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XIV.—List of Coleoptera received from old Calabar, on the West Coast of Africa

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beak light brown. Whilst skinning this bird, I was astonished to find a quantity of white worms in the muscles of the thigh. I examined the rest of the body and the stomach, but did not find any elsewhere.—*R. H. B.*

24. *Mergus serrator*.

Mergus serrator, Linn.; Swinh. P. Z. S. 1863, p. 323.

No. 25. Shot at Nagasaki, Feb. 11, 1870. Beak and legs red; eyes yellowish brown. Stomach contained half-digested fish.—*R. H. B.*

25. *Fuligula marila*.

Fuligula marila (Linn.); Swinh. P. Z. S. 1863, p. 324.

No. 4. Duck, shot at Yokohama, Dec. 16, 1869. Legs and beak bluish black; eyes yellow, with black pupils.—*R. H. B.*

XIV.—*List of Coleoptera received from Old Calabar, on the West Coast of Africa.* By ANDREW MURRAY, F.L.S.

[Continued from p. 56.]

HELYMÆUS, J. Thoms.

Helymæus rufiventris.

Closteromerus rufiventris, Chevr. Rev. et Mag. d. Zool. 1855, p. 514.

Alatus, niger; capite punctato; thorace transversim plicato; scutello bifido, viridi; elytris cyaneo-viridibus, albo setosis, medium versus subcoarctatis, ultra modice ampliatis et convexis, apice truncatis et singulatim bidentatis, pone scutellum seriebus tribus vel quatuor punctorum plus minusve impressorum; pectore crebre punctato, atro, albo villosa; abdomine rufo; femoribus valde clavatis.

Long. $3\frac{1}{2}$ lin., lat. $1\frac{1}{4}$ lin.

As black as ebony. Head narrow, elongated, vertical in front, very finely and distinctly punctate. Thorax cylindrical, gibbous above, with some silky white pubescence on the sides; above feebly transversely wrinkled. Scutellum triangular, bifid. Elytra blue or greenish blue, advanced a little obliquely at the shoulder, slightly narrowed towards the middle, broader and convex behind it, truncated and bidentate at the apex of each elytron, and bearing some white hairs; their surface is very finely rugulose; and under a strong lens they show a series of small punctures, which towards the scutellum become strong and irregular in size and form; the second internal series is placed in a groove. Breast coarsely punctate, deep black, clothed with a white and silvery down. Abdomen

smooth, red, of five segments, the first very large and bearing some punctures and wrinkles. Pygidium subconic, granular. Legs black; thighs strongly and abruptly swollen.

Described by M. Chevrolat from specimens communicated to him by Mr. Thomas Gray. In the British Museum.

M. Chevrolat described this as a species of *Closteromerus*; but it seems either to be a new genus or to belong to Thomson's genus *Helymæus*, which has the elytra concolorous and truncate at the apex as in this, instead of being decorated with yellow spots or bands and entire at the apex as is the case with *Closteromerus*. Not to multiply genera, I have placed it in *Helymæus*, although in some points, as its wrinkled thorax, it does not wholly agree with it.

PHROSYNE (Pascoe in litt.), nov. genus.

Genus affine *Euporo*, differt ab illo antennis corpore brevioribus (et maribus et fœminis) versus apicem incrassatis, articulo tertio longitudine art. 4-6; thorace medio vage fortiter punctato, antice et postice breviter constricto; femoribus posterioribus elytrorum apicem haud attingentibus.

Lacordaire points out that the genus *Euporus* as it stands at present includes two distinct forms, which ought to be separated as genera, the first of which is represented by the *Euporus strangulatus* of Serville, with long antennæ and hind thighs extending beyond the body, the second by the *Euporus viridis* of Serville and the species (*Eu. brevicornis*, Fab.) which follows. *Eu. strangulatus*, standing first among the species described by Serville under *Euporus*, must be reckoned the typical example of that genus; and in dividing the genus into two, that name must be reserved for it and the species of a similar type. For the other form I adopt Mr. Pascoe's MS. name *Phrosyne*, under which the species in question have long stood as a section apart in that acute entomologist's cabinet.

Phrosyne brevicornis.

