

many of the heads of *M. stolonifer* were composed of a mass of minute polymorphic cells (*Amœbæ*), which, after having been placed in water on a slide, soon separated from their globular aggregation, and crept away from each other under moto-plastic forms, which forms, under other circumstances, I assume, would have respectively been surrounded by firm, sporidious capsules, and, on the latter bursting in development, would have come forth as propagative amœbous germs or embryos, like those which come from the sporidia of the Myxogastres, with which family Corda has already placed the Mucorideæ, though not probably from the circumstance just mentioned, but from their general resemblance (Corda, *Icones Fungorum*, p. 19; and *Mucor stolonifer* seu *Rhizopus nigricans*, p. 20, tab. xii. fig. 83)*.

XLVIII.—*Contributions to an Insect Fauna of the Amazon Valley.*

COLEOPTERA: LONGICORNES. By H. W. BATES, Esq.

[Continued from p. 405.]

Group *Anisocerinae*.

Genus TRIGONOPEPLUS, Thoms.

Thomson, *Class. des Céramb.* p. 339.

THIS genus is an aberrant form in the group *Anisocerinae*, differing from most of the other genera in having the terminal joint of the antennæ, compared with the penultimate, of normal length, and the elytra obtusely truncated at the tip, instead of rounded. It resembles the genus *Chalastinus* so much in general form that I have thought it better to place it in this group. The third and three following joints of the antennæ are slender and slightly thickened at the tips; this indicates an affinity with the *Anisocerinae*, where the thickening of the tips of the antennal joints is a very general character. The typical species of *Trigonopeplus* (*T. signatipennis*, Thoms., a native of South-east Brazil) has a deep semioval notch in the middle of the epistome—a singular peculiarity of

* Familiar examples of these fungi are given, that the reader may the more easily procure them for examination. Abundance of the Myxogastres may be found on the dead wood in the building-timber and fire-wood yards during the monsoon, among which is the *Æthidium* or creeping-fungus," which, under the microscope, by transmitted light, affords one of the most wonderful objects in the world. To obtain this, look among the chips and sawdust of the astringent woods during the "rains," and having found a yellow- or a brown-coloured slime, take a piece of it, about half the size of a pea, and place it in a watch-glass with a little water; afterwards put the glass in a shaded or dark place for a few hours, when the *Æthidium* will, if young and fresh, have passed into an arborescent form fit for observation.

structure, of which it is difficult to guess the purpose, especially as the labrum beneath it remains entire. The species of this genus which I found in the Amazon region has the epistome of the usual shape, the muzzle, in fact, being of exactly the same form as in the next genus, *Chalastinus*. It differs also from the type of the genus in the shape of the head, the antenniferous tubercles not being at all salient, whilst they are strongly raised in *T. signatipennis*. It agrees, however, so closely with the typical species in all other characters that I think it cannot be separated from it generically. It will be convenient, nevertheless, to treat it as a group or subgenus, which may be named *Anepsius*.

Trigonocephalus (Anepsius) bispecularis, White.

Trigonocephalus bispecularis, White, Cat. Long. Col. in Brit. Mus. ii. p. 403, pl. 10. f. 1.

Found occasionally on foliage in the forest at Ega.

Genus CHALASTINUS, nov. gen.

Head narrow; antenniferous tubercles prominent. Antennæ slender, elongated, 11-jointed in both sexes, the terminal joint shorter than the preceding, filiform; the third and five following joints thickened at the tips and curved, especially in the ♂. Thorax much narrowed anteriorly, scarcely perceptibly tuberculated on the sides. Elytra subtrigonal, depressed, rounded together at the tips. Mesosternum bituberculated, hind margin sinking behind into a fovea in common with the fore edge of the metasternum. The fore tarsi of the ♂ not dilated, but fringed with fine hairs.

This genus has a great resemblance in general figure to *Thryallis* (Thomson, Class. p. 31); but the antennæ in *Thryallis* have only ten joints, and the sterna are broad and plane, the prosternum especially being remarkably broad. The Anisocerinae vary to such a degree in these and other parts of structure, that almost every species might be made into a separate genus, if we attached the same importance to those characters in this as in other groups of Coleoptera.

Ch. Egaensis, White.

Anisocerus Egaensis, White, Cat. Long. Col. in Brit. Mus. ii. p. 408.

