

July 8th, 1920.—The President in the Chair.

Mr. Newman exhibited living larvae of *Phryxus livornica* from ova laid by a female captured in Dorset in May, and made remarks on their habits. Mr. Withycombe, a larva on hawthorn of *Saturnia pyri* from a batch of ova from S. France. Mr. Dunster, a series of *Melitaea aurinia* taken in Somerset in May, and of *Epinephele tithonus* showing additional spots on the fore wings. Mr. Carr, series of *Brenthis euphrosyne* from Crockham Hill. Mr. K. G. Blair, bred specimens of the bee *Colletes daviesana* from Shanklin with five species of inquilines and parasites, also living examples of *Cicindela germanica* bred from larvae found May 4th.—H. J. Turner, *Hon. Editor of Proceedings*.

NEW SPECIES OF STAPHYLINIDAE FROM INDIA (1).

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

(Continued from p. 148.)

Actobius humeralis, n. sp.

Black, shining, the elytra pitch-black, the shoulders and suture (narrowly) obscurely reddish. Abdomen pitchy, the posterior margins of the segments narrowly and obscurely reddish. Antennae reddish-testaceous, infuscate in the middle. Legs testaceous, the tibiae infuscate. Length 4 mm. In build very similar to A. signaticornis Rey, but rather more robust, the thorax broader, the antennae longer, the penultimate joints longer than broad, head more sparingly and coarsely punctured without ground-sculpture, elytra less closely punctured, and abdomen much less closely and more coarsely punctured and more coarsely pubescent. Head quadrate, as broad as the thorax, the posterior angles rounded, a broad space throughout the centre impunctate, externally with larger and smaller scattered punctures. Antennae with the 2nd joint dilated, shorter than the 3rd, the 4th to the 10th all longer than broad, gradually decreasing in length, so that the last of them is but little longer than broad, the 11th oval emarginate at the apex. Thorax a little longer than broad, a little narrowed behind, a broad central space throughout impunctate, on either side with a row of eight moderate punctures, the sides with smaller, somewhat irregular, scattered punctures. Elytra scarcely broader or longer than the thorax, a little longer than broad, moderately finely, somewhat obsoletely and by no means closely punctured, rather coarsely pubescent. Abdomen rather finely and not very closely punctured, rather coarsely pubescent.

d. 6th ventral segment with a small emargination.

Hab. Nilgiri Hills (H. L. Andrewes). Type in my own collection.

Philonthus andrewesi, n. sp.

Black, shining, the elytra bronze-green, abdomen moderately iridescent, the posterior margins of the segments narrowly but distinctly ferruginous. Thorax with dorsal series of four punctures on either side. Antennae and legs ferruginous, the tibiae pitchy. Length 11 mm. In size and build very similar

to P. bipunctatus Bernh., but the colour of the antennae is different, the thorax is a little narrower, the elytra are a little more coarsely punctured, and the abdomen is rather more finely punctured, and the posterior margin of the dorsal and ventral segments are distinctly ferruginous red. Head transversely subquadrate, the eyes large, their diameter much greater than the length of the temples, which are moderately finely and closely punctured, the median intraocular punctures widely separated, the front with a median obsolete impression. Antennae with the 3rd joint longer than the 2nd, the 3rd to the 6th longer than broad, gradually decreasing in length, 7th as long as broad, 8th to the 10th slightly transverse, the 11th but little longer than the preceding. Thorax scarcely as broad as long, widest in front, the sides a little sinuate and contracted behind; disc with four punctures on either side, the 3rd more distant from the 2nd than the 3rd from the 4th, which latter is placed behind the middle, externally with two widely separated punctures, and two or three more close to the lateral margin in front. Scutellum closely punctured. Elytra scarcely as long as the thorax, about as long as broad, rather finely and moderately closely punctured and pubescent. Abdomen rather finely and rather closely punctured in front, more sparingly behind, pubescence fine and moderate.

Q. Anterior tarsi slightly dilated.

Hab. Nilgiri Hills (H. L. Andrewes). Type in my own collection.

