

VII.—*Seven new Indian Species of Heterocerid Coleoptera.*

By RICHARD MAMITZA, Vienna.

IN a collection of Indian Heteroceridæ submitted to me for identification by the British Museum, London, and consisting chiefly of the captures of Messrs. H. G. and F. W. Champion, I have been able to recognize seven new species, the descriptions of which are here given. The types of these species are in the possession of the British Museum. I desire to express my best thanks for the submission to me of this collection by Mr. G. J. Arrow, of that institution, who has also kindly undertaken the translation into English of the present paper.

Heterocerus (s. str.) *virgatus*, sp. n. (Figs. 1–4.)

Elongate, about two and a half times as long as broad, convex, slightly shining, brownish black to black, lateral margin of thorax and elytral markings yellow.

Head (including eyes) a little broader than its length (including mandibles), black, closely and finely punctured, closely covered with short yellow hairs, directed forward. Mandibles (fig. 1) brown, moderately long, armed internally with two sharp teeth, slightly notched near the middle externally, the basal lobe only feebly represented. Labrum (fig. 2) somewhat broader than long, broadest at the base, the sides parallel almost to the middle, then curvilinearly converging, the front margin slightly reflexed. Antennæ 11-jointed, the base yellow, the 7-jointed club brown. Near the middle of the front margin of the clypeus in the male are two short stout upwardly directed spines.

Thorax nearly twice as broad as long, as broad as the base of the elytra, rather broader in the male, closely and finely punctured, and closely clothed with rather short, yellow, forward pointing hairs, those at the sides mixed with long fine hairs. Sides curvilinearly contracted anteriorly, the front angles strongly and the hind angles feebly rounded. Base rounded, distinctly margined as far as the hind angles. Lateral margin, and in pale examples also the front margin, and the median line yellow. Scutellum black, triangular, a little longer than broad.

Elytra a little more than one and a half times as long as broad conjointly, parallel at the sides, slightly impressed behind the shoulders, the terminal third jointly rounded. Elytra finely and closely punctured, interstices very finely punctulate, the disc distinctly striate, the yellow clothing consisting of short, decumbent, and rather long, erect, backwardly directed hairs. The yellow pattern of the elytra (fig. 3) consists of a subhumeral patch united

Fig. 1.



Fig. 2.



Fig. 3.



Fig. 4.



Heterocerus (s. str.) *virgatus*, sp. n.

with the lateral margin, and embracing hook-like the humeral callus, second an elongate spot near the suture upon the first third, a third spot placed behind the middle and touching the fourth, which is united with the lateral margins, a fifth before the apex also united with the lateral margin. The yellow lateral margin is narrow at the shoulder, becomes broader before the middle, and extends to the apex.

Underside yellow, fairly closely clothed, finely and closely punctured. There is a line extending obliquely from the middle coxa towards the lateral margin. Femoral line of the first abdominal sternite incomplete, ending at the hind margin of the sternite. Epipleuræ yellow.

Legs yellow, the front tibia (fig. 4) armed with eleven slender spines, becoming longer towards the extremity.

Length 3.25–3.6 mm.

BENGAL : Sunderbans (*F. W. Champion*).

Four examples.

Fig. 5.



Fig. 6.

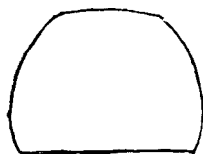


Fig. 7.



Fig. 8.



Heterocerus (s. str.) *magnus*, sp. n.

Heterocerus (s. str.) *magnus*, sp. n. (Figs. 5–8.)

Elongate, about two and a half times as long as broad, moderately convex, brownish black to black, elytral markings reddish yellow or yellow.

