

22. TRAGELAPHUS SYLVATICUS.

I have also sent home some skins and skulls of the Bush-buck which is plentiful round here. The male strikes me as particularly dark, though I expect it is nothing more than a local variety. The body-skin of the specimen of which I have sent the skull and neck-skin was inadvertently omitted. It is much darker than the one marked no. 1 and has not the vestige of a stripe or spot. I have seen one or two other old males, which appeared to me to be much darker still, almost black.

23. OREAS CANNA LIVINGSTONII.

The Eland is very scarce here since the cattle-plague of 1890. Capt. Sclater, R.E., tells me he saw a small herd on the southern slopes of Wonga (=Mt.) Longonot near Naivasha. I observed the fresh spoor of a single Eland near Njemps in September last.

4. Descriptions of new Species of Coleoptera of the Family
Endomychidæ from the Eastern Hemisphere. By the
Rev. H. S. GORHAM, F.Z.S.

[Received March 4, 1897.]

(Plate XXXII.)

The specimens of Coleoptera of the family Endomychidæ, of which it is the object of this paper to give some account, are contained in various collections. A good many are due to the persistent collecting of Mr. Doherty in the East. Some have been known to me for many years, but the material was not sufficient for their description. Among the more interesting, I may call attention to a new *Cymbachus*, two new and very distinct *Eucteani*, and the very curious *Amphisterni*. All the species here described are Oriental; and the descriptions may be regarded as supplemental to my papers on the Erotylidæ and Endomychidæ collected by Signor Fea in Burma, published in the Annals of the Genoa Museum.

AMPHISTERNUS VERRUCOSUS, n. sp. (Plate XXXII. fig. 3.)

Niger, subopacus, prothorace transverso subcordato, medio bituberculato; elytris depressiusculis humeris late carinatis, grosse et confluentur punctatis, singulis tuberculis duobus subcarinatis, uno basali picescenti, uno discoideali piceo, punctoque subapicali lucido, læte flavo, ornatis; femorum clava rufa. Long. 7.5 millim. ♂ ♀.

Mas: tibiis anticis infra medium dente valido armatis.

Hab. JAVA (Frühstorfer, Mus. Brussels).

Antennæ very stout, their third joint as long as the two basal joints united, the fourth to the eighth fusiform, becoming shorter, the club long and lax, the two apical joints a little wider than long; eyes compressed and kidney-shaped. Head opaque. Thorax at the widest part twice as wide as the length, very much widened

below the acute and prominent front angles, and contracted from the middle to the hind angles, which (as the base is sinuate) are also acute; the basal sulci are parallel to the oblique and contracted sides, and are continued as a kind of depression above the middle; the sides are neatly margined and a little reflexed; the disk has two blunt tubercles, one on each side of an obsolete central channel. The elytra are shining near the suture, rather opaque at the shoulders and sides, with large irregularly dispersed punctures, in twos and threes, and become roughly seriate near the suture. The humeral callus is elevated into an arcuate ridge which projects beyond the margin; the basal tubercle is slightly ridged and is faintly pitchy at its summit; the discoidal one is nearer the base than the apex and is pitchy red in the middle, it is gradually and not suddenly elevated. The apical yellow pustule has just a trace of one or two obsolete punctures, it is translucent. The elytra are a little expanded at the margins and pointed at the apex; their texture is pitchy black, and may be likened to caoutchouc. On the underside the only part which exhibits punctures is the intercoxal process of the first abdominal segment, which is deeply and coarsely punctured. The prosternum is coarsely formed, its process bluntly bimucronate. Mesosternum with the raised and margined intercoxal part transversely pentagonal¹.

I have described this species at some length, as with *A. rudepunctatus*, here described, it belongs to a section of *Amphisternus* little known, and which I believe forms the genus *Haplomorphus*, Guérin.

AMPHISTERNUS RUDEPUNCTATUS, n. sp.

Brevior, prothorace lato, elytris breviter ovatis gibbosis; niger, subopacus, prothorace lato lateribus rotundatis postice parum angustatis, angulis anticis parum prominulis; elytris subcordatis, gibbosis, grosse seriatim punctatis, antennarum articulo apicali, palpis tarsisque rufo-piceis. Long. 7.5 millim. ♀.

Hab. ASSAM, Patkai Mountains (*Doherty*).

