloured ..... 35.
35. Elytra black, with transverse yellow fascia on the basal third; abdomen in part yellow; thorax in front pitchy-red, the sides and postero-lateral region yellow.. [p. 370. *flavofasciatum* Bernh.,
Otherwise coloured ..... 36.
36. Elytra black, with transverse reniform yellow spot extending on to the epipleura and nearly reaching the suture, this reddish-yellow; abdomen with the first two (visible) segments yellow, the following (except the posterior margins) black; thorax reddish-brown, with broad, transverse, reddish-yellow fascia across the middle, nearer the anterior than the posterior margin ..... [p. 370. *quadrifasciatum* Cam.,
Elytra yellow, with broad black fascia behind extending from the suture on to the epipleura; abdomen reddish-yellow, the 4th (visible) segments black; thorax reddish-yellow, on each side of the base near the middle with a black spot..... *suave* Fauv., p. 371.
37. Elytra reddish-yellow or yellowish-red, without definite markings ..... 38.
Elytra with definite markings ..... 40. [p. 374.
38. Antennæ entirely reddish-yellow ..... *flavorufum*, sp. n.,
Antennæ reddish-yellow, the intermediate joints black ..... 39. [p. 373.
39. Elytra shorter than the thorax ..... *antennarium* Bernh.,
Elytra longer than the thorax ..... *ochraceum* Cam., p. 373.
40. Thorax dark reddish-brown; elytra yellow, the base, suture, posterior margin, and transverse sinuate fascia invading the epipleura and extending nearly to the suture, black ..... *pictipenne* Kr., p. 373.
Otherwise coloured ..... 41.
41. Thorax reddish-yellow, at the base on each side with a round black spot; elytra yellow, with transverse black spot not extending on to the epipleura or reaching the suture ..... [p. 371. *maculicolle* Cam.,
Thorax brownish-yellow; elytra yellow, each with two oval blackish spots placed side by side ..... [p. 372. *quadrimaculatum* Cam.,

1333. **Conosoma virgula.**

Conurus virgula Fauv., Rev. d'Ent. xiv, 1895, p. 282.

Black, moderately shining; the postero-external region of the thorax broadly, the posterior margin very narrowly reddish-yellow; elytra with well-defined orange-red arcuate fascia extending from near the middle of the base, gradually increasing in width to the posterior margin, which it completely occupies. Antennæ black, the first two joints obscurely yellow. Palpi brownish-yellow. Legs reddish-yellow, the middle tibiæ except the base, apex of the posterior femora, and whole of the tibiæ and middle and posterior tarsi blackish. Length 5–7 mm. (in well extended examples).

Narrower and longer than the European *littoreum* L., with differently coloured elytra, legs, and antennæ, these more slender, and stouter posterior tarsi. Antennæ with the penultimate joints a little longer than broad. Thorax slightly transverse. Elytra a good deal longer and distinctly narrower than the thorax, attenuated behind. Puncturation and pubescence very fine and close throughout.

Upper Burma (*C. A. Dohrn*). Siwaliks: Nakraunda (*Cameron*).

1334. **Conosoma plagiatum.**

Conurus plagiatus Fauv., Rev. d'Ent. xiv, 1895, p. 282.

Near the European *littoreum* L., scarcely smaller, the antennæ blackish with shorter joints, the first two testaceous; thorax a little less narrowed in front, scarcely or not at all pitchy at the posterior angles; elytra dirty orange-red, the base infuscate, the sides broadly, the apex narrowly blackish, scarcely plicate; margins of the abdominal segments scarcely or not at all rufescent; tarsi more slender. Length 4 mm.

Burma: Carin Asciuii Ghécu, alt. 1400–1500 metres, March–April (*L. Fea*) (ex *Fauvel*).

1335. **Conosoma himalayicum**, sp. n.

Black, moderately shining; the elytra with large oblique reddish-yellow spot extending from the base to the posterior third near the suture and gradually narrowed behind, the scutellary region, suture (narrowly), apical margin and sides broadly black. Antennæ blackish, the first two joints yellow. Anterior legs reddish-yellow, middle and posterior with the femora brown, tibiæ black, the base narrowly reddish-yellow, the first joint of the tarsi blackish, the following brownish-yellow. Length 5 mm. (in extended examples).

Build of *virgula*, but differently coloured, the antennæ with

the intermediate joints shorter, the penultimate scarcely transverse, scarcely differing in puncturation and pubescence.

Simla and Chakrata districts, alt. 7000–8000 feet. Darjeeling : Gopaldhara, alt. 3440–4720 feet.

1336. **Conosoma notatum.**

Conurus notatus Fauv., Rev. d'Ent. xiv, 1895, p. 283.

Smaller than *littoreum* by a half, narrower, more convex, the antennæ more slender and much shorter, similarly coloured; the anterior coxæ pitchy, the femora except the apex infuscate; thorax a little longer, the sides behind and the base narrowly and obscurely reddish : elytra with a red basal spot extending outwards to the margin, the epipleura, suture, and often the apical margin (very narrowly) obscurely reddish; abdomen similarly coloured, a little more sparingly punctured; tarsi shorter. Length $3\frac{2}{3}$ mm.

Burma : Carin Asciuii Ghécu, alt. 1400–1500 metres, March–April (*L. Fea*) (ex *Fauvel*).

1337. **Conosoma unicolor.**

Conosoma plagiatum Fauv., var. *unicolor* Cam., Trans. Ent. Soc. Lond. 1926, p. 176.

Only differs from *himalayicum* in the entirely black colour.

Simla Hills : Matiana, alt. 7900 feet.

1338. **Conosoma gracile.**

Conosoma gracile Kr.*, Arch. Naturg. xxv, 1859, i, p. 62.

Narrow, elongate, black, moderately shining, finely and closely grey pubescent, the elytra each with an oblique reddish-yellow fascia gradually attenuated behind, extending from the base near the shoulder to the apex of the suture, the apical margin very narrowly reddish-yellow. Antennæ fusco-testaceous, the first three or four joints yellow. Legs reddish-yellow. Length 4-5 mm. (in extended examples).

Antennæ much longer than the head and thorax, all the joints much longer than broad, gradually decreasing in length. Thorax as long as broad. Elytra as broad as but a little longer than the thorax, narrowed behind.

Ceylon. Also in the Malay Peninsula.

1339. **Conosoma subgracile.** (Plate III, fig. 10.)

Conosoma subgracile Cam., Trans. Ent. Soc. Lond. 1926, p. 177.

Narrow, elongate, black, sericeous; elytra with well-defined curved orange fascia (C-shaped), extending from the humeral angle to the posterior margin, this and the posterior angles similarly coloured. Antennæ with the first three or four

joints testaceous, the rest blackish. Legs testaceous. Length 4 mm. (in well extended examples).

Very near *gracile* Kr. in build, markings, etc., but the antennæ are much shorter and darker. Head very finely and sparingly punctured and pubescent. Antennæ slender, extending very slightly beyond the posterior angles of the thorax, all the joints longer than broad, gradually decreasing in length, the 10th not much longer than broad. Thorax slightly transverse, extremely finely and closely shagreened and punctured, finely and closely pubescent. Elytra one-third longer than the thorax, exceedingly finely and exceedingly closely punctured, very finely and closely pubescent, sericeous. Abdomen slender, narrowed from base to apex, extremely finely and closely punctured and pubescent, the sides and apex with black setæ.

Chakrata district: Korawa Khud and Sijla Gad, alt. 5000–9000 feet. Simla Hills: Kotgarh, alt. 7000 feet.

1340. **Conosoma vittatum.**

Conosoma vittatum Cam., Trans. Ent. Soc. Lond. 1926, p. 177.

Narrow, elongate, black, subsericeous: the elytra with a curved orange fascia extending from the humeral callus to near the posterior margin internally and gradually tapering behind, posterior margin and postero-external angles black. Antennæ black, with the first three joints and the last testaceous. Legs testaceous. Length 4 mm. (in extended examples).

Size and build of *subgracile*, but differs in the testaceous 11th antennal joint, the elytral marking, and the less densely pubescent thorax, which has not a silky appearance. The elytral spot is comma-shaped, with the concavity outwards and the end of the tail near the sutural end of the posterior margin.

Simla Hills: Theog, alt. 7000 feet.

1341. **Conosoma obscurevittatum.**

Conosoma obscurevittatum Cam., Trans. Ent. Soc. Lond. 1926, p. 177.

Head black, shining, thorax, and elytra pitchy-black, the posterior margin of the former very narrowly and obscurely rufescent, the latter with an obscure, curved, reddish fascia extending from the shoulder to the posterior margin near the suture, the posterior margin and postero-external angle similarly rufescent, thus forming an ill-defined C-shaped marking, more visible in certain lights. Abdomen pitchy, the posterior margins of the anterior segments narrowly rufescent. Antennæ and legs testaceous. Length 4 mm. (in well extended examples).

Size, build, and antennal structure of *subgracile* Cam., but more shining, less pubescent and sericeous, the elytral fascia obscure red and ill defined, the abdomen rather less finely pubescent. Head and antennæ as in *subgracile* Cam. Thorax slightly transverse, closely and very finely punctured and grey pubescent. Elytra longer than the thorax, distinctly longer than broad, more distinctly punctured than the thorax, finely, closely grey pubescent, subsericeous. Abdomen densely and finely punctured and grey pubescent, subsericeous.

Dehra Dun.

1342. **Conosoma andrewesi**, sp. n.

Build of *gracile*, but the antennæ testaceous, the penultimate joints a little longer than broad. Slender, black, moderately shining, the anterior third of the elytra except the epipleura, scutellum, suture, and posterior margin of the abdominal segments (very narrowly) reddish. Antennæ and legs reddish-yellow. Length 3·5–4 mm. (in extended examples).

Very near *obscurevittatum*, but differs in the coloration of the elytra.

Nilgiri Hills (*H. L. Andrewes*).

1343. **Conosoma marginatum**.

Conosoma marginatum Cam., Trans. Ent. Soc. Lond. 1926, p. 178.

Narrow, elongate, black, the posterior borders of the thorax and of the abdominal segments very narrowly and obscurely rufescent. Elytra with an obscure, subtriangular orange spot occupying the posterior margin. Antennæ and legs testaceous. Length 5 mm.

Build of *gracile* Kr., but with shorter antennæ and differently marked elytra. Antennæ slender, reaching a little beyond the posterior angles of the thorax, all the joints longer than broad, the 10th not much longer than broad. Thorax extremely finely and very closely punctured, finely and closely pubescent, scarcely transverse. Elytra a little longer than the thorax, narrowed behind, the sides straight, exceedingly finely and densely punctured and pubescent, sericeous; at the apex with an obscure orange spot, subtriangular in shape, the base occupying the posterior margin and the apex extending for about one-fourth the length of the disc. Abdomen very finely punctured and closely pubescent, subsericeous.

Mussoorie district: Arni Gad, Ringal Gad, alt. 5000–6000 feet.

1344. **Conosoma postpictum**, sp. n.

Very near *marginatum*, of similar build, but with much longer blackish antennæ, much longer than the head and thorax, only the first two joints yellow; the elytra with the posterior margin more distinctly reddish-yellow, this coloration produced triangularly forwards near the suture to the level of the junction of the middle and posterior thirds. Length 3·5 mm. (in extended examples).

Nilgiri Hills (*H. L. Andrewes*).

1345. **Conosoma triste.**

Conosoma triste Cam., Trans. Ent. Soc. Lond. 1926, p. 177.

Narrow, elongate, black; the head and thorax moderately shining, elytra and abdomen more opaque, sericeous. Antennæ and legs testaceous. Length 3·2 mm. (in moderately extended examples).

In build very similar to *gracile* Kr., but the elytra entirely black or pitchy-black, the antennæ differently coloured and much shorter, the penultimate joints distinctly shorter. Head very finely and closely punctured, finely pubescent. Antennæ long and slender, extending well beyond the posterior angles of the thorax, all the joints longer than broad, the 11th longer than the 10th. Thorax slightly transverse, extremely finely and closely punctured, finely pubescent. Elytra a good deal longer than the thorax, longer than broad, more finely and densely punctured than the thorax, sericeous. Abdomen densely and finely punctured and grey pubescent, sericeous.

Mussoorie district: Keyarkuli, alt. 5000 feet.

1346. **Conosoma hemisphæricum.**

Conosoma hemisphæricum Bernh., Col. Rundsch. iv, 1915, p. 57.

A small, very convex species, readily known by its colour. Rust-red, the head and thorax brownish-red, the sides and posterior margin of the latter and the elytra reddish-yellow, the latter with a broad, oblique, sinuate black mark extending from the side margin to the suture; the legs bright yellow, the antennæ yellowish-white. The fore-parts are nearly semiglobular; the whole surface covered with a yellow pubescence, the abdomen also with numerous long black hairs. Head and thorax extremely finely and sparingly punctured, shining, the latter almost as long as broad, the posterior angles broadly rounded, not produced backwards. Elytra longer than the thorax, strongly narrowed behind, moderately finely and closely punctured. Antennæ slender, thickened towards the apex, distinctly compressed, the penultimate joints slightly transverse. Length 2 mm.

Sikkim. Unique (ex *Bernhauer*).

1347. Conosoma robustum.

Conosoma robustum Cam., Trans. Ent. Soc. Lond. 1919, p. 233.

Robust, convex, black, moderately shining; the abdomen rather densely clothed with short golden pubescence. Antennæ long and slender, the first four joints and the last testaceous. Legs reddish-testaceous, the outer margin of the anterior tibiæ closely set with short black pectinations. Length 5 mm. (in well extended examples).

Build of *bipustulatum* Grav., but more robust, broader, and more convex. Head very finely and sparingly punctured, with scanty cinereous pubescence and without ground-sculpture. Antennæ slender, reaching a little beyond the posterior angles of the thorax, the 1st and 3rd joints elongate, of equal length, the 2nd half the length of the 3rd, the 3rd and 4th subequal, the 5th to 10th each longer than broad, subequal and compressed, 11th elongate, oval, longer than the 10th. Thorax broader than the elytra, scarcely transverse, the posterior angles rounded, the posterior margin narrowly and obscurely ferruginous; very finely and rather closely punctured, and covered with a short, fine, griseous pubescence. Elytra as long as the thorax, slightly narrowed behind, with puncturation and pubescence much as on the thorax; ground-sculpture very fine, transversely strigose; the sides without setæ. Abdomen pointed, the posterior margins of the segments narrowly and obscurely reddish; puncturation very fine and rather close, pubescence fine, golden; sides and apex with long black setæ.

♂: 8th dorsal segment divided by a deep excision into two lobes, furnished with long black setæ.

♀: 8th dorsal segment divided into four blunt lobes, of which the central pair are a little longer than the lateral and the median triangular excision not so deep as the lateral ones.

Dehra Dun. Siwaliks. Darjeeling Dist. Also in Singapore and Malaya.

1348. Conosoma subtestaceum.

Conosoma subtestaceum Cam., Trans. Ent. Soc. Lond. 1926, p. 176.

Darker or lighter reddish-brown, moderately shining. Antennæ and legs reddish-yellow. Length 5 mm.

Very near the European *testaceum* F., but with the thorax a little longer, less transverse, less narrowed in front, the antennæ a little longer, extending a little beyond the posterior angles of the thorax, the penultimate joints as long as broad; elytra a little longer than the thorax, narrowed behind, its puncturation, and also that of the abdomen, less fine and less close, the ♂ with the 5th ventral segment not emarginate.

♂: 6th ventral segment with an arcuate emargination.
Chakrata district: Chulli Khud, Korawa Khud, Khedar Khud and Jadi Gad, alt. 7000–9000 feet.

1349. **Conosoma kashmiricum.**

Conosoma kashmiricum Bernh., Col. Rundsch. iv, 1915, p. 58.

Very near *pubescens* Er., of the same colour, but larger and more convex, much broader, the antennæ much shorter, the penultimate joints moderately transverse. The thorax is longer, not broader than long, the elytra much shorter, scarcely longer than the thorax, more strongly punctured. Abdomen more strongly and sparingly punctured. Length 4 mm.
Kashmir: Pir Panjal (*Rost*). Unique (ex *Bernhauer*).

1350. **Conosoma ceylanense.**

Conosoma ceylanense Kr.*, Arch. Naturg. xxv, 1859, i, p. 62.
Conosoma montanum Cam., E. M. M. lv, 1919, p. 255 (immature).

Varies from dark reddish-brown to black; moderately shining, closely and finely punctured and pubescent. Posterior margin of the abdominal segments narrowly reddish. Antennæ yellow, the 6th to 10th joints infuscate. Legs reddish-yellow. Length 3·2 mm.
Somewhat resembling *subtestaceum* in build, but with less transverse thorax and finer puncturation throughout. Antennæ scarcely as long as the head and thorax together, the penultimate joints only slightly longer than broad, the 11th almost as long as the two preceding together. Elytra a little longer than the thorax.
Ceylon: Dikoya, alt. 3800–4200 feet (*Lewis*).

1351. **Conosoma breve.**

Conurus brevis Fauv.*, Rev. d'Ent. xiv, 1895, p. 284.

Convex, black, moderately shining: the posterior angles of the thorax sometimes obscurely reddish; closely covered with a fine greyish-yellow pubescence. Antennæ with the first two or three and the 11th joints yellow, the others pitchy. Legs reddish-yellow. Length 5·5 mm. (in extended examples).
Near *ceylanense*, but shorter and broader in front and more convex. Antennæ longer, as long as the head and thorax, all the joints longer than broad, gradually decreasing in length, the 11th a good deal longer than the 10th; puncturation less fine and less close than in *ceylanense*.
Burma: Carin Cheba, alt. 900–1100 metres; Carin Asciuii Cheba; Tenasserim, Mt. Mooleyit, alt. 1800–1900 metres;

Thagata ; Plapoo [Biapo ?] (*L. Fea*) ; Tharawaddy. Siwaliks ; Nakraunda (*Cameron*). Nilgiri Hills (*Andrewes*). Also in the Malay Peninsula and Sumatra.

1352. **Conosoma anale.**

Conurus analis Fauv., Rev. d'Ent. xiv, 1895, p. 283.

Build of *bipustulatum* Er. [Europe], but smaller ; of striking coloration, reddish-orange, with long, sparing, golden pubescence ; mouth and legs paler, the anterior coxæ red ; the head, a large spot on the thorax occupying the anterior and middle regions black, but leaving the posterior third and the sides obliquely red ; the elytra black, a large oblong red spot at the middle of the base (sometimes scarcely visible) and the suture scarcely red ; 6th and 7th segments of the abdomen except the apex black ; outer border of the pectinate anterior tibiæ and apex of the posterior black ; epipleura reddish-testaceous. Antennæ coloured as in *bipustulatum*, but the joints, especially the 2nd and 3rd, shorter. Thorax scarcely iridescent, the posterior angles more prominent. Elytra shorter, more sparingly and more strongly subreticulately punctured. Length 3·75 mm.

Burma : Tenasserim, Mt. Mooleyit, alt. 1800–1900 metres, March (*L. Fea*). India (ex *Fauvel*).

1353. **Conosoma biguttatum.**

Conurus biguttatus Motsch., Bull. Mosc. xxxi, 1858, iii, p. 222.
Conosoma distigma Kr.*, Arch. Naturg. xxv, 1859, i, p. 61.

Somewhat shining ; head and thorax dark reddish-brown, slightly iridescent, the anterior and posterior margins narrowly, the lateral more broadly reddish-yellow. Elytra black, with a well defined round yellow spot at the middle of the base of each. Abdomen black, the posterior margin of the last two segments narrowly reddish. Antennæ testaceous, the 5th to 10th joints infuscate. Legs reddish-yellow. Length 4·2 mm.

Somewhat resembling *ceylanense* in build, but with shorter, broader thorax and shorter elytra, the antennæ much longer and more slender, longer than the head and thorax together, all the joints much longer than broad. Thorax distinctly transverse, the sides rounded and strongly retracted in front, the posterior angles rounded and somewhat produced, closely and very finely punctured and pubescent. Elytra as long as the thorax, densely punctured, less finely than the thorax and abdomen, which is also densely and finely punctured and pubescent.

"Ind. or." (without further indication). I have not seen a specimen from India. It occurs in the Malay Peninsula.

1354. **Conosoma immaculatum.**

Conurus immaculatus Steph., Ill. Brit. Ent. v, 1832, p. 190; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 357; Luze, W. Z. B. lii, 1902, p. 30.
Conosomus cinctus Motsch., Bull. Mosc. xxxi, 1858, iii, p. 223.
Conurus fusculus Er., Käf. Mark Brand. i, 1837–39 (1839), p. 391; id., Gen. Spec. Staph. 1839–40, p. 229.
Conosoma fuszulum Kr., Naturg. Ins. Deutsch. ii, 1856–58, p. 436; Thoms., Skand. Col. ix, 1867, p. 298; Pand., Ann. Soc. Ent. Fr. (4), ix, 1869, p. 292; Rey, Ann. Soc. Linn. Lyon, xxviii, 1881, p. 185.
Conurus pedicularius Boisd. et Lacord., Faun. Ent. Paris, i, 1835, p. 519.
Conurus rufus Grimmer, Steierm. Col. 1841, p. 35.
Conurus var. *β immaculatus* Fauv., Faun. Gallo-Rhén. iii, 1872, p. 610.

Build of *subtestaceum*, but smaller (2·5–3 mm.) and much narrower, with much shorter antennæ and finer and closer puncturation. Black or pitchy-black, rather shining, the posterior margins of the thorax, elytra, and abdominal segments often very narrowly and obscurely rufescent, occasionally the elytra entirely reddish-brown. Antennæ short, scarcely as long as the head and thorax together, the penultimate joints distinctly transverse, the 4th to 7th or 8th blackish. Legs reddish-yellow. Elytra a little longer and a little narrower than the thorax, narrowed behind.

Recorded from India without further indication.

1355. **Conosoma birmanum.**

Conurus birmanus Fauv.*, Rev. d'Ent. xiv, 1895, p. 284.

Convex, black, moderately shining, the base of the thorax sometimes very narrowly and obscurely reddish; with fine, moderately close yellowish pubescence throughout, a little thicker at the base of the elytra; 1st visible abdominal segment rather closely covered with golden pubescence, the following more sparingly. Antennæ reddish-yellow, the 5th to 9th joints blackish. Legs reddish-yellow. Length 3 mm.

Colour and size of *immaculatum* Steph., but a little broader, the thorax broader, more transverse, the pubescence less fine, the puncturation less fine and less close, the elytra shorter, about as long as the thorax. The antennæ are short, the 5th to 10th joints distinctly transverse.

Burma: Carin Cheba, alt. 900–1100 metres; Tenasserim, Mt. Mooleyit, alt. 1800–1900 metres (*L. Fea*). Siwaliks: Timli, Asarori, Nakraunda and Thano (*Cameron*). Nilgiri Hills (*Andrewes*). Darjeeling Dist.: Ghumpahar.

1356. **Conosoma persimile**, sp. n.

Colour and build of *birmanum*, but with the antennæ longer, the 4th to 6th joints much longer, distinctly longer than broad, the first three and the last reddish-yellow, the rest blackish: the abdomen is much more finely and uniformly punctured, the pubescence greyish and more uniform.

Darjeeling Dist.: Mangpu.

1357. **Conosoma brevipenne.**

Conosomus brevipennis Motsch., Ét. Ent. viii, 1859, p. 82.