Euporus brevicornis, Fab. Syst. Eleuth. ii. p. 289.

— *disparilis*, Chevr. Rev. et Mag. d. Zool. 1856, p. 571?

— *splendicollis*, Thomson.

Læte viridis; mandibulis antennisque nigris cyaneo micantibus; capite creberrime punctato, breviter sulcato; thorace antice recto, plicato, postice constricto, basi bisinuato, medio globoso et fortiter punctato, lateribus rotundatis; scutello triangulari, aurato; elytris thoracis latitudine, viridi-obscuris, vittis duabus longitudinalibus, una mediana, altera suturali, pectore abdomineque viridi-aureis, glabris, minutissime

punctatis; ano producto, truncato; pedibus nigris; femoribus quatuor anticis medio rubris.

Long. $5-5\frac{1}{2}$ lin., lat. $1-1\frac{1}{2}$ lin.

Very near *Euporus viridis*, Serv. (*madagascariensis*, Dej.), but narrower, of a fine golden green above, and coppery below. Head narrow, sinuate alongside the eyes, covered by a close punctation, longitudinal groove disappearing in front. Palpi black. Mandibles of an indigo-blue, passing into blackish. Antennæ of the same colour, short, thickened towards the apex, grooved on the outer side, with the third article very long, bent and slightly angular at the top. Thorax straight in front, transversely wrinkled on the anterior third, with a smooth space neither punctured nor wrinkled behind this, constricted and wrinkled behind and bisinuate at the base, rounded above and on the sides, and coarsely irregularly punctate, the posterior part of the dorsal space being partially impunctate. Scutellum triangular, golden. Elytra finely shagreened, dull blackish green, shining on the shoulder, and each with two narrow lines of a more delicate green, one on the middle of the elytron, and the other on the suture. Breast and abdomen polished golden copper and very indistinctly punctate. Legs of an indigo-blue, passing into blackish; thighs abruptly and much thickened near the knees, four anterior thighs red on the swollen part; soles of the tarsi covered with a thick yellowish brush of hair.

Appears to be rather common at Old Calabar.

I can find no difference between M. Chevrolat's description of *Eu. disparilis* and *Eu. brevicornis* but that the male differs from the female by having all the thighs blue-black; the females seem to correspond exactly. It may be that this is nothing more than an accidental variation; and I treat it as such, with a point of doubt, in the meantime. Should it not be so, I am then inclined to think that M. Chevrolat has had under his eyes the females of *Eu. brevicornis* and the male of a new species (*disparilis*), the more so that he does not include *Euporus brevicornis* in his list, although it is one of the commoner species at Old Calabar, and he certainly had it from me.

XYSTROCERA, Serv.

1. *Xystrocera femorata*, Chevr. Rev. et Mag. d. Zool. 1855, p. 282.

Ruge punctata, viridis; femoribus, pectore abdomineque rufis; mandibulis, antennis (corpore longioribus, primo articulo rufo), tibiis tarsisque nigris.

Mas. Thorace globoso, magno, creberrime punctulato, plagis

quinque aureis. Elytris unicostatis, ad apicem attenuatis, singulatim apice rotundatis.

Fœm. Thorace minuto, subrotundato, remote asperato; elytris amplis, parallelis, bicostatis.

Long. 11–12 lin., lat. 2–3 lin.

Green, with the usual subrugose texture of *Xystrocera*. Thorax globose, with smooth shining spots. Underside rufous. Mandibles, antennæ (first article excepted, which is rufous), and legs black, except the thighs, which are reddish.

Not very rare.

This genus belongs to the original Indo-African element. The species are confined to Africa and the Indo-Malayan district, with a few wanderers over the borders into the nearest parts of Australia.

2. *Xystrocera cyanella*, Chevr. Rev. et Mag. d. Zool.

1855, p. 545.

Alata, cyanea vel viridi-cyanea; mandibulis, oculis, antennis (scobinatis) pedibusque (femorum basi excepta) nigris; corpore infra nigro vel fusco-brunneo, segmentorum marginibus dilutioribus; scutello lævigato, reflexim marginato, violaceo; thorace medio lævigato; elytris transversim rugosis, pectore lanugine alba induto.

