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ENTOMOLOGICAL SOCIETY OF LONDON

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XXI. *Descriptions of new species of Staphylinidae from India.* By MALCOLM CAMERON, M.B., R.N., F.E.S.

[Read October 1st, 1913.]

PROTEININI.

1. *Megarthus rufomarginatus*, n. sp.

Broad, convex, pitchy brown or pitchy black, sides of thorax reddish testaceous, obtusely angled at the middle. Antennae with first five or six joints reddish testaceous, the following infusate, the last pale testaceous. Legs and palpi reddish testaceous. Length 2.3 mm.

Of the size and short ovate convex build of *M. bimaculatus*, Fvl., but differs entirely in the colour and the shape of the thorax.

Head subtriangular, with a narrow oblique impression on either side posteriorly, finely but roughly sculptured. Antennae with first two joints stout, 2nd shorter than 1st, 3rd to 8th long and slender, 3rd to 5th of equal length, 6th to 8th gradually decreasing in length, 9th and 10th transverse, 11th suborbicular; the last three joints forming a club. *Thorax* twice as broad as long, the sides narrowly explanate, increasing in width from the anterior angles to the middle, obtusely angled, slightly narrowed and slightly emarginate before the posterior angles; disc with median impressed line from base to apex; sculpture rugose and rather coarse. *Elytra* convex, ample, rather more shining than the fore-parts, dilated behind, widest at the posterior third, coarsely and somewhat asperately punctured. *Abdomen* strongly narrowed behind, closely, finely and asperately punctured.

Hab. S. INDIA, Nilgiri Hills (Mr. H. E. Andrewes' Collection). Collected by Mr. H. L. Andrewes.

OMALIINI.

2. *Phloeonomus* (s. str.) *discalis*, n. sp.

Black, a little shining, elytra dirty testaceous, all the margins infusate. Antennae black, the first two joints pitchy. Legs testaceous. Length 1.8 mm.

Of the size and build of *P. obscurus*, Kr., distinct by the more shining appearance, yellowish and much more finely and sparingly punctured elytra.

Head subtriangular, narrowly impressed on either side of the vertex before the ocelli; finely but distinctly coriaceous, impunctate. Antennae with 1st and 2nd joints stout, 3rd and 4th globose, 5th slightly, 6th to 10th more strongly transverse, gradually increasing in breadth, 11th short, oval. *Thorax* strongly transverse, widest at the middle, regularly rounded from the anterior angles to the base, scarcely perceptibly sinuate before the posterior angles which are obtuse and slightly explanate; disc longitudinally impressed on either side of the middle line posteriorly, finely but distinctly coriaceous, superficially and sparingly punctured. *Elytra* broader than, and twice as long as the thorax, coriaceous, very finely and sparingly punctured. *Abdomen* coriaceous, finely and sparingly punctured.

Hab. S. INDIA, Nilgiri Hills (Mr. H. E. Andrewes' Collection). Collected by Mr. H. L. Andrewes.

OXYTELINI.

3. *Oxytelus (Anotylus) myrmecophilus*, n. sp.

Black, opaque, the front of the head and the abdomen a little shining; thorax feebly tri-sulcate, impressed laterally, the sides narrowed posteriorly in a straight line. Antennae entirely black, legs testaceous. Anterior tibiae not emarginate. Length 2 mm.

Very similar to *O. tetracarinatus*, Block, but the antennae stouter, the sculpture of the head and thorax longitudinally strigose, the sculpture of the elytra stronger and the abdomen much less distinctly punctured.

Head large, transverse, sub-quadrate, scarcely as wide as the thorax in either sex, temples as long as the diameter of the eyes; impressed with a narrow transverse line towards the front between the antennal tubercles, which, with the part anterior to the line are smooth and shining, the rest densely and finely strigose, impunctate. Vertex sometimes foveolate. Antennae with the 3rd joint shorter than 2nd, 4th small, transverse, 5th square, 6th to 10th transverse, gradually increasing in width, 11th pointed. *Thorax* transverse (less in ♀), broadest just behind the anterior angles, gradually narrowed posteriorly in a straight line to the blunted posterior angles. The sulci feeble, the external curved, the sides impressed, strigose, impunctate. *Elytra* transverse, longer

than the thorax, strigose and obsoletely punctured. *Abdomen* shining, finely and moderately closely punctured.

♂: 6th ventral segment broadly emarginate.

Hab. S. INDIA, Nilgiri Hills (Mr. H. E. Andrewes' Collection). Found in numbers in a decayed *Ficus* in nest of *Phidologiton diversus*, Jerd., by Mr. H. L. Andrewes, November 1906.

4. *Platystethus dilutipennis*, n. sp.

Black, shining; thorax with a row of three or four punctures on either side of the middle line and two or three near the sides, otherwise impunctate. Elytra testaceous, infusate about the scutellum and the postero-external angles. Antennae with first four joints reddish testaceous, the rest black. Mandibles, palpi and legs testaceous. Length 3.5 to 4 mm.

Head (in ♂) very large, transversely suborbicular, densely coriaceous, scarcely perceptibly punctured, broader than the thorax; in ♀ scarcely as broad as the thorax, more shining, much less coriaceous, very finely and sparingly punctured. In both sexes the front is produced into two rather short triangular spines. Antennae with 2nd and 3rd joints of equal length, 4th globose, 5th slightly, the following gradually more strongly transverse, 11th elongate, oval. *Thorax* almost semicircular, posterior angles obliterated, the anterior rectangular; disc with three or four large punctures on either side of the middle line and two or three nearer the sides, no perceptible ground sculpture. *Elytra* transverse, emarginate posteriorly; measured along the suture a little shorter than the thorax, very sparingly and obsoletely punctured. *Abdomen* almost impunctate.