The typical form of this species seems to be confined to the neighbourhood of Ega, on the Upper Amazons. It has on each elytron behind the middle a short, oblique, ochreous belt, commencing on the sides near the middle, and not reaching the suture, near which, in a line with the belt, is a round ochreous spot. This is common at Ega on decaying branches of trees in

the forest. The following slight local modification was found only at Fonte Boa, 120 miles in a straight line north-west of Ega.

Local var. *Ch. postilenatus*. Like the type, except that the oblique ochreous belt of the elytra is continuous from the sides to the suture, and is also prolonged as a stripe along the sides to the shoulders.

This variety wholly replaces the Ega form at Fonte Boa. At Cayenne a nearly allied undescribed form* occurs, which, although apparently very different from *Ch. Egaensis*, I believe to be a local modification of it. A species which varies in a small degree from locality to locality a short distance apart becomes modified in a greater degree in a more remote district and under more greatly changed local conditions; at least, the distribution of closely allied species and varieties, when carefully studied, seems to point to this conclusion.

Genus PHACELLOCERA.

Castelnau, Anim. Artic. ii. p. 468.

Char. emend. : Antennæ long and slender, eleventh joint about as long as the tenth, and filiform in both sexes; first joint slender at the base, and enlarged about the middle into a thick pyriform club; third joint thickened at the tip; fourth also sometimes dilated at its apex, and furnished with a small brush of hairs. Body elongate, parallel-sided, depressed. Thorax narrow, the lateral tubercles small, acute. The mesosternum plane or bituberculated, its hind margin depressed in conjunction with the fore edge of the metasternum, as is the rule in the Anisocerinae. The fore tarsi in the ♂ are not dilated, and scarcely fringed.

I think the following species may be comprised in this genus:—

1. *P. plumicornis*, Klug, Entom. Bras., specimen alterum, pl. 42. f. 5. South-east Brazil.
2. *P. Buquetii*, Guér. Icon. R. A. p. 240. Cayenne.
3. *P. Batesii*, Pascoe, Trans. Ent. Soc. Lond. 1858, n. s. iv. Upper Amazons.
4. *P. limosa*, n. sp.† Venezuela.

* This is extremely rare in collections; and I regret being unable, from having no specimen at command, to give a description of it.

† *P. limosa*. Corpus parum elongatum, depressum, fuliginosum, pilis minutis squamiformibus cinereo-fuscis vestitum. Antennæ (♀) corpore vix longiores, articulo quarto simplici. Caput et thorax punctata, hujus tuberculis lateralibus brevibus acutis, dorso trituberculato. Elytra passim granulato-punctata, singulis prope basin tuberculo magno cristato, et postice fasciculis duobus pilorum munitis. Antennæ fuscæ, articulo tertio apice valde dilatato. Long. 6 lin. ♀. Hab. Venezuela.

Phacellocera Batesii, Pascoe.

Phacellocera Batesii, Pascoe, Trans. Ent. Soc. Lond. 1858, n. s. iv.

This species much resembles *P. Buquetii* of Cayenne, but it is considerably smaller. Its colour is light-greenish grey dusted with black; the sides of the head and thorax have a broad dusky stripe, and a narrow dusky zigzag belt runs across the elytra behind the middle, but does not reach the suture. The antennæ are three times the length of the body in the ♂, and not much shorter in the ♀; the joints are slender, almost capilliform, the basal one forms a very large and thick club, the third is thickened at the tip, the fourth simple like the rest; the apical joints are the longest: the colour is black, except a broad grey ring round the third joint.

This very curious insect is found at Ega, on the trunks and larger branches of fallen trees in the virgin forest. In crawling over the bark, it holds its antennæ straight forwards, and has a most striking resemblance to a greenish-coloured species of *Ptychoderes* belonging to the family Curculionides, which swarms at times on the same trees. I have a specimen from Yurimaguas, on the Huallaga, near the Andes, which differs (as all the other examples do which I have seen from the same place) from the Ega type only in being of a dull-grey colour without any greenish or olivaceous tinge.

Genus ANISOCERUS, Serv.

Serville, Ann. Soc. Ent. Fr. iv. p. 79.