Thorax very wide, the sides much rounded, the front cut out in an arc, but not so deeply or widely as in *A. verrucosus*, the surface very uneven and very obsoletely punctate; the base very wide, a little sinuous, not margined; the sulci and central channel very obsolete, the transverse basal line very distinct. Elytra much wider than the thorax, without tubercles, a little expanded towards the margins; the apex and humerus nearly free from punctures but opaque. Underside shining, glabrous; epipleuræ very wide at their bases.

A single female example of this rather extraordinary *Amphisternus* is in Mr. Fry's collection; it is entirely black, with

¹ *Obs.*—This portion is generally but incorrectly referred to by authors as though it were the mesosternum. There is a considerable part forming two branches, and partly enclosing the coxæ, in front of this; and this portion is carinate in *Amphisterni*, the carina being received between the points of the divided prosternal process.

the exception of the tarsi, trophi, and small transverse apical joint of the antennæ.

SPATHOMELES ELEGANS, Gorham, Endom. Recit. p. 32.

Island of Marang, Sumatra (*Doherty*).

There is a female of this rare insect in Mr. Fry's collection. It is apt to be overlooked as perhaps an abnormal *Eumorphus*, but the male, with its extraordinary plate on the hind tibia and spines from the elytra, would not be so. I have seen several female examples, but only the male type in the British Museum.

TRYCHERUS ANGOLENSIS, n. sp. (Plate XXXII. fig. 2.)

Ovalis, niger, nitidus; abdominis apice, tarsis, palpis antennarumque apice summo piceis; elytris singulis lineis duabus, una submarginali, altera versus suturam, paulo ante medium per fasciam conjunctis, ante apicem desinentibus rufis. Long. 13 millim.

Hab. ANGOLA.

The antennæ in this insect are about half as long again as the head and thorax; the front angles of the latter are acute and project as far as the bases of the antennæ; the sides are a little thickened, and are sinuate, narrowed in front, widening behind to the hind angles, which are acute. It is in the middle twice as wide as long (excluding the front angles); the basal sulci are almost obsolete, and there is a very short and evanescent central channel, scarcely more than a linear point, near the base; punctuation is not visible, either on the thorax or elytra. The design on the latter is two narrow red vittæ in the apical half, united at their basal end rather before the middle, but quite free towards the apex; the vittæ are produced a little backwards beyond the fascia. Very close fine puncturing is visible on the base of the abdomen.

This species seems to be near *T. josephus*, Duvivier (Comptes-rendus Soc. Ent. Belg. 1891), but to differ from it in the elytral pattern, and by the abdomen being pitchy only at the apex, &c.

Two examples.

TRYCHERUS RAFFRAYI, Gorch. Ann. Mus. Genov. ii. p. 4 (1885).

Ovatus, niger, nitidus, fere glaber; corpore infra rufo-piceo, prothoracis disco (medio piceo) fascisque duabus elytrorum abbreviatis, anteriore juxta suturam recurvata, sanguineo-rufis; prothorace transverso, duplo latiore quam longo. Long. 7 millim.

♀.

Hab. ZANZIBAR (Raffray).

The head is pitchy black, finely punctured, as is the whole of the upper surface, as in *T. senegalensis*; the antennæ have all the joints shorter than in that species, but similar, they are black, the mouth and palpi pitchy red. The thorax is much more transverse than that of *T. senegalensis*, and is blood-red except in the middle, and the margins narrowly. The elytra are rather less ovate, and have the first fascia more arcuate and much less distinctly dentate

on the apical side, and the posterior fascia is also less sharply indented than those in *T. senegalensis*. This is the smallest *Trycherus* I have yet seen.

A single female example.

ENCYMON CINCTIPES, n. sp. (Plate XXXII. fig. 4.)

Niger, nitidus, fere glaber; prothorace transverso, lateribus leviter sinuatis, angulis posticis rectis; femoribus juxta apicem rufocinctis. Long. 9 millim. ♂ ♀.

Mas: abdominis segmentum apicale leviter emarginatum.

Hab. BURMA, Ruby Mines (*Doherty*).