Long. 5 lin., lat. 2 lin.

Of a very brilliant blue and bluish green at the top of the head and base of the elytra. Head with a very fine black groove in the middle, covered with asperities. Palpi (whitish at the truncature), mandibles, eyes, and antennæ black, the latter bearing a great many rough small tubercles, making the surface like a file. Thorax a little broader than long, rounded on the sides, with the anterior margin straight and the posterior bisinuated, broadly channelled on each side, smooth, glabrous, and of a fine brilliant blue above, greenish on the lower sides. Scutellum triangular, elongated, margined, smooth, violet or brown with a violet tinge. Elytra a little broader than the thorax, rounded and smooth on the top of the shoulder, almost parallel, only a little wider towards the extremity, which is rounded. Their surface has the rough punctate wrinkling which is characteristic of the genus. Legs and body below deep black; sides of the metasternum clothed with a white pubescence.

Apparently rare, only one or two specimens having been received out of many *envois*. In my collection.

3. *Xystrocera marginipennis*.

Ruge punctata, flavo-ferruginea; mandibulis, oculis, antennis

(primo articulo rufo-fusco) nigro-brunneis; thorace marginibus antico et postico lateribusque et subtus violaceo-brunneo; scutello punctato; elytrorum lateribus viridibus; abdomine piceo-fusco; pedibus (femorum clava plus minusve ferruginea) nigris; mesosterno et metasterno subvillosis; thorace punctato, medio parum lævigato.

Long. $10\frac{1}{2}$ lin., lat. 3 lin.

Texture, as usual in *Xystrocera*. Flavo-ferruginous, with the following exceptions:—the mouth, eyes, antennæ (first article excepted, which is dark ferruginous) are blackish brown; the thorax below and on the sides and along the anterior and posterior margins violet-brown; the margins of the elytra green, and a slight tinge of green in some lights extending over the flavous surface of the elytra. The abdomen blackish brown, and the legs black, except on the club of the thighs, which is reddish, especially on the anterior legs. The antennæ are coarsely scabrous, the head coarsely punctate above, more freely on the sides, below glabrous, but with one or two faint wrinkles. The thorax widest in the middle, and nearly equal in breadth in front and behind (if any thing, widest in front), rather finely punctate, except in the middle, where there is a narrow smoothish space, slightly shining in front and behind. The anterior and posterior margins nearly straight, slightly raised; the posterior margin edged and reflexed, and extending back in a lobe in the middle; the disk slightly foveolated on each side of the middle, and again in a curved depression towards the sides and also on the sides, leaving a slight trace of two elevations on the side—one in the middle and another in front. Scutellum rather large, and coarsely and distinctly punctate. The elytra coarsely rugosely punctate. Mesosternum and metasternum villose.

Rare. One specimen in my collection.

4. *Xystrocera Pascoeï*.

Supra viridis; elytris parum flavo intermixtis; scutello et subtus flavo-rufis; tibiis tarsisque fuscis. Affinis *X. marginipenni*, differt colore, thorace magis punctato et foveolato; scutello minus, elytris fortius punctatis; femoribus minus clavatis.

Long 9 lin., lat. $2\frac{1}{2}$ lin.

Allied to the preceding species, but distinguished by the colour, which is green above and flavo-rufous beneath. The thorax in the preceding species is pale above and darker beneath, and the abdomen blackish brown, and only the mesosternum and metasternum flavous, whilst here the abdomen is

of the same colour as the metasternum. The thorax is more coarsely punctate, and has deeper foveæ, and one immediately in front of the scutellum; the sides have two more decided tubercles; the scutellum is not so much punctate; the elytra are more coarsely punctate; the suture rufous, and indications of the same colour shine through the green on the rest of the elytra, except on the sides, which are decided green. The legs have the clubs of the thighs less pronounced, and are flavo-rufous instead of black, the base of the thighs being slightly fuscous, and the tibiæ and tarsi blackish brown.

I have seen only one specimen: it formed part of one of the later *envois* from Ikoneto. In my collection. I have named it in honour of my friend Mr. Pascoe, who has done so much to elucidate the family on which I am now engaged.