This genus was founded by Serville on the *Lamia scopifera* of Germar, apparently the only species known at that time. Since then, a number of species have been added which do not belong to the genus, or at least would render its definition almost impossible were they to be included. I think it better to restrict it to those species which present the following characters:—

Body oblong, compact, subdepressed. Head broad; antenniferous tubercles slightly raised. Antennæ 11-jointed in the ♂, the terminal joint about half the length of the penultimate; 10-jointed in the ♀; the third joint in both sexes furnished at the tip with a compact rounded brush of short silky hairs. The mesosternum is very short, deeply depressed in the middle and on the hind edge in conjunction with the fore margin of the metasternum. The ligula is narrow at the base, then abruptly dilated, the lobes widely divergent. The palpi are gradually and obtusely pointed.

Anisocerus Onca, White.

Anisocerus Onca, White, Cat. Long. Col. Brit. Mus. ii. p. 405, pl. 10. f. 4.

Local var. *a. A. Fonteboensis*. Head and thorax as in *A. Onca*.

Elytra at the base reddish brown and granulated, each with two rounded spots, and the humeral callus black; the rest of the surface has four rows of quadrate black spots divided only by narrow lines of a reddish-brown colour, and before the apex is a transverse black streak; the spaces between these black spots are quadrate in shape, and of a pale ochreous hue. Abdomen beneath varied with black. This variety diverges from the type only in the increased size and squared shape of the black spots, and the pallid hue of the equally squared interspaces. It is intermediate both in character and in geographical position between the type and local var. *b*, and is found near Fonte Boa, on the Upper Amazons.

Local var. *b*. *A. Olivencius*. Much larger than the type, being 7-7½ lines in length. The occiput is black, with two pale ochreous lunate spots behind the eyes. Elytra at the base dingy ochreous and granulated, each with two rounded spots, and the humeral callus black; the rest of the surface is dark violet-brown, with four rows of angular spots, and the tip pale ochreous; the black spots in the same positions as in the type appear faintly through the violet-brown ground-colour. The rest as in the type. In this variety the pale spots of the elytra, already indicated in var. *a*, are strongly marked, and the ground-colour has become obscure. This change in the dress, added to the markings of the head and the size and robustness of the whole body, give the variety an aspect totally different from the typical form. Taken sparingly at St. Paulo de Olivencia: all the individuals found were conformable to the description here given.

This pretty insect seems very susceptible of local modification. The typical form is confined in its range to a very limited area around the town of Ega, on the Upper Amazons. It is there found in plenty on the trunks and branches of fallen trees in the virgin forest. At Fonte Boa, 120 miles above Ega, it occurs under a slightly modified local form (*A. Fonteboensis*), which would be scarcely worthy of remark were it not intermediate between the Ega type and the strangely transformed local variety or race, *A. Olivencius*, found at St. Paulo, 180 miles further west, or 300 miles in a straight line over a uniform country undivided by physical barriers from the home of its type. As before remarked, when a species varies in this way from district to district not far apart, it often happens that several closely allied but more distinct forms or species present themselves in districts further removed; these may be fairly suspected of being also modifications, considering the proof already obtained of the variability of the species. Several of these nearly allied forms occur in the present case. Thus I have no doubt, on perusing the excellent description, that the *A. stellatus* of Guérin-Méne-

ville (Cat. Ins. Coléop. recueillis par Osculati, p. 27), found in Ecuador, probably on the banks of the Napo, is a further modification of the *A. Onca*, in the direction of our var. *Olivencius*. There is also an undescribed species found at Cayenne (*A. multiguttatus*, Laferté, MS.)*, which diverges from *A. Onca* in another direction; and this may with great probability be referred to the same type. It is the custom of naturalists, when they subordinate varieties to a species, to fix upon one of the forms as the original, to which the rest are referred: this original is generally the one first described or best known. In accordance with this usage, I have said that such and such forms are varieties of *A. Onca*; but, strictly speaking, no form can be said to be a variety of *another existing* form unless it can be proved or shown to be highly probable that the one *descended* from the other, this other itself remaining meanwhile unchanged. It is necessary, therefore, to guard against the error of supposing that the arbitrarily chosen forms we see placed as species, with varieties subordinated to them are the true parents of those varieties; for whilst the varieties were being formed the parents themselves may have been undergoing modification, and therefore the so-called species and their varieties may be all equally varieties of some common possibly extinct form. In the present case, all that I mean to convey is, that, reasoning upon the fact of much local modification in *A. Onca*, we are constrained to infer that other closely allied forms have been derived from a pre-existing one nearly resembling them; and this might have been either *A. Onca* or the common parent of *A. Onca* and its subordinates†.

* I regret being unable, not having a specimen at command, to give a description of this species.