Philonthus nilgiriensis, n. sp.

Bluck, shining; head suborbicular, thorax with dorsal series of five punctures. Antennae black; legs pitchy. Length 6.5 mm. This species is closely allied to *P. longicornis* Steph., but is at once distinguished by the shape of the head and the shorter penultimate joints of the antennae; the elytra are, moreover, not quite so closely punctured.

Q. Head transversely suborbicular, the temples longer than the eyes and slightly convergent posteriorly, narrower than the thorax; median intraocular punctures widely separated, the front obsoletely impressed, the sides with a few black setae. Antennae constructed as in P. fimetarius Gr. Thorax longer than broad, the sides nearly parallel, only very slightly narrowed behind; disc with five rather large punctures on either side and externally with four others, and two or three near the anterior angles. Scutellum rather coarsely and closely punctured. Elytra as long as the thorax, scarcely broader than long, entirely black, moderately finely and moderately closely punctured and pubescent, the sides setiferous. Abdomen moderately finely and moderately closely punctured and pubescent, more sparingly behind. Legs dark pitchy, the femora and tarsi a little lighter. Anterior tarsi dilated. First joint of posterior tarsi as long as the last.

Hab. Nilgiri Hills (H. L. Andrewes). Type in my own collection.

Philonthus geminus Kr., var. inornatus, n.

Differs only from the type in the uniformly coloured elytra, the sutural and lateral margins not at all reddish.

Hab. Nilgiri Hills (H. L. Andrewes). Type in my own collection.

Philonthus sericoilius, n. sp.

Black, shining, the thorax with dorsal series of five punctures, all the margins narrowly rufescent; elytra bright reddish-yellow; abdomen exceedingly finely and closely punctured and pubescent, dull, sericeous. Antennae with the first two joints reddish-testaceous, the last two or three ferruginous. Legs reddish-testaceous. Length 7.5 mm. Very similar in build to *P. aeneus* Rossi, the head having the same shape as in that species, but with the thorax rather shorter and more transverse; the coloration is, however, entirely different, and the abdomen is densely and finely punctured and pubescent, as in *P. idiocerus* Kr.

J. Head large, transversely quadrate, almost broader than the thorax, the temples shorter than the diameter of the eyes, the median intra-ocular punctures widely separated, the temples with a few rather fine setiferous punctures and four or five larger ones near the posterior border of the eyes. Antennae with the 3rd joint a little longer than the 2nd, the 4th and 5th a little longer than broad, the 6th to the 10th as long as broad and scarcely differing between themselves, the 11th oval, longer than the preceding. Thorax pitchy-black, slightly transverse, the sides very slightly rounded, a little more narrowed in front than behind, the posterior angles broadly rounded; all the margius narrowly ferruginous; disc with a dorsal series of five small punctures on either side and with two others external to these. Scutellum black, closely punctured. Elytra a little longer and broader than the thorax, transverse, bright reddish-yellow, finely and rather closely punctured, finely pubescent. Abdomen exceedingly finely and exceedingly closely punctured and pubescent throughout, dull, sericeous. First joint of the posterior tarsi longer than the last. Anterior tarsi dilated. 6th ventral segment of the abdomen with a small triangular excision in the middle of the posterior margin.

Hab. Nilgiri Hills (H. L. Andrewes). Type in my own collection.

Philonthus indicus, n. sp.

Black, shining. Head (3) transversely subquadrate, broader than the thorax, the mandibles prominent. Thorax with dorsal row of five punctures on either side. Antennae and legs dark, the penultimate joints of the former transverse. Length 7 mm. In the large transversely subquadrate head and prominent mandibles similar to the & P. peliomerus Kr., but very different in other respects, the thorax 5-punctate, and much shorter than in that species. Head transversely subquadrate, broader than the thorax (3), the eyes small, their diameter much less than the length of the temples, the front slightly but broadly impressed, the median intra-ocular 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. Antennae 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 transverse, gradually increasing in breadth, the 11th short. Thorax scarcely longer than broad, a little narrowed behind; 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, a little longer than broad, 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 coxae) black; tarsi pitchy. First joint of posterior tarsi shorter than the last.

