NOTE XV.

FIVE NEW SPECIES OF THE GENUS HELOTA FROM SIKKIM AND DARJEELING

DESCRIBED BY

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Helota Desgodinsi, n. sp. o.

This handsome species is closely allied to *Helota curvipes* Oberth. 1) from the Himalaya, but at once distinguished by its more robust shape, by the coppery colour of the upper surface, by the broad fulvous streaks on the sides of the pronotum, and by the broadly subtruncate apices of the elytra in the male sex.

Length 10 mm. — Shining; above coppery with shades of green; the scutellum brassy, the extreme lateral margins of the elytra bronze green; the antennae pale testaceous, the terminal joint of the club infuscate; the sides of the pronotum broadly margined with fulvous, which colour is not sharply separated from the dark metallic colour of the disk; the elytra provided with two pairs of yellow convex spots, the anterior pair placed between the 4th and 6th 3), the posterior pair between the 3rd and 6th striae; these spots are surrounded with the green shade, especially the posterior pair. The colour of the underside is testaceous, with the exception of the head and the ely-

¹⁾ Coleopterorum Novitates, I (1883), p. 60.

²⁾ The punctures bordering the anterior spots are somewhat pushed aside, which makes the spots broader than the distance between the 4th and 6th striae.

tral epipleurae which are brassy; the legs are testaceous, with the apex of the femora and the entire tibiae brassy, the tarsi more or less dark brown-red.

The head strongly but not densely punctured on the raised middle portion of the face, finer and closer near the eyes, still finer and extremely close together on the narrowed front portion.

Prothorax transverse, slightly narrowing in faintly curved lines towards the front margin, the lateral margins indistinctly crenulate, the anterior angles prominent and rounded; the base bisinuate, the lateral angles acute, the median lobe subtruncate and with a small impression at the extreme apex. The pronotum strongly and rather densely punctured, very densely on the fulvous lateral streaks; an impunctate streak, narrowing towards the front margin, runs along the middle, and is, on both sides of its base, accompanied by a distinct impression. The scutellum is strongly transverse and impunctate.

The elytra are nearly parallel, the sides regularly curved, the apices broadly subtruncate, the outer angle of the truncation broadly rounded, the sutural one sub-angular. Each elytron with ten regular striae of punctures which become larger towards the sides; the interstices are very finely punctured, but on the 6th and following interstices moreover a few large punctures occur; on the apical portion of the elytra the interstices are costate.

The brassy coloured under surface of the head is remotely covered with large punctures; on the prosternum the punctures are shallow, on the sides of the metasternum they are finer; the central portion of the latter is very finely pubescent; the elytral epipleurae are distinctly but sparsely punctured; the abdomen apparently impunctate, but in the broad impression which occurs on the apical segment distinct hair-bearing punctures are present; the apical ventral segment is broadly truncate with slightly prominent lateral angles, the hinder margin fringed with long pale coloured hairs; the apical margin of the last

dorsal segment is trisinuate, the central sinus very small. The femora are very finely and sparingly punctured, on their metallic tip, however, the punctures are better visible; the tibiae are very strongly punctured, those of the anterior pair of legs are strongly curved in the middle, those of the posterior pair slightly sinuate.

Hab. Environs of Pedong in Sikkim (Desgodins). — A single male specimen of this species, which is dedicated to its captor, is in the collection of Mr. René Oberthür.

Helota pustulata, n. sp. Q.

Like the foregoing species allied to *Helota curvipes* Oberth. 1) from the Himalaya, but somewhat smaller and decidedly narrower; moreover the colour of the upper surface is a more coppery bronze, the prothorax is proportionately smaller, and the anterior and posterior elytral spots are placed closer together.