† Some entomologists, however, believe that a local variety is an original creation equally with a species. Dr. Schaum, an author of high reputation, says, in discussing a case of local variation similar to the present one (Berliner entom. Zeitschr. 1861, p. 398), that many pairs of a species were originally created, and that, as there would be original differences amongst the individuals according to locality, so we have, at present, local varieties. This view will recommend itself to some minds by its extreme simplicity; for the excessive complexity of the relationships between existing varieties and species, on the other view above stated, repels by its difficulty of unravelment. In no case does the remark of Bacon so well apply, to the effect that the subtlety of nature far exceeds the subtlety of man's intellect. But Dr. Schaum's view ignores the fact that many local varieties shade off into mere individual variations or differences, such as we see occurring amongst the offspring of the same parents, making it extremely probable that local varieties or races have been derived by ordinary generation, with modification, from pre-existing forms. The hypothesis of the persistence, under the same conditions, of a local variety from the time of its creation is also quite at variance with the great mass of evidence, supplied by geology, of great migration and dislocation of species during the glacial and other epochs.

Genus GYMNOCERUS, Serv.

Serville, Ann. Soc. Ent. Fr. 1835, p. 84.

In this genus both sexes have eleven joints to the antennæ. According to Serville, the ♂ has the terminal joint very long. Amongst the species which I propose to include in the genus, some have this joint as long as the tenth, others much shorter; and it is always relatively shorter in the ♀ than in the ♂. All the joints are naked; but the third in some species, and the fourth in others, are more or less thickened at the tip. The body is convex and rather broad, and the elytra somewhat more gradually rounded to the apex than in *Anisocerus*.

This genus was omitted in Mr. White's 'Catalogue of the Longicorn Coleoptera of the British Museum;' and some of the species were included by him under *Anisocerus*, from which they are distinguishable by the naked antennæ.

1. *Gymnocerius capucinus*, White.

Anisocerus capucinus, White, Ann. Nat. Hist. xviii. t. 1. f. 7; Cat. Long. Col. Brit. Mus. ii. p. 406.

This remarkably beautiful species, which in its colours and markings resembles some kinds of *Doryphora* of the Chrysomelidæ group, I found only at Caripí, near Pará. It occurred sparingly, in January, on dead branches of trees in the forest. The third antennal joint is considerably thickened at the apex.

2. *Gymnocerius dulcissimus*, White.

Anisocerus dulcissimus, White, Cat. Long. Col. Brit. Mus. ii. p. 406.

I met with this species only on one occasion, in the forests on the banks of the Cuparí, a branch of the Tapajos, in 4° S. lat. and 55 W. long. It is still more beautiful in colours than *G. capucinus*; but I believe, with Mr. White, that it may be only a modification of that species. The third antennal joint is less thickened at its apex than in *G. capucinus*.

Three individuals only occurred, on a decaying branch in the depths of the forest.

3. *Gymnocerius cratosomoides*, n. sp.

G. ovalis, convexus, tomentosus, ochraceo-fulvus: thorace lævi: elytris seriatim punctato-granulatis, singulis prope basin tuberculo magno glabro instructis et apud medium breviter quadricarinatis, fascia lata undulata pone medium et marginibus posticis fuscis. Long. $9\frac{1}{2}$ lin. ♀.

Head dull-greenish yellow, tomentose, smooth. Antennæ slender, shining black, about the length of the body, the third joint scarcely thickened at the apex. Thorax about half the breadth of the elytra; lateral tubercles rather small, acute, the surface

quite impunctate; the disk tawny brown; the sides yellowish. Elytra very broad at the base, the breadth at that point being three-fourths the length; they are very gradually narrowed to two-thirds the length, thence more rapidly narrowed to the apex; each has in the middle, near the base, a very large naked obtuse tubercle; behind this, on the disk, are four short raised longitudinal lines, the one nearest the suture only being strongly elevated; the basal two-thirds of the surface is scantily covered with granulated punctures, mostly arranged in lines, each of which is accompanied by a dark-brown speck; the colour is ochreous brown or tawny; the posterior part of the suture and the discal ridges are finely streaked with grey; behind the middle is a broad irregular dark-brown belt, preceded by a yellow line; the dark-brown colour runs from the belt along the margins and suture to the apex. The body beneath and legs are clothed with greenish-yellow pile, which is denser on the sides of the breast and on the tarsi. The fore tibiæ are dilated and compressed.