Elongate, narrow, subsericeous, black; mouth, palpi, antennæ, sides of thorax, posterior margin of the elytra, posterior margin of the penultimate abdominal segment, and legs testaceous; thorax transverse, almost semilunar, subconvex, the base sinuate on each side, the posterior angles somewhat produced, with the apex rounded; scutellum triangular, scarcely visible; elytra as broad as but almost shorter than the thorax, obliquely sinuate to the suture, the sides behind angularly produced; abdomen very finely punctured, pubescence blackish, the last segment with two appendages and long setæ (♂ ♀). Length $\frac{4}{5}$ lin.; breadth $\frac{1}{4}$ lin.

A third smaller than *pedicularium* Er. [Europe], and quite different in coloration, in the shorter elytra, and shorter, more semilunar thorax in front.

Ceylon: Nuwara Eliya (ex *Motschoulsky*).

1358. **Conosoma variabile.**

Conosoma variabile Cam., Trans. Ent. Soc. Lond. 1926, p. 179.

Pitchy-brown. Head more or less rufescent in front, the lateral margins and base of the thorax narrowly rufescent. Elytra with a ferruginous, ill defined mark occupying the base internal to the callus, the vicinity of the suture, the posterior margin and postero-external angle, thus forming a C-shaped figure open outwards, the suture and rest of the disc pitchy. Abdomen with the posterior margins of the segments distinctly rufescent. Antennæ and legs testaceous. Varies considerably in the distinctness and extent of the elytral marking. Length 3·6 mm. (in well-extended examples).

In size and general facies resembling *immaculatum* Steph., but with more slender antennæ, the thorax much shorter and more transverse, the elytra shorter and more convex, the abdomen more finely and more closely punctured. Antennæ with 2nd and 3rd joints of equal length, 4th to 9th longer than broad, gradually decreasing in length, 10th as long as broad, 11th a little longer than the preceding. Thorax strongly transverse, very finely, closely punctured and pubescent.

Elytra a little longer than the thorax, as long as broad, gradually narrowed behind, rather more finely and more closely punctured and pubescent than the thorax. Abdomen very finely and closely punctured and pubescent, subsericeous.

Siwaliks: Nakraunda, Mohan Rau. Dehra Dun, Song River.

1359. **Conosoma rufoguttatum.**

Conosoma rufoguttatum Cam., Trans. Ent. Soc. Lond. 1926, p. 178.

Black; head and thorax more shining; thorax with the posterior margin narrowly rufescent, elytra pitchy, less shining, at the base of each with a reddish reniform spot, with the concavity backwards and not extending either to the suture or the lateral margin, more visible in certain lights, very finely and closely punctured and yellowish pubescent. Abdomen black, the posterior margins of the segments narrowly rufescent, the 5th (visible) more broadly, finely and closely punctured, not sericeous. Antennæ black, the first two joints testaceous. Legs testaceous. Length 4·5 mm.

Larger, more robust, and more convex than *immaculatum* Steph., with longer antennæ, the elytra rather less narrowed behind, the sides more rounded and with ferruginous basal spot, the abdomen less closely pubescent and more shining. Head very finely and very sparingly punctured, sparingly pubescent. Antennæ with 4th to 6th joints longer than broad, gradually decreasing in length, 7th about as long as broad, 8th to 10th slightly transverse. Thorax slightly transverse, extremely finely, moderately closely punctured and pubescent. Elytra as long as broad, rather less closely punctured than in *immaculatum*, with short, fine, greyish pubescence, not sericeous. Abdomen much less pubescent and more shining than in that species.

Simla Hills: Kotgarh; Gahan, alt. 7000 feet.

1360. **Conosoma parkeri.**

Conosoma parkeri Cam., Trans. Ent. Soc. Lond. 1926, p. 179.

Narrow, elongate, black, not sericeous, the sides and posterior margin of the thorax narrowly, obscurely rufescent. Elytra with ill defined red spot in the middle of the base, not extending to the suture or the lateral margin, the posterior margin very narrowly rufescent. Abdomen with the first four segments narrowly rufescent posteriorly, the 5th with the posterior half rufescent, 6th entirely black. Antennæ with the first three joints and the last testaceous, the rest infuscate. Legs testaceous. Length 3·5 mm. (in well extended examples).

Smaller and narrower than *rufoguttatum*, similarly built and marked, but the antennæ lighter and more slender though similarly constructed.

Almora : Dhaub China, alt. 6000 feet (*R. N. Parker, I.F.S.*). Mussoorie district : Arni Gad.

1361. **Conosoma c-rufum.**

Conosoma c-rufum Cam., Trans. Ent. Soc. Lond. 1926, p. 180.

Head and thorax reddish-testaceous, the latter rarely infuscate on the disc ; elytra pitchy-black, with a red C-shaped mark extending from the humeral callus along the suture, the posterior margin and the postero-external angle, suture black, rarely with the extreme lateral margin rufescent. Abdomen pitchy-black, the posterior margins of the segments broadly rufescent. Antennæ testaceous, occasionally a little infuscate towards the apex. Legs testaceous. Length 3 mm. (in well extended examples).

Build of *variabile*. Head extremely finely and sparingly punctured, with short, sparse, yellow pubescence. Antennæ rather short, 3rd joint a little longer than 2nd, 4th to 8th a little longer than broad, gradually decreasing in length, 9th and 10th as long as broad. Thorax distinctly transverse (6·5 : 4), the posterior angles rounded, extremely finely and closely punctured, finely yellow pubescent. Elytra a little longer than the thorax, narrowed behind, as long as broad, with similar puncturation and pubescence to the thorax, black, with red C-shaped mark open outwards. Abdomen very finely and densely punctured, subsericeous, with numerous long black setæ at the sides and one on either side of each segment near the posterior margin.

Siwaliks : Mothronwala, Lachiwala, Kheri Rau, Nakraunda. Found amongst roots of a coarse grass growing on the sandy banks of streams.

1362. **Conosoma obscurum.**

Conosoma obscurum Cam., Trans. Ent. Soc. Lond. 1926, p. 180.

Subconvex, castaneous, finely closely pubescent ; the front of the head, sides and posterior margin of the thorax narrowly, base of the elytra broadly, the apical margin narrowly ferruginous red. Abdomen yellow-red, paler behind. Antennæ short, testaceous. Legs testaceous. Length 2·75 mm. (in well extended examples).

Narrower than *beesoni*, similarly built, the antennæ similarly constructed, coloration of the elytra very similar to the obscurer forms of *variabile*. Head very finely and very sparingly punctured. Antennæ short, scarcely reaching the posterior angles of the thorax, the 2nd and 3rd joints of equal

length, 4th to 6th a little longer than broad, gradually decreasing in length, 7th to 10th transverse. Thorax strongly transverse, extremely finely, closely punctured and finely pubescent. Elytra longer than thorax, as long as broad, rather more closely punctured than the thorax, with a broad, ill defined, reddish patch at the base reaching the lateral margin but not attaining the suture, the posterior margin rufescent, sometimes the elytra lighter castaneous and then the spot scarcely distinguishable. Abdomen very similarly punctured and pubescent to the elytra, not sericeous. Immature examples are entirely yellowish-red.

Siwaliks: Lachiwala.

1363. **Conosoma beesoni.**

Conosoma beesoni Cam., Trans. Ent. Soc. Lond. 1926. p. 179.

Subconvex, castaneous, the head in front and the posterior margins of the abdominal segments rufescent. Antennæ short, testaceous, the 5th to 9th joints more or less infuscate. Legs testaceous. Length 2·75 mm. (in well extended examples).

Build of *variabile*, but much smaller, uniformly coloured, and with shorter antennæ. Head scarcely perceptibly punctured. Antennæ with 2nd and 3rd joints of equal length, 4th to 6th a little longer than broad, gradually decreasing in length, 7th to 10th transverse. Thorax strongly transverse, exceedingly finely, closely punctured and shagreened, with a fine, short, greyish pubescence. Elytra a little longer than the thorax, narrowed behind, about as long as broad, rather more closely punctured and pubescent than the thorax. Abdomen very similarly punctured and pubescent, not sericeous.

Mussoorie district: Arni Gad. Chakrata district: Khedar Khud, Chulli Khud, Sijla Gad. Simla Hills: Kotgarh, alt. 6000–8000 feet.

1364. **Conosoma fasciipenne.**

Conurus fasciipennis Epp., D. E. Z. 1895. p. 389.

Red, rather shining, finely yellow pubescent. Antennæ and legs pale yellow, the abdomen, a common scutellary spot, and the posterior region transversely black. Length $\frac{3}{4}$ lin.

Smaller than *bipunctatus*, differently coloured and more finely punctured and pubescent. Red, with bright yellow antennæ and legs, the abdomen and elytra black, the latter with an oblique basal spot and the posterior margin red. Head and thorax extremely finely punctured, with a thick, fine, yellow pubescence, slightly shining, the latter strongly narrowed in front, with blunt, not much produced posterior angles. Antennæ slender, bright yellow, scarcely thickened

towards the apex, the penultimate joints only slightly broader than long. Elytra about a third longer than the thorax, slightly convex, extremely finely and closely punctured, yellow pubescent, black, with an oblique red spot extending from the base externally to the middle of the suture. Abdomen black. Legs bright yellow.

Pegu. Unique (ex *Eppelsheim*).

1365. **Conosoma flavofasciatum.**

Conosoma flavofasciatum Bernh., Ent. Blätt. 1915, p. 255.

Readily recognized by the colour. Black, a broad transverse fascia occupying the basal third of the elytra and the abdomen up to the 5th segment, bright yellow, the thorax usually pitchy-red in front, the sides, especially near the posterior angles, yellow. Antennæ at the base and apex bright yellow, the middle joints blackish, the whole under surface and legs pale yellow. Head and thorax extremely finely, not densely, scarcely visibly punctured, moderately shining, the elytra less finely and more closely, distinctly roughly punctured and less shining, the abdomen shining, rather sparingly punctured. Antennæ as long as the head and thorax together, rather slender, thickened towards the apex, the penultimate joints distinctly transverse. Thorax and elytra without lateral setæ, the former a fourth broader than long, the posterior angles somewhat produced backwards. Elytra a good deal longer than the thorax, slightly narrowed behind. Abdomen at the sides and apex with numerous long black setæ. Length 2–2·6 mm. (with extended abdomen). Several examples.

Madura : Shembaganur (ex *Bernhauer*).

1366. **Conosoma quadrifasciatum.** (Plate III, fig. 11.)

Conosoma quadrifasciatum Cam., Trans. Ent. Soc. Lond. 1926, p. 180.

Head black, front testaceous. Thorax rufo-testaceous, the posterior half (except the sides) and the anterior border pitchy-black. Elytra black, with well defined transverse yellow spot at the base extending to the lateral margin, but not quite reaching the suture. Abdomen reddish-testaceous, the 3rd to 6th (visible) segments black, the posterior borders reddish-yellow. Antennæ with the first three and the last two joints testaceous, the intermediate infuscate. Legs testaceous. Length 3·1 mm. (in well extended examples).

Build of *suave* Fauv., and scarcely differing in sculpture and pubescence. The antennæ with 2nd and 3rd joints of equal length, 4th to 7th a little longer than broad, gradually decreasing in length, 8th to 10th about as long as broad.

Thorax transverse (6·5 : 4·5), rufo-testaceous, the anterior border rather broadly and the posterior half blackish except at the sides, very finely, closely punctured and moderately closely yellow pubescent. Elytra as long as the thorax, transverse, rather more closely punctured than the thorax. Abdomen with the processes testaceous; pubescence yellow, fine and short, not dense, and with several black setæ at the sides, the 2nd to 4th (visible) segments each with erect seta near posterior margin on either side.

Siwaliks: Nakraunda. Dehra Dun. Almora; Patkria, alt. 4500 feet.

1367. **Conosoma suave.**

Conurus suavis Fauv., Rev. d'Ent. xiv, 1895, p. 284.

Shining; head in front reddish-yellow, the base pitchy; thorax yellowish-red, on each side of the middle at the base with a triangular blue-black spot; elytra yellow, with transverse black fascia, occupying about the posterior half and extending to the reflexed margin, black, the scutellum and suture in front often narrowly pitchy, the posterior margin very narrowly reddish; abdomen reddish-yellow with black setæ, the 4th visible segment black, except the apical margin. Antennæ reddish-yellow, the intermediate joints often a little infuscate. Legs yellow. Length 3 mm.

In size, build, and antennal structure very similar to the European *pedicularium* Gr., but a little broader in front and differently coloured. The antennæ are short, the penultimate joints scarcely longer than broad, the 11th distinctly longer than the 10th. The elytra are as long as the thorax. The whole insect covered with a fine yellowish pubescence, finely and closely punctured, the elytra less finely.

Burma: Tenasserim (*Staudinger*). Assam: Naga Hills, alt. 4000 feet (*S. N. Chatterjee*). Siwaliks: Nakraunda (*Cameron*). Also in the Malay Peninsula.

1368. **Conosoma maculicolle.** (Plate IV, fig. 1.)

Conosoma maculicolle Cam., Trans. Ent. Soc. Lond. 1926, p. 181.

Reddish-testaceous, the head pitchy behind. Thorax at the base on either side of the middle with a round black spot, rarely absent, the anterior border very narrowly pitchy. Elytra yellow, the sides setiferous, with a rather broad, well defined, slightly oblique black band from the middle third of the outer margin to near the suture. Abdomen with the 1st and 4th (visible) segments black, the posterior margins reddish-testaceous, 2nd testaceous, more or less infuscate at the base, 3rd testaceous, with narrow black fascia near

posterior border, 5th and 6th testaceous, with transverse dark fascia near the base. Antennæ with the first five and last two joints testaceous, the intermediate black. Legs testaceous. Length 3·2 mm. (in well extended examples).

Antennæ short, the 2nd and 3rd joints of equal length, 4th and 5th a little longer than broad, 6th as long as broad, 7th to 10th transverse. Thorax transverse (6·75 : 4·75), extremely finely and moderately closely punctured, finely, not densely pubescent, and with few fine erect hairs. Elytra longer (6 : 4·75) than the thorax, narrower behind, as long as broad, rather less finely and more closely punctured than the thorax, finely and moderately closely pubescent, the sides with five long black setæ. Abdomen very finely and more closely punctured than the elytra, with fine, short, moderately close, yellow pubescence, not sericeous, the first four visible segments with erect black setæ near the posterior margins, the sides and apex with similar setæ.

Siwaliks: Nakraunda. Dehra Dun. Mussoorie district: Arni Gad. Almora: Dhaub China. Darjeeling district. Nilgiri Hills.

1369. **Conosoma quadrimaculatum.**

Conosoma quadrimaculatum Cam., Trans. Ent. Soc. Lond. 1926, p. 181.

Ochraceous yellow pubescent. Elytra yellow, each with two pitchy spots placed transversely before the middle, one near (but not touching) the external margin, the other near the middle of the disc, the sides with long setæ. Abdomen with the bases of the first four visible segments more or less blackish. Antennæ short, the first five and last two joints testaceous, the intermediate pitchy. Legs testaceous. Length 3·2 mm. (in well extended examples).

Head extremely finely, sparingly punctured, with short, sparse, yellow pubescence. Antennæ with the 2nd and 3rd joints of equal length, 4th a little longer than broad, 5th as long as broad, 6th to 10th transverse. Thorax transverse (6·5 : 4·5), exceedingly finely and moderately closely punctured, with fine, moderately close, depressed, yellow pubescence. Elytra longer (6 : 4·5) than the thorax, slightly narrowed behind, as long as broad, puncturation and pubescence as on the thorax, the sides with six long black setæ. Abdomen very finely and rather more closely punctured and pubescent than the elytra, not sericeous; posterior borders and sides of the segments with long black setæ. In an example from Ghum the antennæ are entirely reddish-yellow.

Chakrata district: Sainj Khud. Simla Hills: Fagu, Theog, and Kotgarh, alt. 6500–8000 feet. Darjeeling Dist.: Ghum.

1370. **Conosoma pictipenne.**

Conosoma pictipenne Kr.*, Arch. Naturg. xxv, 1859, i, p. 63.

Size and build of *maculicolle*, the antennæ of the same structure and colour, but the head and thorax dark reddish-brown, the former in front, the latter at the sides broadly lighter; elytra longer, yellow, the base, suture, posterior margin, and a transverse sinuate fascia from the epipleura nearly to the suture black, the sides with long black setæ; abdomen with the 1st, 5th, and 6th segments yellowish-red, the rest black: the puncturation of the elytra finer and closer, the yellow pubescence finer than in *maculicolle*. Length 3·3 mm. (in extended example).

Ceylon. Nilgiri Hills (*H. L. Andrewes*).

1371. **Conosoma antennarium.**

Conurus antennarius Bernh., D. E. Z. 1902, p. 25.

Reddish-testaceous, shining; the pubescence golden. Antennæ with the first three and last two joints yellow, the 4th obscure yellow, the 5th to 9th black; elytra and abdomen with long black lateral setæ, the 7th segment with blackish base. Length 3 mm. (1½ lin.).

Distinct by the reddish-yellow colour and the black middle joints of the antennæ. Finely and closely yellow pubescent, the head and thorax very shining, the elytra and abdomen less so. Antennæ shorter than the head and thorax together, thickened towards the apex, the 3rd joint shorter than the 2nd, the 4th longer than broad, the middle as long as broad, the penultimate slightly transverse, the first three joints bright yellow, the 4th darker, the five following deep black, the last two bright yellow. Thorax scarcely broader than the elytra, broader than long, rounded and narrowed towards the front, the base not emarginate, the posterior angles rounded, not prominent, extremely finely and moderately closely punctured. Elytra shorter than the thorax, a little darker in the middle, the rather broad apical margin with thicker golden-yellow pubescence, so that this part stands out distinctly from the darker middle zone. Abdomen reddish-yellow, the setæ black, the base of the 7th segment narrowly blackish.

Ceylon: Nalanda. Unique (ex *Bernhauer*).

1372. **Conosoma ochraceum.**

Conosoma ochraceum Cam., Trans. Ent. Soc. Lond. 1926, p. 182.

Entirely reddish-ochraceous, subconvex, finely yellow pubescent. Elytra at the sides with six long black setæ.

Antennæ with the first five and the last two joints testaceous, the intermediate black. Legs testaceous. Length 3·5 mm. (in well extended examples).

Head sparingly but distinctly punctured. Antennæ short, the 2nd and 3rd joints of equal length, 4th to 7th a little longer than broad, gradually decreasing in length, 8th as long as broad, 9th and 10th transverse. Thorax transverse (6·75 : 4), exceedingly finely, moderately closely punctured. Elytra longer than thorax (6 : 4), narrowed behind, as long as broad, more closely punctured than the thorax. Abdomen much more closely punctured and more densely pubescent than the elytra, subsericeous, sides and posterior margins of the first four visible segments with long black setæ.

Siwaliks. Dehra Dun. Mussoorie district: Arni Gad.

1373. **Conosoma flavorufum,** sp. n.

Entirely yellowish-red, finely yellow pubescent; the elytra at the sides with long black setæ. Antennæ and legs yellow. Length 2·75 mm. (in moderately extended example).

Size and build of *maculicolle*, but differs in the colour, the much longer and entirely yellow antennæ, the penultimate joints fully as long as broad.

Ceylon: Nuwara Eliya, alt. 6234–8000 feet (*Lewis*). Unique. In British Museum Collection.

1374. **Conosoma rufum.**

Conosoma rufum Kr., Arch. Naturg. xxv, 1859, i, p. 63.

Red, somewhat shining, finely grey pubescent; elytra a little longer than the thorax, antennæ rather short. Length 1 lin.

A little larger than *bipunctatum* [Europe], entirely dark reddish-testaceous, very closely and very finely punctured and pubescent. Antennæ shorter than the head and thorax, scarcely thickened towards the apex, the penultimate joints scarcely longer than broad. Head scarcely punctured, shining. Thorax scarcely broader than the elytra, slightly convex, narrowed in front, the base truncate, the posterior angles obtusely rounded, scarcely produced behind. Elytra a little longer than the thorax, the apex obliquely truncate. Abdomen with black setæ.

Northern India (*Bacon*) (ex *Kraatz*).

The author does not state whether the elytra are furnished with lateral setæ, but they are, presumably, present, as he compares it with *bipunctatum*. The type, which should be in the Hope Museum, Oxford, cannot be found.

1375. **Conosoma dimerum.**

Conurus dimerus Fauv., Rev. d'Ent. xiv, 1895, p. 285.

Size of *bipunctatum* Gr. [Europe], but a little broader, obscure reddish-testaceous, rather shining, not very closely covered with golden-yellow pubescence, the setæ pitchy-black. Antennæ with the first four and 10th and 11th joints yellow, the apex of the 5th [4th visible] segment yellow; 5th to 9th joints of antennæ blackish; elytra with ill defined pitchy spot extending from the middle to the apex, scarcely reaching the suture. Antennæ short, slender, 7th to 10th joints quadrate, 11th short, a little longer and broader than the preceding; head scarcely perceptibly, thorax sparingly and very finely, elytra and abdomen more closely and less finely punctured; thorax strongly narrowed in front, the posterior angles obtuse, scarcely produced backwards; elytra a little longer than the thorax. Length 2·75–3 mm.

Burma: Carin Asciuii Ghécu, alt. 1400–1500 metres (*L. Fea*) (ex *Fauvel*).

Genus **TACHYPORUS** Gr.

Tachyporus Gr., Col. Micr. 1806, p. 1; Er., Käf. Mark Brand. i, 1837–39 (1839), p. 390; id., Gen. Spec. Staph. 1839–40, p. 231; Lacord., Gen. Col. ii. 1855, p. 54; Kraatz, Naturg. Ins. Deutsch. ii, 1856–58, p. 417; Jacq. du Val, Gen. Col. d'Eur. ii, 1857–59, p. 24; Pand., Ann. Soc. Ent. Fr. (4) ix. 1869, p. 273; Fauv., Faun. Gallo-Rhén. iii, 1872, p. 593; Thoms., Skand. Col. iii, 1861, p. 149; Rey, Ann. Soc. Linn. Lyon, xxviii, 1881, p. 207; Olliff, Proc. Linn. Soc. N. S. Wales, (2) ii. 1886, p. 898; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 348; Luze, W. Z. B. li, 1901, p. 146.

Trachyopus Rey, Ann. Soc. Linn. Lyon, xxviii, 1881, p. 243.

Biology.—Schiödte, Nat. Tidsskr. (3) viii, 1872–73, pp. 557–559, tab. 19, figs. 10–15; Xambeu, Mœurs et Metam. d'Ins. ii, 1892 p. 28; Rupertsberger, Biol. Lit. Käf. Eur. 1894, p. 119; Wasmann Zeitsch. Wissen. Insektenbiol. i, 1905, pp. 420–424.