Head smooth but uneven, owing to the raised antennal ridges; antennæ rather long, their basal joint as long as the third, the fourth to eighth gradually decreasing, about half the length of the third. Thorax not twice as wide as long, smooth, with deep basal sulci, which reach half the length; the width in front, across the prominent angles, is about equal to that of the base, but the sides widen a little. The elytra are decidedly oblong, not so convex nor so much rounded on their sides as in *E. immaculatus* or *E. ferialis*; the sutural stria is distinct, but nearly vanishes at the apex, their margins are but narrowly expanded. The underside is black, the abdomen rather dull, the apical segments are a little pubescent and the apex punctured, and this appears to me more so in those examples which have a slight notch, and which from analogy I assume to be the males. I can see no difference in the tibiæ. The femora are rather distinctly clubbed, and are red for about a third of their length over the thickest part. This species is perfectly distinct from *E. ferialis*. The thorax is wider, and the form is more oblong and not so convex as other species allied to it.

There are seven examples before me from Fry's collection.

ENCYMON VIOLACEUS, Gerst.

Perak (*Doherty*).

This insect has a wider range than I should have expected. I have lately seen examples from the Karen Mountains (*Flea*); and it varies in the colour of the elytra, the one before me from Perak having them nearly black with a faint green reflection.

ENCYMON REGALIS, Gorham, Trans. Ent. Soc. 1874, p. 440.

Var. pedibus totis nigris.

Mas: tibiis anticis et intermediis intus infra medium minute denticulatis; abdominis segmento apicali angulatim emarginato, basi medio subelevato.

Perak, low country (*Doherty*).

Two specimens, a male and a female, in Mr. Fry's collection present the characters of the insect described by me from the Philippine Islands, with the exception of the colour of the hinder legs. One being a male, I am able to give the sexual distinction. The emargination of the last segment will be found useful in other species in which the tibiæ are simple or nearly so in both sexes.

ENCYMON RESINATUS, Gorham, End. Recit. p. 40.

Perak (*Doherty*).

Nine specimens in Mr. Fry's collection are certainly identical with what I described in 1873, but are better matured, and enable me to supplement that account by stating that while the thorax and body, and sometimes the head, are pitchy red but dark, the elytra vary from dark blue, almost black, to violaceous. A somewhat less matured specimen has the suture and margins of the elytra rufous. The insect seems to occur indifferently on the mountains and in the low country about Perak.

CYMBACHUS FORMOSUS, n. sp. (Plate XXXII. fig. 1.)

Nigro-viridis; ore, antennis, palpis pedibusque nigris; elytris flavis, humeris macula magna discoidali communi, alteraque marginali magis posteriore, apice, epipleuris, sutura tenuiter et regione circumscutellari cæruleis, creberrime minute distincte punctatis. Long. 6.75 millim. ♀.

Hab. BURMA, Ruby Mines (*Doherty*).

The punctation in this species is a little more distinct than in *C. pulchellus*, ♂, so that that of the thorax is just visible; in size and form it very closely resembles that insect, but diverges in the green colour of the body and in the blue markings of the elytra. The prothorax and femora have a blue tint; the humeral callus is decidedly more elevated, and is covered by the blue spot, which is wanting in *C. pulchellus*. The latter insect is very rare, having apparently always been obtained in single specimens; the example in my present collection is a male from Java. By comparison with this the single example of *C. formosus*, obtained by Mr. Doherty, is a female. The discovery of a second species of this scarce and beautiful genus is among the many most interesting features of Mr. Doherty's travels.

EUMORPHUS WESTWOODI, Gorham, Endom. Recit. p. 35.

BORNEO, Banjarmassan (*German Mission*), Pengaron, Martapura (*Doherty*); PERAK (*Doherty*).

I have now seen a series of specimens of an insect which I can only refer to this. The males have (in addition to the toothed front tibiæ) the middle tibiæ strongly sinuous, and with several minute denticulations on the inner side, while the females have nearly simple tibiæ, but are otherwise like the males. The examples (in my own collection) from Martapura, S.E. Borneo, have the spots suffused, reaching quite to the margins and suture. The club of the antenna is very wide, and the joints connate or nearly so.

EUCTEANUS CRUCIGER, n. sp. (Plate XXXII. fig. 10.)

Oblongus, nigro-subviolaceus; capite prothoraceque creberrime subrugose punctatis, opacis; elytris fere lævibus, minute punctatis violaceis, maculis quatuor permagnis dilute aurantiacis, lateribus subparallelis. Long. 11-15 millim. ♂ ♀.

Mas : abdomine medio late depresso, utrinque alte carinato, segmento quinto ventrali arcuatim emarginato.