CEME, Newm.

Ceme nigrita, Pl. II. fig. 1. Chevr. Rev. Zool. 1855, p. 183.

Fortiter et crebre punctata, nigra, nitida, pube rutila partim induta; antennis pedibusque validis; capite magno, rotundato, rugoso, antice profunde medioque supra vix sulcato, antennis articulis undecim planis elongatis; thorace brevi, transverso, subrotundato, lateribus subangulato, antice recto (dein stricto), postice leviter bisinuato et marginato, in longitudine postica sulcato; elytris conjunctim rotundatis, ad medium unicastis; abdomine segmentis quinque.

Long. 10 lin., lat. 3 lin.

The figure, by M. Migneaux, renders any further descriptive remarks unnecessary.

Rare. One or two specimens only.

Until the discovery of this species, the genus contained nothing but American species, mostly Brazilian, which, instead of black, are of a bright reddish yellow.

CEDENODERUS, Chevr.

The history and position of this genus seem to me to furnish a happy illustration in support of the importance of surface-texture and, even, colour on the one hand, and of geographical distribution on the other, as a key to the discovery of natural affinities.

Among the species which I received from Old Calabar, and intrusted to M. Chevrolat for description, was a livid testaceo-ferruginous insect, that looked something like a *Callidium*. M. Chevrolat described it as such, with a point of doubt, under the name of *Callidium? sphæricolle*. He said, "The

only specimen which I possess being in a very bad condition, I have not been able to study this species completely. It ought, without doubt, to form a new genus." Better specimens of another species of the same genus having been subsequently received from the Gaboon, M. Chevrolat was enabled to characterize the genus from them. This he did in M. J. Thomson's 'Archives Entomologiques' (ii. 245), with the remark that "Our *Callidium sphaericolle* (Rev. et Mag. d. Zool. 1855, p. 283), from Old Calabar, enters into this genus."

M. Thomson, judging from the facies and some other characters common to it and the genus *Æme*, placed it, in his first work on the Longicorns (Essai &c. p. 251), among the *Æmidæ*. In his second work (Systema Cerambyc. p. 194) he placed it among the *Clytidæ*, to which it has a resemblance in the head and eyes. M. Lacordaire has retained it there, although, as he says, "non sans répugnance. Malgré ses yeux finement granulés, il serait peut-être mieux à sa place dans le groupe des Achrysonides."

Now the colour and texture would carry it to the *Æmidæ*. Like the majority of them, the Gaboon species is of a bright testaceo-ferruginous colour; and the Old-Calabar one is only a little darker, and, if fresh, without having been in spirit of wine, might perhaps be as bright.

At first sight, but only at first sight, the geographical distribution would appear to tell as much one way as another. I assume that the rule is that where the same type is found in two different countries, their presence in both is due to the lands having been, in some way or other and at some previous time or other, connected by dry land. I by no means say that their presence may not be due to accidental dispersion by flotsam and jetsam; but I maintain that, if so, that is the exception, and that the *prima facie* presumption is in favour of union. Good reasons may be given against it; but until these are given, we should not have recourse to that exceptional mode of explanation. Hitherto the inclination has been to hold that dispersal by flotsam and jetsam is the rule, and by former continuity the exception; but I think I see indications that scientific opinion is veering round in the opposite direction. Be that as it may, that is my position: the reader may reject it or not on its merits; but it supplies a basis on which I would judge of the affinity of the genus in question. In a paper on the geographical relations of the different Coleopterous faunæ, which is now in the hands of the Linnean Society for publication, I have given reasons for holding that at a very ancient date West Africa was disunited from the rest of Africa, that at the same date Brazil was isolated from the

rest of America, and that the two were then united together.