Moderately convex, shining species, broader and rounded in front and narrowed behind. Head inserted in the thorax up to the eyes, glabrous. Infra-orbital ridge wanting, the gular sutures widely separated. Antennæ rather slender, slightly thickened towards the apex. Labrum transverse, truncate in front, the sides rounded. Mandibles short and stout, pointed, internally with a pectinate membrane. Outer lobe of maxilla densely covered with long hairs at the apex; the inner internally with very close, lightly curved, fine spines. Maxillary palpi with the 1st joint very small, 2nd lightly curved and thickened towards apex, 3rd as long as the 2nd and gradually thickened from base to apex, 4th narrower, pointed, about half as long as the preceding. Mentum transverse, trapeziform. Tongue broad, membranous, broadly, angularly emarginate in front, the sides rounded. Paraglossæ

strongly ciliated internally, extending to the anterior border of the tongue. Labial palpi small, 1st joint stout, longer than broad, 2nd shorter and narrower, 3rd much narrower and longer than the 2nd. Thorax closely embracing the base of the elytra, glabrous, the sides rounded and retracted in front, finely bordered, the anterior angles produced considerably beyond the level of the anterior border of the prosternum. Anterior part of the prosternum very short, finely carinate, the posterior deflexed part longer and broadly rounded behind; pronotal epipleura very strongly deflexed; epimera tongue-shaped, fused externally with the epipleura. Mesosternum simple, its process long and narrow, grooved, extending the whole length of the coxæ, these narrowly separated. Elytra with narrow epipleura separated by a fine keel from the dorsal surface, the sides with setæ. Abdomen pointed, distinctly margined above, the sides and apex with setæ. Tibiæ (at least the middle and posterior) with some spines externally. Anterior tarsi with the first four joints short, in the ♂ distinctly dilated, in the ♀ not or but slightly: middle and posterior with the 1st joint almost as long as the three following together, the 4th joint very short, the 5th longer than the 3rd and 4th together. The genus is found throughout the world, but especially in the Palæarctic and Nearctic regions; the species are found in moss, vegetable debris, etc. The lighter species often show considerable variation in colour, and so present difficulty in determination.

Key to the Species.

1.	Species entirely or in greater part yellowish or reddish-testaceous	2.
	Species in greater part black	9.
2.	Elytra with blackish markings	3.
	Elytra immaculate	6.
3.	Each elytron with distinct oval blackish spot on the middle, convex, shining	[(type-form), p. 382. *himalayicus* Bernh.
	Elytra otherwise marked	4.
4.	Each elytron with obscure blackish mark on the middle, depressed, greasy lustrous.	*singularis* Cam., p. 383.
	Elytra with dark sutural mark	5.
5.	Sutural marking large, triangular, extending from the middle of the base to the apex of suture	[p. 381. *triangulum* Cam.
	Sutural marking oval, extending from the scutellum to the posterior third	*suturalis*, sp. n., p. 382.
6.	Abdomen with the base of the segments black, more closely punctured	[(var.), p. 382. *himalayicus* Bernh.,
	Abdomen entirely reddish, at most slightly infuscate	7.
7.	More convex, broader species	8. [p. 385.
	More depressed, narrower species	*ancorarius* Cam. (var.).

8.	Antennæ longer and more slender	*montanus* Bernh., [p. 383.
	Antennæ shorter and stouter	*dilutus* Motsch., p. 384.
9.	Thorax black, the side margin and postero-lateral region broadly reddish-yellow....	10.
	Thorax otherwise	16.
10.	Elytra red or yellowish-red, the scutellary region and side margin blackish	11.
	Elytra otherwise	12.
11.	Larger (3–4 mm.). Antennæ longer; abdomen more closely and strongly punctured.	*hypnorum* F., p. 378.
	Smaller (2–3 mm.). Antennæ shorter; abdomen more finely and less closely punctured	*pusillus* Gr., p. 381.
12.	Elytra black, with more or less large yellow markings behind	13.
	Elytra otherwise	14.
13.	Elytra with triangular yellow marking extending from the posterior margin towards the shoulder, the base behind; the sutural region triangularly and entirely black	[p. 379. *flavopictus* Fauv.,
	Elytra with the posterior margin and a common sutural spot almost reaching the middle, yellow	[p. 380. *marginalis* Cam.,
14.	Elytra yellow or reddish-yellow, with a transverse undulating black fascia across the middle, the sutural region broadly black in front of it; antennæ infuscate.	15.
	Elytra black; antennæ entirely reddish-yellow	[p. 379. *birmanus*, sp. n.,
15.	More convex species; elytra yellow, much more sparingly punctured and pubescent	*undulatus* Cam., p. 379.
	More depressed; elytra reddish-yellow, rather closely punctured and pubescent.	[(type-form), p. 384. *ancorarius* Cam.
16.	Thorax black, at most with the sides and base very narrowly reddish-yellow, or pitchy with the sides indefinitely lighter.	17.*
	Thorax red; elytra black, with the posterior margin broadly reddish	*alticola*, sp. n., p. 384.
17.	Thorax black, with the side margin and base narrowly and sharply reddish-yellow or more broadly and indefinitely lighter.	18.
	Thorax entirely black	20.
18.	Base and sides of thorax narrowly and sharply yellow	19.
	Base and sides of thorax broadly and indefinitely lighter	[*loides* Cam., p. 385. *ancorarius* var. *nitidu-*
19.	Elytra with the posterior margin narrowly reddish-yellow	*simlaensis* Cam., p. 380.
	Elytra unicolorous black	*simlaensis* Cam., var. [*tristis*, nov., p. 381.
20.	Elytra black, with small humeral reddish spot, the posterior margin moderately broadly reddish-yellow	*almorensis*, sp. n., [p. 378.
	Elytra reddish-yellow, with transverse undulating black fascia across the middle, the suture in front of it also black.....	*assimilis* Cam., p. 380.

1376. **Tachyporus hypnorum.**

Staphylinus hypnorum F., Syst. Ent. 1775, p. 266.
Tachyporus hypnorum Er., Käf. Mark Brand. i, 1837–39 (1839), p. 394; id., Gen. Spec. Staph. 1839–40, p. 234; Kraatz, Naturg. Ins. Deutsch. ii, 1856–58, p. 423; Thoms., Skand. Col. iii, 1861, p. 150; Pand., Ann. Soc. Ent. Fr. (4), ix, 1869, p. 302; Fauv., Faun. Gallo-Rhén. iii, 1872, p. 598; Rey, Ann. Soc. Linn. Lyon, xxviii, 1881, p. 224; Ganglb., Käf. Mitt.-Eur. ii, 1985, p. 351; Luze, W. Z. B. li, 1901, p. 172.
Tachyporus apicalis Steph., Ill. Brit. Ent. v, 1832, p. 185.
Staphylinus blattinus Schr., Enum. Ins. Austr. 1781, p. 236.
Tachyporus collaris Steph., Ill. Brit. Ent. v, 1832, p. 183.
Staphylinus conicus De Villers, Ent. i, 1789, p. 425.
Tachyporus erythropterus Steph., Ill. Brit. Ent. v, 1832, p. 184.
Oxyporus marginatus Panz., Ent. Germ. 1795, p. 359; Guerin, Icon. Règne, Anim. tab. x, fig. 9*a*.
Staphylinus martialis Schr., Enum. Ins. Austr. 1781, p. 37.
Staphylinus minutus F., Ent. Syst. i, 2, 1792, p. 535.
Tachyporus nigriceps Mannerh., Brachél. 1830, p. 59.
Tachyporus hypnorum Er., var. *armeniacus* Kolen., Melet. Ent. iii, 1846, p. 12; Hochh., Bull. Mosc. xxii, 1849, p. 84; *meridionalis* Fairm. et Bris., Ann. Soc. Ent. Fr. (3) vii, 1859, p. 40; *rufomarginatus* Kolen., Melet. Ent. iii, 1846, p. 11.
Tachyporus hypnorum F., var. *atratus* Csiki, Zichy's Exped. 1901, ii, p. 103; *niger* Luze, W. Z. B. li, 1901, p. 173.

Shining; head and thorax black, the latter with the sides and postero-lateral region (more broadly) reddish-yellow; elytra red, the scutellary region with small triangular black spot, the sides almost to the posterior angles black; abdomen black, with the posterior margin of the segments broadly reddish. Antennæ reddish-yellow, the penultimate joints a little infuscate. Legs reddish-yellow. Length 3–4 mm.

Antennæ slender, the penultimate joints a little longer than broad. Thorax strongly transverse, the sides rounded, more strongly retracted in front than behind. Elytra about a fourth longer than the thorax and a little narrower, broader than long, very finely and rather closely punctured. Abdomen conical, more strongly and more closely punctured than the elytra.

♂: anterior tarsi with the first three joints dilated.

Dehra Dun. Widely distributed and common throughout the Palæarctic region.

1377. **Tachyporus almorensis,** sp. n.

Black, shining; the elytra with a narrower spot just external to the middle of the base and the posterior margin reddish-yellow, the latter colour externally a little produced towards the humeral spot; posterior margin of the abdominal segments narrowly rufescent. Antennæ with the first three joints and greater part of the last yellow. Legs reddish-yellow. Length 4 mm.

Build of *hypnorum*, the antennæ constructed as in that species; differs in the colour and rather less fine and less close puncturation of the elytra.

Kumaon: West Almora (*H. G. Champion*). Unique.

1378. **Tachyporus birmanus,** sp. n.

Black, shining; the sides of the thorax rather broadly, the posterior margin narrowly reddish-yellow. Antennæ and legs reddish-yellow. Length 3 mm.

Build of *hypnorum*, but differently coloured, the antennæ much stouter and shorter, especially the intermediate joints, the abdomen as finely but more sparingly punctured.

Burma: Ruby Mines (*Doherty*). Unique. In British Museum Collection.

1379. **Tachyporus flavopictus.**

Tachyporus flavopictus Fauv., Rev. d'Ent. xiv, 1895, p. 282.

Shining, black: the thorax with sinuate yellow border, narrow at the anterior angles, much wider behind at the postero-lateral region and narrowly produced along the whole of the posterior margin; elytra with large triangular yellow mark occupying the whole of the posterior margin and the postero-external angle with the apex near the shoulder; sometimes with the marking much reduced, not reaching the middle of the elytra or even the sutural angle; abdomen black, the posterior margin of the segments occasionally obscurely and narrowly reddish. Antennæ and legs reddish-yellow. Length 4·5–5 mm.

Antennæ rather long, the penultimate joints fully as long as broad. Elytra a little narrower and a little longer than the thorax, about as long as broad, slightly narrowed behind, very finely and closely punctured. Abdomen closely but less finely punctured than the elytra.

Burma: Carin Asciuii Ghécu, alt. 1400–1500 metres (*L. Fea*). Darjeeling (*Christie*); Ghum. Mussoorie (*Cameron*).

1380. **Tachyporus undulatus.** (Plate IV, fig. 2.)

Tachyporus undulatus Cam., Trans. Ent. Soc. Lond. 1926, p. 181.

Shining, subconvex; head black; thorax black, the posterior angles broadly, the posterior margin narrowly testaceous. Elytra yellow, the sides narrowly black except at the postero-external angles, and with a broad, undulating, black, well defined fascia extending from the lateral margin to the suture across the middle of the disc, suture in front of the fascia narrowly black. Abdomen black, the posterio

margins of the segments very narrowly rufescent. Antennæ with the first four joints and the base of the 5th testaceous. Legs testaceous. Length 3 mm.

Build of *chrysomelinus* L., but differently coloured and antennæ shorter. The elytral fascia leaves a reniform yellow spot at the base.

Simla Hills: Fagu, alt. 8000 feet. Darjeeling Dist.: Ghum. Under bark.

The pattern on the elytra is similar to that of *ancorarius*, but they are more convex and much more sparingly punctured and pubescent and of a yellow colour.

1381. **Tachyporus marginalis.** (Plate IV, fig. 3.)

Tachyporus marginalis Cam., Trans. Ent. Soc. Lond. 1926, p. 184.

Shining, subconvex; head black; thorax black, the sides and posterior margin narrowly, the posterior angles broadly testaceous. Elytra pitchy-black, less shining, with a large common testaceous spot occupying the postero-external angles and posterior borders and ascending along the suture for nearly half its length. Abdomen blackish, the posterior margins of the segments rufescent. Antennæ pitchy, the first four joints testaceous. Legs testaceous. Length 3 mm. (moderately extended).

Build of *hypnorum* F., the antennæ similarly constructed but rather shorter, the thorax similarly marked, the elytra longer, similarly punctured, the setæ longer and stronger. Differs from *flavopictus* in the shorter antennæ and different position of the elytral marking.

Simla Hills: Gahan, alt. 7000 feet.

1382. **Tachyporus assimilis.**

Tachyporus assimilis Cam., Trans. Ent. Soc. Lond. 1926, p. 184.

Of similar size and build to *undulatus* and with similar elytral pattern, but differs in the following respects: only the first two joints of the antennæ are testaceous, the femora are pitchy-black and the tibiæ brownish-testaceous, the thorax is entirely black, the posterior half of the 7th and 8th abdominal segments reddish-testaceous.

Chakrata district: Jadi Gad, alt. 7000 feet.

1383. **Tachyporus simlaensis.**

Tachyporus simlaensis Cam., Trans. Ent. Soc. Lond. 1926, p. 184.

Subconvex; head and thorax black, shining, the sides and posterior margin of the latter narrowly testaceous; elytra black, shining, the posterior margin narrowly testaceous for the inner half, the external angles and outer half more

broadly. Abdomen black, the posterior margins of the segments narrowly rufescent. Antennæ blackish, the first three joints testaceous. Legs testaceous. Length 4 mm.

In build resembling *pusillus* Gr., but the puncturation of the elytra and abdomen less fine. Antennæ with 8th to 10th joints about as long as broad. Thorax short; elytra a little longer, transverse.

Var. *tristis*, nov. Differs from the type-form in the entirely black elytra.

Chakrata and Simla districts, alt. 6500–8000 feet. Kashmir: Gulmarg (type-form and variety).

1384. **Tachyporus triangulum.**

Tachyporus triangulum Cam., Ann. Mag. Nat. Hist. (10) ii, 1928, p. 567.

Shining reddish-testaceous, the thorax slightly infuscate along the middle; elytra with a large well defined triangular marking, extending from the middle of the base to the apex of the suture; abdomen blackish behind. Antennæ and legs testaceous. Palpi with the 3rd joint slightly infuscate. Length 4 mm.

Size and build of *obtusus* L. Head and thorax without sculpture. Antennæ with the penultimate joint a little longer than broad. Elytra a little longer than the thorax, extremely finely and sparingly punctured and pubescent, at each side with five black setæ. Abdomen very finely, moderately closely punctured, finely pubescent, the sides and apex with long black setæ.

Sikkim: Gantok, alt. 5000 feet (6. v. 1924). One specimen.

1385. **Tachyporus pusillus.**

Tachyporus pusillus Gr., Mon. Col. Micr. 1806, p. 9; Er., Käf. Mark Brand. i, 1837–39 (1839), p. 394; id., Gen. Spec. Staph. 1839–40, p. 239; Kraatz, Naturg. Ins. Deutsch. ii, 1856–58, p. 427; Thoms., Skand. Col. iii, 1861, p. 151; ix, 1867, p. 300; Pand., Ann. Soc. Ent. Fr. (4) ix, 1869, p. 300; Fauv., Faun. Gallo-Rhén. iii, 1872, p. 602; Rey, Ann. Soc. Linn. Lyon, xxviii, 1881, p. 229; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 352; Luze, W. Z. B. li, 1901, p. 159.
Tachyporus lateralis Steph., Ill. Brit. Ent. v, 1832, p. 185.
Tachyporus anticus Er., Gen. Spec. Staph. 1839–40, p. 235; Fauv., Rev. d'Ent. xxi, 1902, p. 124.
Tachyporus piceus Mäkl., Bull. Mosc. xix, 1846, i, p. 174.
Tachyporus marginatus Hartung, Geol. Verhält. Lanzar. 1857, p. 140.
Tachyporus pusillus Gr., var. *satanas* Luze, W. Z. B. li, 1901, p. 159.

Head black; thorax brown, the sides broadly and indeterminately brownish-yellow; elytra brownish-yellow, the

suture and lateral margin narrowly black; abdomen black, the posterior margin of the segments reddish. Antennæ with the first four joints yellow, the following somewhat infuscate. Legs reddish-yellow. Length 2–3 mm.

In facies much resembling *hypnorum*, but much smaller, the antennæ much shorter and the thorax brown, the elytra brownish-yellow. Antennæ with the penultimate joints as long as broad. Elytra a third longer than and as broad as the thorax, very finely and rather closely punctured, and with a fine depressed pubescence. Abdomen very finely and rather closely punctured.

India (without further indication). In British Museum Collection. Widely distributed in Europe.

1386. **Tachyporus himalayicus.**

Tachyporus himalayicus Bernh., Arch. Naturg. lxxxiv, A, 1918 (1920), p. 187.
Tachyporus nigromaculatus Cam., Trans. Ent. Soc. Lond. 1926, p. 183.

Build of *hypnorum* F., the antennæ with shorter penultimate joints and scarcely differing in sculpture. In well coloured examples the head is black, the thorax testaceous, more or less infuscate on the disc, the elytra testaceous, with a brown, oval, oblique spot on each disc directed backwards and inwards, and with the side margins blackish, the abdomen blackish, with the posterior margins of the segments broadly rufescent, finely and closely punctured. In other examples the head is more or less testaceous, the thorax not or scarcely infuscate, the elytral spot more or less indistinct or entirely absent, with the sides concolorous, the abdomen brown, with the posterior margins of the segments broadly rufescent. The antennæ are blackish, with the first three joints testaceous. Length 2·75–4·2 mm.

Varies considerably in size, examples from the western Himalayas being larger than those from the eastern region. Forms in which the elytral spot is absent and the head and thorax are lighter much resemble *montanus*, but in this species the abdomen is of brighter colour and much more finely punctured.

Sikkim (*Christie*). Darjeeling Dist.: Ghum (*Cameron*). Mussoorie district: Keyarkuli; Dhobi Ghat. Chakrata district: Khedar Khud. Dehra Dun. Siwaliks: Mohan Rau.

1387. **Tachyporus suturalis,** sp. n.

Shining; head black, thorax and elytra brownish-yellow, the latter with a common oval black spot along the suture

from the base to the posterior third ; abdomen brown, the posterior margin of the first four segments rufescent, the 5th and 6th entirely reddish-yellow. Antennæ with the first two joints yellow, the following blackish. Legs yellow. Length 4 mm. (in normally extended examples).

Build of *himalayicus*; the antennæ similarly constructed, coloration very similar, but of different pattern, abdomen with the last two segments reddish-yellow. The puncturation is similar.

Darjeeling Dist. : Ghum (*Cameron*).

1388. **Tachyporus singularis.**

Tachyporus singularis Cam., Trans. Ent. Soc. Lond. 1926, p. 184.

Subdepressed ; head black, shining ; thorax shining brown, the posterior margin, sides, and posterior angles broadly testaceous. Elytra greasy lustrous, depressed, brownish testaceous, the sides, a triangular scutellary mark, and an obscure longitudinal mark on the disc brown. Abdomen pitchy, the posterior margins of the segments flavescent. Antennæ blackish, the first two joints testaceous. Legs testaceous. Length 3·5 mm.

In colour resembling the forms of *himalayicus* in which the elytra have the discal mark almost wanting, but much more depressed and with the elytra longer and more finely punctured and less shining. Antennæ long, all the joints gradually decreasing in length from the 4th, all longer than broad. Elytra distinctly longer than the thorax, a little longer than broad, very finely, moderately closely punctured. Abdomen less finely punctured than the elytra.

Chakrata district : Chulli Khud, alt. 8000 feet.

1389. **Tachyporus montanus.**

Tachyporus montanus Bernh., Col. Rundsch. iv, 1915, p. 58.

Reddish-yellow ; the abdomen yellowish-red. Antennæ with the first three joints yellow, the following slightly infuscate. Legs yellow. Length 2·27–3·5 mm.

In build very similar to *hypnorum*, but differently coloured and with shorter antennæ, the penultimate joints not longer than broad. Thorax scarcely as broad as the elytra, these about a third longer, very finely and rather closely punctured. Abdomen very finely and closely punctured. From the immaculate form of *himalayicus* it is distinguished by the much more finely punctured and entirely yellowish-red abdomen.

W. Himalayas : Jalaori. Dehra Dun.

1390. Tachyporus dilutus.

Tachyporus dilutus Motsch., Ét. Ent. viii. 1859, p. 80.

Elongate, narrowed, subdepressed, shining, testaceous, with the head, middle of the thorax, scutellum, and abdomen sometimes slightly infuscate; antennæ with the last seven joints and the eyes black; head transverse, glabrous; thorax glabrous, rounded and narrowed towards the front, twice as broad behind as the head, the posterior angles nearly rectangular, the apex rounded; scutellum triangular, strongly transverse, elytra as broad as but scarcely longer than the thorax, glabrous; abdomen conical, glabrous, the apex punctured, pubescent, the last dorsal segment impressed along the middle. Length 1¼ lin.; breadth ½ lin.

Resembles *abdominalis* [Europe], but the thorax broader, elytra shorter, antennæ more slender at the base, shorter and more thickened towards apex.

Ceylon: in the mountains (*Nietner*) (ex *Motschoulsky*).

1391. Tachyporus alticola, sp. n.

Shining; head black, more or less reddish-brown towards the front; thorax reddish-yellow; elytra pitchy-black, the posterior region indeterminately reddish-yellow; abdomen black, the posterior margin of the segments narrowly reddish. Antennæ blackish, the first two joints yellow. Legs reddish-yellow. Length 3 mm.

In colour similar to *pulchellus* Mannerh., in build only differing from that species in the shorter elytra, which are only a little longer than the thorax, the shorter and stouter antennæ, the penultimate joints slightly transverse, the elytra and abdomen more distinctly punctured.

N. Kumaon: Girthi Valley, alt. 14,000 feet.

1392. Tachyporus ancorarius.

Tachyporus ancorarius Cam., Trans. Ent. Soc. Lond. 1926, p. 185.
Tachyporus ancorarius var. *nitiduloides* Cam., l. c. 1926, p. 185.

Shining; head black; thorax black, the posterior margin narrowly, the sides more or less broadly reddish-testaceous. Elytra reddish-testaceous, with an anchor-shaped black figure, the shaft along the suture, the flukes extending across the disc on either side towards the lateral margins (these infuscate except at the postero-external angles), the base narrowly blackish. Abdomen black, the posterior margins of the segments rather broadly rufescent. Antennæ with the first three joints testaceous, the rest blackish. Legs testaceous. Length 4 mm.

A narrow, elongate subdepressed species of the build of *nitidulus* F., and scarcely differing in sculpture ; the antennæ are, however, dark and a little longer, the 4th to 6th joints distinctly longer and the thorax a little broader.

Siwaliks : Lachiwala. Mussoorie and Chakrata districts.

Var. *nitiduloides* Cam. Differs from the type-form in the absence of the elytral pattern, the elytra being entirely suffused with brownish-black except the posterior margins and postero-external angles. In a long series every gradation between the type-form and the variety is met with.

Another form of this species is reddish-yellow (except the antennæ), with reddish-brown abdomen, the posterior margin of the segments lighter. It does not appear to be immature.

Mussoorie, Chakrata and Simla districts, alt. 6000–8000 feet.

Genus **TACHINUS** Gr.

Tachinus Gr., Col. Micr. Brunsv. 1802, p. 134 ; Er., Käf. Mark Brand. i, 1837–39 (1839), p. 396 ; id., Gen. Spec. Staph. 1839–40, p. 244 ; Lacord., Gen. Col. ii, 1855, p. 55 ; Kraatz, Naturg. Ins. Deutsch. ii, 1856–58, p. 396 ; Jacq. du Val, Gen. Col. d'Eur. ii, 1858, p. 25 ; Pand., Ann. Soc. Ent. Fr. (4), ix, 1869, p. 278 Fauv., Faun. Gallo-Rhén. iii, 1872, p. 574 ; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 337 ; Luze, W. Z. B. l, 1900, p. 481.
Ellipotoma Motsch., Bull. Mosc. xxxi, 1858, iii, p. 215.
Ellipsotomus Gemm. et Har., Cat. Col. ii, 1868, p. 554.
Elliptoma Motsch., Bull. Mosc. xviii, 1845, i, p. 41.
Hamotraho Gozis, Rech. de l'esp. typique, 1886, p. 13.
Tachinus+*Drymoporus* Thoms., Skand. Col. iii, 1861, pp. 154, 159 ; Rey, Ann. Soc. Linn. Lyon, xxviii, 1881, pp. 254, 300.
Subgen. *Drymoporus* Thoms., Skand. Col. iii. 1861, p. 159.
Subgen. *Porodrymus* Rey, Ann. Soc. Linn. Lyon, xxviii, 1881, p. 303.
Subgen. *Tachinus*, s. str., Thoms., l. c. p. 154 ; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 337.