Hab. INDIA, N.E. Manipur (*Doherty*), Dunsiri Valley (*H. H. Godwin-Austen*, *Mus. Calcutta*).

This species is nearly allied to *E. hardwickii* (*coelestinus*, Gerst.), from which it is distinguished by the more shining elytra, which have the yellow spots larger and more nearly united, leaving a much narrower fascia across the middle, the two posterior touch the margin and leave the suture only very narrowly violet. The elytra are of a different form, being more parallel and narrower, especially in the male. The spots do not pass the limb of the margin, the epipleuræ being dark. I have been acquainted with this insect for some years from very old examples from the Calcutta Museum. Mr. Doherty has, however, sent half a dozen beautiful specimens from Manipur.

EUCTEANUS DOHERTYI, n. sp. (Plate XXXII. fig. 11.)

E. marseuli, *Gorham*, *similis et affinis*; breviter oblongus, nigro-cæruleus, violaceo-micans, nitidus, crebre, minute, sed distincte punctatus; antennarum capitulo late dilatato; elytris maculis quatuor magnis, dilute aurantiacis, posteriore plerumque transversa. Long. 8.5–9.5 millim. ♀?

Hab. INDIA, Manipur (*Doherty*). BURMA, Ruby Mines (*Doherty*).

The head and thorax are shining, thickly but distinctly punctured; the latter has an oblique transverse fovea on each side, the front is also transversely impressed, and there is an irregular fovea in the middle of the base. The elytra are thickly punctured, the punctures often confluent in lines. The antennæ have the third, fourth, and fifth joints subequal, but gradually decreasing in length to the eighth; the ninth is as long as the third and only a little widened; the tenth is obconic, nearly equilateral, the apical joint enormously enlarged and spathulate. The eyes are but moderately, but under a quarter-inch focus distinctly granulate. The underside is closely and very finely punctured, shining and black. The shoulders are ridged but not projecting, nor is the ridge sharp, it in fact runs on to beyond the middle and forms a sort of false epipleura; the true epipleuræ are black and defined at the shoulder by an indented line. This character will distinguish *E. dohertyi* from *E. marseuli*, where the ridge is acute and does not extend beyond the yellow shoulder-spot.

Although there are eight specimens of this in Mr. Fry's collection, I do not find any sexual distinction, and therefore possibly all are females; but of several examples of *E. marseuli* that I have had the opportunity of examining, and of all the specimens of *Bolbomorphi* to which they are allied, the same remark applies.

BOLBOMORPHUS THERYI, n. sp. (Plate XXXII. fig. 9.)

Oblongus, elytris ovatis, niger, nitidus, crebre ac distincte punctatus; elytris singulis signatura flava e fasciis duabus denticulatis per

lineas duas conjunctis, maculam nigram in medio includentibus, ornatis. Long. 8.5 millim.

Hab. CHINA, Ho-chan (*Thery*).

This pretty insect may be best described by comparison with *B. gibbosus* (Gorham, P. Z. S. 1887, p. 647, t. 53. f. 4), from Japan. It is much less convex, the thorax is narrower and more deeply and thickly punctured. The antennæ have a similarly lax and not much widened club. The pattern of the elytra is very distinct but hard to describe. The black part would, in short, if the middle arms were not divided, form what in heraldry is termed a "cross-crosslet," with a broad square in the middle. I hope, with the aid of the figure now given, this description will be sufficiently clear.

Bolbomorphus seems closely allied to, and in China and Japan to take the place of, *Eucteanus*. The coarser eyes, lax and not much widened club of the antennæ, which are also more coarsely built, perhaps, too, the absence of male characters, separate it. The latter, however, have not yet been found in the two smaller *Eucteani*. I have great pleasure in dedicating this species to M. André Thery, of St. Charles par Philippeville, Algeria, who sent me two examples.

INDALMUS LUZONICUS, n. sp. (Plate XXXII. fig. 7.)

Rufo-piceus, nitidus, glaber; antennis, palpis, pedibus elytrisque nigro-piceis, his singulis maculis duabus subquadratis rufis. Long. 6.5 millim. ♂.

Mas: tibiis anticis infra medium dente obtuso parvo armatis.

Hab. PHILIPPINE ISLANDS, N.E. Luzon (*Whitehead*).