Head (including eyes) a little broader than its length (including mandibles), closely and moderately finely punctured, closely covered with rather short yellow hairs, directed forwards. Mandibles (fig. 5) brown, short and

broad, bearing two short blunt teeth at the inner edge near the blunt apex, slightly notched before the middle of the outer edge, and without basal lobe. The labrum (fig. 6) is a little broader than long, broadest before the base, posteriorly feebly and anteriorly strongly narrowed, the front margin slightly reflexed. Antennæ black, 11-jointed, with a 7-jointed club.

Thorax almost twice as broad as long, finely and closely punctured, clothed with yellow forward-directed hairs, the base distinctly margined as far as the hind angles. Scutellum triangular, rather longer than broad, depressed. Thorax of the male broadest at two-thirds of its length, rather broader than the base of the elytra; the front and hind angles strongly rounded, the sides almost parallel; thorax of the female broadest near the base, as broad as the base of the elytra, the front angles strongly and the hind angles feebly rounded, the sides curvilinearly converging anteriorly.

Elytra nearly twice as long as their conjoint width, scarcely visibly impressed behind the shoulders, parallel at the sides, conjointly rounded in the apical third, finely and closely punctured, the disc scarcely perceptibly striate, the yellow clothing short, decumbent, directed backwards, with a few long obliquely erect hairs intermixed. The elytra pattern (fig. 7) consists of four reddish-yellow or yellow marks, the first behind the shoulder prominence, the second near the suture before the middle, the third at two-thirds of the length is united with the outer margin, and the fourth just before the apex is also united with the yellow outer margin, which extends from two-thirds to the apex.

Underside black, with close yellow hair, finely and closely punctured, the metasternal suture and the femoral lines as in the preceding species.

Legs yellow, with the tibiæ partly or entirely black, the front tibiæ (fig. 8) bearing twelve spines.

Length 5 mm.

BENGAL: Hardwar (*H. G. Champion*).

UNITED PROV.: Haldwani Dist., Kumaon (*H. G. Champion*).

PUNJAB: Thobba, Murree Hills (*Howland Roberts*).

Three specimens.

Heterocerus (Littorimus) variabilis, sp. n. (Figs. 9-13.)

In this species the males are easily distinguishable from the females, the male being elongate, cylindrical, and strongly convex and the female moderately broad, rather oval, and slightly convex. The pattern of thorax and elytra also is well developed and recognizable in the female, whereas in the male the markings are reduced and sometimes hardly visible.

Fig. 9.



Fig. 10.



Fig. 12.



Fig. 13.



Fig. 11.



Heterocerus (Littorimus) variabilis, sp. n.

Head black, a little broader (including the eyes) than its length (including the mandibles), finely and closely punctured, clothed with whitish-yellow hairs directed forward, the eye-margins bearing long erect bristles. Mandibles brown, with a strong blunt tooth at the inner edge ; those of the male (fig. 9) long, the apical part only very slightly rounded and the basal lobe strongly developed ;

those of the female (fig. 10) rather shorter, the apical part rounded and the basal lobe fairly well developed. The labrum (fig. 11) is twice as broad as long, broadest at the base, with the sides parallel in the male, slightly converging before the middle in the female, the front margin slightly oblique at the sides, excised in the middle. Maxillary and labial palpi brown, antennæ dark brown, 11-jointed, with 7-jointed club.

Thorax black, with yellow or reddish marking, at the base almost twice as broad as long, closely and finely punctured, clothed with very short whitish-yellow hair, the base distinctly margined as far as the hind angles. In the male the sides of the thorax are parallel, the front and hind angles well marked, the base as wide as or a little wider than the elytra, the front angles and often the sides also reddish. In the female the sides are parallel to the middle, then strongly contracted to the front, the front angles strongly and the hind angles moderately rounded and the base as broad or a little narrower than the elytra. The front angles, the lateral margins, and often also the hind angles are yellow.