The numerous instances to which I have already had to draw attention, in the course of this work, of forms now predominating in Brazil and properly known as Brazilian types being also found in Old Calabar, show, according to my mode of interpretation, that a connexion formerly did exist between these two portions of the old and new continents; and I refer it to that particular period for several reasons: one is that there are some particular groups of beetles which have not been communicated to West Africa from Brazil, although now common there; and these are invariably, so far as my examination has yet gone, not truly species of the natural Brazilian type, but species of the European type. Few men who have studied the geology and geogeny of Brazil will dissent from the opinion that it was once isolated from the rest of America. This is a safe assumption, and is a step to prove the original absence of the European type from Brazil; and it seems to stand to reason that after Brazil ceased to be isolated, it would be invaded by the North-American type, which is only another phase of the European type. If it had been so invaded, and at the time of its connexion with Africa the fauna was composed of the same proportions of *Coleoptera* of European and of Brazilian type as now subsist in it, the same proportions ought to have migrated into and be now found in West Africa. Therefore, if none of the European type now present in Brazil are found in West Africa, but plenty of the true Brazilian, it seems to fix the date when the intercommunication took place. We must guard ourselves here from being confused by the introduction of the European type into West Africa, direct from North Africa or in other directions, in more recent times; but very little of this has come in, no doubt from the physical isolation, still subsisting, in consequence of the deserts or barriers surrounding it; and we can generally refer what has come to its proper source by inquiring whether it is now present in Brazil. Thus the *Staphylinidæ* are properly a European form which is now largely developed in Brazil; but I have never met with one from West Africa. By the kindness of my Old-Calabar missionary friends, I have had the opportunity of examining thousands upon thousands of all sorts of insects from that country, from the most minute *Phytophage* to the *Dynastes Centaurus*, and I have never seen a single *Staphylinus*: that is not chance. They are also very rare in other parts of Africa and in India; but I must refer to the paper I have above spoken of for an explanation of the mode in which this

trifling infusion has probably been derived there. *Clytus* is another European genus which has made good its entrance into Brazil; but not a genus nor a species occurs in West Africa, nor, indeed, in Africa at all (always understood Africa south of the Sahara) except a single small species at the Cape.

Then, again, another argument in the same direction is deducible from the strong presumption that in recent geological times an Atlantic continent stretched down between West Africa and Brazil from the Azores southwards. In the different patches of land (the islands of Madeira, Canaries, &c.) which are the surviving remnants of this continent we have many species of *Coleoptera* identical with those of Europe, and a still greater number most closely allied to them; and that fact in itself, I think, shows that the existence of this Atlantic continent must have been more recent than the connexion between Brazil and West Africa; for, although Africa has many species closely allied to those in Brazil, they are fewer than the allied species of Europe found in Madeira &c., and not above two or three instances of actual identity of species can be pointed out: and the case in which most similarity and identity of species is to be found ought surely to be regarded as the most recently united; for the greater the lapse of time, the greater the opportunity for changes of condition and consequent alteration in species. Independent of this altogether, however, if it is once admitted that the Atlantic continent must have been of recent date, it follows that it must have been the last; for the faunas show the last relation still surviving; and therefore the equatorial connexion between Brazil and Africa must have been older; for they could not both have existed at the same time, as is proved by the entire absence of the Brazilian element in the Atlantic faunas.

Applying these considerations to the case before us, they will correct the first impression that might naturally occur to us, viz. that *Ædenoderus* was just as likely to belong to the *Clytidæ* as the *Æmidæ*, as both until now occurred in Brazil, but not in West Africa; for if we separate the Brazilian types into aboriginal Brazilian and naturalized European in Brazil (some of the former of which have been found in West Africa, but none of the latter), we get a test which at once shows that at any rate it is not to the *Clytidæ* that *Ædenoderus* ought to be referred: it then lies between the *Æmidæ* and the *Achrysonidæ* (a group also suggested by Lacordaire); but I think the facies and form is more that of the former than the latter. And if Lacordaire is right in placing the European genus *Icosium* in it (which, however, I doubt), that seems an additional reason for giving the preference to the *Æmidæ*.

Ædenoderus sphæricollis.*Callidium sphæricolle*, Chevr. Rev. et Mag. d. Zool. 1855, p. 283.

Lividus, minute scabrosus; antennis gracilibus pedibusque pallidis; capite antice quadrato et oblique declivi, in longitudine obsolete canaliculato; mandibulis brevibus, crassiusculis, triangularibus, apice nigris, juxtapositis; oculis subrotundatis, postice rectis et supra depressis; thorace valde globoso, marginato in basi et fortiter constricto; scutello elongato triangulari; elytris thoracis latitudine, usque ad apicem sensim attenuatis et singulatim anguste rotundatis, in humero arcuatis et intus basi depressis.