One example, taken on the trunk of a tree at Tunantins, on the Upper Amazons. This and the following have a most deceptive resemblance to species of Curculionidæ of the genus *Cratosomus*, which occur in numbers on the trunks of certain trees. The general colour is exactly the same, and the resemblance is made more perfect by the large, glossy, basal tubercles of the elytra, which are merely modifications of the ordinary centro-basal ridges existing in this section of the Lamiaires. The shortness and slenderness of the antennæ, rendering the organs almost invisible at a short distance, also assist in perfecting the disguise, which completely deceived me when I saw the insect *in situ*. *G. scabripennis* (Serville), a native of Cayenne, belongs to this same group, all the forms of which appear to be excessively rare.

4. *Gymnocerus crassus*, n. sp.

G. ovalis, convexus, tomentosus; thorace elytrisque fulvis, his fascia latissima et macula subapicali canis. Long. $8\frac{1}{2}$ lin. ♀.

This species very much resembles the preceding, and might be treated as a variety of it, although it seems more convenient to deal with it as a separate form. The punctures of the elytra, with their granulations, are much more strongly developed; otherwise the only differences observable are those of colour. The head is greenish yellow, with the crown and occiput grey. The thorax does not differ from that of *G. cratosomoides*. The base of the elytra is occupied by a narrow belt of a fulvous colour, and a much broader belt of the same hue crosses the elytra behind the middle; the rest of the surface is hoary grey, with

the exception of the margins and suture near the apex, which are blackish.

I found one individual only of this form at Ega, on the trunk of a tree.

5. *Gymnocerus monachinus*, White.

Anisocerus monachinus, White, Cat. Long. Col. in Brit. Mus. ii. p. 406, pl. 10. f. 3.

This magnificent species varies in size from $7\frac{1}{2}$ to 11 lines. The fourth antennal joint is gradually and slightly dilated at the apex, the third is simple. The ground-colour of the upper surface in the ♂ is chalky white, in the ♀ rose-red, the latter being very bright during life. I found the species only within a radius of twenty miles of Ega, on the Upper Amazons. At Nauta, 540 miles to the west of Ega, the species recurs in a modified state; the modification is one of colour only, but is remarkable for its distinctness and its occurring in both sexes. The following is a short description of it:—

Local var. A. *Nautensis*; 8 lines, ♂ ♀.

The white fascia of the elytra is very much broader; the second black belt extends posteriorly along the suture, and the tooth-shaped black streak near the apex is replaced by a distinct isolated round spot.

I received one pair of this variety from Nauta, on the banks of the Upper Amazons, in Peru.

Genus *ONYCHOCERUS*, Serv.

Serville, Ann. Soc. Ent. Fr. iv. 83.

In this genus the antennæ have eleven joints in both sexes, but the terminal joint is much thinner than the others, and claw-shaped. In the males several of the apical joints are fringed beneath with long hairs; the second joint in both sexes is remarkably elongated. The sterna are in some species simple, and in others tuberculated, showing that this character has no generic value; for this genus is one of the most natural of the whole tribe. The tarsi of all the legs are strongly dilated; the fore tarsi of the males are more widely broadened than the others, but they are not fringed with long hairs. The ligula is elongated, not dilated on the sides, but simply rounded; the two lobes approximate, but are not united on their inner edges.

1. *Onychocerus scorio*, Fabricius.

Lamia scorio, Fabr. Mant. Ins. i. 131. 8.

—, Fabr. Ent. Syst. i. ii. 273. 26.

This well-known and common species is always found on the trunk of a particular kind of wild fruit tree called by the natives

of the Amazon region Tapiribá; and the strange sculpture, shape, and colours of the body and limbs of the insect give it a most wonderfully exact resemblance to the bark. It is not possible to distinguish the insect, although a very large one (sometimes an inch long and a third of an inch broad), unless the tree is carefully examined. The tree is planted in fences very commonly in and near towns, on account of its rapid growth, and the insect accompanies it everywhere with the pertinacity of a parasite. It sometimes swarms on felled logs of Tapiribá.

2. *Onychocerus concentricus*, n. sp.

O. ovalis, postice paulo dilatatus, cinereo-fuscus: elytris multituberculatis, violaceo tinctis, lineis pallidioribus curvatis quasi concentricis ornatis. Long. 7 lin. ♂ ♀.