Elytra almost twice as long as their united breadth, impressed behind the shoulder, the sides parallel, in the male behind the middle, in the female at two-thirds of the length conjointly rounded, the surface striate, finely and closely punctured, with very fine interstitial punctulation. The whitish-yellow clothing is fairly short and close, erect and directed obliquely backwards. The yellow or reddish markings of the elytra (fig. 12), which are generally less well developed in the male, consist of a shoulder-spot, an elongate spot near the suture upon the anterior one-third but not reaching the base, and a small spot behind the middle. The lateral margin from base to apex in the female and upon the posterior half only in the male is yellow or reddish brown.

Underside dark brown to black, outer margin of the abdomen yellow. The metasternum bears an oblique line on each side extending from the middle of the middle coxa to the middle of the lateral margin. Prosternum and metasternum finely rugulose. Abdomen very finely punctured, clothing fairly short, yellow. Femoral lines of the first abdominal sternite entire, curving back internally from the hind margin of the segment to the

base. Legs brownish yellow, the front tibia (fig. 13), which is armed with ten or eleven spines, dark.

Length 2.75-4 mm.

BENGAL : Sarda (*F. W. Champion*).

UNITED PROV. : Kumaon, Tanakpur, Haldwani, Rani-khet, W. Bhatkot, 4000 ft., Khaula, 4500 ft., Almora (*H. G. Champion*).

About eighty examples of this interesting species are contained in the collection.

Heterocerus (Littorimus) laticollis, sp. n. (Figs. 14-16.)

Allied to *H. micans* Mamitza, from which it is easily distinguished by the broader and shorter thorax and entirely yellow legs.

Elongate, about two and a half times as long as broad, not very convex, shining, the upper surface black (immature examples brown), without trace of markings.

Fig. 14.



Fig. 15.

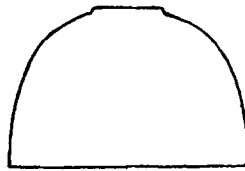


Fig. 16.



Heterocerus (Littorimus) laticollis, sp. n.

Head rather broader (including the eyes) than long (including mandibles), closely and finely punctured, clothed with short yellow hairs directed forward. Mandibles (fig. 14) yellowish brown, fairly long, armed near the blunt tip with a small blunt tooth, behind which is a rather larger one; the external basal lobe is feeble. Maxillary and labial palpi yellow, antennæ 11-jointed, yellow at the base, the 7-jointed club brown. Labrum (fig. 15) nearly one and a half times as broad as long, broadest at the base, with the sides parallel to the middle, then arcuately converging, the front margin sloping.

Thorax at the base twice or a little more than twice as broad as long, closely and finely punctured, with very short yellow hair, the base margined as far as the hind

angles, the sides almost parallel to the middle, very strongly convergent anteriorly. Scutellum triangular, one and a half times long as broad at the base, and not depressed.

Elytra about one and a half times as long as their conjoint width, slightly impressed behind the shoulders, broadest behind the middle, with the last third part conjointly rounded, the surface distinctly striate, very finely and closely punctured, the yellow clothing short and close and directed obliquely backward.

Underside dark brown, the lateral margin of the abdomen and in some examples that of the prosternum also yellow. There is an oblique line extending from the middle coxa towards the outer margin. Prosternum and metasternum finely, abdomen coarsely and rugosely punctured, the clothing yellow, short and close. Femoral lines of the first abdominal sternite entire, curving back from the hind margin to the base. Legs yellow, the front tibia (fig. 15) armed with ten spines.

Length 3.25–5.25 mm.

BENGAL: Sarda (*F. W. Champion*).

UNITED PROV.: Kumaon, Haldwani Dist., Ranikhet Dist., W. Almora, W. Bhatkot, 4000 ft., Sarju Valley, 5000 ft. (*H. G. Champion*).

About fifty examples have been submitted to me.

Heterocerus (Littorimus) fornicatus, sp. n. (Figs. 17–20.)

Elongate, nearly three times as long as broad, very convex, slightly shining, reddish brown, elytral markings yellow.