This species is, by the male character, more nearly allied to *I. kirbyanus* than to *I. angusticollis*, not having any denticulation at all on the middle tibiæ. Head, thorax, and body beneath bright blood-red, inclining to be pitchy in parts, as at the base of the thorax; the latter is rather wider than long, formed as in *I. kirbyanus*, but wider at the base, the sides sinuate, narrower at the front angles than behind, the disk smooth and impunctate, the basal sulci sharp and distinct. The elytra are very minutely punctured and have a sutural stria; the spots are rather indefinite, the anterior one occupies the humerus and callus, but does not quite reach the base; the elytral margin is rather expanded from below the shoulder to the apex. The middle tibiæ are bent inwards near their apices.

Two male specimens.

PANOMŒA SUMATRENSIS, Gorham, Notes from Leyden Museum, x. p. 152 (1888).

SUMATRA, Merang (*Doherty*).

One small example about five millimetres long.

SINKIP ISLAND (Motira), one from Calcutta Museum.

These both appear to be female examples.

PANOMŒA INDIANA, n. sp. (Plate XXXII. fig. 5.)

P. coccinellinæ affinis, et statura æqualis, testacea, nitida; elytris subtiliter, creberrime, minute punctatis; prothorace brevi, valde

arcuato, angulis anticis et posticis rotundatis, maculis quatuor nigris; elytris singulis maculis septem, fere ut in P. coccinellina dispositis; antennarum clava et scutello nigris. Long. 7 millim.

Hab. N.E. INDIA, Manipur (*Doherty*). BURMA, Toungoo.

This species is allied to *P. coccinellina*, Gerst., but may be at once distinguished by the four large round black dots on the thorax which extend transversely and at even distances across its arcuate disk. The thorax is at the same time more arcuate and with all its angles more obtuse and round; it is, indeed, very similar in shape to that of many Coccinellidæ. The spots on the elytra are more transverse and in general larger than the corresponding ones in *P. coccinellina*; this is especially true of the intermediate pair, which nearly form a fascia; the exterior spot of these is straight on its outer margin, and even produced a little as if to join the outer subterminal one, but it does not touch the reflexed edge.

The seven species of *Panomœa* which have been described up to the present time are readily distinguished by their markings. The present species with *P. pardalina* and *P. coccinellina* have each seven spots on each elytron, *P. borneensis* has six, *P. undecimnotata*, Frivaldsky, and *P. cinghalensis*, Gorh., have five spots, but the latter has but ten joints to its antennæ. *P. sumatrensis*, Gorh., has no spots.

These insects appear to me to be true mimics of the Coccinellidæ, and that the resemblance is not merely accidental. *P. indiana* so well resembles some species of *Leis* or *Caria*, that it would easily deceive a very good naturalist. Indeed in this insect the whole body, especially the prothorax, has become completely Coccinellid. It is true that those points of structure which are not so obvious, *e. g.* the form of the antennæ and prosternum, the absence of abdominal fossæ from the hind femora, &c., maintain their Endomychid type.

BECCARIA, Gorham, Ann. Mus. Genova, ii. p. 5 (1886).

BECCARIA WALLACEI, n. sp. (Plate XXXII. fig. 6.)

Picea, nitida, prothorace transverso minute punctato, æquali, sulcis basalibus concinne impressis, lateribus haud marginatis antice angustatis, angulis anticis et posticis acutis, basi sinuato; elytris convexis, sparsim punctulatis, punctis discoïdalibus in seriebus quinque haud regulariter digestis, ad apicem evanescentibus, externe confusis, singulis maculis quatuor aurantiacis, una basali, una subhumerali, una pone medium prope suturam, una subapicali; antennis dilute piceis, clava fusca. Long. 5.5 millim.

Hab. ARU ISLANDS (*Wallace*).

Rather larger and rounder and more convex than *B. papuensis*; the thorax more narrowed in front and wider behind, and so forming a more even outline with the elytra than is the case in *B. papuensis*; the antennæ are similar to those of that species, but are thinner, with more linear joints, the apical joint is longer.

The eyes in both species are coarse and wide, but the head is almost sunk in the thorax. The elytra have four distinct rows of large punctures, and one irregular row bordering the confused large punctures which cover the sides, but vanish towards the apex; the striæ are geminate, the external pair pass over the central yellow spot. The legs are pitchy or pale fuscous.