♂: 6th ventral segment with an emargination closed by a white membrane which projects backwards beyond the margin of the segment with a free rounded edge. 7th ventral segment impressed and slightly emarginate posteriorly.

Hab. S. INDIA, Nilgiri Hills, 3500 feet above the sea-level (Mr. H. E. Andrewes' Collection). Collected by Mr. H. L. Andrewes.

OSORIINI.

5. *Osorius monticola*, n. sp.

Black or pitchy, shining, thorax transverse, closely and rather coarsely punctured; elytra distinctly but less closely punctured. Antennae and legs reddish testaceous. Length 5.5 mm.

Of the size and superficial appearance of *O. nilgiriensis*, Fvl., the head is, however, broader, the thorax shorter and broader with much closer puncturation and the elytra are more closely punctured.

Head nearly as broad as the thorax, emarginate anteriorly, strigose, except the vertex which is smooth and shining and the sides of the front which are sparingly punctured; pubescence scanty, yellowish. *Antennae* with elongate 1st joint, 2nd much shorter, 3rd shorter than 2nd, 4th to 10th moniliform. *Thorax* transverse, as broad as the elytra, widest at the anterior angles, narrowed in a slightly curved line to the base, without perceptible sinuation before the posterior angles which are pretty distinctly impressed; closely punctured, disc with smooth central line, sparingly pubescent. *Elytra* a little longer than broad, rather closely but superficially punctured. *Abdomen* coriaceous, sparingly punctured at the sides, pubescence yellow, long, scanty.

Hab. S. INDIA, Nilgiri Hills (Mr. H. E. Andrewes' Collection). Collected by Mr. H. L. Andrewes.

6. *Osorius indicus*, n. sp.

Black, head and thorax not very shining (with greasy lustre only), the former impunctate, striate, the latter with rather large, not very deep, moderately close puncturation. Elytra reddish brown with rather large, superficial, scattered punctures. *Antennae* and legs red. Length 5.5 mm.

Size and stature of *O. nilgiriensis*, Fvl., from which it is distinguished by the less shining, much more finely strigose head, less shining more coarsely punctured thorax and the more distinctly punctured elytra. From *O. monticola*, Cam., by the more finely strigose, less shining head, the differently shaped, much more coarsely and much less closely punctured thorax and the shorter, coarser and more sparingly punctured elytra.

Head large, nearly as broad as the thorax, finely strigose except in front which is finely wrinkled. *Antennae* with 3rd joint shorter than 2nd, 4th and 5th shortly oval, 6th to 10th moniliform. *Thorax* transverse, gradually narrowed in a straight line for the anterior two-thirds, then abruptly constricted to the base, anterior angles rectangular, posterior obtuse, distinctly impressed; puncturation rather large, superficial and moderately close, median line of disc impunctate; pubescence sparing, yellow. *Elytra* as long as broad, superficially and not closely punctured as in *O. pilosus*, Fvl. pubescence yellow. *Abdomen* coriaceous, sparingly punctured at the sides, with rather long yellow pubescence.

Hab. S. INDIA, Nilgiri Hills (Mr. H. E. Andrewes' Collection). Collected by Mr. H. L. Andrewes.

OXYPORINI.

7. *Oxyporus apicalis*, n. sp.

Black, shining, elytra red anteriorly; abdomen with first three visible segments, the extreme sides of the fourth and the apex of the last red. *Antennae*, palpi femora (except the extreme base) and tarsi, testaceous, the tibiae and extreme base of the femora, black. Length 7 to 10 mm.

Head larger than the thorax, scarcely dilated behind the eyes, black, shining, impressed on the front and with a single puncture near posterior margin of each eye, otherwise impunctate; clypeus testaceous, mandibles black. *Antennae* with 2nd to 6th joints a little longer than broad, the subsequent gradually strongly transverse. *Thorax* scarcely broader than long, broadest just before the middle, narrowed posteriorly in a straight line; disc with a longitudinal impression on either side of the middle line posteriorly and a transverse impression across the middle from side to side. *Prosternum* black, rest of pectus red. *Scutellum* impunctate, reddish. *Elytra* scarcely broader than long, more than the posterior third black and the suture narrowly black almost to the scutellum, the colours are not sharply defined from each other. Puncturation coarse and scattered. *Abdomen* with the first three visible segments red, fourth black with the lateral margins and a small triangular adjacent area at the base, red; fifth entirely black, 6th black with apex testaceous.

Hab. BURMAH, Ruby Mines (British Museum Collection).

MEGALOPINI.

8. *Megalops sexdentatus*, n. sp.

Black, shining, elytra partly yellow. *Thorax* viewed from above, with three distinct teeth on either side. *Antennae* ferruginous with black club, palpi testaceous, femora pale testaceous (except the apex and extreme base which are brown), tibiae ferruginous, tarsi testaceous. Length 3.2 mm.