Biology.—Perris, Ann. Soc. Ent. Fr. (2) iv, 1846, p. 335, tab. 9. no. 3, fig. 9 ; Schiödte, Nat. Tidsskr. (3) viii, 1872, pp. 553–557, tab. 19, figs. 1–9 ; Rey, Ann. Soc. Linn. Lyon, xxviii, 1881, pp. 284, 285, 297 ; id., Ann. Soc. Ent. Fr. 1892, p. clxxxii ; Rupertsberger, Biol. Lit. Käf. Eur. 1894, p. 119.

Moderately convex species, narrowed in front and behind (*Tachinus*, s. str.) as represented in our Fauna. Head transverse, inserted in the thorax ; eyes rather large ; antennæ slightly thickened towards the apex : infra-orbital crest absent ; gular sutures widely separated. Labrum transverse, slightly emarginate in the middle in front. Mandibles short and stout, edentate. Outer lobe of the maxilla rounded at apex, closely covered with fine hairs, externally with longer hairs or tufts of hairs, the inner obliquely truncate at the apex, furnished with hairs and fine spines. Maxillary palpi rather long, with very small 1st joint, 2nd elongate, slightly thickened towards

the apex, 3rd much shorter than the 2nd, 4th much longer and scarcely narrower than the 3rd at the base, gradually pointed. Mentum large, transverse, trapeziform. Tongue very broad, membranous, in the middle of the anterior border with a small emargination, at the outer angles with some fine setæ. Paraglossæ extending obliquely backwards and inwards from the outer angles of the tongue, strongly ciliate internally. Labial palpi rather short, 1st joint longer than the 2nd, this very short, the 3rd scarcely narrower, but longer than the 2nd, oval. Thorax transverse, the sides rounded and bordered, retracted in front, the anterior angles produced considerably beyond the level of the anterior margin of the prosternum, this with short, more or less carinate anterior part angulate behind in the middle, the depressed posterior part broadly truncate behind. Pronotal epipleura wanting; the epimera tongue-shaped, fused externally to the under surface of the pronotum. Mesosternum without keel, its process long and narrow, sulcate along the middle and extending nearly the whole length of the coxæ, these narrowly separated. Metasternum with the anterior process produced between the coxæ and meeting the mesosternal process. Elytra with sharp keel separating the epipleura from the dorsal surface. Abdomen more or less conical, strongly bordered above, the 1st ventral segment with sharp keel in the middle; last dorsal more or less deeply and broadly divided into lobes, differently formed in the sexes, the 5th and 6th ventral segments also more or less modified in the sexes. Legs moderately long; middle femora at the apex internally with a short spine; tibiæ all spinose; tarsi shorter than the tibiæ, the anterior with the first four joints short, the first three dilated in the ♂; middle and posterior with the 1st joint as long as or a little longer than the 2nd, the 2nd to 4th gradually decreasing in length, the 5th longer than the 3rd and 4th together; claws simple. Only *Tachinus*, s. str., distinguished by the conical abdomen, is found in our Fauna. The genus is found in the Palæarctic and Nearctic regions, Chile, Australia, and Borneo, in dung, fungus, and fallen leaves.

Key to the Species.

1.	Species strongly coriaceous, greasy lustrous.	2.
	Species at most with fine ground-sculpture, shining	3.
2.	Larger (7·5 mm). Ground-sculpture stronger	*coriaceus* Cam., p. 387.
	Smaller(5·2 mm.). Ground-sculpture finer.	*piceus*, sp. n., p. 389.
3.	Fore-parts orange-red	*semiruber* Cam., p. 395.
	Otherwise coloured	4.
4.	Elytra longer than the thorax	5.
	Elytra as long as the thorax	*beesoni*, sp. n., p. 396.

5. Thorax with larger punctures at the base and posterior angles, all the margins distinctly reddish		[p. 394. *similacusis* Cam.,
Thorax without such punctures		6.
6. Elytra black, with oblique yellow fascia from the scutellary region almost to the middle, the posterior margin rather broadly yellow		[p. 390. *birmanus* Fauv.,
Elytra otherwise		7.
7. Penultimate joints of antennæ longer than broad		8.
Penultimate joints of antennæ not longer than broad		10.
8. Thorax brown, the lateral margins lighter, much broader than the elytra and practically impunctate		[p. 390. *brunneicollis* Cam.,
Thorax entirely black		9.
9. Elytra about a third longer than the thorax, at the sides with five larger punctures		*scorteus* Schub., p. 394.
Elytra about a half longer than the thorax, without larger lateral punctures		*lugubris* Cam., p. 391.
10. Thorax practically impunctate		11.
Thorax very finely but distinctly punctured		*monticola* Cam., p. 393.
11. Elytra black, with small obscure reddish spot at the shoulders; antennæ black, the first two joints yellow		[p. 392. *himalayicus* Cam.,
Elytra castaneous or pitchy castaneous; antennæ fusco-testaceous		*stoliczkæ* Shp., p. 392.

1393. **Tachinus coriaceus.** (Figs. 6, 7.)

Tachinus coriaceus Cam., Trans. Ent. Soc. Lond. 1926, p. 185.

Broad and robust, pitchy-black, grey lustrous, strongly coriaceous throughout, the front before the insertion of the antennæ reddish-testaceous; anterior and posterior margins of the thorax narrowly, the sides more broadly obscure reddish-testaceous, the shoulders and posterior margins of the abdominal segments very narrowly and obscurely rufescent. Antennæ black, the first four joints red, the 11th sometimes yellow. Legs reddish-brown. Length 7·75 mm.; breadth 3 mm.

Head strongly coriaceous, with a few fine obsolete punctures. Antennæ with the 3rd joint much larger than the 2nd, 4th a little longer than broad, 5th to 7th about as long as broad, 8th to 10th slightly transverse. Thorax transverse, narrower in front, the sides evenly rounded, the posterior angles obtuse. Sculpture as on the head. Elytra a little broader and much longer than the thorax, longer than broad, the disc with traces of three or four striæ, the outer one with three or four fine but deeper punctures, the rest of the surface with moderately close fine punctures, strongly coriaceous. Abdomen narrowed from base to apex, with similar sculpture to that of the elytra, but the punctures deeper. 1st visible segment on each side of the middle with a small spot of very short white pubescence.

Fig. 6.

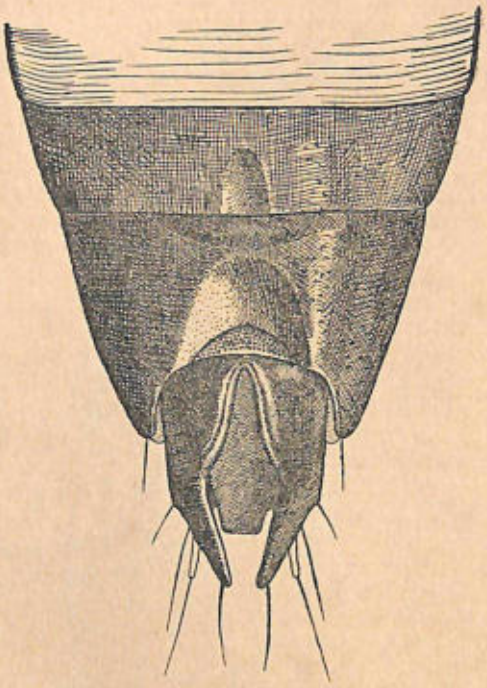
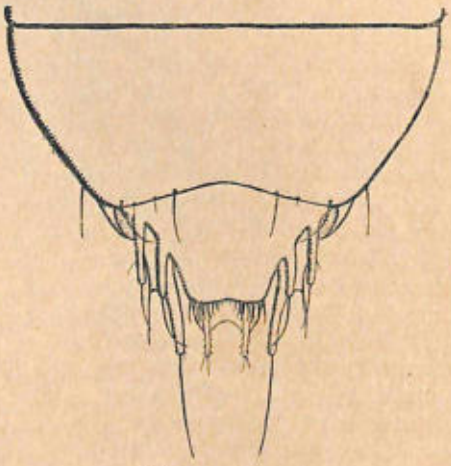


Fig. 7.



Tachinus coriaceus Cam.

Fig. 6.—Apex of abdomen of ♂: ventral surface.
Fig. 7.—Apex of abdomen of ♀: ventral surface.

♂: 8th dorsal segment with the median lobe divided by a narrow semi-oval excision; the external processes very short, not nearly reaching the level of the apex of the median lobe. 6th ventral segment very narrowly and deeply excised, the apex of the excision rounded, the sides raised; the side of the segment produced into a long, broad, laterally compressed triangular plate, narrowed to the apex and curved inwards towards its fellow; 5th ventral segment very broadly and deeply emarginate, the surface behind the median part of the emargination crescentically impressed and closely covered with small tubercles, except for a narrow zone along the margin; 4th ventral segment with small narrow impression behind in the middle. First three joints of the anterior tarsi dilated.

♀: 8th dorsal segment with the median lobe almost semi-circularly emarginate; the outer process projecting a little beyond its apex. 6th ventral segment with the median lobe rather broad, its apex feebly rounded and furnished with stiff yellow setæ, more or less sulcate along the middle, intermediate process rather slender, extending to the level of the apex of the middle lobe; outer process as long as the intermediate, but situated more behind.

Almora: Kali Valley, alt. 9000 feet. Darjeeling Dist.: Ghum, alt. 8000–9000 feet. In fungus.

1394. Tachinus piceus, sp. n.

Much smaller than *coriaceus*, of similar colour and lustre, but with the sides and postero-lateral region of the thorax more brightly reddish-yellow, the ground-sculpture finer, the puncturation of the elytra and abdomen finer, the antennæ shorter but similarly constructed, black, the first four joints reddish-yellow. Length 5·2 mm.

♂: 8th dorsal segment with the middle lobe triangularly excised; the lateral lobes shorter than the median. 6th ventral segment with a deep excision, broad at the base, acutely narrowed towards the apex, the sides raised; 5th broadly and slightly emarginate, the edge of the emargination furnished with black granules. First three joints of the anterior tarsi dilated.

♀: 8th dorsal segment with the middle lobe more deeply, more narrowly triangularly excised, the lateral process spiniform and a little longer than the median lobe. 6th ventral segment with broad central lobe rather narrowly impressed at the middle of the posterior border and there slightly emarginate, the border on each side with six yellow setæ, externally on either side with two processes, the inner spiniform, almost reaching the level of the central lobe, the outer narrowly triangular, its apex not reaching the level of the apex of the inner process.

Darjeeling Dist.: Ghum, alt. 8000 feet (*Cameron*).

1395. **Tachinus birmanus.**

Tachinus birmanus Fauv., Rev. d'Ent. xiv, 1895, p. 278.

Build of *laticollis* Gr., but nearly a half smaller †, glabrous, very shining, black, the mouth, joints 1, 2, and 11 of the antennæ, sides of thorax broadly and indeterminately, base narrowly, a mark at the base of the elytra extending obliquely outwards from the scutellum almost to the middle, a rather broad apical border, broader at the suture and the posterior angles, femora and tarsi, testaceous; 1st segment of the abdomen and the posterior margins of the following and the tibiæ obscure reddish, 10th joint of antennæ pitchy-red, quadrate, the others longer than broad. Head small, smooth, eyes very prominent. Thorax twice as broad as long, twice as broad as the head, smooth, the sides strongly retracted in front, the posterior angles obtusely rounded; scutellum smooth. Elytra rather longer than the thorax, quadrate, rather strongly, not very closely punctured. Abdomen sparingly and very finely punctured.

♂: unknown.

♀: last dorsal segment quadrifid, the median lobe deeply incised, the inner spines slender, extending a little beyond the external, these not very stout, rather acute. Length 4½ mm.

Upper Burma (*C. A. Dohrn*). A single specimen, which I have not seen in Fea's Collection (ex *Fauvel*).

1396. **Tachinus brunneicollis.**

Tachinus brunneicollis Cam., Trans. Ent. Soc. Lond. 1926, p. 187.

Head black, shining; thorax shining brown, impunctate, the lateral margins rufescent; posterior margins of the abdominal segments narrowly rufescent. Antennæ black, the first two joints testaceous. Femora brownish-testaceous, tibiæ pitchy. Length 5·2 mm.

Larger and more robust than *simlaensis*, with longer and proportionately less transverse impunctate thorax, the elytra rather more finely and the abdomen much more finely punctured, the antennæ distinctly longer and differently coloured. Head practically impunctate and without ground-sculpture. Antennæ with 3rd joint twice as long as 2nd, 4th to 10th all distinctly longer than broad, gradually decreasing in length. Thorax strongly transverse, practically impunctate. Elytra longer and distinctly narrower than the thorax, a little longer than broad, finely and moderately closely punctured. Abdomen very finely and moderately closely punctured. First visible segment with minute spot of very short white pubescence on each side of the middle.

† The length of *laticollis* is 3·5–4 mm., whilst this species is stated later to be 4½ mm.

♂: 8th dorsal segment with median lobe deeply triangularly excised, the apex of the excision rounded, lateral processes short and stout, their apices level with the apex of the excision. 6th ventral segment very deeply triangularly excised; 5th ventral segment broadly arcuately emarginate posteriorly, in front of the emargination crescentically impressed, the impression granulate; on either side of the emargination with a strong spine and one or two smaller ones adjacent and external thereto. First three joints of the anterior tarsi dilated.

♀: 8th dorsal segment with the median lobe divided into three long slender processes, of which the central is a little shorter and considerably more slender than the lateral and devoid of a seta; external process broad, triangular, pointed, the apex almost extending to the level of the apex of the lateral process of the median lobe. 6th ventral segment with the two central lobes broad, rounded, and shortly setose apically, separated from each other by a deep semi-oval excision, external processes long, pointed, not extending so far back as the central lobes, and furnished with long and strong setæ.

Chakrata and Simla districts, alt. 7000–9000 feet.

1397. **Tachinus lugubris.**

Tachinus lugubris Cam., Ann. Mag. Nat. Hist. (10) ii. 1928, p. 568.

Entirely black, shining. Antennæ black, the first two joints pitchy. Legs reddish. Length 4 mm.

In build and size scarcely differing from *fimetarius* Gr. The head is scarcely perceptibly punctured, with a fine wavy ground-sculpture. Antennæ reaching the base of the thorax, the penultimate joints a little longer than broad, the 11th long, oval, as long as the two preceding together. Thorax with sculpture as on the head. Elytra half as long again as the thorax, very finely, not closely punctured, the ground-sculpture stronger than on the thorax. Abdomen not strongly narrowed behind, the sculpture as on the elytra.

♂: 8th dorsal segment divided into four lobes, the central pair longer and narrowed to the rounded apex, separated from each other by a narrow excision; outer lobes short, separated from the inner by a small rounded emargination. 5th ventral segment with a broad and deep semilunar excision, the narrow area bounding it closely granular and with six sharp spines at each end. Anterior tarsi with the first two joints dilated.

Sikkim: Darjeeling, alt. 7000 feet (1–10. iii. 1924). One ♂ example.

1398. Tachinus stoliczkæ.

Tachinus stoliczkæ Shp., Journ. Asiat. Soc. Bengal. (2) xlvii. 1878, p. 170; id., Col. Sec. Yark. Miss. 1890, p. 39.

Small, subdepressed, black, the elytra castaneous or pitchy-castaneous. Antennæ and legs obscure testaceous; thorax almost impunctate, elytra sparingly punctured, obsoletely strigose, abdomen rather closely, somewhat obsoletely punctured. Length 6 mm.; breadth $1\frac{5}{8}$ mm.

Road across the Pamir, Sarikol to Panjah (ex *Sharp*).

A further description is given by Sharp, in the second reference above, as follows:—This species is closely allied to the European *T. fimetarius* Gr., but rather larger. The antennæ are formed as in that species, but are rather longer and paler in colour. The puncturation of the elytra is fine and very scanty and the fine scratches are less distinct than in *fimetarius*: the abdominal puncturation is rather denser than it is in the European species. In the ♂ the dorsal plate of the last segment ends in four short, stout teeth, as in *T. fimetarius*: the ventral plate of the same segment is also similar in the two species; the ventral plate of the preceding segment has a broad notch in the middle, this is fringed, except in the middle, with very distinct pectinations, and in the middle where the pectinations are absent the margin has a rough, spongy appearance; the termination of the notch on each side is not acuminate. The chief differences from *T. fimetarius* are the less produced and less acuminate terminations of the notch and the greater development of the pectinations of the margin. The dorsal and ventral plates in the ♀ are formed as in *T. fimetarius*, except that the teeth of both plates are very much longer.

Four individuals found on the road across the Pamir from Sirikol to Panga, between the 22nd April and 7th May, 1874 (ex *Sharp*).

1399. Tachinus himalayicus.

Tachinus himalayicus Cam., Trans. Ent. Soc. Lond. 1926, p. 186.

Narrow, elongate, black, shining, the extreme base and lateral margins of the thorax, an indistinct spot at the shoulder, and the posterior margins of the abdominal segments obscurely reddish. Antennæ black, the first two joints and occasionally the last reddish-testaceous. Legs reddish. Length 4·3 mm.

Build of *collaris* Gr., but narrower, differently coloured and punctured, and with shorter antennæ. Head black, shining, exceedingly finely and very sparingly punctured and without ground-sculpture. Antennæ with the 3rd joint slightly longer than 2nd, 4th to 6th a little longer than broad, gradually decreasing in length, 7th about as long as broad, 8th to 10th transverse. Thorax transverse, extremely finely,

sparingly and obsoletely punctured and without ground-sculpture. Elytra a little narrower and about one-third longer than the thorax, as long as broad, moderately closely, finely, obsoletely punctured and without ground-sculpture. Abdomen pointed, finely, rather closely punctured, finely transversely strigose.

♂: 8th dorsal segment with the middle lobe deeply triangularly excised, the lateral processes short. 6th ventral segment very deeply triangularly excised, the excision strongly bordered except near the base; 5th ventral segment obtusely emarginate, its border studded with granules and limited on either side by a pair of short spines.

♀: 8th dorsal segment with the median lobe with a small triangular excision, lateral processes broad, pointed, extending to the level of the apex of the median lobe. 6th ventral segment with six processes, the central pair separated from one another by a semi-oval excision, the area in front deeply triangularly impressed, the apices rounded and setose; intermediate and lateral processes pointed, the lateral shortest.

Chakrata and Simla districts, alt. 6000–8000 feet.

1400. **Tachinus monticola.**

Tachinus monticola Cam., Trans. Ent. Soc. Lond. 1926, p. 186.

Very similar to *himalayicus*, but the antennæ longer, the penultimate joints fully as long as broad, the thorax shorter, more transverse, wider than the elytra, more closely and much more distinctly punctured, the elytra closely, finely, distinctly punctured. First three segments each with a minute patch of short white pubescence on each side of the middle.

♂: 8th dorsal segment with the median lobe with much smaller and narrower excision, the lateral processes longer, almost attaining the level of the apex of the median lobe. 6th ventral segment very deeply triangularly excised; 5th ventral segment with a large, deep, semi-elliptical impression extending more than half-way between the posterior and anterior borders in the middle, the fundus granulate, the base broadly, triangularly excised, each side of the excision with a strong spine midway between the base and apex; anterior tarsi with the first three joints dilated.

♀: 8th dorsal segment with median lobe broad, acutely pointed, the apex of the lateral process extending a little beyond the level of the apex of the lobe. 6th ventral segment with median pair of processes rounded at apex and separated from each other by an oval excision; apex of intermediate process not extending to the level of the median ones; external processes shorter.

Simla Hills: Gahan. Chakrata district: Konain, alt. 7000–8000 feet.

1401. **Tachinus simlaensis.** (Plate IV, fig. 4.)

Tachinus simlaensis Cam., Trans. Ent. Soc. Lond. 1926, p. 187.

Elongate, black, shining; all the margins of the thorax narrowly but distinctly red, posterior margins of the abdominal segments rufescent. Thorax very broad, practically impunctate on the disc, at the base and adjacent to the posterior angles with some fine punctures. Antennæ reddish-testaceous, the 4th to the 8th, 9th or 10th joints often infuscate. Femora yellow, tibiæ reddish-brown, tarsi reddish-testaceous. Length 4·75 mm.

Larger and broader than *monticola* mihi, the thorax much broader, distinctly margined with red, the antennæ differently coloured, longer, the penultimate joints a little longer than broad, the elytra less finely punctured; build of *brunneicollis* mihi, but smaller, with shorter antennæ, the base and posterior angles of the thorax punctured and the elytra more strongly punctured. Head practically impunctate and without ground-sculpture. Antennæ with the 3rd joint longer than 2nd, 4th to 10th all longer than broad, gradually decreasing in length, the 10th only slightly longer than broad. Thorax much broader than long, broader than the elytra, sometimes impressed at the posterior angles, the disc with a few exceedingly fine punctures, along the base and near the posterior angles with some larger punctures. Elytra distinctly narrower and much longer than the thorax, a little longer than broad, moderately finely and moderately closely punctured. Abdomen more finely punctured than the elytra, the first two visible segments on each side of the middle with a minute patch of very short white pubescence.

♂: 8th dorsal segment with median lobe deeply, semi-elliptically excised, the intermediate processes much less produced, the lateral short. 6th ventral segment deeply, triangularly excised; 5th ventral segment triangularly impressed, the sides of the fundus granulate, the base obtusely emarginate, on either side with a small spine. First two joints of the anterior tarsi dilated.

♀: unknown.

Simla Hills: Gahan, alt. 7000 feet.

1402. **Tachinus scorteus.**

Tachinus scorteus Schub., D. E. Z. 1908, p. 612.

Black, shining, very finely transversely strigose throughout; legs pitchy, the knees and tarsi ferruginous. Length 5 mm.; breadth 1·25 mm.

Equally narrowed in front and behind, uniformly black, the whole upper surface extremely finely, transversely strigose.

Head transverse, rounded, impunctate, with dark pitchy-brown mouth-parts and antennæ, the 2nd and 3rd joints of the latter of equal length, the following gradually becoming shorter and a little broader, yet with the penultimate distinctly longer than broad, 11th long, oval. Thorax about twice as broad as long, rather convex, finely bordered, rounded and narrowed towards the front, the anterior and posterior angles rounded, without trace of puncturation even with strong magnification. Elytra about a third longer than the thorax, parallel, extremely finely and not very closely punctured, with five more evident larger punctures near the lateral margin. Abdomen moderately narrowed behind, less finely punctured than the elytra, at the sides with shorter, golden-yellow, shining, not very close pubescence; the first three visible segments near the middle with two little oblique spots of very short white pubescence; from the 5th segment with lateral setæ. Legs pitchy-brown with lighter knees and tarsi.

♂: 8th dorsal segment quadrifid, the intermediate processes spiniform, close together, the lateral distinctly longer.

W. Himalayas: Jalaori (ex *Schubert*).

1403. **Tachinus semiruber.** (Plate IV, fig. 5.)

Tachinus semiruber Cam., Trans. Ent. Soc. Lond. 1926, p. 188.