Head (with mandibles) almost as long as broad (with eyes), closely and finely punctured, closely clothed with yellow hairs directed forward. Mandible (fig. 17) brown, rather long, with two strong internal teeth, fairly deeply notched before the middle of the outer edge, the basal lobe well developed. The labrum (fig. 18) is a little broader than long, broadest before the base, with the sides parallel as far as the first third, then arcuately converging, the front margin sloping. Antennæ brown, 11-jointed, with 7-jointed club.

Thorax one and a half times as broad as long, as broad as the base of the elytra, finely and closely punctured, fairly closely clothed with short yellow hairs, which are

intermixed with long hairs at the sides. Sides parallel, the front angles strongly and the hind angles feebly rounded, the base rounded and finely margined as far as the hind angles. Scutellum depressed, relatively small, triangular, rather longer than broad.

Elytra nearly twice as long as their conjoint width, almost parallel at the sides, broadest behind the middle, their last third conjointly rounded; rather finely and

Fig. 17.



Fig. 18.

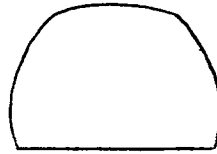


Fig. 19.



Fig. 20.



Heterocerus (Littorimus) fornicatus, sp. n.

closely punctured, with fine interstitial puncturation, the disc hardly perceptibly striate, the yellow clothing short, erect, pointing obliquely backwards. The yellow markings (fig. 19) consist of a longitudinal mark near the suture, not reaching the base, a subhumeral spot, and a C-shaped mark upon the posterior half, both united with the lateral border. In one of the specimens before me the two extremities of the C-shaped mark are united and the longitudinal mark near the suture reaches the base. The yellow lateral border extends to the apex.

Underside light brown, finely and closely punctured, with close short whitish-yellow hair, the metasternal suture and femoral lines as in the preceding species. Legs reddish brown, the front tibia (fig. 20) armed with eleven spines.

Length 4-4.5 mm.

BENGAL: Sunderbans (*F. W. Champion*).

Three specimens.

Fig. 21.



Fig. 22.



Fig. 23.

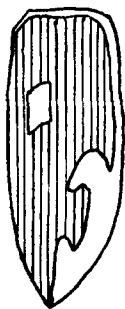


Fig. 24.



Heterocerus (Littorimus) exiguus, sp. n.

Heterocerus (Littorimus) exiguus, sp. n. (Figs. 21-24.)

Resembling the Palæarctic *H. sericans* Kies., in form and markings, but a little smaller, and easily distinguishable by the inner branches of the femoral lines lying almost parallel.

Elongate, about two and a half times as long as broad, feebly convex, scarcely shining.

Head black, a little broader (including the eyes) than long (including the mandibles), closely and finely punctured, clothed with short whitish-yellow hairs directed

forward. Mandibles (fig. 21) brown, bearing a blunt tooth on the inner edge, the outer basal lobe well-developed. Maxillary and labial palpi yellow, antennæ 11-jointed, yellow at the base, with the 7-jointed club brown. The labrum (fig. 22) is one and a half times as broad as long, with the sides parallel, the front angles rounded, the front margin a little reflexed.

Thorax black, with the front angles, lateral margin, base, and longitudinal median line reddish yellow, finely and closely punctured, clothed with yellow hairs directed forward. The thorax is one and half times as broad as long, the sides almost parallel, the front angles strongly rounded, the hind angles distinct, and the base margined as far as the hind angles. Scutellum triangular, nearly twice as long as wide at the base, depressed.

Elytra about one and a half times as long as their conjoint breadth, slightly impressed behind the shoulders, the sides parallel, jointly rounded in the terminal third, the disc striate, closely punctured, with fine interstitial punctulation. The yellow clothing short and close, decumbent, mixed with longer erect hairs. The yellow pattern (fig. 23) consists of a longitudinal spot near the suture, not attaining the base, and a C-shaped mark upon the posterior half united with the lateral border. Lateral margin broadly and base narrowly yellow, the suture reddish yellow.