Head large, distinctly broader than the thorax, rather coarsely and closely punctured, with an irregular smooth space in front between the eyes. Clypeal spines yellow, divergent. *Antennae* short, 1st joint rather short and stout, 2nd stouter, and much shorter than 3rd which is elongate, 4th quadrate, 5th to 7th scarcely

longer than broad, 8th as long as broad, 9th strongly transverse, 10th much larger and broader than 9th, 11th large, oval. *Thorax* as long as broad, broadest in front, viewed from above with three teeth on either side, one at the anterior angles, one before the middle and one near the posterior angles; deeply impressed with four more or less transverse coarsely punctured grooves, the ridges between these smooth and shining; the first groove follows the anterior margin and is not interrupted on the middle line of the disc, the 2nd and 3rd are both interrupted by a narrow longitudinal keel, the 4th follows the posterior margin and is not interrupted. The 3rd ridge has a large puncture on either side. *Elytra* transverse, shorter than the thorax, shoulders prominent, dilated and rounded at the sides; disc irregular, the surface of each with three elevations or calli, one longitudinal near the suture, one passing back from the humeral angle, the third, rounded and situated at the middle of the lateral border; the depressions between the calli present some large irregular punctures, the rest of the surface smooth and shining, black with an irregular yellow band passing from near the base of the suture outwards and slightly backwards to the middle of the lateral border, but not quite reaching it, and an elongated yellow patch reaching from the inner end of the first to the posterior margin along the suture, nowhere, however, does the yellow coloration involve the margins, which are entirely black. *Abdomen* smooth and shining, the first five visible segments with an oblique stria on either side of the base.

♂: Unknown.

Hab. CEYLON, Galle; ASSAM, Patkai Mountains (British Museum Collection).

STENINI.

9. *Stenus diffidens*, n. sp.

Black, shining, abdomen bordered, with a median keel at the base of the first four visible segments. *Elytra* ample, as broad as long. *Antennae*, legs and palpi testaceous, the club of the former scarcely infusate. Fourth joint of the tarsi simple. Length 2.8 mm.

In the build of the fore-parts somewhat similar to *S. bispinus*, Mots, but much less shining and quite distinct by smaller size and the structure of the tarsi and abdomen.

Head broad, about one-third broader than the thorax, narrower than the *elytra*, depressed on either side of the front which is elevated and more finely punctured than at the sides where

the puncturation is much stronger and closer. *Antennae* moderately long, all the joints longer than broad, the last three forming a club. *Thorax* about a third longer than broad, broadest at the middle, sides slightly rounded and equally narrowed in front and behind, rather coarsely and closely punctured: pubescence whitish, moderate. *Elytra* ample as long as the thorax and as broad as long, similarly punctured to the thorax. *Abdomen* gradually narrowed posteriorly, margined, first four visible segments with a median keel, puncturation fine and close on the basal parts of the segments, much finer and more sparing on the apical parts: pubescence whitish, rather distinct.

♂: Unknown.

Hab. ASSAM, Sudiya (British Museum Collection).

10. *Stenus (Hypostenus) nitidulus*, n. sp.

Black, shining, elongate; head carinate; thorax almost cylindrical, much narrower than the head; *elytra* ample, as long as broad; fore-parts moderately, coarsely, and closely punctured. *Abdomen* cylindrical, not margined, less coarsely and closely punctured than the fore-parts. *Antennae*, palpi and legs testaceous, the club of the former scarcely infusate. Fourth joint of the tarsi bilobed. Length 4 mm.

At first sight this species is not unlike *S. bispinus*, Mots, but the head is broader and the thorax narrower, the puncturation of the fore-parts is, however, very similar, but that of the abdomen is very much coarser.

Head much broader than the thorax, as broad as the *elytra*, with a smooth elevated central space, depressed on either side, rather coarsely and closely punctured. *Antennae* long and slender, 1st and 2nd joints of equal length, 3rd to 8th very long and slender, gradually decreasing in length, 9th to 11th forming a slender club. *Thorax* narrow, almost cylindrical when viewed from above, very slightly and equally narrowed in front and behind, one-third longer than broad, rather coarsely and closely punctured, sometimes with a smooth space in the middle of the disc. *Elytra* as long as the thorax, as broad as long, sometimes slightly impressed behind the shoulders, punctured similarly to the thorax. *Abdomen* cylindrical, the segments constricted at the bases, puncturation finer and less close than on the fore-parts, especially behind. Pubescence scanty, greyish. Anal spines wanting.

♂: Last ventral segment with deep excision, the apex of which is rounded.

Hab. MANIPUR (British Museum Collection).

11. *Stenus (Hypostenus) nilgiriensis*, n. sp.

Black, shining; elytra much shorter than the thorax, fore-parts very coarsely and closely punctured; abdomen feebly margined at the sides, moderately strongly and closely punctured anteriorly. Antennae, legs and palpi yellow, the club of the former slightly infusate. Fourth joint of tarsi bilobed. Length 4 mm.

In size and build almost exactly similar to *S. brachypterus*, Kr., from which it is at once distinguished by the much stronger puncturation and the longer thorax.

Head large, nearly as broad as the elytra posteriorly, depressed between the eyes without central raised space, closely and deeply punctured. Antennae slender, 3rd joint much longer than 2nd, 4th to 8th gradually decreasing in length, 9th, 10th and 11th oval, stouter than the preceding, forming a club. *Thorax* much narrower than the head, a little longer than the greatest breadth which is just before the middle, narrowed gradually in front, more strongly behind, strongly and closely punctured like the head. *Elytra* (measured along the suture) half the length of the thorax, narrower at the shoulders, widened behind and strongly emarginate, more strongly and deeply punctured than the thorax. *Abdomen* cylindrical, narrowly margined, pretty coarsely and closely punctured, (but less so than the fore-parts) the last two segments more finely and sparingly punctured; the last segment with two short, rather stout spines.

♂: Last ventral segment with a shallow emargination.