I have great pleasure in calling attention to a second species of this genus, which I found among some undetermined Coccinellidæ obtained by the late W. W. Saunders from Mr. Wallace's collections, which has thus lain nearly forty years undetected.

A single example.

BECCARIA CARDONI, n. sp. (Plate XXXII. fig. 8.)

Late orbiculari-ovata, nigro-picea, capite prothoraceque subtiliter, elytris distinctius fortius punctatis; his annulo irregulari, extus denticulato, callum humeralem subcingente, et fascia tenui utrinque denticulata, ante apicem, saturate flavis, ornatis. Long. 7, lat. 6 millim.

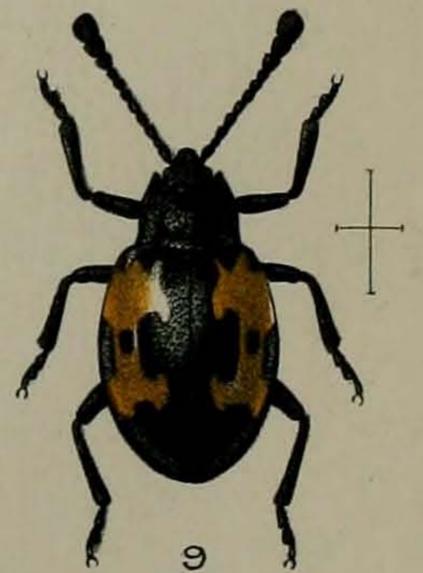
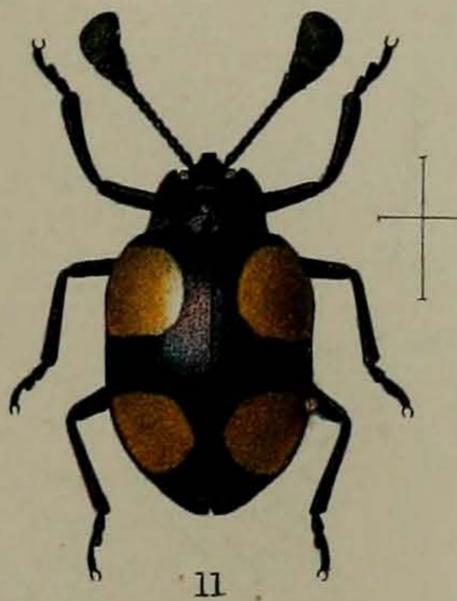
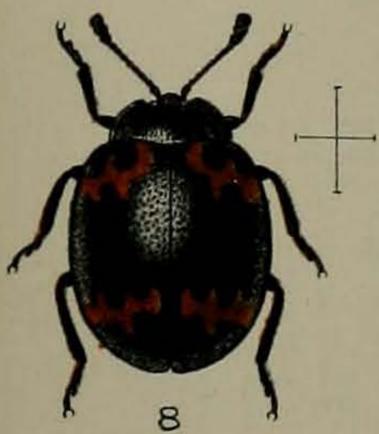
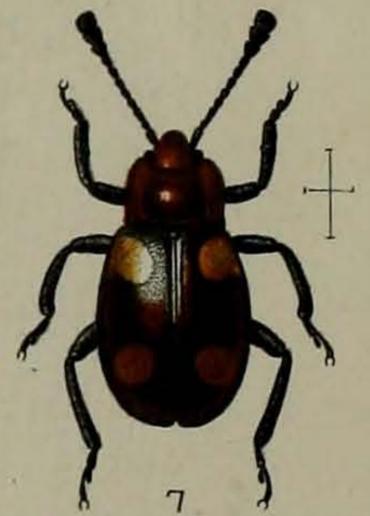
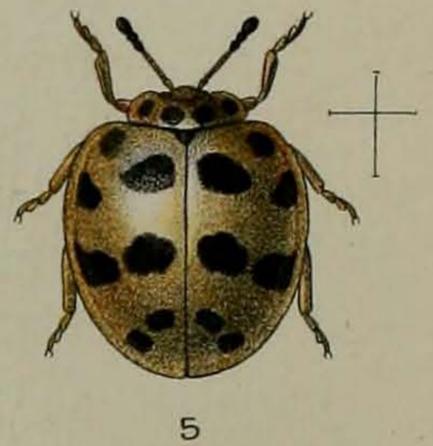
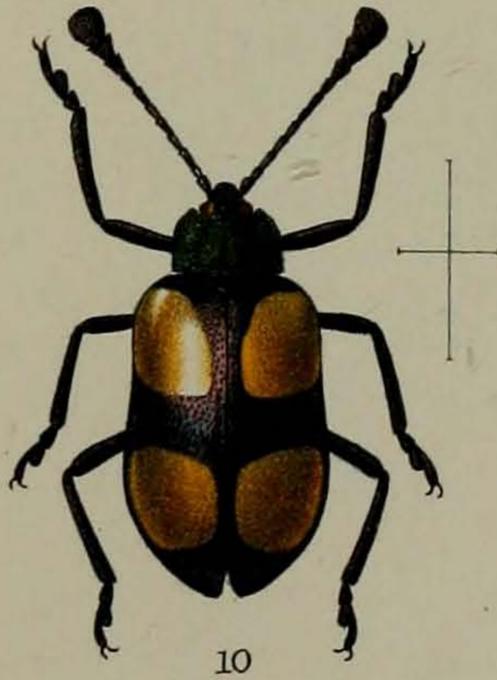
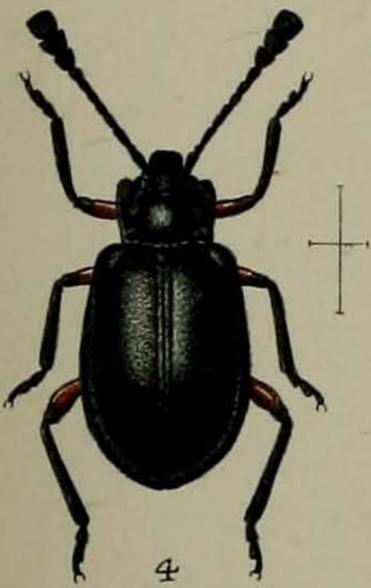
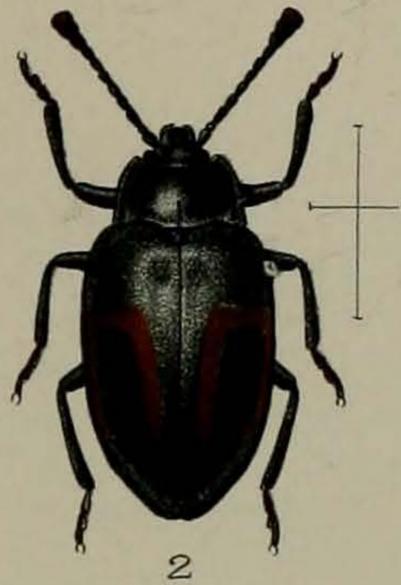
Hab. INDIA, Barway (*P. Cardon*).