Head and antennæ dull black. Thorax ashy brown, the sides below the lateral tubercles black; the disk punctured and trituberculate. Elytra widest behind; the sides near the base thickly granulate-punctate; the upper surface furnished with about four rather distinct rows of large and small acute dusky tubercles; ashy brown, the disk tinged with purplish, with several rather indistinct curved belts alternately of a darker or paler hue; the first is dark, and near the base on the outer side of the centro-basal ridge; the second, pale, is exterior to the first, and strongly curved outwards; the third, more distinct, of a dark colour and strongly curved, touches the suture, and forms a semicircular belt common to both elytra. The body beneath and legs are black, and clothed with ashy-brown pile. The three terminal joints of the antennæ in the ♂ have a few hairs beneath. The pro- and mesosterna are simple, the latter sloping from the hind to the fore margin.

I found this species on one occasion only, in great plenty, on a felled tree at Carípi, near Pará. The colour and sculpture of the insect gave it a deceptive resemblance to the bark on which it adhered.

Genus XYLOTRIBUS, Serv.

Serville, Ann. Soc. Ent. Fr. iv. 80.

The antennæ are short and mis-shapen; the third and fourth joints are dilated on one side at the tip, the fourth much more broadly so than the third. The eleventh joint is long and slender in the ♂, short and subuliform in the ♀. The head is narrow on the vertex, broadening below to the end of the muzzle, which is elongated. The terminal joint of the palpi is obtusely truncated at the tip. The ligula is short, slightly dilated in the middle, and the lobes joined together along their whole length, the two being conjointly and obtusely rounded at the apex.

The prosternum is simple, the mesosternum short and bituberculated. The body is oblong and somewhat depressed. The thorax is short, transverse, and the lateral tubercles are small. The fore tarsi of the males are simple, and have only a slightly denser fringe of hairs than those of the females.

This genus is very closely allied to *Acanthotritus*, White (Cat. Long. Col. Brit. Mus.), and I think the latter might be with great advantage united to it. It appears to have been overlooked by Mr. White.

Xylotribus simulans, n. sp.

X. castaneo-rufus, thorace flavo trilineato: elytris pone basin minute granulatis et flavo sparsim irroratis, fascia lata sericeo-brunnea pone medium et prope apicem maculis oblongis carnis ornatis. Long. $5\frac{1}{2}$ lin. ♂ ♀.

Head dull red; front with four longitudinal yellow lines, the two outermost running obliquely down the muzzle from beneath the eyes. Antennæ about the length of the body, shining dull red. Thorax with two short transverse raised lines on the disk, dull reddish, with three fine, interrupted, dorsal, yellow lines. Elytra with the basal half minutely, densely, and evenly granulated; the colour of the surface is reddish brown, the basal half sprinkled with small yellow specks of different sizes and shapes; close behind the middle is a rather broad, silky, brown fascia, not touching the suture, its fore margin dentate and speckled with yellow; behind the fascia are a few oblong flesh-coloured spots, which are placed longitudinally at first, and then towards the apex transversely.

The body beneath and legs are dull reddish; the fore coxæ and a few spots on the sides of the breast are yellow, and there is a large, round, bright orange-yellow spot on each side of the post-pectus; the abdomen has on each side two rows of round whitish spots.

I have adopted for this species the name under which it stands in White's Catalogue; but it has not before been described. It seems to be peculiar, like nearly the whole of the *Anisocerinae* I have here enumerated, to the Amazon region. I found it on the Lower Amazons only, at Obydos, Santarem, and Pará. It occurs on woody sipós or lianas, especially those which have been severed with knives or axes, on the borders of new clearings. It is closely allied to the *X. heterocerus* of Serville, to which in fact it should stand in the relation of a geographical form or race.

Genus HOPLISTOCERUS, Blanch.

Blanchard, Voyage de D'Orbigny, Ins. p. 210 (not characterized).

The antennæ in this remarkable genus are short and thick as

in *Xylotribus*, and the eleventh joint in the ♀ is slender and claw-shaped. The basal joint is thickened from the base; the second, third and fourth are each produced at their tips into a very sharp and rather long spine. The body is oblong and depressed; the thorax cylindrical and unarmed. The species are adorned with brilliantly metallic colours. The terminal joints of the palpi are gradually and sharply pointed.

Hoplistocerus gloriosus, n. sp.

H. castaneo-rufus, glaberrimus, antennis pedibusque violaceo-cupreis: elytris alutaceis, confertim punctulatis, rubro-cupreis, vitta angusta suturali apicem haud attingente, altera lata marginali viridi-cyaneis. Long. 5 lin. ♀?