Hab. S. INDIA, Nilgiri Hills, Oucherlony Valley, 5000 feet above sea-level, by sweeping (Mr. H. E. Andrewes' Collection). Collected by Mr. H. L. Andrewes.

12. *Stenus (Nestus) carinatus*, n. sp.

Black, shining, puncturation of the fore-parts coarse, more or less transversely confluent on the thorax. Abdomen pointed, margined, the first three visible segments each with three distinct keels at the bases, fourth with a smaller median keel only: the segments rather closely punctured in the basal depressions, much less closely towards the apical borders. Palpi and legs testaceous, the extreme apices of the femora brownish. Antennae with first seven joints brownish testaceous, the rest blackish. Fourth joints of tarsi simple. Length 3.3 mm.

In size and build almost exactly similar to *S. tricarinatus*, Kr., but easily distinguished by the carinate, margined, abdomen and the simple fourth tarsal joints.

Head a little broader than the thorax, not so broad as the elytra, impressed on either side of the front, elevated in the centre, coarsely punctured all over without any smooth space. Antennae rather short, 1st and 2nd joints of equal length, 3rd to 7th longer than broad, gradually decreasing in length, 8th but little longer than broad, 9th to 11th forming a club. *Thorax* convex, a little longer than broad, widest at the middle, sides rounded and equally narrowed in front and behind; puncturation, coarse, close and rugose, more or less transversely confluent on the disc, without depressions. *Elytra* ample, very slightly broader than long and about as long as the thorax, puncturation as coarse as on the latter, but not confluent. *Abdomen* distinctly pointed, the first three visible segments each with three distinct keels, one median and one on either side, the fourth with a single median keel; bases of the segments closely, but much more finely punctured than the fore-parts, the apices yet more finely and sparingly punctured; pubescence grey, scanty.

♂: Unknown.

Hab. CEYLON, Kandy (British Museum Collection).

13. *Dianous versicolor*, n. sp.

Bronze-black, shining, with distinct greenish-violet iridescence, especially on the head and abdomen. Legs, palpi and antennae (except last three joints which are dirty testaceous), black. Length 6 mm.

Head with the eyes broader than the thorax, not so broad as the elytra; bronze-green with a sheen like satin especially on the vertex, more opaque and blacker anteriorly, densely and finely punctured. Antennae black, the last three joints dirty testaceous, 2nd joint shorter than the 1st and 3rd, the latter very long, the following gradually decreasing in length. *Thorax* shining bronze with distinct green reflex, shining (but without the satiny gloss seen on the head), a little longer than broad, the sides dilated and rounded before the middle, narrowed and parallel behind, strongly impressed on either side at the widest part and before the base in such a manner as to form on either side a distinct reniform callus with the concavity inwards; exceedingly sparingly, scarcely perceptibly punctured, but with a fine coriaceous ground sculpture; glabrous. *Elytra* much longer than the thorax, uneven, strongly impressed behind the shoulders, on either side of the suture and less distinctly before the postero-external angles; bronze-green like the head, densely and finely punctured, finely pubescent. Abdomen iridescent,

finely and much less densely punctured than the elytra, finely pubescent. Anal styles long and slender.

♂: Penultimate ventral segment impressed in the middle before the posterior margin which is rather broadly emarginate, the impression is densely clothed with stiff yellowish hairs; the last ventral segment is slightly emarginate.

Hab. INDIA, Lebong, 5000 feet above the sea-level (Mr. H. E. Andrewes' Collection). Collected by Mr. H. Maxwell Lefroy.

14. *Dianous andrewesi*, n. sp.

Black, shining, with more or less metallic green or violet reflex throughout. Palpi, legs and antennae (except the last three joints) black. Length 6 mm.

Very distinct from the preceding by the strong, rugose and confluent puncturation of the thorax and elytra.

Head with eyes broader than the thorax, nearly as broad as the elytra, longitudinally impressed on either side, slightly elevated in the middle line, closely and moderately strongly punctured. Antennae black, the last two or three joints fuscous, of similar structure to the preceding. *Thorax* slightly longer than broad, moderately dilated and rounded before the middle, narrowed and parallel posteriorly, strongly impressed on either side of the disc; puncturation much coarser than on the head, rugose and confluent. *Elytra* almost twice as long as the thorax, uneven, puncturation coarse, rugose and more confluent than on the thorax. *Abdomen* iridescent, rather closely and finely punctured, with fine whitish pubescence.

Observe. Some specimens are much less metallic than others, indeed almost entirely black.

♂: Penultimate ventral segment with a small emargination at posterior border, the vicinity of which is clothed with stiff yellowish pubescence.

Hab. INDIA, Lebong, 5000 feet above the sea-level (Mr. H. E. Andrewes' Collection). Collected by Mr. H. Maxwell Lefroy.

PINOPHILINI.

15. *Pinophilus mixtus*, n. sp.

Black, rather dull, head with an almost smooth, curved, transverse space between the eyes, and the front with an almost smooth space

continuous posteriorly with it; puncturation of rest of surface rather coarse and close, with a much finer scanty puncturation on the interspaces and the smooth areas. Thorax scarcely longer than the greatest breadth. Antennae, palpi and legs reddish testaceous, base of the tibiae narrowly infuscate. Length 18 mm.

Somewhat similar to *P. aegyptius*, Er., but broader, the thorax longer and with a quite different puncturation.