Length 8½ mm. — Shining; above coppery bronze, the coppery hue more distinct on the head and pronotum than on the elytra, the scutellum bright metallic green; the antennae testaceous, the terminal joint of the club infuscate; the anterior angles of the pronotum pale fulvous; the elytra provided with two pairs of yellow spots, the anterior pair placed between the 4th and 6th, the posterior pair between the 3rd and 6th striae. The colour of the under surface is reddish testaceous, with the exception of the head (without the throat) and the elytral epipleurae, which are brassy; the legs are reddish testaceous with the apex of the femora and the entire tibiae metallic green, the tarsi dark pitchy with a bronze hue on the claw-joint.

The head is strongly and rather remotely punctured on the raised middle portion of the face, near the eyes the punctures are smaller and somewhat closer together, and

¹⁾ Coleopterorum Novitates, I (1883), p. 60.

on the narrowed front portion the punctures are very small and densely set.

The prothorax is transverse, slightly narrowing in nearly straight lines towards the front margin, the lateral margins very indistinctly crenulate, the anterior angles slightly prominent, the front margin curved backwards; the base bisinuate, the lateral angles acute, the median lobe subtruncate; the upper surface regularly closely covered with strong punctures which are slightly more approximate to each other towards the sides; an impunctate streak, extending on to the front margin, is present in front of the scutellum, and is accompanied, on both sides of its base, by a distinct impression. The scutellum is strongly transverse, broadly rounded behind, and impunctate.

The elytra are subparallel, slightly narrowing in faintly curved lines towards the end; in front of the apices the sides are very slightly concave and, as the elytra are dehiscent at the suture, the apices are narrowly pointed; each elytron has ten regular striae of punctures which become larger towards the sides; the interstices are very finely punctured, and become costate on the apical portion.

The under surface of the head shows very distinct punctures which is likewise the case with the sides of the prosternum; on the middle of the prosternum and the sides of the metasternum the punctures are very fine; the middle of the metasternum and the abdomen, as well as the elytral epipleurae, are apparently impunctate; the apical ventral segment is subtruncate, and provided with a broad flattened space in front of the apical margin; the metallic apex of the femora is finely and sparsely punctured; the tibiae are strongly punctured, the anterior pair slightly curved.

Hab. Environs of Pedong in Sikkim (Desgodins). — A single female specimen in the collection of Mr. René Oberthür.

Helota guttata, n. sp. Q.

Very closely allied to *Helota serratipennis* Rits. from Notes from the Leyden Museum, Vol. XV.

Burma 1) but of a different coloration, the upper surface being coppery with shades of green, in stead of being dark bronze; moreover, the shape of the new species is somewhat narrower and, consequently, slightly more elongate, the elytra are less convex in a transverse direction just before the anterior yellow spots, and their tips more narrowly rounded than in the female sex of serratipennis.

Length 8 mm. — Shining; above coppery with shades of green, especially on the head and thorax; the scutellum shining golden green; the antennae fulvous, the club infuscate, the scape with a metallic green spot anteriorly; the front angles of the pronotum testaceous; the elytra provided with two pairs of yellow convex spots of which the anterior pair are placed between the 4th and 7th, the posterior pair between the 3rd and 6th striae; the spots are surrounded with bluish black. The colour of the underside is pale testaceous, with the exception of the head and elytral epipleurae which are brassy; the legs are reddish testaceous, with the apex of the femora, the entire tibiae and the tarsi bronze green.

The head strongly but not densely punctured on the middle of the face, finer and closer near the eyes, very fine on the narrowed front portion.

Prothorax transverse, slightly narrowing in nearly straight lines to the front margin, the lateral margins indistinctly crenulate, the anterior angles scarcely prominent, the front margin slightly curved backwards; the base bisinuate, the lateral angles acute, the median lobe broadly rounded, the pronotum strongly and regularly densely punctured, the punctures becoming slightly larger and consequently more closely set towards the sides; an impunctate streak, narrowing towards the front margin, runs along the middle and is, on both sides of its base, accompanied by a distinct impression. The scutellum is strongly transverse, broadly rounded behind.

Ann. Mus. Civ. Genova, vol. XXX (1891), p. 890.
 Notes from the Leyden Museum, Vol. XV.