Shining; head, thorax and elytra orange-red, the first a little infuscate at the base, the latter with the suture broadly, indeterminately blackish nearly to the posterior margin. Abdomen black, the posterior margins of the segments narrowly rufescent, rarely entirely reddish. Antennæ with the first two, three, or four joints and the last one or two reddish-testaceous, the rest blackish. Legs reddish-testaceous. Length 4 mm.

Head with a few fine punctures before the base, the rest of the surface practically impunctate. Antennæ with the 4th to 9th joints longer than broad, gradually decreasing in length, 10th as long as broad. Thorax strongly transverse, finely and moderately closely punctured. Elytra longer and slightly narrower than the thorax, slightly transverse, more strongly but about as closely punctured as the thorax, occasionally the dark sutural fascia nearly obsolete. Abdomen more finely but as closely punctured as the elytra, without minute patches of short white pubescence on the anterior segments.

♂: 8th dorsal segment with the central lobe with a small triangular excision, the apex of the lateral process not extending to the level of the apex of the central lobe. 6th ventral segment deeply triangularly excised; 5th ventral segment with semi-oval impression, the fundus shining, granular, the

base feebly emarginate, on either side with a short spine; 4th ventral segment with a small, smooth, triangular impression in the middle of the posterior border, its base very feebly emarginate.

♀: 8th dorsal segment with central lobe narrowly triangularly excised, intermediate process rather stout, pointed, extending to the level of the apex of the central lobe; external process short, dentiform. 6th ventral segment with the median lobe semi-ovally excised, shortly setose.

Simla Hills: Theog; Matiana: Kotgarh, alt. 7000–7500 feet.

1404. **Tachinus beesoni**, sp. n.

Entirely black, shining, without ground-sculpture. Antennæ black, the first two joints yellow. Femora pitchy, tibiæ and tarsi lighter. Length 3 mm.

Readily recognized by the small size, entirely black colour, and short elytra. Head finely, very sparingly punctured. Antennæ rather slender, the penultimate joints as long as broad. Thorax impunctate. Elytra as long as but a little narrower than the thorax, transverse, very finely, moderately closely punctured, and with a fine grey pubescence. Abdomen conical, punctured like the elytra, and without patches of short white pubescence on the anterior segments.

♂: unknown.

♀: last dorsal segment deeply quadrifid, the central lobes narrower and slightly longer than the outer. 6th ventral segment a little produced and obtusely rounded in the middle, and there furnished with six or seven yellow setæ.

Kashmir: Khelanmarg, alt. 11000 feet (*Beeson*). Unique.

PARATACHINUS, gen. n.

Facies of *Tachinus*, but at once distinguished from that genus by the coarsely and closely punctured elytra and, in one species, of the thorax. The mesosternum, moreover, is keeled, the keel bifurcating behind, each branch becoming continuous with the raised lateral margin of the process, which is sulcate throughout the middle. In other respects (so far as can be seen without dissection of the mouth-parts) similar to *Tachinus*.

Key to the Species.

Thorax much broader than the elytra; abdomen closely and distinctly punctured	*laticollis*, sp. n., p. 397.
Thorax not broader than the elytra; abdomen sparingly and obsoletely punctured	*monticola*, sp. n., [p. 397.

1405. **Paratachinus laticollis**, sp. n.

Shining, the fore-parts glabrous; head and thorax red; elytra and abdomen dark pitchy-brown, the posterior margin of the segments rufescent. Antennæ with the first two joints yellow, the 11th obscurely reddish-yellow. Legs reddish-yellow, the tibiæ darker. Length 4 mm.

In build much resembling *Tachinus brunneicollis* Cam. Head exceedingly finely and very sparingly, scarcely perceptibly punctured; eyes rather prominent. Antennæ rather long, the 3rd joint a little longer than the 2nd, 4th to 10th all distinctly longer than broad, gradually decreasing in length, the 11th oval, longer than the 10th. Thorax strongly transverse, convex, widest a little behind the middle, the sides strongly rounded, more retracted in front than behind, the angles rounded, the postero-lateral region impressed: puncturation on the disc fine and rather sparing, towards the sides gradually becoming much stronger and much closer. Elytra distinctly longer but much narrower than the thorax, narrowed backwards, rather closely and rather coarsely punctured. Abdomen gradually narrowed behind, closely and rather finely punctured throughout, with very short scanty pubescence. The whole insect devoid of ground-sculpture.

♀: 8th dorsal segment with the median lobe deeply excised, the apex of the excision acute; lateral lobes spiniform, produced much beyond the apex of the median lobe, at the base of each externally with a small tooth. 6th ventral with six processes, the median pair narrow, flat, and separated by a parallel-sided excision, the apex of each with four yellow setæ, the lateral processes spiniform, each with a black seta at the apex.

Darjeeling Dist.: Ghum, alt. 9000 feet (*Cameron*). Unique.

1406. **Paratachinus monticola**, sp. n.

Size and colour of *laticollis*, but the antennæ are shorter, the penultimate joints as long as broad, the thorax much narrower, not broader than the elytra, at the sides much more finely and much more sparingly punctured, on the disc nearly impunctate, the elytra less coarsely punctured, the abdomen extremely finely, sparingly punctured, with a fine ground-sculpture and very short scanty pubescence.

♂: 8th dorsal segment with the median processes triangular, acute, separated from each other by a moderately broad, acute, triangular excision: lateral processes acute, triangular, not reaching the level of the apex of the median. 6th ventral segment broadly (at the base) and deeply excised, the borders of the excision sinuate and margined, the apex narrowly rounded; 5th with broad, truncate, crenulate emargination

limited by a little spine on each side ; semicircularly impressed behind, the anterior part of the impression granular, the posterior smooth. Anterior tarsi with the first three joints dilated.

Darjeeling Dist. : Ghum, alt. 9000 feet (*Cameron*). Unique.

PSEUDOTACHINUS, gen. n.

Facies of *Tachinus*, but the thorax on each side has a curved sulcus from the anterior almost to the posterior border ; the mesosternum has a laterally compressed tubercle in the middle, and a keel continuous with it runs the whole length of the process. In other respects (so far as can be seen without dissection of the mouth-parts) it has the structure of *Tachinus*.

1407. **Pseudotachinus niger**, sp. n.

Black, rather shining ; the posterior margin of the abdominal segments narrowly rufescent. Antennæ black, the first two joints and the last brownish-yellow. Palpi brown, the last joint yellow. Legs black, the tarsi brownish-yellow. Length 6·3 mm.

Head with sulcus internal to the eyes, these large and prominent ; extremely finely and very sparingly punctured and with transverse wavy ground-sculpture. Antennæ rather long, the 3rd joint twice as long as the 2nd, the following all much longer than broad, gradually decreasing in length, the 11th oval, a little longer than the 10th. Thorax strongly transverse, widest a little behind the middle, the sides strongly rounded, more retracted in front than behind, the anterior angles broadly, the posterior briefly rounded, the anterior and posterior margins bisinuate, with a sulcus narrower and deeper in front, extending from the anterior border internal to the anterior angle to the postero-lateral region, gradually becoming broader and more superficial ; sculpture as on the head. Elytra as broad but twice as long as the thorax, much less finely and much more closely punctured than the thorax and with a coriaceous ground-sculpture, each puncture with a very short hair. Abdomen conical, with puncturation much as on the elytra, except behind and on the posterior margin of the segments, where it is finer and less close ; ground-sculpture fine, transverse, the pubescence as on the elytra.

♀ : 8th dorsal segment divided by two narrow, deep, triangular excisions into three narrow triangular plates, the middle scarcely longer than the lateral, these each with a black seta. 6th ventral segment with four processes, the two median rather broad, with rounded apex furnished with eight yellow setæ and separated by a deep semi-elliptical excision ; the

lateral processes shorter, triangular, each with a long black seta at the apex and separated from the median process by a rounded excision.

Two ♀ examples.

Assam: Naga Hills, Laimatak; Shugun, alt. 3000 feet (*S. N. Chatterjee*).

Genus **TACHINOMORPHUS** Kr.

Tachinomorphus Kr., Arch. Naturg. xxv. 1859, i, p. 54; Fauv., Rev. d'Ent. xxvi, 1907, p. 49.
Physetoporus Horn, Trans. Amer. Ent. Soc. vi, 1877, p. 106.
Tachinoderus Fauv., Ann. Mus. Civ. Gen. x, 1877, p. 276; xii, 1878, p. 276; Olliff, Proc. Linn. Soc. N. S. Wales, (2) i, 1886, p. 887; Sharp, B. C.-A. i, 2, 1882–87 (1883), p. 307 (nec Motsch.).

Facies of *Tachinus*, but with the abdomen very finely and indistinctly bordered, the posterior angles of the thorax rectangular, and the mesosternum keeled. In all other respects similar to *Tachinus*. The genus is found throughout the tropics, in decaying fruit and fungus.

Key to the Species.

1. Thorax and elytra finely and closely punctured, the ground-sculpture obsolete. Black species ..... *assamensis*, sp. n., [p. 401.
   Thorax and elytra very finely, sparingly punctured, the ground-sculpture distinct. 2.
2. Antennæ (except the base) black, the penultimate joints three times as broad as long ..... *ceylonicus* Bernh., [p. 401.
   Antennæ with the 11th or 10th and 11th joints reddish-yellow, the penultimate joints only slightly transverse ..... 3.
3. Antennæ with the 10th and 11th joints reddish-yellow; sides of thorax reddish; elytra reddish, the postero-lateral region blackish ..... *angularis* Fauv., [p. 400.
   Antennæ with the 11th joint reddish-yellow; thorax entirely black; elytra reddish, except the sides, or black, with broad indeterminate reddish fascia from base to apex ..... *fulvipes* Er., p. 399.

1408. **Tachinomorphus fulvipes.**

Tachinus fulvipes Er., Gen. Spec. Staph. 1839–40, p. 921; Kr., Arch. Naturg. xxv, 1859, i, p. 55, note (*Tachinomorphus*).
Tachinus sanguinolentus Motsch., Bull. Mosc. xxxi, 1858, iii, p. 216.
Tachinomorphus vittatus Kr., Arch. Naturg. xxv, 1859, i, p. 55.

Head, thorax, and abdomen black, the posterior margin of the segments occasionally narrowly rufescent; elytra brownish-red, the base and suture very narrowly, the sides more broadly

black. Antennæ black, the first four joints and the last reddish-yellow. Legs reddish-yellow. Length 6–7 mm.

Var. *vittatus*. In this form the elytra are of a brighter red colour, with the suture much more broadly black.

Eyes rather small but prominent; the head extremely finely and very sparingly punctured, with fine transverse wavy ground-sculpture. Antennæ scarcely reaching the posterior angles of the thorax, the 2nd joint a little shorter than the 3rd, the 5th much stouter than the 4th, the 6th to 10th slightly transverse, not increasing in width, the 11th oval, longer than the 10th. Thorax strongly transverse, widest behind, the sides strongly rounded and retracted in front, the sculpture as on the head. Elytra as broad as but a little longer than the thorax, slightly narrowed behind, much less finely and much more closely punctured than the thorax, the ground-sculpture similar. Abdomen gradually narrowed behind, closely and moderately finely punctured throughout, the ground-sculpture rather coarser.

♂: 8th dorsal segment trifid, the two median lobes pointed, the excision separating them very narrow, more produced behind than the lateral triangular lobes, these each with a long black seta at the apex. 6th ventral segment trifid, the median lobes broader than the corresponding dorsal ones, triangular, separated from each other by a much wider triangular excision, more produced behind than the lateral lobes, each lobe with a long black apical seta. First three joints of the anterior tarsi dilated.

♀: 8th dorsal segment trifid, the lobes acutely pointed, the central not produced backwards as far as the lateral. 6th ventral segment deeply, narrowly divided into six triangular processes, the central pair more produced behind than the others, and each with three yellow setæ at the apex, the others each with a long black apical seta.

Dehra Dun. Sikkim: Gopaldhara. Widely distributed in the Oriental region.

1409. Tachinomorphus angularis.

Tachinomorphus angularis Fauv., Rev. d'Ent. xiv, 1895, p. 278.

Near the form of *fulvipes* with the elytra partly reddish, but a little larger, shorter and especially broader, more shining, the fore-parts with less marked ground-sculpture; black, the 2nd to 4th joints of the antennæ, the sides of the thorax broadly, the margin of the abdominal segments, and the tibiæ pitchy-red, the 1st, 10th, and 11th joints of the antennæ testaceous; the elytra and legs red, the former at the postero-external angles, and more rarely with the apical margin, more or less pitchy-black; antennæ longer, as long as the head and

thorax, the joints, especially the 4th, longer, the 7th to 10th subequal, scarcely transverse; head, especially the front, broader, the thorax more strongly arcuately narrowed in front; elytra longer, nearly twice as strongly punctured, abdomen more sparingly punctured. Length 6½–6¾ mm.

Burma: Carin Cheba, alt. 900–1100 metres (*L. Fea*) (ex *Fauvel*).

1410. **Tachinomorphus ceylonicus.** (Plate IV, fig. 6.)

Tachinomorphus ceylonicus Bernh., D. E. Z. 1902, p. 24.

Black, shining; the posterior margin of the thorax narrowly reddish. Antennæ with the first three joints yellow, the 4th reddish, the following black. Legs reddish-brown. Length 4·5–7 mm.

Build of *fulvipes*, but at once distinguished by the entirely black colour and the much shorter, stouter, and differently coloured antennæ. Head and thorax extremely finely and very sparingly punctured and with a fine transverse wavy ground-sculpture. Antennæ shorter than the head and thorax, the 4th joint as long as broad, the 5th to 10th strongly transverse, gradually increasing in width, the penultimate three times as broad as long, the 11th short, conical. Elytra about a third longer than the thorax, very finely but much less finely and much less sparingly punctured than the thorax, with similar ground-sculpture. Abdomen finely and closely punctured, the ground-sculpture stronger than on the fore-parts.

♂: 8th dorsal segment divided by three deep excisions into four pointed processes, of which the central pair project a little further back than the lateral, each with a long black seta. 6th ventral segment divided into four processes, the central pair produced much further backwards than the lateral, and separated from each other by a much deeper, very acute excision: 5th slightly obtusely emarginate. Anterior tarsi with the first three joints a little dilated.

♀: 8th dorsal segment with the four processes of equal length. 6th ventral segment divided into six processes, of which the central pair project a little further backwards than the others, and each furnished at the apex with two yellow setæ.

Ceylon: Nalanda; Kandy (*Bryant*).

1411. **Tachinomorphus assamensis,** sp. n.

Black, shining; antennæ black, the first four joints reddish-brown. Femora and tarsi reddish, tibiæ black. Length 6·5 mm.

Rather more depressed than *ceylonicus*, but otherwise of similar build; at once distinguished from all the Indian

species by the very close, fine puncturation of the thorax and elytra, with but little ground-sculpture. The head is more finely and more sparingly punctured, with distinct wavy ground-sculpture. The antennæ are much longer and more slender than in *ceylonicus*, the penultimate joints only slightly transverse, the sculpture of the abdomen a little finer.

♂: 8th dorsal segment as in *ceylonicus*. 6th ventral segment with the median processes separated from each other by an excision with rounded apex; 5th very slightly emarginate in the middle, on each side of the emargination with two short yellow setæ, external to these with a small impression with a long black seta. First three joints of the anterior tarsi dilated.

♀: the segments much as in *ceylonicus*.

Assam: Naga Hills (*Chatterjee*). Burma: Ruby Mines (*Doherty*). United Provinces: Kalagarh (*Chatterjee*).

Genus **TACHINODERUS** Motsch.

Tachinoderus Motsch., Bull. Mosc. xxxi, 1858, ii, p. 217; Fauv., Rev. d'Ent. xiv, 1895, p. 281.
Tachynoderus Gemm. et Har., Cat. Col. ii, 1868, p. 556.

Facies of *Tachinus brunneicollis* Cam., but at once distinguished by seriately punctured elytra. Head small, transverse, distinctly retracted behind, inserted in the thorax, the eyes rather prominent. Infra-orbital ridge wanting. Gular sutures widely separated. Labrum transverse, slightly and broadly emarginate in front in the middle, setiferous. Mandibles edentate, internally with a ciliate membrane. Inner lobe of maxilla truncate at apex, which is densely covered with curved setæ. Outer lobe broader than the inner, rounded at the apex, densely covered with longer curved setæ than on the inner lobe. Maxillary palpi rather long and slender, the 1st joint very small, 2nd elongate, slightly thickened towards the apex, 3rd about half as long as the 2nd, slightly thickened apically, 4th more than twice as long as the 3rd, gradually narrowed to the apex. Mentum transverse, trapezoidal. Tongue broad, membranous, in the middle of the anterior border with a moderately deep, acute, triangular excision, the anterior border furnished with fine curved setæ. Paraglossæ reaching the antero-lateral region of the tongue, with fine curved setæ internally. Labial palpi with the 1st joint short and stout, scarcely longer than broad, 2nd narrower, almost transverse, 3rd narrower, cylindrical, more than twice as long as the 2nd. Thorax strongly transverse, the sides narrowly bordered, rounded, more retracted in front than behind, the angles rounded. Scutellum triangular. Elytra

parallel, narrower than the thorax, the epipleura limited by a fine keel. Abdomen gradually narrowed from base to apex, bordered above, the base below with a keel in the middle. Anterior part of the prosternum acutely pointed, the posterior deflexed portion broadly rounded behind. Pronotal epipleura strongly deflexed, broader behind, the epimera tongue-shaped and fused externally with the epipleura. Mesosternum with its process long, pointed, the side margins elevated, extending more than half the length of the coxæ, these narrowly separated. Anterior process of the metasternum pointed, produced between the middle coxæ. Legs rather long. Tibiæ with a few spines, the anterior closely and finely pubescent internally. Anterior tarsi with the first four joints short, cordate in both sexes; middle and posterior with the 1st joint short, very slightly longer than the 2nd, 2nd to 4th gradually shorter, the 5th about as long as the three preceding together, the first four sub-bilobed. Only one species of this genus is so far known.

1412. **Tachinoderus longicornis.** (Plate IV, fig. 7.)

Tachinoderus longicornis Motsch., Bull. Mosc. xxxi. 1858, ii, p. 218, tab. *l*, fig. *g*.

Shining; head and elytra black, thorax brownish-red with the sides lighter; abdomen pitchy-black, the posterior margin of the segments narrowly reddish. Antennæ with the first two and the last joints yellow, the rest reddish. Femora and tarsi reddish-yellow, the tibiæ brown. Length 4 mm.

Head very sparingly, extremely finely, scarcely perceptibly punctured and without ground-sculpture. Antennæ long, much longer than the head and thorax together, all the joints longer than broad. Thorax strongly transverse, practically impunctate and without ground-sculpture. Scutellum impunctate. Elytra more than half as long again as the thorax and distinctly narrower, each with seven rows of moderately large punctures; ground-sculpture absent. Abdomen finely and rather closely punctured, more sparingly behind, finely transversely strigose, pubescence very short and scanty.

♂: 8th dorsal segment with four acute processes, separated from each other by acute triangular excisions, the lateral processes not extending nearly so far backwards as the median. 6th ventral segment with broad and deep acute triangular excision in the middle, the lateral excisions small and acute, the median processes broad and acute, the lateral small, acute, much shorter than the median. 5th ventral segment with small semi-elliptical impression in the middle behind, limited by a little ridge on each side, its fundus sparingly granular, its base scarcely emarginate.

♀: 8th dorsal segment with four acute triangular processes extending an equal distance backwards. 6th ventral segment with six processes, the two central narrow, lamelliform, rounded at the apex, which has five yellow setæ, and separated from each other by a moderately deep, subacute excision; the lateral processes spiniform, not extending so far back as the central ones, each with a long black seta.

Mussoorie and Chakrata districts, alt. 6000–9000 feet. In damp leaves near the streams.

Genus **OLOPHRINUS** Fauv.

Olophrinus Fauv., Rev. d'Ent. xiv, 1895, p. 280.

Readily recognized from all the other genera of the TACHYPORINI by the very convex build, somewhat resembling the genus *Olophrum*, and the elytra with rows of punctures. Head small, inserted in the thorax, eyes rather large, scarcely prominent. Infra-orbital ridge absent. Gular sutures widely separated. Labrum transverse, feebly, broadly emarginate in front in the middle. Mandibles short, acute. Maxillary palpi long, the 1st joint very small, 2nd elongate, scarcely thickened towards the apex, 3rd shorter, 4th much longer than the 3rd, about as long as the 2nd. Tongue membranous, very broad, its base at the sides attached to the maxilla (the inner and outer lobes of which appear to be completely fused with the tongue and forming part of it, as they cannot be distinguished in my preparation), in front broadly, obtusely emarginate in the middle. Paraglossæ ciliate internally, extending to the antero-lateral margin of the tongue. Labial palpi with the 1st joint elongate, 2nd shorter, 3rd as long as the 1st. Antennæ slender, filiform. Thorax strongly transverse, the sides rounded, more retracted in front, the angles rounded. Elytra broad, convex, with rows of punctures; sutural stria absent; the epipleura separated by a keel. Winged. Abdomen distinctly bordered above, keeled in the middle of the base below. Prosternum with short anterior part, its apex briefly rounded, the deflexed part larger, truncate behind. Pronotal epipleura absent, the epimera tongue-shaped, fused externally to the pronotum. Mesosternum and its narrow acute process very strongly carinate, the edge of the keel serrate, extending nearly the whole length of the coxæ, these narrowly separated. Metasternum with fine sulcus along the middle, its anterior process pointed and extending between the coxæ. Tibiæ with a few spines. Anterior tarsi short, the first four joints cordate, broader in the ♂; middle and posterior with the 1st joint

much broader than and about as long as the three following together, these short and subequal, the first four densely pubescent below. Claws simple.

Only two species of this genus are so far known—*striatus*, and one from Borneo.

1413. **Olophrinus striatus.** (Plate IV, fig. 8.)

Olophrinus striatus Fauv., Rev. d'Ent. xiv, 1895, p. 281.

Robust, convex, black, shining: the front of the head reddish-yellow, the sides of the thorax sometimes more or less pitchy. Antennæ with the first four joints reddish-yellow, the following blackish. Length 6–7·5 mm.; breadth 2·75 mm.

Head small, transverse, impunctate, with fine wavy ground-sculpture; eyes rather large. Antennæ long and slender, the 3rd joint a good deal longer than the 2nd, the 4th scarcely shorter than the 3rd, 5th to 10th subequal, much longer than broad, 11th scarcely longer than the 10th. Thorax twice as broad as long, the sides strongly rounded and retracted towards the front, the anterior angles broadly rounded, the posterior more briefly, a little before the basal margin with four fine punctures, otherwise very sparingly and scarcely perceptibly punctured, the ground-sculpture as on the head. Scutellum transverse, impunctate, strigose. Elytra as broad as and nearly half as long again as the thorax, a little narrowed behind, the humeral and postero-external angles rounded, each with eight complete rows of moderate, closely placed punctures and two abbreviated ones of about six punctures on the postero-lateral region; ground-sculpture as on the head. Abdomen very finely, not closely punctured, except at the base of the segments, the ground-sculpture coarser than on the fore-parts, the pubescence very short and scanty.

♂: 8th dorsal with six processes, the two central ones acute, separated from each other by an acute, narrow, triangular excision, the intermediate and external processes not produced as far back as the median, and separated by a wider excision. 6th ventral segment with very broad, deep excision, its apex broadly rounded, the lateral margin with a short dentiform process, so that the segment is divided into four processes, each with a long black seta at the apex; in the middle at the extreme base with a rounded impression; 5th ventral segment broadly triangularly impressed, the base of the impression broadly emarginate and pectinate, the fundus sparingly studded with pointed granules; on each side of the emargination with two black setæ; 4th very slightly broadly emarginate and crenulate.