Long. 4 lin., lat. $\frac{3}{4}$ lin.

Livid, finely scabrous; antennæ slender, and feet pale. Thorax globose, marginate, and strongly constricted. Scutellum elongate triangular. Elytra attenuate at the apex.

Only one specimen received, which I gave to M. Chevrolat.

TRACHELOPHANES*, genus novum.

Caput rotundatum, antice elongatum. Oculis subtriangularibus, convexiusculis, supra et intus subemarginatis. Antennis brevibus, circiter sesqui corporis longitudine, undecim articulis elongatis subæqualibus, tertio quintoque tamen longioribus. Thorax elongatus, duplo longior quam latior, cylindræus, medio modice subampliatus, antice posticeque rectus et supra leviter depressus. Scutellum transversim rotundatum. Elytra thorace latiora et duplo tamen longiora, parallela, apice rotundata et in sutura subrectangula. Pedes femoribus, late clavatis, subcompressis; tarsi articulo primo conico, secundo quadrato, tertio longe bilobo, sat lato, unguiculis brevibus curvatis.

I agree with M. Chevrolat and Prof. Lacordaire in thinking that a new genus is necessary for the following species. It is at once distinguished from *Hesperophanes* by its cylindrical neck.

Trachelophanes puberulus.*Hesperophanes? puberulus*, Chevr. Rev. et Mag. d. Zool. 1855, p. 284.

Validiusculus, brevis, rufus vel fusco-obscurus, crebre et mediocriter punctatus, pube cinerea indutus; palpis pedibusque ferrugineis.

Long. 6 lin., lat. $1\frac{3}{4}$ lin.

Rufous or obscure fuscous, short and stout, closely and mo-

* Τράχηλος, *neck*, in allusion to its elongated thorax (which is its most patent distinction from *Hesperophanes*), and φαίνομαι, *I appear* (apparent). Allied to *Hesperophanes*.

derately deeply punctate, and clothed with a cinereous pubescence. Palpi and legs ferruginous.

Only one specimen received, which I gave to M. Chevrolat.

CERASPHORUS, Serv.

Cerasphorus murinus.

Ceropogon murinum, Chevr. Rev. et Mag. d. Zool. 1856, p. 568.

Punctulatus, griseo-murinus; palpis, antennis (villosis corpore longioribus) pedibusque (geniculis obscuris) pallidis; thorace rotundato, arcubus duobus oppositis elevatis, ad latera anguloso spinoso; elytris parallelis, angustissime truncatis et fere emarginatis (fœmina).

Long. 9 lin., lat. 6 lin.

Very densely pubescent and finely punctate, of a dirty pale grey colour. Head rounded, elongated posteriorly, deeply channelled. Palpi, antennæ (which are clothed with a long pubescence, and are longer than the body), and legs pale ferruginous. Mandibles pubescent, smooth and black at the extremity. Thorax rounded above, truncated, straight both in front and behind, and grooved along the margin, bearing on the disk a sort of horseshoe in relief, and on the side a little beyond the middle a sharp angle. Scutellum rounded. Elytra straight at the base, somewhat convex, parallel, narrowly truncated and emarginate at the extremity, scarcely broader than, and three times as long as the thorax. Legs tolerably long, ferruginous; thighs regularly thickened towards the middle, slightly flattened on the anterior side; knees obscure. Abdomen swollen, composed of five segments.

This species comes near the *Cerasphorus hirticornis* of Serville, but may be distinguished by the following characters:—The antennæ and the legs, in place of being of the general colour of the body, are ferruginous; the thorax, which in the preceding species is furnished on the disk with four angular tubercles, only bears a sort of raised semicircle placed longitudinally; and, lastly, the lateral spine is shorter and not so sharp.

Only a single specimen received, which I gave to M. Chevrolat.

ANISOGASTER, Deyr.

Anisogaster? semifemoratus.

Heterogaster? semifemoratus, Chevr. Rev. et Mag. d. Zool. 1856, p. 569.