 σ . Anterior tarsi dilated; 6th ventral segment with very small triangular excision.

Hab. Nilgiri Hills (H. L. Androwes). Type in my own collection.

Philonthus maculatus, n. sp.

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 Antenne slender, all the joints longer than broad, the first two of them fuscotestaceous; legs testaceous, the tibiae pitchy. Length 7.3 mm. Allied to P. varians Payk., but the head is larger and rounder with larger eyes, the antennae 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 intra-ocular widely separated; the eyes large, their diameter longer than the temples. Antennae 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.

 σ . Anterior tarsi strongly dilated; 6th ventral segment triangularly excised.

Hab. Mysore, alt. 4400 feet.

Staphylinus purpurascens, n. sp.

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; antennae black; femora reddishtestaceous, tibiae and tarsi pitchy-brown. Length 12 mm. Differs from S. aeneicollis Bernh. in the following respects:—The antennae are entirely dark but similarly constructed; 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 this species, the puncturation is, however, rather larger, more superficial, and much less close, and a narrow, smooth central space is present in front as well as behind, and the very evident purpurascent reflex. Elytra variegated with

purpurase intercopper 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.

d. 6th ventral segment with rather broad semicircular excision.

Hab. South Coorg, Pollibetk (T. B. Fletcher).

Amichrotus elegans, n. sp.

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 third with a smaller spot at the base, the sixth and seventh (4th and 5th visible) segments black, the latter narrowly testaceous posteriorly, the eighth with the base yellow and apex black. Antennae 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., 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. Antennae 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 vellow fringed with golden pubescence intermixed with longer black hairs, near the posterc-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, pretty 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.

5. 6th ventral segment with crescentic impression at the posterior margin, which is triangularly excised.

Hab. Sidapur, Coorg (T. B. Fletcher).

Acylophorus bipunctatus, n. sp.

Black, shining, the posterior margins of the abdominal segments obscurely pitchy, the last entirely pitchy-red. Antennae testaceous, the intermediate joints infuscate. Legs reddish-testaceous. Length 9 mm. About the size of A. wagenscheiberi Kies., but with much longer head, narrower thorax with less strongly rounded sides, shorter elytra, scarcely iridescent and more densely punctured abdomen, and differently coloured antennae and legs. Head oblong-oval, the front with two large punctures and one or two others on either side near the base. Antennae 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, more coarsely punctured than in A. wagenscheiberi, 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.

Hab. Nilgiri Hills (H. L. Andrewes). Type in my own collection.

Quedius (Quedionuchus) nilgiriensis, n. sp.

Black, shining; elytra with a row of four large punctures, the shoulders, suture, and apical margin reddish-testaceous. Antennae 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. Antennae 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

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posterior margins of the segments scarcely pitchy, finely, and not very closely punctured and pubescent, more sparingly behind.

o. 6th ventral segment triangularly excised.

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

Erratum.—In the description of the genus Metolinus, ante, p. 147, line 16, for "characters applying" read "characters not applying."

April 1920.

SOME NEW COLEOPTERA FROM COSTA RICA.

BY G. C. CHAMPION, F.Z.S.

My friend, Dr. P. P. Calvert, of Philadelphia, has recently sent me for determination a number of small Coleoptera captured by himself in various parts of Costa Rica in 1909, few of which are recorded from that country in the "Biologia Centrali-Americana." There are several novelties amongst the insects sent, four of which are described in this paper, co-types of these being presented to the British Museum. Some others from the same region, found by Dr. Calvert or M. Picado, have been recorded in preceding volumes of this Magazine [cf. xlix, pp. 2-6 (1913), liii, pp. 223, 224 (1917)], in which Dr. and Mrs. Calvert's book, entitled "A year of Costa Rica Natural History," was also reviewed (op. cit. liii, p. 184). The other additions to the local fauna will be included in the complete list to be published eventually in an American periodical by Dr. Calvert. The description of a remarkable new species of Hispidae, captured by Mr. C. H. Lankester in Costa Rica in April last, is also given in the present paper.