♀: 8th dorsal segment divided into six processes, the median pair more slender than the lateral and separated from each

other by a deep, narrow, subtriangular excision, the intermediate process broader, acute, extending back further than the median; external process broad, acute, not extending nearly so far backwards as the intermediate, and separated from it by a deep, acute, triangular excision. 6th ventral segment with six processes, the median pair lamelliform, narrowed and rounded at the apex, which is furnished with seven or eight yellow setæ; the intermediate and external spiniform, the intermediate produced almost as far behind as the central, the external not nearly so much produced; each with a long black seta at apex.

Burma: Carin Cheba, alt. 900–1100 metres (*L. Fea*). Mussoorie: Arni Gad, alt. 6000–7000 feet (*Cameron*). In damp leaves, etc., near the stream.

Genus **COPROPORUS** Kr.

Coproporus Kr., Bull. Soc. Ent. Fr. 1858, p. cxc; id., Naturg. Ins. Deutsch. ii. 1856–58, p. 399, note; Sharp, Trans. Ent. Soc. Lond. 1876, i, p. 81; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 336; Luze, W. Z. B. lii, 1902, p. 188.

Erchomus Motsch., Bull. Mosc. xxxi, 1858, iii, p. 218; Horn, Trans. Amer. Ent. Soc. vi, 1877, p. 107; Rey, Ann. Soc. Linn. Lyon, xxviii, 1881, p. 244; Sharp, B. C.-A. i, 2, 1882–87 (1883), p. 298; Lynch, Bol. Ac. Cordoba, vii, 1884, p. 108; Olliff, Proc. Linn. Soc. N. S. Wales, (2) ii, 1886, p. 900.

Cilea Pand., Ann. Soc. Ent. Fr. (4) ix, 1869, p. 277 (ex parte); Fauv., Faun. Gallo-Rhen. iii, 1872, p. 591 (ex parte); id., Ann. Mus. Civ. Gen. xii, 1878, p. 110.

Tachinus pars i Er., Gen. Spec. Staph. 1839–40, p. 244.

Small species, usually more or less convex, narrowed in front and behind, with keeled mesosternum and finely margined abdomen, facies somewhat resembling *Conosoma*, but with the fore-parts glabrous or very nearly so. Head small, transverse, inserted in the thorax; gular sutures widely separated; infra-orbital ridge absent. Labrum transverse, broadly, slightly emarginate in front, setiferous. Mandibles short, stout, edentate, from base to apex with a fine ciliate membrane. Inner lobe of maxilla short, its inner margin with curved setæ; outer lobe narrower, longer, at the apex with similar setæ. Maxillary palpi with the 1st joint very short, 2nd moderate, a little thickened towards apex, 3rd a little shorter, 4th a little narrower and about twice as long as the 3rd, gradually narrowed to the apex. Mentum transverse, trapezoidal. Tongue short, and broad, obtusely emarginate in the middle; paraglossæ not extending beyond the tongue, ciliate internally. Labial palpi short, the 1st joint stout, scarcely longer than broad, 2nd transverse, 3rd cylindrical, narrower and a little longer than the two preceding together. Thorax strongly transverse, the sides rounded and narrowed from base to apex, finely

bordered. Scutellum visible. Elytra usually with a broad, more or less superficial sulcus at the side, the epipleura strongly reflexed, separated from the dorsal surface by a keel. Abdomen conical, very finely bordered, without ventral keel at the base. Prosternum with short anterior part, acutely pointed behind, the deflexed part broad and truncate posteriorly. Pronotal epipleura strongly deflexed, produced as a short lobe towards the stigma, but not covering it. Mesosternum and its acute process strongly keeled, meeting the metasternal process between the coxæ, these moderately separated. Legs short, the femora stout, sulcate internally, and with a spine at the apex. Tibiæ with a few strong spines. Anterior tarsi short, the first four joints subequal, the 5th almost as long as the four preceding together; middle and posterior with the 1st joint about as long as the two following together, 2nd to 4th short, 5th about as long as the two preceding together.

The genus is cosmopolitan, and found beneath the bark of dead trees, in decaying fruit, grass-cuttings, etc.

Key to the Species.

1. Thorax at the base before the scutellum with two punctures. Species black or pitchy	2.
Thorax without such punctures	4.
2. Antennæ with the 5th joint longer than broad; broader and more convex. Length 4–6 mm.	[p. 408. *himalayicus* Cam.,
Antennæ with the 5th joint transverse; narrower and flatter species	3.
3. Antennæ longer, the penultimate joints less transverse; elytra and abdomen more finely punctured	[p. 409. *intermedius* Cam.,
Antennæ shorter, the penultimate joints more transverse; elytra and abdomen less finely punctured	[p. 410. *brunneicollis* Motsch.,
4. At least the thorax with metallic reflex	5.
Species without metallic reflex	6.
5. Antennæ black, the first three joints yellow; head, thorax, and elytra with metallic reflex	[p. 415. *chatterjeei*, sp. n.,
Antennæ testaceous; thorax (and sometimes the head) with metallic reflex	[p. 418. *cuprinicollis* Fauv.,
6. Antennæ entirely reddish or reddish-yellow	7.
Antennæ in part at least dark	10.
7. Species entirely reddish	*rufus* Kr., p. 421.
Species otherwise coloured	8.
8. Convex species; lateral sulcus of elytra shallow and indistinct	9.
Depressed species; lateral sulcus of elytra narrow and distinct	[*pusæ*, n., p. 414. *melanarius* Er., var.
9. 4th joint of antennæ scarcely shorter than the 3rd	*latus* Motsch., p. 410.
4th joint of antennæ distinctly shorter than 3rd	*flavicornis* Kr., p. 411.

10.	Thorax entirely, elytra in great part bright reddish-yellow	11.
	Thorax black, pitchy or dark red, the sides often lighter	12.
11.	Head and abdomen dark	*tachyporoides* Kr., [p. 418.
	Head and abdomen red	*fasciipennis* Kr., p. 419.
12.	5th joint of antennæ not transverse	16.
	5th joint of antennæ distinctly transverse.	13.
13.	Sides of thorax and the suture of elytra behind broadly reddish	*holisinus* Fauv., p. 412.
	Sides of thorax at most obscurely reddish; elytra otherwise	14.
14.	Elytra concolorous, black or pitchy	15.
	Elytra reddish-castaneous, the base infuscate	*castaneipennis* Kr., [p. 420.
15.	Head and thorax without ground-sculpture.	*minimus* Motsch.,
	Head and thorax with distinct ground-sculpture	*atomus* Kr., [p. 416. p. 417.
16.	Head and thorax with ground-sculpture.	17.
	Head and thorax without ground-sculpture.	20.
17.	Subconvex species	18.
	Subdepressed species	19.
18.	Larger (3–3·2 mm.); penultimate joints of antennæ transverse	*sanguinolentus* Motsch. [p. 412.
	Smaller (1·75–3 mm.); penultimate joints of antennæ not transverse	*bivittatus* Bernh., [p. 422.
19.	Elytra extremely finely but distinctly punctured	*planus* Fauv., p. 415.
	Elytra scarcely perceptibly punctured	*lævigatus* Motsch., [p. 414.
20.	Thorax black, the sides usually more or less reddish-yellow	21.
	Thorax dark red	*ruficollis* Cam., p. 421.
21.	Elytra with a common reddish-yellow triangular marking occupying the posterior margin and extending along the suture to the middle	*triangulus* Cam., p. 422.
	Elytra uniformly black or pitchy, at most with the outer margin obscurely and narrowly reddish	22.
22.	Larger (4 mm.). Elytra with fine transverse ground-sculpture in certain lights	*monticola* Cam., p. 413.
	Smaller (3·1 mm.). Elytra without ground-sculpture	*melanarius* Er., p. 413.

1414. Coproporus himalayicus.

Coproporus himalayicus Cam., Trans. Ent. Soc. Lond. 1926, p. 189.

Robust, convex, black, shining; the margins of the thorax and posterior margins of the elytra and of the abdominal segments often narrowly rufescent; base of the thorax with two punctures before the scutellum, otherwise entirely impunctate. Antennæ infuscate, the first three joints testaceous, the last fusco-testaceous. Legs reddish-brown, tibiæ darker. Length 4–6 mm. (in extended examples).

Of the build of *latus* Motsch., but the antennæ are shorter and stouter, the thorax with a pair of punctures at the base

as in *brunneicollis* Motsch., and otherwise without trace of sculpture; differs also from the latter by the larger and more robust build, longer and stouter antennæ, finer and more sparing puncturation of the elytra, coarser puncturation of the abdomen, and blacker colour. The 2nd and 3rd joints of the antennæ are rather long and subequal, 4th to 7th a little longer than broad, gradually decreasing in length, 8th to 10th about as long as broad, 11th stouter and a little longer than the preceding. Elytra distinctly, finely punctured. Abdomen closely and extremely finely punctured. In some examples the sides of the thorax are more broadly rufescent and the sides of the elytra narrowly so.

♂: 8th dorsal segment divided into four triangular processes, the central pair separated from each other by a deep triangular excision, the lateral extending backwards to the level of the middle of the central pair. 6th ventral segment with two broad, acute, triangular processes separated by a broad triangular excision.

♀: 8th dorsal segment divided into four triangular processes, the lateral ones extending nearly to the level of the apices of the central pair, the lateral excisions deeper than in the ♂. 6th ventral segment with six long processes, the central pair produced further backwards than the others, the apex with two or three short setæ, the others each with a long apical seta.

Chakrata district: Khedar Khud; Manjgaon. Mussoorie district: Arni Gad, alt. 5000–9000 feet. In stream moss and debris.

1415. Coproporus intermedius.

Coproporus intermedius Cam., Trans. Ent. Soc. Lond. 1926, p. 189.

Differs from *himalayicus* in the smaller size (4 mm. in well extended examples), narrower and more depressed build, finer, more obsolete puncturation of the elytra, shorter, darker, and differently constructed antennæ, which have the 4th joint about as long as broad and the 5th to 10th transverse; from *brunneicollis* Motsch. by the darker colour, darker, stouter, and longer antennæ, and more finely punctured elytra and abdomen, with distinct ground-sculpture.

♂: characters very similar to *himalayicus*, but the processes of the 6th ventral segment are shorter and the excision arcuate.

♀: 8th dorsal segment with four processes as in *himalayicus*, and also with a small dentiform process externally. 6th ventral segment as in *himalayicus*.

Simla Hills: Kotgarh. Chakrata district: Mohna, alt. 5000–7000 feet. Siwaliks: Kehri Rau; Mohan Rau. In stream debris.

1416. Coproporus brunneicollis.

Erchomus brunneicollis Motsch., Bull. Mosc. xxxi. 1858. iii. p. 220.
Coproporus punctipennis Kr., Arch. Naturg. xxv. 1859. i. p. 57.

Shining, convex, black or pitchy-black; thorax and elytra with the sides and posterior margins narrowly and obscurely reddish, the posterior margins of the abdominal segments also. Thorax at the base in front of the scutellum with two large punctures. Antennæ blackish, the first three joints and the last reddish-yellow. Legs reddish-yellow, the femora sometimes darker. Length 3–3·2 mm.

Very similar in build to *flavicornis*, but smaller and with more distinctly punctured elytra, etc. Head and thorax impunctate and without ground-sculpture. Antennæ with the 3rd joint a little longer than the 2nd, 4th square, the 5th to 10th slightly transverse, scarcely increasing in width, the 11th oval, about as long as the two preceding together. Thorax scarcely twice as broad as long, rounded and narrowed from base to apex, the posterior angles rounded. Elytra as broad as the thorax and about a third longer, the side margin superficially sulcate, not very closely, rather finely but distinctly punctured; ground-sculpture absent. Abdomen less finely and rather more closely punctured than the elytra, with scarcely visible ground-sculpture.

♂: 8th dorsal segment divided by acute triangular excisions into six triangular processes, of which the lateral are less produced behind than the central pair, these separated from each other by a less deep excision; each with a seta at apex. 6th ventral segment with four processes, the central broader, triangular, separated by a deep, acute, triangular excision from each other, the lateral very small, dentiform, each with a long black apical seta.

♀: 8th dorsal segment as in the ♂. 6th ventral segment divided into six pointed processes, the central pair produced further back than the others, and with two short yellow setæ at apex, the others with long black apical seta.

Burma. Siwaliks. Nilgiri Hills. Naga Hills. Widely distributed in the Oriental region. Also in East Africa.

1417. Coproporus latus.

Erchomus latus Motsch., Bull. Mosc. xxxi. 1858. iii. p. 219. tab. *l*, fig. *q*.
Coproporus spectabilis Kr., Arch. Naturg. xxv. 1859. i. p. 55.

Robust, convex, black, shining; sides and posterior margin of the thorax very narrowly reddish-translucent. Antennæ reddish, the first four joints yellow. Legs reddish-yellow. Length 3·5 mm.

Head extremely finely, sparingly punctured, the ground-sculpture transverse, wavy, and indistinct. Antennæ about as long as the head and thorax together, 2nd and 3rd joints of equal length, 4th a little shorter than the 3rd, distinctly longer than broad, 5th to 10th subequal, slightly transverse, 11th longer, conical. Thorax twice as broad as long, strongly rounded and narrowed from base to apex, the base a little sinuate, the posterior angles a little prominent, extremely finely, not closely punctured, ground-sculpture as on the head. Elytra about a third longer than the thorax, a little narrowed behind, the lateral sulcus obsolete in front, less finely and more closely punctured than the thorax, ground-sculpture absent. Abdomen very finely, moderately closely punctured, with a very fine coriaceous ground-sculpture.

♂ : 8th dorsal segment with four acute triangular processes, the median pair very slightly more produced backwards than the lateral ; each with a black seta at apex. 6th ventral segment with four processes, the median pair acute, separated from each other by a broad, deep, arcuate excision ; the lateral very small, dentiform ; each with a black apical seta.

Burma : Carin Asciuii Ghécu, alt. 1400–1500 metres (*L. Fea*).

1418. **Coproporus flavicornis.**

Coproporus flavicornis Kr., Arch. Naturg. xxv. 1859, i. p. 56.

Shining, pitchy-black ; the head black, margins of the thorax, of the elytra, and of the abdomen reddish. Antennæ and legs reddish-yellow. Length 3 mm.

Var. Thorax and elytra more extensively suffused with red.

Build of *latus*, but a little smaller, of brighter appearance owing to the reddish margins of the thorax, etc., the antennæ more slender, entirely reddish-yellow, the structure different, the 4th joint distinctly shorter than the 3rd, but little longer than broad, obconical, the 5th to 10th more transverse. Elytra more finely punctured, the lateral sulcus less distinct.

♂ : 8th dorsal segment divided into four acute triangular processes, the central pair a little more produced behind than the lateral, widely separated from each other by a deep, broad, arcuate excision ; the lateral excisions narrow and acute. 6th ventral segment with four triangular processes, the median separated from each other by a semicircular excision ; the lateral processes small and acute ; each with a long black seta.

♀ : 8th dorsal segment divided into four long, acute, triangular processes, the central pair scarcely more produced behind than the lateral, widely separated from each other, the posterior margin of the segment produced between them as a short triangular lobe ; lateral excisions narrow and acute. 6th

ventral segment divided into six acute triangular processes separated by deep narrow excisions, the central pair of processes a little more produced behind, each with two short yellow spines at the apex, the others each with a long black seta.

"Ind. or." I have seen no examples from India, but it is widely distributed in the Oriental region.

1419. **Coproporus sanguinolentus.**

Erchomus sanguinolentus Motsch., Bull. Mosc. xxxi, 1858, iii, p. 220.

Size, build, and coloration of *brunneicollis* with exception of the antennæ, which are blackish-brown with the base and last joint testaceous, the thorax a little infuscate in the middle, the elytra with the puncturation nearly effaced and a large common spot of a blood-red colour on the external† border on each side of the suture: the abdomen more strongly punctured than the elytra, black, with the last three segments entirely testaceous, like the legs.

"Ind. or." (ex *Motschoulsky*).

I have seen no species answering this description; those so named are the form of *flavicornis*, which has the thorax and elytra more extensively suffused with red, but with the same secondary sexual characters.

1420. **Coproporus holisinus.**

Cilea holisina Fauv., Rev. d'Ent. xiv, 1895, p. 279.

Short, broad, convex, black, very shining, strongly narrowed in front and behind, the abdomen with a short, sparing, golden pubescence; thorax pitchy-black, the sides very broadly reddish; elytra with the sides narrowly, the suture towards the apex, the margin of the anterior segments, the posterior half of the 6th, the 7th except the base, reddish. Antennæ slender, very short, the 4th joint a little narrower than the 5th, 5th to 10th rather strongly transverse; the first four joints and the palpi testaceous, the 11th obscurely reddish-testaceous, with testaceous apex. Head small, less than half the width of the base of the thorax, smooth. Thorax very short, smooth, twice as broad as long, very strongly rounded and narrowed from base to apex, base scarcely sinuate near the posterior angles. Elytra broad, very strongly transverse, a little longer than the thorax, not very closely, finely punctured, the lateral impression very broad, not deep, divided in front. Abdomen strongly pointed, with fine, somewhat areolate puncturation.

† This must obviously be a misprint in the original for internal.

♀: 7th [8th] dorsal segment with four pointed processes, the middle pair produced a good deal further backwards than the lateral. Length 3–3·75 mm.

Burma : Bhamo (*L. Fea*) (ex *Fauvel*).

1421. **Coproporus monticola.**

Coproporus monticola Cam., Trans. Ent. Soc. Lond. 1926, p. 189.

Black, shining, subdepressed ; lateral margins of the thorax and posterior margins of the abdominal segments very narrowly and obscurely rufescent. Head and thorax extremely finely and moderately closely punctured, the latter without larger punctures before the scutellum. Elytra less finely and more closely punctured than the fore-parts, in certain lights a fine transverse ground-sculpture is seen ; abdomen closely and finely punctured. Antennæ with the first four joints testaceous, the rest black. Legs testaceous. Length 4 mm. (in well extended examples).

Similar in facies to *melanarius* Er., but larger and more robust, with longer elytra, finer and not quite such close puncturation of the thorax, and more finely punctured elytra, the abdomen rather less finely punctured. The antennæ are very similarly constructed, but rather longer, 3rd joint a little longer than 2nd, 4th to 6th distinctly longer than broad, 7th to 10th as long as broad or slightly transverse.

♂ : 8th dorsal segment with six acute triangular processes. 6th ventral segment with a broad, deep, acute median excision.

♀ : 8th dorsal segment with six acute processes, longer than those of the ♂, and separated by deeper excisions. 6th ventral segment with six processes, the median pair separated from each other by a short parallel-sided arcuate excision, each with two yellow setæ ; externally with a subtriangular process separated by a broader arcuate excision from the central process, and yet more externally and posteriorly with a spiniform process separated from the intermediate by a narrow, triangular, acute excision.

Mussoorie, Chakrata, and Simla districts, alt. 6000–9200 feet. Under bark.

1422. **Coproporus melanarius.**

Tachinus melanarius Er., Gen. Spec. Staph. 1839–40, p. 252.
Coproporus subdepressus Kr., Arch. Naturg. xxv, 1859, i, p. 57 ; Fauv., Ann. Mus. Civ. Gen. xii, 1878, p. 116 ; id., Rev. d'Ent. xxiii, 1904, p. 61.
Erchomus subpunctulatus Motsch., Ét. Ent. viii, 1859, p. 81 ; Fauv., Rev. d'Ent. xxiii, 1904, p. 61.

Subdepressed, black, shining ; the posterior margins of the elytra and abdominal segments very narrowly and obscurely

reddish. Antennæ blackish, the first three joints reddish yellow. Legs reddish-yellow. Length 3·1 mm. (in normally extended examples).

Var. *pusæ*, nov. Antennæ entirely yellow.

Head and thorax very finely punctured, more closely on the latter, ground-sculpture absent. Antennæ with the 2nd and 3rd joints of equal length, 4th a little longer than broad, 5th to 10th subequal, as long as broad, 11th oval, as long as the two preceding together. Thorax twice as broad as long, gradually narrowed in front. Elytra as broad as the thorax, about half as long again, narrowly sulcate at the sides, less finely punctured than the thorax and without ground-sculpture. Abdomen finely and closely punctured, gradually more finely behind. Readily distinguished from *minimus* and *atomus* by the larger size and the non-transverse penultimate joint of the antennæ.

♂: 8th dorsal segment with four triangular processes, the central pair slightly longer than the lateral. 6th ventral segment with four processes, the central pair separated from each other by a broad, deep, arcuate excision, the lateral process small and dentiform: 5th broadly truncate in the middle, on each side of the truncate part with a small setiferous tubercle.

♀: 8th dorsal segment with four triangular processes, longer than in the ♂. 6th ventral segment with six slender, sharp processes, the central pair a little longer than the others, and each with two yellow setæ at apex, the others each with a black seta.

Widely distributed in India and Ceylon. Also in the Malay Peninsula, Sumatra, Philippines, and New Guinea. The var. *pusæ* is from Pusa, Bihar.

1423. **Coproporus lævigatus.**

Erchomus lævigatus Motsch., Bull. Mosc. xxxi, 1858, iii, p. 219.

Size, build, and general coloration of *melanarius*, with similarly constructed antennæ, but with the puncturation of the thorax less close, and here and there with traces of ground-sculpture; the elytra are much more finely, indistinctly and more sparingly punctured, as is also the abdomen; this less black, the apex and the posterior margins of the segments broadly reddish. Length 2·5 mm. (moderately extended).

♂: 8th dorsal segment with four acute processes, separated by acute triangular excisions, the lateral processes almost as long as the central pair. 6th ventral segment with broad semicircular excision, its margin produced on each side in a small tooth.

♀: 8th dorsal segment with four processes, longer than in the

♂ and separated by deeper excisions. 6th ventral segment with six narrow triangular processes, the central pair not produced quite so far backwards as the intermediate, these as long as the external. Median processes each with two yellow setæ at the apex, the others with longer black seta.

"Ind. or" (without further indication). Widely distributed in the Oriental region.

1424. **Coproporus planus.**

Erchomus planus Fauv., Rev. d'Ent. xxiv, 1905, p. 142.

Subdepressed, shining, black or pitchy-black; the margins of the thorax and elytra sometimes narrowly reddish, the apex of the abdomen reddish; occasionally with the elytra reddish-castaneous, with the lateral margin blackish and the borders of the thorax more broadly reddish. Antennæ black, the first three joints and apex of the last reddish-yellow. Legs reddish-yellow. Length 3·3–3·5 mm.

Of the build of *melanarius*, but larger, the antennæ longer, the joints from the 5th to 10th about as long as broad; head, thorax, and elytra much more finely punctured, with ground-sculpture distinct, but not uniform, on the thorax; abdomen less finely, more distinctly punctured, the ground-sculpture similar.

♂: 8th dorsal segment with four rather broad triangular processes, acute at apex, the central pair only a little longer than the lateral and separated by acute excisions. 6th ventral segment with four processes, the central pair separated from each other by a deep, broad, arcuate excision, the lateral smaller, less produced backwards, and separated by a narrow arcuate excision from the median.

Burma. Assam: Naga Hills, alt. 6000 feet. Also in Sumatra, Java, Tonkin, and East Africa.

1425. **Coproporus chatterjeei**, sp. n.