Head transverse, a little narrower than the thorax, with rather large, close, but not deep punctures, these at the bottoms and the interspaces more finely punctured: a curved shining transverse space between the eyes and a shining space continuous with it behind occupies the middle of the front, these spaces are finely punctured; the sides of the front are strongly punctured; pubescence yellow, scanty. Antennae slender, the 3rd to 5th joints of equal length, 6th to 11th gradually decreasing in length, but all longer than broad. *Thorax* slightly longer than broad, narrowed in a straight line from the anterior to the completely rounded posterior angles, the puncturation is much coarser than in *P. aegyptius*, Er., and the bottoms of the punctures are finely punctured, but not the interspaces; disc posteriorly with a very obsolete trace of a median impressed line. *Elytra* about a third longer than the thorax, much longer than broad, rather more strongly punctured than in *P. aegyptius*, Er., but of the same rugose character. *Abdomen* very similarly punctured to *P. aegyptius*, not iridescent, pubescence moderate, greyish.

♂: Last ventral segment rather deeply emarginate on each side, the intervening portion bordered and very slightly emarginate.

Hab. N. INDIA, Dacca (British Museum Collection).

16. *Pinophilus speculifrons*, n. sp.

Black, head shining coarsely punctured, with smooth spaces between the eyes and on the front. Thorax and elytra much less shining, the latter reddish brown. Antennae, palpi and legs reddish testaceous. Length 10.5 mm.

Head transverse, subtriangular, with coarse umbilicate punctures, except for a narrow smooth curved transverse space extending between the eyes and a triangular smooth space at the front margin; pubescence scanty, yellow. Antennae slender, all the joints longer than broad, gradually decreasing in length after the third. *Thorax* a little broader than the head, slightly broader than long, the sides parallel for the anterior half, thence gradually rounded and narrowed to the completely rounded posterior angles; anterior angles bluntly

rectangular: puncturation much less coarse than on the head, umbilicate, disc with narrow smooth central line; pubescence scanty, yellow. Scutellum punctured. *Elytra* narrower, but a little longer than, the thorax, a little longer than broad, puncturation strong, deep and close; pubescence yellow, scanty. Abdomen moderately, closely, and strongly punctured, pubescence yellow, rather long.

Hab. S. INDIA, Nilgiri Hills, Oucherlony Valley, 3000 feet, in mud workings of Termites in tree (Mr. H. E. Andrewes' Collection). Collected by Mr. H. L. Andrewes.

17. *Pinophilus nigripes*, n. sp.

Black, shining. Head with coarse umbilicate puncturation all over, without smooth spaces. Thorax as long as broad, the sides rounded and narrowed from the anterior to the posterior angles. Abdomen with the bases of the segments strongly and closely punctured, the rest finely and sparingly punctured. Antennae red, palpi brown, legs pitchy black. Length 12 mm.

Head transverse, sculpture coarse, close, umbilicate and without any impunctate space; temples minute. Antennae long and slender, 2nd joint shorter than 1st and 3rd, from 4th to 11th gradually decreasing in length, narrowed at the bases and all longer than broad. *Thorax* as long as broad, widest about the middle, gradually narrowed in a curved line anteriorly and more strongly, posteriorly; posterior angles obtuse; puncturation strong, close, umbilicate; disc posteriorly with trace of smooth shining median line. *Elytra* as long as the thorax, as long as broad, sides a little rounded, puncturation strong and close. *Abdomen* with the bases of the segments strongly and closely punctured and coriaceous, the posterior parts of the segments much more finely and sparingly punctured, with the ground sculpture much less distinct; pubescence close and silvery.

♂: Last ventral segment triangularly excised, the apex of the excision rounded.

Hab. NORTHERN INDIA (British Museum Collection).

18. *Oedichirus niger*, n. sp.

Apterous, entirely black or pitchy, rather shining. Antennae palpi and legs pale testaceous, the knees slightly infuscate; pubescence long, yellow. Length 9.5 mm.

From the description this must be very near *O. birmanus*, Fvl., but differs in the entirely dark colour and the pale testaceous antennae and legs.

Head transversely suborbicular, sparingly and coarsely punctured, vertex more or less impunctate, pubescence long, yellow and sparing; posterior angles with a minute tooth. Antennae slender, 2nd joint shorter than 1st and 3rd and following much longer than broad, 4th to 7th of equal length, 8th to 11th gradually shorter. *Thorax* of the width of the head, longer than broad, rounded in front, narrowed in a straight line to the base; more or less impressed on either side of the middle line, very coarsely, closely and irregularly punctured. *Elytra* a little shorter than the thorax, narrowed at the base and widened behind, disc depressed, coarsely and rather closely punctured. *Abdomen* with the first four visible segments coarsely, rather closely, and irregularly punctured, the two last almost smooth.

♂: Last ventral segment with a broad and deep triangular excision of the posterior margin, the penultimate furnished with two long, stout backwardly directed processes.

Note. Immature specimens are reddish brown.

Hab. S. INDIA, Nilgiri Hills (Mr. H. E. Andrewes Collection). Collected by Mr. H. L. Andrewes.

19. *Oedichirus minor*, n. sp.

Black, shining; thorax with three rows of punctures on each side. *Elytra* half the length of the thorax. Abdominal segments (except the last) each with three transverse rows of large punctures. Antennae, palpi, and legs testaceous. Length 5.5 mm.