The insects described are as follows:--

CURCULIONIDAE.

Hypocoeliodes sexnodosus.

GALERUCIDAE.

Diabrotica occlusa.

HALTICIDAE.

Epitrix paludicola.

HISPIDAE.

Homalispa sulcicollis. Cephalodonta tetracantha.

Hypocoeliodes sexnodosus, n. sp.

Short, subrhomboidal; nigro- or rufo-piceous, the anterior part of the prothorax rufescent, the depressed basal portion of the elytral suture black, the antennae, tarsi, and apical margin of the elytra rufo-testaceous; variegated with small cinereous and brown adpressed scales. Head densely, rugulosely punctured, without trace of supra-orbital ridges, the eyes large and somewhat prominent; rostrum very stout, curved, moderately long, rugulosely punctate, smoother in their apical half in $\mathbb Q$, the antennae inserted at about the middle in $\mathbb Q$ and at a little nearer the tip in $\mathbb G$, the funculus 7-jointed. Prothorax

broader than long, obliquely narrowed from the base; closely punctured, sulcate down the middle posteriorly, with six prominent conical tubercles—two on the anterior margin, two in a line with them on the disc, and one on each side nearer the base,—and well-developed ocular lobes. Elytra broad, subtriangular, uneven, undulate at the sides as seen from above; deeply punctate-striate, the interstices somewhat convex, the alternate ones here and there raised, and the humeral callosities prominent. Metasternum slightly depressed in front between the widely separated intermediate coxac. Ventral segments and pygidium closely punctured, the latter large and convex in $\mathcal G$, much smaller in $\mathcal Q$, the fifth ventral segment in $\mathcal Q$ longer and much smoother than in $\mathcal G$. Femora unarmed, sulcate beneath, the posterior pair much thickened. Tibiae rounded externally at the base. Tarsal claws strongly toothed.

Length $2\frac{2}{3}$ -3, breadth $1\frac{4}{5}$ -2 mm. (3 \circlearrowleft .)

Hab. Costa Rica, Juan Viñas (P. P. Calvert: 5.x.1909).

One pair, the Q larger than the &, labelled as having been found on the "sloping sides of laguna along brook." This species agrees with Hypocoeliodes Kirsch (= Orchestomerus Dietz) in having strongly thickened posterior femora, but it is not very nearly allied to any of the twelve described Central American members of that genus, the pronotum being as sharply sexdentate as in the Mexican Dietzella (Coelogaster) sextuberculata Boh., an insect superficially resembling H. sexnodosus. The stout posterior femora separates the present species from Auleutes and the other N. American genera of the Coeliodes-group tabulated by Dietz.

Diabrotica occlusa, n. sp.

Moderately elongate, shining; pale green, the labrum, base of the head, eyes, and scutellum, and the elytra with a common, transverse, subquadrate patch extending from the base to near the middle, and an arcuate subapical fascia—these markings connected along the suture, but not reaching the outer margin, the basal patch enclosing a pale yellowish spot on the disc of each and the subapical fascia followed by a similar spot,—black or piceous, the antennae (joint 1 excepted), tibiae, and tarsi reddish-brown. Head almost smooth, carinate down the middle anteriorly and deeply foveate in the centre above; antennae filiform, as long as the body in \mathcal{J} , a little shorter in \mathcal{L} , joints 2 and 3 very short. Prothorax subquadrate, narrowed anteriorly, almost smooth, deeply bifoveate on the disc. Elytra much narrower than the prothorax, widened posteriorly, rounded at the apex, the margins explanate; finely rugulose and closely punctured, longitudinally grooved on the disc, the outer groove limited externally by a rather prominent carina extending downward from the humeral callus.

Length $4-4\frac{1}{2}$, breadth $2-2\frac{1}{4}$ mm. (3 \circ .)

Hab. Costa Rica, Guacimo, Atlantic slope (P. P. Calvert: 6.vi.1909).

Two specimens, the σ having the black elytral markings a little more extended than the φ . Near D. scutellata Jac., from the Atlantic