Fore-parts shining; black, subdepressed; the thorax with the sides, the elytra with the sides (very narrowly), the posterior margin more broadly (especially at the suture) and indeterminately reddish, the fore-parts (especially the elytra) with distinct greenish-blue metallic reflex; abdomen subopaque, black. Antennæ black, the first three joints reddish-yellow, the 4th pitchy. Legs reddish-yellow. Length 3 mm.

Of the build and colour of *iridescens* Cam., from Borneo (*violaceomicans* Bernh., *in litt.*), but smaller, and at once distinguished by the very much closer puncturation and pubescence (which is also longer) of the abdomen, which has a subsericeous appearance. Fore-parts extremely finely and not closely punctured and without ground-sculpture. Antennæ with the

3rd joint a little shorter than the 2nd, 4th to 7th a little longer than broad, gradually decreasing in length, 8th to 10th about as long as broad, 11th long, oval. Thorax more than twice as broad as long. Elytra at the base as broad as the thorax, nearly half as long again, slightly narrowed behind, narrowly sulcate at the side. Abdomen very finely and closely punctured and pubescent, subsericeous.

♂: 8th dorsal segment with six processes, the four central slender, equally produced behind, the lateral much less produced, the processes separated by deep, narrow, triangular excisions. 6th ventral segment with two triangular processes separated by a semicircular excision; 5th broadly and deeply impressed throughout, the posterior margin of the impressed area strongly pectinate, on each side of the pectinate area with a long triangular process; 4th slightly impressed along the middle and a little produced behind.

♀: 8th dorsal segment as in the ♂. 6th ventral segment with six narrow processes, the four central ones equally produced behind, the lateral less produced, the median pair each with two yellow setæ at the apex, the other each with a long black seta, the excisions acute; 5th with a broad emargination bounded on each side by a setiferous tubercle.

Assam: Naga Hills, Laimatak (*S. N. Chatterjee*).

1426. **Coproporus minimus.**

Erchomus minimus Motsch., Bull. Mosc. xxxi, 1858, ii, p. 220.
Erchomus granulum Motsch., l. c. p. 221.
Coproporus orientalis Solsky, Bull. Mosc. xxxvii, 1864, ii, p. 439.
Coproporus pygmæus Kr.*, Arch. Naturg. xxv, 1859, i, p. 58.
Erchomus rubiginosus Motsch., Bull. Mosc. xxxi, 1858, ii, p. 221.
Erchomus tantillus Motsch., l. c. p. 221.

Subconvex, shining, black or pitchy; the margins of the thorax and of the elytra and abdominal segments more or less reddish, the apex of the abdomen reddish-yellow. Antennæ brown, the first three joints and apex of the last reddish-yellow. Legs reddish-yellow. Length 2·3 mm. (in normally extended examples).

Somewhat variable in colour. Larger, more robust, and less depressed than *atomus*, the antennæ more slender, the penultimate joints less transverse, thorax more narrowed towards the front, head and thorax extremely finely and not closely punctured, without trace of ground-sculpture, the latter less closely punctured than in *atomus*, the elytra much less finely punctured than in that species, and with broader lateral sulcus. At once distinguished from *atomus* by the absence of ground-sculpture.

♂: 8th dorsal segment divided by narrow, deep, triangular excisions into four triangular processes, of which the two central are more produced behind than the lateral and each furnished

with a yellow seta, the lateral with a black seta. 6th ventral segment with semicircular excision of the posterior margin, on each side of it with a long black seta.

♀: 8th dorsal segment with four triangular processes, longer than those of the ♂. 6th ventral segment with six processes, the most external very short, dentiform, the others longer, triangular, the central pair each with two yellow setæ at apex.

Widely distributed throughout India and Ceylon. Also in the Malay Peninsula, Sumatra, Philippines, Seychelles, and Réunion.

1427. **Coproporus atomus.**

Coproporus atomus Kr.*, Arch. Naturg. xxv, 1859, i, p. 58.

Subdepressed, minute; black or pitchy-black, shining; the apex of the abdomen reddish. Antennæ blackish, the first three joints, apex of the 11th, and the legs reddish-yellow. Length 1·75 mm. (in normally extended examples).

Head extremely finely, rather sparingly punctured, the ground-sculpture distinct, transverse, wavy. Antennæ with the 3rd joint a little shorter than the 2nd, 4th as long as broad, 5th to 10th distinctly transverse, not increasing in breadth, the 11th oval, as long as the two preceding together. Thorax more than twice as broad as long, the sides gently rounded and retracted in front, the sculpture as on the head, but with the punctures closer. Elytra as broad as the thorax and nearly twice as long, narrowly sulcate at the sides, more closely and less finely punctured than the thorax, with scarcely visible ground-sculpture. Abdomen extremely finely and not closely punctured, the ground-sculpture extremely fine, radiating from the punctures.

♂: 8th dorsal segment divided by a short semi-oval excision into two short, broad, subtriangular lobes, at the base of each externally with a small tooth and more anteriorly and externally with another. 6th ventral segment with two triangular processes separated by a semicircular excision; 5th with longer and closer pubescence on the posterior half.

♀: 8th dorsal segment with four triangular processes, the median pair produced further backwards than the lateral, and each furnished with a yellow seta; the processes separated by deep subtriangular excisions, the lateral processes each with a long black seta. 6th ventral segment with four processes, the median pair narrow, subtriangular, each with two yellow setæ at the apex, and separated from each other by a narrow deep excision; lateral processes short, dentiform, each with black seta at apex.

Widely distributed throughout India and Ceylon. Also in the Malay Peninsula, Philippines, and Seychelles.

1428. **Coproporus cuprinicollis.**

Cilea cuprinicollis Fauv., Rev. d'Ent. xiv, 1895, p. 279.

Somewhat similar in size and build to *Conurus pedicularius* Gr. Very convex, very shining, blackish; thorax obscure pitchy-red, with the margins lighter and with coppery iridescence, especially in front; elytra with the posterior margin scarcely, the margin of the abdominal segments broadly, and the anus reddish. Legs red. Mouth and antennæ testaceous, these stout, very short, clavate, scarcely reaching the middle of the thorax, 4th to 10th joints strongly transverse, 11th larger, conical. Head half as broad as the thorax, smooth, rarely with coppery reflex. Thorax nearly twice as broad as long, smooth, rather strongly narrowed and rounded from base to apex, the posterior angles a little produced. Elytra a fourth longer than the thorax, very finely, not very closely punctured, the lateral impression broad but not deep. Abdomen less shining, with rather close, fine, somewhat asperate, subareolate puncturation.

♂: unknown.

♀: 7th [8th] dorsal segment with four robust pointed processes, the median pair produced a little further backwards than the lateral. Length 2·75 mm.

Burma: Tenasserim, Meetan, April (*L. Fea*) (ex *Fauvel*).

1429. **Coproporus tachyporoides.**

Coproporus tachyporoides Kr.*, Arch Nat. xxv, 1859, i, p. 60.

Subconvex, shining; the head dark brown; thorax reddish, lighter at the sides; elytra reddish-yellow, the base and sides infuscate, abdomen pitchy-black, the posterior margins of the segments reddish. Antennæ blackish, the first four joints yellow. Legs yellow. Length 3 mm. (in normally extended specimens).

Size and build of *castaneipennis*, but differently coloured, the antennæ thinner and the head and thorax without trace of ground-sculpture. Head, thorax, and elytra with scanty, scarcely visible punctures, each with a very fine short hair. Antennæ with the 2nd and 3rd joints of equal length, 4th to 6th longer than broad, decreasing in length, 7th as long as broad, 8th to 10th transverse, 11th oval, as long as the 9th and 10th together. Thorax nearly twice as long as broad. Elytra half as long again as the thorax, of the same breadth, narrowly and obscurely sulcate at the sides. Abdomen conical, very finely, moderately closely punctured; ground-sculpture absent.

♂: 8th dorsal segment with four short triangular processes, each with long black seta, the central separated from each other by a broad arcuate excision; the lateral not produced

so far back, and separated from the central by an acute excision. 6th ventral segment with deep, acute, triangular excision.

♀: 8th dorsal segment with six processes, the central pair more slender, and separated from each other by a deep parallel-sided excision, each with a yellow seta at apex; intermediate processes a little longer and stouter than the central pair, separated from them by a similar excision; external processes not produced so far back as the others. 6th ventral segment with four triangular processes equally produced, the central pair each with two yellow apical setæ.

Ceylon. Nilgiri Hills. Dehra Dun.

1430. **Coproporus fasciipennis.** (Plate IV, fig. 9.)

Coproporus fasciipennis Kr.*, Arch. Naturg. xxv, 1859, i, p. 59.

Subconvex, shining, red; the elytra with broad black basal fascia usually not quite reaching the suture or the reflexed side. Antennæ with the first five joints yellow, the rest blackish. Legs reddish-yellow. Length 2 mm. (in normally extended specimens).

Var. Elytra entirely red.

Build of *tachyporoides*, but a little smaller and narrower, differently coloured, and with more slender antennæ.

Head and thorax very sparingly, scarcely perceptibly punctured, each puncture with a minute hair; ground-sculpture absent. Antennæ with the 3rd joint as long as the 2nd, 4th a little longer than broad, 5th about as long as broad, 6th to 10th moderately transverse, the 11th oval, as long as the two preceding together. Thorax about one and a half times as broad as long. Elytra as broad as and about a half longer than the thorax, sulcate at the sides, with puncturation as on the thorax. Abdomen very finely but distinctly, not very closely punctured, with a short scanty pubescence; ground-sculpture absent.

♂: 8th dorsal segment with two little teeth in the middle, separated from each other by a small arcuate emargination, externally with a larger tooth not produced so far backwards, and separated from the central by an arcuate emargination. 6th ventral segment with an acute triangular emargination; 5th with very slight, broad emargination.

♀: 8th dorsal segment with six slender triangular processes, the central pair separated from each other by a semi-oval excision, the intermediate process stouter, produced as far backwards as the central and separated from it by an acute triangular excision; the external process smaller, not produced so far back; central pair of processes each with a short yellow seta at apex, the others with a long black seta. 6th ventral segment in the middle of the posterior margin with two short blunt teeth close together, each with two yellow

setæ at apex; externally with a larger triangular tooth, separated from the median by an arcuate excision and less produced backwards, at the apex with a long black seta.

Ceylon: Colombo. Dehra Dun. Also in Singapore.

1431. **Coproporus castaneipennis.**

Coproporus castaneipennis Kr.*, Arch. Naturg. xxv, 1859, i, p. 60.

Subconvex, black, shining; the margins of the thorax and abdominal segments narrowly reddish; elytra red, the base narrowly and indefinitely black, the posterior margin very narrowly yellowish. Antennæ black, the first three joints and apex of the last yellow. Legs reddish-yellow. Length 3 mm. (in normally extended examples).

Build of *tachyporoides*, but slightly smaller and differently coloured. Head impunctate, with fine wavy transverse ground-sculpture. Antennæ with the 3rd joint a little shorter than the 2nd, 4th as long as broad, 5th to 10th subequal, slightly transverse, not increasing in width, the 11th oval, about as long as the two preceding together. Thorax nearly twice as broad as long, the sides rounded and strongly retracted in front, the posterior angles a little produced, extremely finely, sparingly punctured, with transverse wavy interrupted ground-sculpture. Elytra as broad as and about a third longer than the thorax, without lateral sulcus, very finely but less finely punctured than the thorax, the punctures superficial and moderately close; ground-sculpture absent. Abdomen very finely but more distinctly punctured than the elytra, the punctures moderately close; ground-sculpture distinct.

♂: 8th dorsal segment with four processes, the central pair short, triangular, each with a short yellow apical seta, separated from each other by an arcuate emargination; the lateral processes broader, triangular, not produced nearly so far backwards as the central, and each with a long black apical seta, and separated from the central by an acute triangular excision. 6th ventral segment divided by a deep, broad, arcuate excision into two triangular processes, each with a long black seta at apex.

♀: 8th dorsal segment with four processes, stouter than those of the ♂, the central pair separated from each other by a deeper excision. 6th ventral segment with six processes, the central pair short, triangular, each with two yellow apical setæ, and separated from each other by a slightly acute triangular excision; intermediate process narrower, triangular, not produced so far back as the central, and with a long black apical seta, separated from the central process by an acute, deep, triangular excision; lateral process short, dentiform, with black apical seta.

Ceylon. Dehra Dun. Also in Java and South China.

1432. **Coproporus ruficollis.**

Coproporus ruficollis Cam., Trans. Ent. Soc. Lond. 1926, p. 190.

Shining; head and elytra black, thorax deep red, the posterior margin of the elytra and of the abdominal segments very narrowly rufescent, the 8th entirely so. Antennæ with the first five joints testaceous, the rest blackish. Legs testaceous. Length 2·3 mm.

Of the size and build of *tachyporoides* Kr., but differently coloured, with shorter, thinner antennæ, just perceptibly punctured elytra, and more strongly punctured abdomen. Head without sculpture. Antennæ short, slender, 2nd and 3rd joints of equal length, 4th a little longer than broad, 5th about as long as broad, 6th to 10th transverse, gradually increasing in breadth. Thorax twice as broad as long, without trace of sculpture. Elytra about a half longer than the thorax, narrowed behind, transverse, lateral impression broad and obsolete, sculpture exceedingly fine, obsolete and sparing; a little closer and less obsolete towards the sides. Abdomen finely, moderately closely punctured in front, less so behind; no visible ground-sculpture.

Dehra Dun: Nun Nadi.

1433. **Coproporus rufus.**

Coproporus rufus Kr., Arch. Naturg. xxv, 1859, p. 59.

Convex, shining, reddish-yellow; the fore-parts impunctate, the first four segments of the abdomen finely, moderately closely punctured, the following practically impunctate. The whole insect without trace of ground-sculpture. Antennæ and legs reddish-yellow. Length 2·5 mm.

Readily distinguished by the colour and the absence of ground-sculpture, even on the abdomen. Antennæ a little shorter than the head and thorax together, the 3rd joint a little longer than the 2nd, 4th to 6th distinctly longer than broad, 7th and 8th about as long as broad, the 9th and 10th slightly transverse, the 11th oval, as long as the 9th and 10th together. Thorax about twice as broad as long, the posterior angles rounded. Elytra as broad as and about a third longer than the thorax, superficially sulcate laterally.

♂: 8th dorsal segment with four processes, the median pair rather small, triangular, separated from each other by a semicircular excision, the lateral much stouter, not produced so far back. 6th ventral segment with rather deep, broad, triangular excision, its apex rounded; 4th and 5th broadly and slightly emarginate and impressed at the middle of the posterior border, the impressions covered with longer hairs than elsewhere.

"Ind. or." (without further indication). Also in Formosa and Celebes.

1434. Coproporus triangulus.

Coproporus triangulus Cam., E. M. M. lvi, 1920, p. 49.

Subconvex, black, shining, the fore-parts practically impunctate, ground-sculpture absent throughout, the lateral margins of the thorax, the extreme lateral margins of the elytra, and a large common triangular spot occupying the posterior margin and extending half the length of the suture reddish-yellow. Antennæ with the first four joints and the legs reddish-yellow. Length 2·3 mm.

Less depressed than *melanarius* and differently coloured, the antennæ more slender, the 2nd and 3rd joints of equal length, 4th to 8th longer than broad, gradually decreasing in length, 9th scarcely longer than broad, 10th transverse, 11th oval, as long as the 9th and 10th together. Thorax half as broad again as long. Elytra about a third longer than the thorax, narrowly sulcate at the sides. Abdomen very finely, moderately closely punctured in front, much more sparingly behind, and without ground-sculpture.

Ceylon: Dikoya, alt. 3800–4200 feet (*Lewis*). Also in the Malay Peninsula.

1435. Coproporus bivittatus.

Coproporus bivittatus Bernh., Ann. Mus. Nat. Hung. xiii, 1915, p. 155.

Black, shining, subconvex; the sides of the thorax sometimes obscurely reddish, the elytra reddish-yellow, each with indeterminate black marking extending from the base and attenuated behind, or black with the suture, posterior, and lateral margins narrowly reddish-yellow. Antennæ with the 1st joint testaceous, the 2nd and 3rd pitchy-testaceous, the following black. Legs yellow. Length 1·75–3 mm. (abdomen moderately extended).

Varies much in the coloration of the elytra, every gradation between the forms above mentioned occurring. Head and thorax scarcely perceptibly punctured, but with distinct transverse wavy ground-sculpture. Antennæ rather long and slender, the 2nd and 3rd joints of equal length, 4th to 8th longer than broad, gradually decreasing in length, the 9th and 10th about as long as broad, the 11th long, oval, about as long as the two preceding together. Thorax half as broad again as long, the sides not strongly retracted in front. Elytra a little longer than the thorax, without lateral sulcus, finely and closely punctured but without ground-sculpture. Abdomen finely and moderately closely punctured, the ground-sculpture distinct and with a fine, short, yellow pubescence.

♂: 8th dorsal segment with four triangular processes, the central pair produced more backwards than the lateral, each with an apical yellow seta, separated from each other by a narrow semi-elliptical excision; the lateral processes stouter, each with long black apical seta and separated from the central by an acute triangular excision. 6th ventral segment obliquely truncate at apex on each side, with the external angle acute, in the middle with a small arcuate emargination; external to the acute outer angle with a small tooth, not produced so far backwards.

♀: 8th dorsal segment as in the ♂, but with the lateral excisions deeper. 6th ventral segment with six processes, the central pair separated from each other by a semi-elliptical excision and each with two yellow apical setæ; the intermediate processes not so far produced behind, and separated from the central by a deep acute excision, each with a long black seta; the external processes yet shorter.

Ceylon: Belligam. Simla Hills. The type is from East Africa. I have examples from South China, the Malay Peninsula, Borneo, Formosa, and Timor.

Genus **LEUCOPARYPHUS** Kr.

Leucoparyphus Kr., Naturg. Ins. Deutsch. ii, 1856–58, p. 393; Fauv., Bull. Soc. Ent. Norm. (2) i, 1868, p. 211; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 335; Luze, W. Z. B. lii, 1902, p. 190.

Cilea Jacq. du Val, Gen. Col. d'Eur. ii, 1857–59, p. 25; Thoms., Skand. Col. iii, 1861, p. 153; Pand., Ann. Soc. Ent. Fr. (4) ix, 1869, p. 277 (ex parte); Fauv., Faun. Gallo-Rhén. iii, 1872, p. 591 (ex parte); Rey, Ann. Soc. Linn. Lyon, xxviii, 1881, p. 249; Sharp, B. C.-A. i, 2, 1882–87 (1883), p. 308.

Astictus Thoms., Skand. Col. iii, 1861, p. 153.

Biology.—Rey, Ann. Soc. Linn. Lyon, xxxiii, 1887, p. 158; Rupertsberger, Biol. Lit. Käf. Eur. 1894, p. 119.

Facies of *Tachyporus*, but at once distinguished by the elongate first joint of the posterior tarsi, which is as long as the three following together, the keeled mesosternum, etc. Head as in *Tachyporus*. Labrum strongly transverse, truncate in front, at the antero-external angles with a tuft of long setæ, at the middle of the anterior border with numerous shorter ones. Mandibles short, edentate, internally with a ciliate membrane extending from the base to apex. Inner lobe of maxilla shorter than the outer and closely covered internally with long curved setæ; the outer lobe at apex with similar setæ, as well as numerous longer straight ones. Maxillary palpi long, the 1st joint very small, 2nd elongate, slightly curved and thickened towards apex, 3rd about half as long, 4th more than twice as long as the 3rd, gradually narrowed

from base to apex. Mentum short, transverse, trapezoidal. Tongue broad, membranous, divided by a triangular notch into two rounded lobes, finely setose. Paraglossæ well developed, ciliate internally, not extending beyond the tongue. Labial palpi short, 1st joint short and stout, scarcely longer than broad, 2nd a little narrower and a little longer, 3rd cylindrical, slightly narrower and almost twice as long as the preceding, at the apex with two or three setæ. Thorax much as in *Tachyporus*; pronotal epipleura very small, strongly deflexed; epimera wanting. Mesosternum and its long narrow process keeled, extending almost the whole length of the coxæ and meeting the metasternal process, the coxæ narrowly separated. Elytra without lateral sulcus, the postero-external angle rounded. Abdomen bordered above, without keel below at the base, the sides and apex setiferous. Legs rather long, the femora at the apex internally with a spine; tibiæ with a few spines. Anterior tarsi with the first four joints short, equal, simple in both sexes; the middle and posterior with the 1st joint as long as the three following together, these gradually shorter. The genus contains but few species, one of which is almost cosmopolitan.

1436. **Leucoparyphus limbifer.** (Plate IV, fig. 10.)

Erchomus (?) *limbifer* Motsch., Bull. Mosc. xxxi, 1858, iii, p. 222.
Leucoparyphus limbifer Motsch., var. *marginicollis* Kr.*, Naturg. Ins. Deutsch. ii, 1856–58, p. 394; id., Arch. Naturg. xxv, 1859, i, p. 53.

Black, shining; the thorax with the side margins broadly, the anterior and posterior narrowly reddish-yellow. Scutellum and elytra black, the suture and posterior margin rather broadly reddish-yellow, the shoulders with oblong reddish-yellow spot; abdomen black, the posterior margin of the first four segments narrowly and nearly the whole of the 5th and 6th reddish-yellow. Antennæ black, the first two joints yellow. Legs yellow. Length 3 mm.

Var. *marginicollis*. Elytra yellow, each with an oval black spot in the middle.

Very variable in the relative proportions of the colours of the elytra, every gradation between the type-form and *marginicollis* being met with. Almost exactly similar in appearance to the European *silphoides* L., with all the variations of the elytral colour-pattern found in that species; it is, however, at once distinguished by the secondary sexual characters, and, moreover, the anterior and posterior margins of the thorax are distinctly reddish-yellow, the ground-sculpture of the head and thorax is less distinct, and the 5th and 6th abdominal segments are more extensively reddish-yellow. Amongst my Oriental species of this genus I have not found a single example of *silphoides*.

Head and thorax scarcely perceptibly punctured, finely, transversely strigose. Antennæ with the 2nd and 3rd joints of equal length, 4th to 8th longer than broad, gradually decreasing in length, 9th and 10th about as long as broad, 11th oblong, about as long as the 9th and 10th together. Thorax about a half broader than long, the sides rounded and retracted in front. Elytra as broad as and about a third longer than the thorax, very finely, obsoletely, closely punctured. Abdomen more distinctly punctured than the elytra and with distinct ground-sculpture.

♂: 8th dorsal segment with six processes, the median pair the smallest and shortest, separated from each other by a narrow, short, acute triangular excision; the other excisions deeper. 6th ventral segment with four processes, the median pair larger, triangular, and separated from each other by a broad deep, acute, triangular excision; the lateral processes spiniform and not produced so far behind; 5th segment not emarginate.

♀: 8th dorsal segment with six processes, these longer and separated by longer excisions than in the ♂. 6th ventral segment with six processes, the central pair produced furthest back, and each with three yellow setæ at the apex.

Ceylon. Dehra Dun. Chakrata district. Siwaliks. Widely distributed in the Oriental region.

Tribe 3. SYMMIXINI.

Symmixini Bernh., Col. Rundsch. 1915, p. 56.

This tribe occupies a position between the TACHYPORINI and HYPOCYPTINI; it agrees with the former in the antennæ being 11-jointed, but with the latter in the 4-jointed tarsi.

Genus **SYMMIXUS** Bernh.

Symmixus Bernh., Col. Rundsch. 1915, p. 56.