The elytra are distinctly narrowed in regularly curved lines towards the apices which are more narrowly rounded than in the female sex of serratipennis; the posterior third of the outer margin is remotely serrulate. Each elytron has ten regular striae of punctures which become larger towards the sides; the interstices show some extremely fine punctures and become costate on the apical portion.

The brassy coloured underside of the head is remotely covered with deep punctures; on the sides of the prosternum the punctures are shallower, and on the sides of the metasternum they are finer; the elytral epipleurae have a few large punctures on their basal half; the middle of the abdomen is apparently impunctate, on the sides and on the apical segment, however, fine but distinct punctures are visible; the apical ventral segment is subtruncate at the tip where it is moreover faintly impressed; the tibiae are strongly punctured, the metallic tip of the femora sparsely so; the anterior tibiae are slightly curved.

Hab. Environs of Pedong in Sikkim (Desgodins). — A single female specimen in the collection of Mr. René Oberthür.

Helota tibialis, n. sp. d.

Closely allied to and strongly resembling *Helota laevigata* Oberth. 1), and from the same locality (Darjeeling). Both species are easily recognized by the colour of the legs, these being fulvous without metallic green. From the male sex of *laevigata* the new species may be separated at a glance by the compressed dilatation of the inner margin of the anterior tibiae close to the apex.

Length 8¹/₂ mm. — Shining; above dark bronze green with coppery tinges; the antennae fulvous with the two apical joints of the club infuscate; the sides of the pronotum narrowly margined with pale fulvous, more broadly,

¹⁾ Coleopterorum Novitates, I (1883), p. 59.

however, towards the front margin. Each elytron provided with two yellow spots of which the anterior, slightly transverse one is situated between the 3rd and 7th, the posterior one between the 3rd and 6th striae. The entire under surface, the elytral epipleurae included, is pale fulvous, with the exception, however, of the head (without the throat) which is brassy. The legs are pale fulvous, inclining to pale chestnut on the knees and tibiae; the tarsi are pitchy, with the exception of the basal half of the claw-joint which is light brown; an infuscate spot is present on the upper side of the femora just beyond the middle of their length, and a black line runs along the inner margin of the apical half of the tibiae.

The head is very closely punctured, more remotely, however, on the middle of the face.

The prothorax is distinctly broader at the base than long, narrowing to the front margin in sinuate lines; the lateral margins are faintly crenulate, the anterior angles sub-angular, not prominent, the front margin straight; the base bisinuate, the lateral angles acute and slightly divergent, the median lobe broadly rounded; the upper surface strongly but not closely and somewhat irregularly punctured, with a smooth line along the middle; moreover three pairs of indistinct impressions are to be observed, viz. one near the front margin, another in the basal angles, the third (which are elongated and strongly divergent) originating from the base on both sides of the median lobe; the scutellum strongly transverse, broadly rounded behind, and impunctate.

The elytra conspicuously narrowing in straight lines towards the apices which are separately rounded: very broadly at the outer angle, narrowly at the sutural one; each elytron with ten regular striae of distinct punctures which become stronger towards the outer margin, the interstices apparently impunctate, flat, slightly costate at the end.

The brassy coloured underside of the head is covered Notes from the Leyden Museum, Vol. XV. with deep punctures; the sides of the pro- and metasternum rather strongly, the middle portion very finely punctured; the elytral epipleurae, abdomen and femora impunctate, the tibiae with a few indistinct punctures. The apical ventral segment emarginate at the end, the emargination occupying the entire width and densely fringed with pale yellow glithering hairs; in front of the apical margin a semilunar patch of a fulvous tomentose pubescence is present; the apical dorsal segment is rather dark brown and, at the apex, sub-angularly notched in the middle with broadly rounded lateral angles.

The legs are very elongate; the anterior tibiae are strongly curved in the middle, and the inner margin of the apical half widens out towards the apex, so as to form a flattened dilatation which abruptly ends before it reaches the tip of the tibia; the margin of this dilatation is black, densely fringed with short pale coloured hairs and ends anteriorly in a small but distinct tooth; the basal joints of the anterior tarsi are slightly enlarged and fringed with long hairs; the intermediate tibiae are faintly curved, the posterior ones sinuate.