Head and front tumid, very finely rugose-punctate; occiput and thorax marked with fine transverse striæ. The cheeks have a spot of brilliant green; the rest of the head and thorax is of a dark-chestnut hue. The elytra are oblong, broadly rounded behind, even on their surface, and uniformly punctured; their colour is red or orange-copper, with the exception of a narrow sutural stripe not extending to the apex, and a broader marginal one, which are of a greenish-blue lustre. The antennæ and legs are of a brilliant violet copper hue; the underside of the body is chestnut-red, and, with the legs and the other portions of the body, glabrous.

I took one individual only of this extraordinary and beautiful Longicorn, flying over a mass of dried twigs in an open place in the forest at Ega. It has a near resemblance to the *Hoplistocerus refulgens* of Blanchard (Voy. de D'Orbigny, Ins. p. 210, pl. 22. f. 9); but that species is described as having the body, with head and thorax, of a green colour. D'Orbigny's species was taken in the province of Santa Cruz de la Sierra (Bolivia), which region is connected with the Ega district by an uninterrupted stretch of low wooded country over 14° of latitude. I have seen several undescribed and distinct species of this genus in the collections of Count Mniszech at Paris and Messrs. Bowering and Pascoe in London.

Genus CYCLOPEPLUS, Thomson.

Thomson, Classif. des Cérambyc. p. 32.

In this genus, which is still more extraordinary in form than the preceding, the second and third antennal joints have an elongated and very slender spine at their tips; but the fourth, instead of being armed with a spine, is dilated on one side of the apex into a large, thick, rounded knob, clothed with a velvety pile. The antennæ differ also from those of the preceding two genera in being greatly elongated and slender, in the ♂

being twice the length of the body. The basal joint is very thin at its origin, and is dilated beyond the middle into a pyriform club; in length it departs from the almost universal rule in the subtribe Acanthoderitæ by being as long as the third. The fore tarsi in the ♂ are strongly dilated and fringed.

Cyclopeplus Batesii, Thomson.

Cyclopeplus Batesii, Thoms. Class. de Céramb. p. 32.

Ega, Upper Amazons, on dead branches on the margins of small tobacco plantations in the forest. The form of the insect is quite an exception to the prevailing character of the Longicorn family, the elytra being excessively dilated—in fact, as near as possible hemispherical in shape, instead of elongated as is the almost universal rule. When I first met with it, I was deceived by its great resemblance to a common insect of the family Eumorphidæ (*Corynomalus discoideus*) which swarms at times on the same decaying branches of trees on which the Longicorn is found. It is true the size is much larger than that of the *Corynomalus*, but this is not noticed when they are *in situ*. The very curious black knob on the fourth antennal joint assists greatly to complete the disguise; for this mimics the terminal club of the antennæ of the *Corynomalus*; and as the remaining joints in the Longicorn are very slender and imperceptible when the insect is on the tree, the organs in motion resemble precisely those of the *Corynomalus*. It is further remarkable that the Longicorn mimics especially a pale variety of *Corynomalus discoideus*, which is the prevailing form of the species at Ega.

A second species of this genus is known from Cayenne,—the *Cyclopeplus cyaneus* (Thoms. l. c.). I do not know whether this has its analogue in the same country, in a species of *Corynomalus*. Both species are excessively rare. The Anisocerinae furnish many instances of adaptive mimetic resemblances; and to this peculiarity of the group is no doubt attributable the strange divergences or aberrations of form which it contains. In addition to the clearer cases which I have noticed, there are others not quite so evident. For instance, I think our *Hoplistocerus* is the mimetic analogue of a species of *Stenochia*, a Heteromorous genus, and the *Acanthotritus dorsalis* of South-east Brazil appears to resemble much a species of *Heilipus*, belonging to the family Curculionidæ. The *Onychoceri*, instead of mimicking other insects, have deceptive resemblances to the bark of trees on which they live. A tendency to mimetic resemblances seems to run in certain groups; and these groups are remarkable for the aberrations from their types in minor points of structure or in facies, and for the rarity and diversity of the specific forms which they contain.

[To be continued.]



Bates, Henry Walter. 1862. "XLVIII. Contributions to an Insect Fauna of the Amazon Valley. Coleoptera : Longicornes." *The Annals and magazine of natural history; zoology, botany, and geology* 9, 446–458.

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