Head transverse, a little narrower than the thorax, temples denticulate, vertex impunctate, the front with a few large seliferous punctures. Antennae moderate, all the joints longer than broad, 2nd shorter than 1st, about as long as 3rd, 4th to 10th gradually decreasing in length, narrowed at the bases, 11th truncate. *Thorax* scarcely longer than broad, rounded and widened in front, strongly punctured to the base, furnished with three rows of large seliferous punctures on either side of the middle line, the median of six or seven, the intermediate of two very large ones, the external of three much smaller placed at the side margin two anteriorly, and one posteriorly. *Elytra* at the base of the width of the base of the thorax and (measured along the suture) half its length, strongly dilated and rounded at the sides, the greatest width just behind the middle, strongly emarginate posteriorly, with large, scanty, setiferous punctures. *Abdomen* with first five visible segments each with three transverse rows of large setiferous punctures, the last almost impunctate. Anal styles testaceous.

♂: Unknown.

Hab. CEYLON, Bogawantalawa, 5000 feet above the sea-level (British Museum Collection).

PAEDERINI.

20. *Paederus setifer*, n. sp.

Apterous, red, elytra blue, last two abdominal segments black. Antennae, palpi and legs entirely testaceous. Length 10 mm.

Very near *P. andrevesi*, Fvl., but differs by the longer, metallic blue elytra, the entirely testaceous legs and antennae, and the more numerous erect setae.

Head red, slightly transverse with rounded posterior angles, very sparingly punctured, finely setose. Antennae with all the joints elongate, gradually decreasing in length from the third. *Thorax* red, longer than broad, rounded in front, narrowed posteriorly, not margined at the sides, very sparingly punctured, finely setose. *Elytra* scarcely as long as the thorax, narrowed at the shoulders and widened behind, rather coarsely and somewhat asperately punctured, with well marked erect setae. *Abdomen* finely and rather sparingly punctured, pubescence rather long, partly erect.

♂: 7th ventral segment with moderately broad, deep excision, the sides of which are parallel.

Hab. CEYLON, Madulsima (British Museum Collection).

21. *Paederus alviceps*, n. sp.

Apterous, red, elytra very short, blue; abdomen black or reddish brown. Antennae, palpi and legs testaceous, the apex of the first infusate. Length 8 mm.

Allied to *P. capillaris*, Fvl., but differs from it by the red head and the absence of long black setae.

Head large, suborbicular, transverse, red, glabrous, very sparingly punctured. Antennae moderate, 2nd joint shorter than the 1st and 3rd, all the joints longer than broad gradually decreasing in length. *Thorax* red, scarcely as broad as the head, oval-oblong, a little narrower behind than in front, finely and very sparingly punctured. *Elytra* about half the length of the thorax, bright blue, narrowed at the shoulders and widened posteriorly, puncturation coarse, sparing and somewhat asperate, sparingly furnished with black setae. *Abdomen* black, or reddish brown, finely and very sparingly punctured, sparingly setose.

♂: 7th ventral segment deeply and narrowly incised, 4th slightly, 5th and 6th deeply impressed in the middle line.

Hab. MANIPUR (British Museum Collection).

22. *Paederus sharpi*, n. sp.

Head and last two abdominal segments black, thorax and first four visible abdominal segments red, elytra blue. Legs black, except the bases of the femora and coxae which are testaceous. Antennae brown, the first two and the last three joints testaceous. First joint of the maxillary palpi testaceous, the rest brown. Length 9 mm.

In size and superficially somewhat similar to *P. sondaicus*, Fvl., but broader and differs in the colour of the mandibles and palpi, the less testaceous femora, distinctly shorter and much more strongly punctured thorax, shorter elytra with shorter and less erect pubescence and the scarcely erect pubescence of the abdomen.

Head transversely rounded, sparingly punctured, with distinct brownish pubescence; mandibles brown; antennae with all the joints longer than broad, gradually decreasing in length from the third. *Thorax* rather short and broad, a little longer than broad, widest in front, the sides gradually rounded from base to apex, distinctly and not very sparingly punctured, sparingly pubescent. *Elytra* about a third longer than the thorax, longer than broad, parallel, moderately coarsely and moderately closely punctured with moderately close grey pubescence. *Abdomen* rather closely and finely punctured, with grey moderately close pubescence, not interspersed with erect setae.

♂: Unknown.

Hab. N. INDIA, Dacca (British Museum Collection).

23. *Paederus pubescens*, n. sp.

Head blue, thorax and first four visible segments of the abdomen red, elytra blue-black, last two abdominal segments and legs black. Anterior coxae, last joint of palpi, antennae (except the first two joints which are brownish testaceous) brown. Length 8 mm.

In stature, coloration of the body and general appearance very similar to *P. variicornis*, Fvl., but differs from it by the broader head and thorax, entirely black legs and the very distinct silvery pubescence especially noticeable on the abdomen.

Head suborbicular, a little broader than the thorax, very sparingly and very finely punctured, with distinct silvery pubescence. Antennae slender, all the joints longer than broad. Mandibles black.

Thorax oviform, not bordered at the sides, very sparingly and finely punctured, with silvery pubescence. Scutellum red. *Elytra* parallel, a little broader and one third longer than the thorax, puncturation rather fine, squamous as in *variicornis*, rather densely clothed with silvery pubescence. *Abdomen* finely and rather closely punctured, densely covered with silvery depressed pubescence, without any erect black setae.

♂: Unknown.

Hab. ASSAM (British Museum Collection).

24. *Paederus argentatus*, n. sp.

Head and elytra cyaneous, thorax and first four visible segments of the abdomen, red, the last two black. Anterior coxae internally, tibiae and base of the femora, obscure brownish testaceous, the rest black. Antennae black, scarcely lighter at the base. Distinctly pubescent. Length 7 mm.