A few colourless soft hairs are spread over the under surface of the beetle; on the middle of the metasternum, however, these hairs are much more numerous and shorter.

Hab. Darjeeling (Christie). — A single male specimen presented to the Leyden Museum by E. Wasmann S. J.

Helota Severini, n. sp. Q.

This species is very closely allied to and strongly resembles *Helota notata* Rits. from Burma 1). The head in the new species, however, is smaller, the sides of the prothorax are less convergent, the pronotum is more regularly closely punctured, and the punctures in the elytral striae are stronger.

¹⁾ Ann. Mus. Civ. Genova, vol. XXX (1891), p. 900.

Notes from the Leyden Museum, Vol. XV.

Length 6—6½ mm. — Very narrow and elongate, shining; above bronze green with coppery tinges, the tip of the mandibles and the antennae pale testaceous, the club of the latter infuscate. Each elytron provided with two yellow spots, which are narrowly surrounded with bluish black and are situated between the 3rd and 7th striae; the anterior spot is conspicuously larger than the posterior one. The colour of the under side is pale testaceous, with the exception of the head (without the middle of the throat), the lateral portions of the prosternum and the elytral epipleurae, which are brassy; the legs are testaceous, with the apex of the femora and the base of the tibiae metallic green, the tarsi more or less dark brown.

The head is remotely punctured, especially on the middle of the face where the punctures are large; they are finer and closer set along the inner orbits, and very minute on the narrowed front portion.

The prothorax is somewhat broader at the base than long, slightly narrowing to the front margin in nearly straight lines, the anterior angles rounded, not at all prominent, the front margin straight; the base bisinuate, the lateral angles acute, the median lobe rounded; the upper surface regularly densely covered with deeply impressed punctures which leave, however, a smooth space in front of the scutellum free; the scutellum transverse and impunctate.

The elytra subparallel, narrow and elongate, the apices broadly, almost conjointly rounded; each elytron with ten regular striae of punctures which are stronger than in notata; the interstices slightly costate at the end.

The underside of the head and the brassy lateral portions of the prosternum strongly punctured, the sides of the metasternum with a few minute punctures, the elytral epipleurae, legs and abdomen apparently impunctate; the anterior tibiae nearly straight, the intermediate and posterior tarsi slender and elongate.

Hab. Environs of Kurseong in Sikkim (Braet). — Three female specimens from the Brussels Museum, one of which

is now in the Leyden Museum. — The species is dedicated to the zealous Assistant of the Brussels Museum, Mr. G. Severin.

The following species of *Helota* are as yet known to inhabit Sikkim (environs of Pedong and Kurseong) and the adjacent district Darjeeling:

longipes Rits., from near Pedong (Desgodins); — likewise known from Darjeeling (coll. Neervoort van de Poll).

Fairmairei Rits., from near Kurseong (Braet); — likewise known from Darjeeling (coll. Oberthür and Copenhagen Museum).

Oberthüri Rits., from near Pedong (Desgodins); — likewise known from Darjeeling (coll. Oberthür).

Desgodinsi Rits., from near Pedong (Desgodins).

pustulata Rits., from near Pedong (Desgodins).

guttata Rits., from near Pedong (Desgodins).

laevigata Oberth., from near Kurseong (Braet) and Pedong (Desgodins); — likewise known from Darjeeling (coll. Oberthür).

tibialis Rits., from Darjeeling (Christie).

Severini Rits., from near Kurseong (Braet).

Boysi Rits. (the presumed Q of this species), from near Kurseong (Braet) and Pedong (Desgodins); — likewise known from Darjeeling (Christie).

pusilla Oberth., from near Kurseong (Braet); — likewise known from Darjeeling (coll. Oberthur).

fulvitarsis Rits., from near Pedong (Desgodins); — likewise known from Darjeeling (coll. Oberthür).

Leyden Museum, December 1892.