Underside brownish yellow, with the sides of the metasternum and middle of the abdomen black. Metasternal suture as in *H. laticollis*. Femoral lines of the first abdominal sternite entire, the inner branch forming an obtuse angle with the hind marginal arc.

Legs yellow, the front tibia (fig. 24) armed with ten spines.

Length 2 mm.

BENGAL: Sarda (*F. W. Champion*).

Four similar specimens.

Heterocerus (Littorimus) castaneus, sp. n. (Figs. 25–28.)

Rather more than twice as long as broad, convex, shining, reddish brown, with yellow markings.

Head (including the eyes) rather broader than long (including the mandibles), reddish brown, closely and finely punctured, clothed with moderately long golden-yellow hairs, directed forward. Mandibles (fig. 25) brown,

the inner edge bearing two teeth, the outer edge slightly notched before the middle, the basal lobe well developed. Antennæ, maxillary and labial palpi brown, the first 11-jointed, with 7-jointed club. The labrum (fig. 26) is one and a half times as broad as long, broadest at the base, the sides parallel to the middle, then strongly convergent, the front margin a little excised.

Fig. 25.



Fig. 26.



Fig. 27.



Fig. 28.



Heterocerus (Littorimus) castaneus, sp. n.

Thorax brown, in the male rather broader than the elytra at the base and twice as broad as long, in the female as broad as long. The base is completely margined, rounded, the sides converge a little in front, the front angles are rounded and the hind angles distinct. The surface is very finely and closely punctured and clothed with fairly short yellow hair. Scutellum triangular, a little longer than broad, depressed.

Elytra one and a half times as long as their conjoint width, only very slightly impressed behind the shoulders, closely and finely punctured, the disc not striate, the yellow clothing close and rather long, directed obliquely backward, the sides almost parallel, conjointly rounded in the last third. The yellow pattern of the elytra (fig. 27) consists of a more or less developed shoulder-spot, a

zigzag transverse bar behind the middle united with the lateral border and not reaching the suture, and a spot before the apex. In many examples the shoulder-spot extends at the base as far as the scutellum, and sometimes the suture is yellow from the base to two-thirds of its length.

Underside reddish brown, with the lateral margin of the abdomen and the epipleuræ yellow. The metasternum has an oblique line on each side extending from the middle of the middle coxa towards the middle of the lateral margin. Femoral lines as in *H. laticollis*.

Legs brown, tarsi yellow, the front tibia (fig. 28) armed with ten strong spines.

Length 2-2.5 mm.

UNITED PROV. : Haldwani, Kumaon (*H. G. Champion*).
About forty examples.

VIII.—*Coleoptera collected by the Oxford University Expedition to Akpatok Island, Ungava Bay, Aug.-Sept. 1931.*

By K. G. BLAIR, B.Sc., F.E.S., Department of Entomology, British Museum (Nat. Hist.).

THE beetles obtained by the Expedition were not numerous either in species or in individuals, and are either ground-dwellers or aquatic in habit, and of holarctic type, either identical with or closely allied to species inhabiting Arctic Europe. Two species, however, are described as new; the types of these are in the British Museum and paratypes in the Hope Department, Oxford.

Carabidæ.

1. *Cryobius mandibularis* Kby.; Richardson's Fauna Boreali-Americana, iv. 1837, p. 31 (*Argutor*).

1 ♂, 4 ♀ (*D. H. S. Davis*); 1 ex. under stone on stony slope in ravine, S.E. Akpatok Is.; 4 ex. under stones on rough ground c. 40 ft., Port Burwell.

Kirby's type was from Hudsons Bay Territory.

2. *Curtonotus brunnipennis* Dej.; Spec. Gen. Col. v. 1831, p. 800 (*Amara*).

1 ♂ (*I. H. Cox*), under stone in old Eskimo grave on stony slope with open vegetation of *Dryas*, *Salix arctica*, &c.