Elongate, narrowed in front and behind. Head inserted in the thorax; infra-orbital crest wanting; gular sutures widely separated. Thorax transverse, the sides finely bordered and somewhat explanate, the base overlapping the elytra; scutellum small, triangular. Elytra very long and narrow, with long setæ at the sides. Abdomen bordered, pointed, at the sides and apex with long setæ. Pronotal epipleura wanting; prosternal epimera narrow and elongate, fused externally with the under surface of the pronotum. Mesosternum not keeled, its process long and narrow, finely sulcate, extending nearly the whole length of the coxæ, these narrowly

separated. Legs rather long. Tibiæ with a few spines. Tarsi 4-jointed ; the anterior with the first three joints subequal, cordate ; middle and posterior with the 1st joint as long as the three following together, 2nd scarcely half as long as the 1st, the 3rd small, produced below as a narrow lobe beneath the 4th, this about as long as the 2nd, a little thickened towards the apex. Claws curved, at the base of each with a tooth.

1437. **Symmixus sikkimensis.** (Plate IV, fig. 11.)

Symmixus sikkimensis, Bernh., Col. Rundsch. 1915, p. 57.

Black, shining ; the sides and base of the thorax pale yellow, more broadly postero-laterally ; elytra with the posterior margin and a narrow streak commencing near the middle a little distance from the suture parallel to it, and continuous with the marginal fascia, reddish-yellow. Antennæ and legs reddish-yellow. Length 2·5–3·5 mm.

Head much narrower than the thorax, practically impunctate and without ground-sculpture, the eyes large. Antennæ slender, the 3rd joint a little longer than the 2nd, 4th to 10th all longer than broad, gradually decreasing in length, the 11th a little longer than the preceding. Thorax fully half as broad again as long, the sides gently rounded and retracted to the front, the posterior angles rounded, the base nearly truncate, like the head almost impunctate and without ground-sculpture. Elytra nearly twice as long as and a little narrower than the thorax, slightly narrowed behind, the postero-external angles rounded, rather closely, moderately finely punctured, at the sides with long black setæ. Abdomen narrowed from base to apex, moderately closely, more finely punctured than the elytra, the sides and apex with long black setæ.

Sikkim. Burma : Ruby Mines. Manipur.

Tribe 4. HYPOCYPTINI.

Hypocyptini Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 330 ; Luze, W. Z. B. lii, 1902, p. 193.
Hypocyptina Thoms., Skand. Col. iii, 1861, p. 109.
Tachyporini Section ii *Hypocypti* Fauv., Faun. Gallo-Rhén. iii, 1872, p. 612.
Tachyporini Group *Hypocypti* Horn, Trans. Amer. Ent. Soc. vi, 1877, p. 83 ; Leconte & Horn, Class. Col. N. Amer. 1883, p. 100.
Tachyporiens 1re branche *Hypocyptaires* Rey, Ann. Soc. Linn. Lyon, xxviii, 1881, p. 144.

Antennæ 10-jointed. All the tarsi 4-jointed. Elytra with the epipleura strongly reflexed, not visible from the side. Only one genus of this tribe is so far known in our Fauna.

Genus **HYPOCYPTUS** Mannerh.

Hypocyptus Mannerh., Brachél. 1830, p. 11 (*Hypocyphthus*), p. 58 (emend.); Er., Käf. Mark Brand. i, 1837–39 (1839), p. 387; id., Gen. Spec. Staph. 1839–40, p. 214; Lacord., Gen. Col. ii, 1855, p. 51; Kraatz, Naturg. Ins. Deutsch. ii, 1856–58, p. 382; Jacq. du Val, Gen. Col. d'Eur. ii, 1857–59, p. 22; Thoms., Skand. Col. iii, 1861, p. 110; Pand., Ann. Soc. Ent. Fr. (4) ix, 1869, p. 268; Fauv., Faun. Gallo-Rhén. iii, 1872, p. 612; Rey, Ann. Soc. Linn. Lyon, xxviii, 1881, p. 144; Ganglb., Käf. Mitt.-Eur. ii, 1895, p. 331; Luze, W. Z. B. lii, 1902, p. 171.

Cypha Steph., Ill. Brit. Ent. v, 1832, p. 187.

Biology.—Rupertsberger, Biol. Lit. Käf. Eur. 1894, p. 118.

Small, contractile, convex species, narrowed in front and behind. Head very short and broad, capable of deflexion on to the mesosternum; eyes large, temples very short; gular sutures widely separated, on each side of the convex gular plate broadly excavated. Antennæ 10-jointed, the 1st joint very stout. Labrum transverse, truncate or feebly emarginate in front. Mandibles short, the right with a stout basal and slender pointed apical part, separated by a deep emargination on the outer border, internally sometimes with a small sharp tooth behind the apex, the left externally before the middle with a slight emargination, internally near the apex with two small teeth. Inner and outer lobes of the maxilla narrow, closely approximated, the inner obliquely truncate and furnished with a few stout curved teeth, the apex of the outer lobe with similar teeth. Maxillary palpi long, the 1st joint small, 2nd long and slender, slightly thickened towards the apex, the 3rd as long as but broader than the 2nd, long oval, 4th very small, subulate. Mentum transverse, trapezoidal. Tongue short and broad, with a rather broad emargination in the middle from which springs an appendage truncate in front, with a seta at each angle. Paraglossæ feeble, extending to the apex of the 1st joint of the labial palpi, these small, 1st joint broader than long, 2nd fully twice as long, oval, the 3rd as long as the 2nd but much narrower. Thorax strongly transverse, convex, the sides not bordered, and forming a continuous curve with the front margin, the base slightly bi-emarginate. Scutellum concealed. Elytra convex, transverse, the postero-external angle rounded, the epipleura strongly reflexed, not visible from the side. Abdomen contractile, pointed, the first four segments distinctly bordered, the margins elevated. Prosternum short, membranous in front, truncate behind, without definite deflexed portion. Pronotal epipleura and epimera wanting. Mesosternum concave, its process broad, produced the whole length of the coxæ, truncate behind, separated from the short and broad metasternum by a transverse ridge. Legs rather short and

slender ; tibiæ without spines. Tarsi slender, shorter than the tibiæ, the anterior with the 1st joint shorter than the three following together, the 2nd and 3rd bilobed. Middle and posterior with the 1st joint as long as the three following together, the 2nd and 3rd bilobed, the 4th about as long as the 2nd and 3rd together. The genus is found in Europe, America, and Africa, and is represented by three species in our Fauna. They live under dead bark, fallen leaves, vegetable debris, etc.

Key to the Species.

1. Species entirely ferruginous red	*gracilicornis*, sp. n.,	[p. 428.
Species otherwise coloured.....	2.	[p. 428.
2. Entirely black	*glaber* Kr., p. 428.	
Black ; the sides of the thorax and posterior margin of the elytra yellow	*marginalis*, sp. n.,	[p. 429.

1438. **Hypocyptus gracilicornis**, sp. n.

Shining ferruginous red with fine yellow pubescence ; the elytra reddish-yellow. Antennæ with the first three joints reddish-yellow, the following blackish. Legs reddish-yellow. Length 2 mm. (abdomen extended).

Head and thorax practically impunctate and without ground-sculpture. Antennæ longer than the head and thorax together, the 3rd joint shorter than the 2nd, 4th to 9th all much longer than broad, 4th to 8th subequal, 9th shorter, 10th very long, longer than the two preceding together. Thorax fully twice as broad as long, the posterior angles rounded. Elytra broader and about one-half longer than the thorax, very finely, obsoletely, moderately closely punctured. Abdomen very finely, moderately closely punctured, with scarcely visible ground-sculpture.

Punjab : Murree Hills, Thobba (*H. Roberts*). In British Museum Collection. Unique.

1439. **Hypocyptus glaber.**

Hypocyptus glaber Kr., Arch. Naturg. xxv, 1859, i, p. 53.

Very black, shining, glabrous ; the antennæ and anterior legs reddish-testaceous, the posterior pitchy, with the knees and tarsi red ; posterior angles of the thorax somewhat rounded. Length $\frac{1}{4}$ lin.

Smaller than *seminulum* [Europe], black, shining, and almost without pubescence. Antennæ slender, testaceous. Head black, shining, impunctate, the mouth-parts reddish-testaceous. Thorax a little narrower than the elytra at the base, smooth, entirely black. Elytra almost a half longer than

the thorax, with extremely fine fulvous pubescence. Abdomen black, scarcely punctured, the apex pitchy. Legs reddish-testaceous, the posterior with the femora and tibiæ pitchy.

Ceylon (ex *Kraatz*).

1440. **Hypocyptus marginalis**, sp. n.

Black, shining, finely grey pubescent; the sides and base of the thorax and posterior margin of the elytra narrowly yellow. Antennæ and legs reddish-testaceous, the femora darker. Length 1 mm.

About the size and build of the European *seminulum* Er., but differently coloured; the antennæ are similarly constructed, but more slender. Head and thorax very finely but distinctly and moderately closely punctured. Antennæ with the 3rd joint almost as long as the 2nd, 8th to 10th much stouter than the preceding and forming a club, the 4th to 6th a little longer than broad, 7th about as long as broad, 8th and 9th a little longer than broad, 10th as long as the two preceding together. Thorax twice as broad as long, the posterior angles completely rounded. Elytra broader and about a third longer than the thorax, a little more finely and more closely punctured than the thorax. Abdomen less finely and less closely punctured than the elytra.

Chakrata district: Konain, alt. 8000 feet (*Cameron*).

ADDENDA.

940 *a*. **Philonthus servilis**, sp. n.

Black, shining; the elytra with slight greenish-bronze reflex. Thorax with dorsal row of four punctures. Antennæ and legs black. Length 5·75 mm.

Very near *lidarensis*, of similar colour, build, and antennal structure, but differs in the closer and finer puncturation of the elytra and rather more closely punctured abdomen; the elytra have more numerous and longer greyish setæ at the sides, and the abdomen is more pubescent.

♂: anterior tarsi dilated. 6th ventral segment with acute triangular excision, the edges scarcely bevelled.

Waziristan (*G. Palacios*). Unique. In British Museum Collection.

Amend the Key, p. 67, as follows :—

49. More robust; antennæ longer; the intermediate joints distinctly longer than broad	*riparius* Cam., p. 91.
Narrower; antennæ shorter, the intermediate joints slightly longer than broad.	49 *a*.
49 *a*. Elytra and abdomen less finely and less closely punctured; the elytra without long setæ at the sides	*lidarensis*, sp. n., p. 94.
Elytra and abdomen more finely and closely punctured; the elytra with long greyish setæ at the sides	*servilis*, sp. n., p. 431.

1028 *a*. **Philonthus martialis**, sp. n.

Shining, black; elytra red, the scutellum black. Thorax with dorsal row of six punctures. Antennæ black, the 1st joint reddish. Legs reddish-yellow. Length 5 mm.

Near the European *rubripennis* Kies., of the same colour and build, but smaller and narrower, eyes a little smaller, elytra less finely and less closely punctured, abdomen much less finely and much less closely punctured. The antennæ are very similarly constructed but shorter, the intermediate joints shorter. Head oblong, the eyes small, the front strongly impressed in the middle, median interocular punctures widely separated, quite close to the juxta-ocular, the post-ocular region with a few fine punctures. Antennæ with the 3rd joint a little longer than the 2nd, the penultimate about as long as broad. Thorax oblong, parallel-sided, with dorsal row of six

moderate punctures. Elytra as long as the thorax, rather finely, moderately closely punctured. Abdomen finely, rather closely punctured. First joint of the posterior tarsi as long as the last.

Waziristan (*G. Palacios*). In British Museum Collection.

Amend the Key, p. 73, as follows :—

138.	Larger (8 mm.). Head oval oblong.....	*turbidus* Er., p. 141.
	Smaller (3·75–5 mm.).....	138 *a*. [p. 148.
138 *a*.	Smaller (3·75 mm.). Elytra black ...	*nigrituloides*, sp. n.,
	Larger (5 mm.). Elytra red	*martialis*, sp. n., p. 431.

ALPHABETICAL INDEX.

[All names printed in *italics* are synonyms.]

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PLATE I.

Fig. 1. *Metolinus excellens* Bernh.
2. *Pachycorynus dimidiatus* Motsch.
3. *Mitomorphus obsoletus* Fauv.
4. *Xantholinus hypsibathus* Bernh.
5. *Indoscitalinus annulatus* Fauv.
6. *Othius flavocaudatus* Cam.
7. *Platyprosopus tamulus* Er.
8. *Philonthus notabilis* Kr.
9. *Philonthus cyanelytrius* Kr.
10. *Stevensia longipennis* Cam.

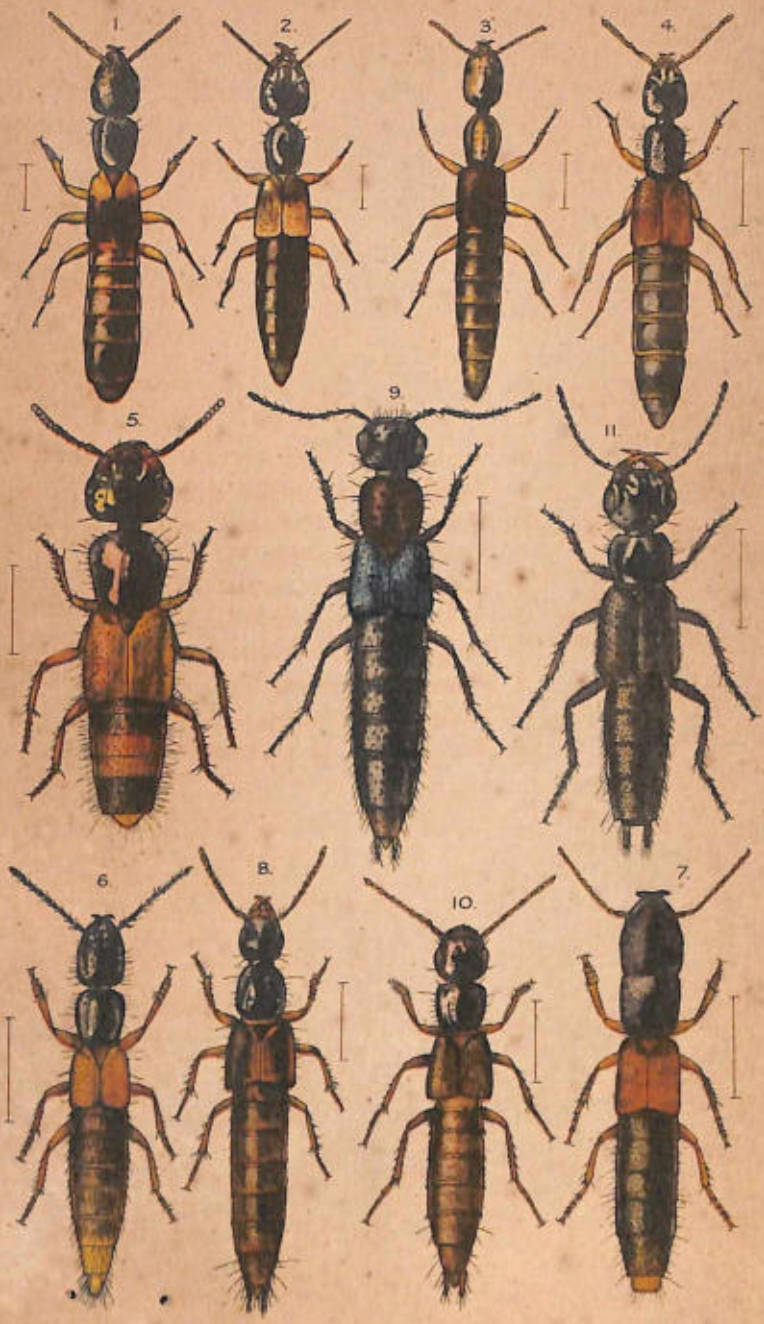
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PLATE II.

Fig. 1. *Hesperus trimerus* Fauv.
2. *Tolmerinus ruficollis* Cam.
3. *Belonuchus quadratus* Kr.
4. *Staphylinus semipurpureus* Kr.
5. *Staphylinus quadrimaculatus* Cam.
6. *Thoracostrongylus elegans* Cam.
7. *Eucibdelus feæ* Fauv.
8. *Rhyncochilus andrewesi* Cam.
9. *Parapalæstrinus mutillarius* Er.
10. *Craspedomerus bernhaueri* Cam.
11. *Quediosoma sericoilius* Cam.

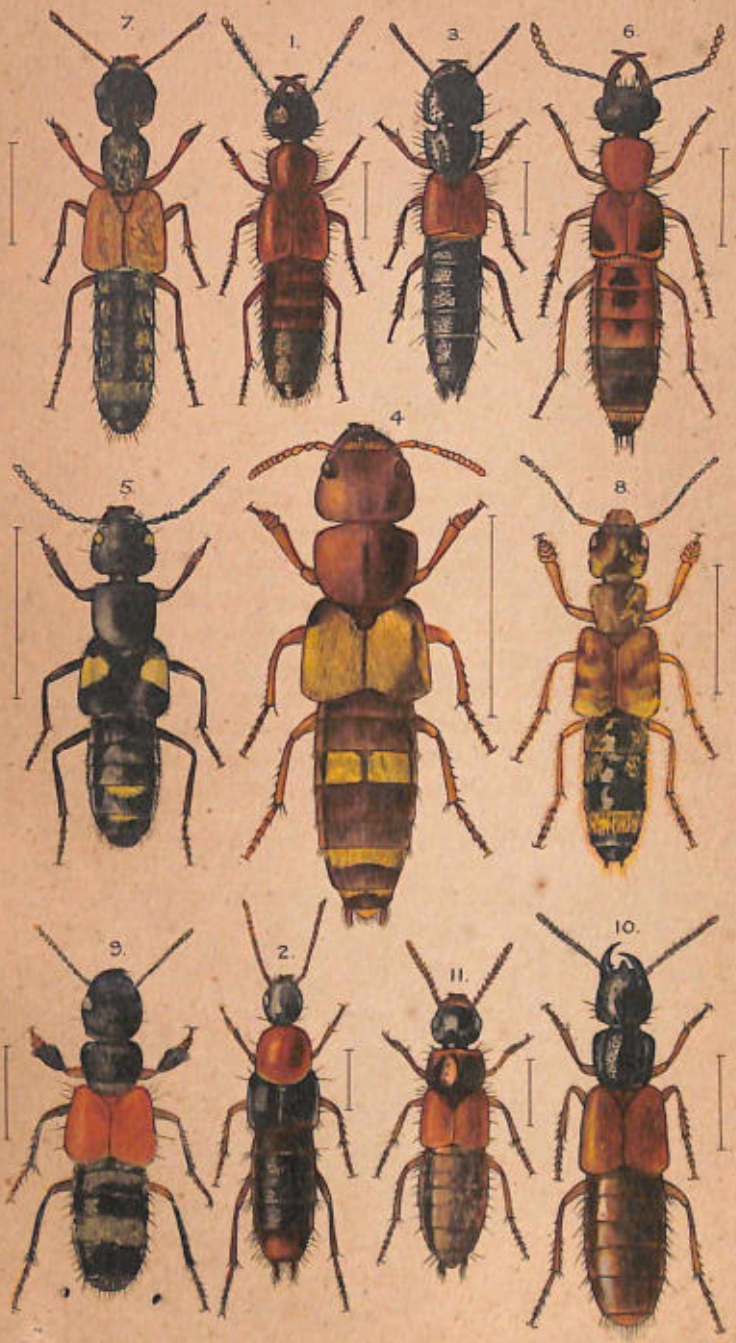
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PLATE III.

Fig. 1. *Cyrtothorax signatus* Cam.
2. *Algon semiaureus* Fauv.
3. *Quedius* (*Microsaurus*) *apicicornis* Epp.
4. *Quedius* (*Indoquedius*) *filicornis* Epp.
5. *Anchocerus birmanus* Fauv.
6. *Discoxenus lepisma* Wasm.
7. *Doryloxenus brevicornis* Cam.
8. *Bolitobius birmanus* Cam.
9. *Bolitobius elegans* Cam.
10. *Conosoma subgracile* Cam.
11. *Conosoma quadrifasciatum* Cam.

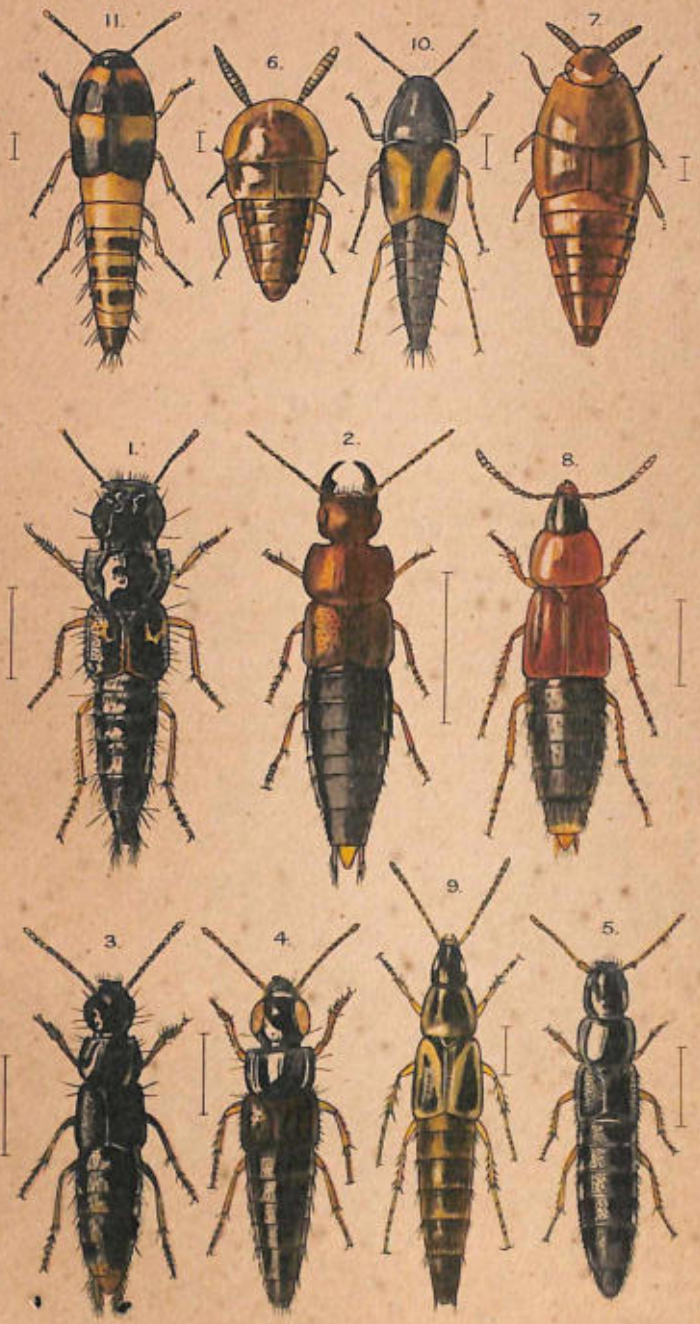
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PLATE IV.

Fig. 1. *Conosoma maculicolle* Cam.
2. *Tachyporus undulatus* Cam.
3. *Tachyporus marginalis* Cam.
4. *Tachinus simlaensis* Cam.
5. *Tachinus semiruber* Cam.
6. *Tachinomorphus ceylonicus* Bernh.
7. *Tachinoderus longicornis* Motsch.
8. *Olophrinus striatus* Fauv.
9. *Coproporus fasciipennis* Kr.
10. *Leucoparyphus limbifer* Motsch.
11. *Symmixus sikkimensis* Bernh.

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