In build, size and coloration of the body very similar to *P. amoenus*, Er.; distinct by the colour of the anterior coxae, less closely punctured elytra and especially by the very distinct silvery pubescence particularly of the abdomen. From the preceding species it is distinguished by its smaller and narrower build, narrower and much more thickly punctured head, and narrower and more distinctly punctured thorax.

Head suborbicular, broader than the thorax, distinctly punctured at the sides in front, pubescence distinct, silvery. Mandibles black. *Thorax* long, oviform, distinctly but not closely punctured, the sides not bordered. *Elytra* half as long again as the thorax, parallel, more finely and less closely punctured than in *P. amoenus*, Er., and with distinct silvery pubescence. *Abdomen* finely but not very closely punctured, clothed with long silvery pubescence, not interspersed with any black setae.

Hab. N. W. INDIA, Karachi (Mr. H. E. Andrewes' Collection). Collected by Mr. T. R. D. Bell.

25. *Astenus H-signatus*, n. sp.

Black, elytra reddish testaceous, with the sides (except the postero-external angles) broadly, and a narrow median transverse band, black, forming a distinct black H-pattern. Antennae, palpi and legs testaceous. Length 5 mm.

Head subquadrate, broader than the thorax, sides behind the eyes slightly convergent to the rounded posterior angles, sculpture close, umbilicate. Antennae moderate, all the joints longer than broad,

gradually decreasing in length from the third to the tenth. *Thorax* narrower than the elytra, longer than broad, the anterior angles rounded, the sides gradually narrowed from before backwards, sculpture as on the head. *Elytra* a little longer than the thorax, reddish testaceous, with the sides except the postero-external angles, a median transverse band crossing the suture and joining the lateral bands, black; this arrangement of colour gives a very definite figure of the capital letter H. The suture is very narrowly infuscate; puncturation moderately close and fine; pubescence yellow. *Abdomen* black, the posterior margins of the segments narrowly ferruginous, puncturation fine and moderately close, pubescence yellow. Anal styles rather long, slender.

♂: Last ventral segment with semicircular emargination.

Hab. ASSAM, Patkai Mountains (British Museum Collection).

26. *Sclerochiton* (?) *andrewesi*, n. sp.

Black (head slightly pitchy), opaque, postero-external angles and apical margin of elytra, narrowly testaceous. Antennae and legs testaceous. Length 2.5 mm.

This insect will probably form the type of a new genus, as it differs from *Sclerochiton* by not having the labrum bilobed, it may possibly further differ in the structure of the mouth parts, but as the specimen is unique, I am unable to dissect them. From *Echiaster* it is distinguished by the absence of teeth on the labrum.

Head large, transverse, suborbicular, broader than the elytra, eyes very large occupying the whole sides of the head, temples wanting; puncturation moderately coarse, close, umbilicate. Antennae short, the first two joints of equal length, shorter than the following, 4th shorter than 3rd, 5th to 7th orbicular, 8th to 10th transverse, 11th oval, pointed. *Thorax* much narrower than the head, longer than broad, strongly narrowed in front of the obtuse anterior angles, much less strongly narrowed behind to the rounded posterior angles; disc without impressions; puncturation similar to that of the head. *Elytra* a little longer and wider than the thorax, longer than broad, puncturation rather coarse, close and somewhat rugose, scantily pubescent. *Abdomen* slightly narrowed behind, more shining than the fore parts, rather coarsely and closely punctured on the first four segments, more finely and sparingly behind; pubescence rather long and moderately close.

Hab. S. INDIA, Nilgiri Hills (Mr. H. E. Andrewes' Collection). Collected by Mr. H. L. Andrewes.

27. *Stilicus indicus*, n. sp.

Black, dull, elytra copper-bronze, slightly shining, with apical margins and postero-external angles testaceous. Antennae, palpi and legs reddish testaceous. Length 4.3 mm.

In size and build similar to *S. ceylanensis*, Kr., but differs by the less shining, much more closely punctured elytra, which have also irregular large punctures on the disc.

Head large, transverse as broad as the elytra, temples gradually converging behind, posterior angles rounded, densely punctured. Antennae with 4th joint longer than broad, 5th to 7th moniliform, 8th to 10th transverse. *Thorax* longer than broad, anterior angles distinct, obtuse, sides rather strongly narrowed backwards, puncturation coarser than that of the head, disc without smooth central line. *Elytra* a little longer than the thorax, as long as broad, finely and rather closely punctured, with some very irregular, larger punctures on the disc; finely pubescent. *Abdomen* rather closely and finely punctured and pubescent.

♂: Unknown.

Hab. ASSAM, Patkai Mountains (British Museum Collection).

28. *Hypomedon (Chloëcharis) nigriventris*, n. sp.

Narrow, parallel, reddish testaceous, elytra infuscate on the disc, abdomen black posterior margins of the segments narrowly and whole of the last, reddish testaceous. Antennae, palpi and legs testaceous. Length scarcely 3 mm.

Narrower than *H. debilicornis*, Woll., and easily distinguished by the much longer and not transverse head, which is also much more closely and deeply punctured, the longer antennae and the black abdomen. In build very similar to *H. melanocephalus*, F.