The thorax in this species is at its base about twice as wide as the length; the base is sinuate, and both it and the sides are finely margined but not at all raised or thickened; the basal foveæ are very obsolete; the sides narrow very much to the front angles, the head being very small and received almost entirely into the thorax. The antennæ are as long as the width of the thorax, or nearly so, their club is lax, the intermediate joints a little longer than wide, the third joint twice as long as those succeeding it. The punctuation of the elytra is strong and distinct, that of the thorax distinct but closer; there is no sign of striation. The pattern of the elytra is like that of *Engonius lunularis*, but the posterior fascia does not quite reach either the suture or the margin; both it and the humeral annulus are narrow and ornamented with long denticular projections, which form on the upper side of the fascia three, and on the lower side two sinuses.

I have only seen one example of this insect, and it was in too bad a condition to allow of the underside, trophi, &c. being examined, so that the genus is doubtful; but although larger and differently marked from the other two species I assign to *Beccaria*, it is more in accordance with them in form than with any other Eastern genus known to me.

EXPLANATION OF PLATE XXXII.

- Fig. 1. *Cymbachus formosus*, p. 460.
 2. *Trycherus angolensis*, p. 458.
 3. *Amphisternus verrucosus*, p. 456.
 4. *Encymon cinctipes*, p. 459.
 5. *Panomæa indiana*, p. 462.
 6. *Beccaria wallacei*, p. 463.
 7. *Indalmus luzonicus*, p. 462.
 8. *Beccaria cardoni*, p. 464.
 9. *Bolbomorphus theryi*, p. 461.
 10. *Eucteanus cruciger*, p. 460.
 11. — *dohertyi*, p. 461.



WPurkiss del. et lith.

West, Newman imp.