Head square, as broad as the elytra, temples long, parallel, posterior angles rounded, eyes small; puncturation rather coarse, close and umbilicate, very much similar to the genus *Astenus*. Antennae with 2nd and 3rd joints of equal length, 4th a little longer than broad, 5th to 7th moniliform, 8th to 10th transverse, 11th short, oval. *Thorax* a little narrower than the head, about as long as broad, a little wider at the anterior angles which are obtuse, very slightly narrowed backwards to the rounded posterior angles; puncturation much less coarse, close and deep than on the head, not umbilicate: disc with a narrow, smooth, central line. *Elytra* about a third longer than the thorax, longer than broad, rather coarsely, closely somewhat rugosely punctured, obsolescent posteriorly; disc

infuscate leaving the base and apex clear. *Abdomen* rather closely and not very finely punctured anteriorly, more sparingly and finely behind; pubescence moderate, yellow.

♂: Unknown.

Hab. CEYLON, Dikoya, 4000 feet above sea-level (British Museum Collection).

29. *Cryptobium nilgiriensis*, n. sp.

Entirely black, head and thorax rather shining, elytra and abdomen subopaque. Antennae red, palpi, tibiae and tarsi reddish testaceous, femora pale testaceous. Length 10 mm.

Size of *C. elephas*, Fvl., differs from this species by the head not at all enlarged behind the eyes, the thorax less contracted behind, the more shining, more coarsely punctured head, and the less coarsely punctured thorax and elytra.

Head broader than the thorax, oval oblong, temples gradually rounded and narrowed to the base with the posterior angles rounded and with close, rather coarse umbilicate puncturation, the extreme front finely wrinkled; the antennae shorter than in *C. elephas*, Fvl. 1st joint as long as the three following together, 2nd about half as long as the 3rd, 4th to 6th longer than broad, 7th to 10th scarcely longer than broad, 11th short, oval. *Thorax* narrower than the head, about a third longer than broad, a little narrowed backwards from the middle (when viewed from above); puncturation as on the head, disc with smooth median line; pubescence fuscous, sparing. *Elytra* slightly longer and a little broader than the thorax, longer than broad, not quite as coarsely punctured as the thorax; distinctly pubescent. *Abdomen* moderately, closely, and finely punctured and pubescent.

♂: Last ventral plate with deep triangular excision, the sides of which are bordered and the apex rounded; the penultimate segment scarcely perceptibly emarginate at the middle of the posterior border.

Hab. S. INDIA, Nilgiri Hills, Ouchterlony Valley, 3500 feet above sea-level in January (Mr. H. E. Andrewes' Collection). Collected by Mr. H. L. Andrewes.

30. *Cryptobium brunnipes*, n. sp.

Entirely black, head elytra and abdomen rather dull, thorax shining. Palpi, 1st joint of antennae and femora reddish testaceous, rest of antennae, tibiae and tarsi infuscate. Length 10 mm.

From the description this species would appear to be closely allied to *C. sharpi*, Fvl.

Head a little longer than broad, a little broader than the thorax, not so broad as the elytra; temples long, slightly convergent posteriorly to the rounded posterior angles; puncturation rather coarse, close and umbilicate, except on the front which is finely wrinkled. Antennae long, the 1st joint equal in length to the four following together, 2nd shorter than 3rd, 4th as long as 2nd, 5th to 10th all longer than broad, gradually decreasing in length, 11th oval, pointed, as long as 10th. *Thorax* nearly cylindrical viewed from above, a little longer than broad, slightly narrowed posteriorly, anterior angles rectangular, posterior rounded; disc with smooth longitudinal median line throughout the whole length; puncturation coarse and umbilicate, less dense than on the head. Scutellum smooth, shining. *Elytra* a third longer than the thorax with much finer puncturation, close and subrugose in character; pubescence fuscous, moderately dense. *Abdomen* finely and closely punctured throughout, rather densely covered with a fuscous pubescence.

♂: Last ventral segment with a triangular excession, the apex of which is rounded.

Hab. N. INDIA, Dacca (British Museum Collection).

XXII. Additions and corrections to my Catalogue of the
Lepidoptera Rhopalocera of Trinidad (1904).
By W. J. KAYE, F.E.S.

[Read October 1st, 1913.]

PLATE XXX.

TEN years have nearly elapsed since I published in the Transactions of this Society for 1904 (pp. 159-231), "A catalogue of the *Lepidoptera Rhopalocera* of Trinidad." In that interval a very large number of additional records have been made, over one hundred and forty fresh species being now added to the list, bringing the total up to four hundred and thirty species. Large as this number is, there will doubtless be some additions yet to be made especially from the southern end of the Island, which has been very little explored entomologically. Many interesting forms remain probably to be discovered in this southern district with its totally different climate to the northern side of the Island. Many of the species found there are not to be taken in the north, such as *Heliconius wallacei*, *Heliconius antiochus alba*, *Papilio sesostris*, *Papilio belus varus*, *Helicopsis cupido* and several others, all of which belong to the Guiana region. It is possible that some intermediate forms, especially in the genus *Heliconius*, will be discovered which will link up some Venezuelan forms with those of Guiana. *Heliconius antiochus salvinii* might be expected to occur with the yellow band in the hind-wing in a transitional stage, for the subspecies is an inhabitant of the lower Orinoco. In the dense shore forest of the south coast one might certainly meet with true *Heliconius melpomene* and perhaps some of its very many named forms.

The bulk of the additions to the list are to be found in the *Erycinidae* and *Hesperidae*. Many interesting records have been made, however, of some of the larger and more conspicuous species, such as *Eunica orphise*, *E. malvina*, the very rare *Dynastor macrosiris*, which was taken by Sir Gilbert Carter at Government House; the two new subspecies of *Adelpha*, *A. phylaca trinita*, *A. velia trinita*,