Ochraceo-fuscus; antennis pedibusque rufis, cum dimidia parte

apicali femorum nigro-nitidis; mandibulis oculisque nigris; thorace brevi, antice subanguloso et postice recte truncato, basi trinodoso; scutello rotundato; elytris thorace multo latioribus, planiusculis, antice posticeque rotundatis, in sutura aculeatis, costulis duabus longitudinalibus obsoletis.

Long. $8\frac{1}{2}$ –9 lin., lat. $2\frac{3}{4}$ –3 lin.

Pubescent and of a reddish-yellow colour. Head rounded in front, cylindrical behind, shortly grooved between the eyes, but flat, plicate, and grooved in front. Eyes black, projecting, emarginate above. Palpi brownish. Mandibles black, moderate, bent, sharp, punctate. Antennæ ferruginous, with the first article thick, cylindrical, of the length of the fifth; second nodular; third and fourth equal, slightly swollen at the apex. Thorax as long as broad, projecting on the head, and of its breadth at their junction, straight behind, two-grooved transversely, sides obtusely projecting in the middle, attenuated towards the posterior angle, which is oblique and truncate behind; three tubercles behind near the base. Scutellum rounded. Elytra broader than the thorax, flattened, raised and rounded on the shoulder, each rounded at the apex, with a spine at the suture and two longitudinal obsolete ridges. Legs short, the first four tolerably near at their insertion, posterior longer, ferruginous, with the thighs ferruginous at the base, afterwards of a brilliant black, and a little swollen; the anterior are bent and depressed in front; claws simple. Abdomen with five segments, swollen, depressed on the margins of the segments, which are rather broad and decreasing in size from before backwards.

M. Chevrolat placed this species in the genus *Heterogaster* (now *Anisogaster*) with doubt; but as I have parted with the only specimen I received to him, and as I cannot trace it in the British Museum, although his collection has been secured by that institution, I am obliged to leave it as he has placed it, with a point of doubt. *Anisogaster* is a genus which as yet has been found only in Mauritius.

OSSIBIA, Pascoe.

Ann. & Mag. Nat. Hist. 1867, xix. p. 311.

Ossibia fuscata.

Obrium fuscatum, Dej. Cat. p. 358 (mas).

— *ustulatum*, Dej. Cat. p. 358 (fœm.).

Obrium? *fuscatum*, Chevr. Rev. et Mag. d. Zool. 1856, p. 570.

Ossibia fuscata, Pascoe, loc. cit. *supra*.

Linearis, depressa, lurida, crebre punctata denseque cinereo pilosa; antennis (basi prætermisssa) elytrisque lateribus late

infuscatis; oculis amplis, nigris, fortiter granulatis; thorace longiore quam latiore, lateribus medio subangulosis; abdomine pedibusque pallidis.
Long. 4-5 lin., lat. 1-1½ lin.

Linear, depressed, livid testaceous, strongly and closely punctate, clothed with an ash-coloured pubescence. Head rounded, square and hollowed out in front. Eyes large, rounded, coarsely granulated, black, tolerably distant from each other, emarginate above. Antennæ blackish, with the first two articles pale; first large, slightly bent; second half as long as the third; third and fourth equal; the remainder larger, cylindric, larger in the male than in the female. Thorax longer than broad, straight in front and behind, sides angular in the middle, impressed and unequal on the disk. Scutellum moderate, rounded. Elytra broader than the thorax, subrectangular at the humeral angle, each regularly rounded at the apex; they are dull livid, but distinctly yellowish along the suture. Abdomen and legs of a livid yellow; thighs regularly thickened in the middle, but slightly compressed when looked at from above.

The male differs from the female in having larger antennæ and a narrower thorax keeled in the middle above and scarcely angular on the sides. Considerable variation occurs in the coloration of different individuals of the same sex.

M. Chevrolat, in describing this species, followed Dejean, and placed it under the genus *Obrium*; but he did so with the qualification that it ought to constitute a new genus near *Methia*, Newm. Subsequently Mr. Pascoe (*loc. cit.*) described it under the name here adopted, but without expressing any opinion as to the affinities of the genus. Prof. Lacordaire has overlooked it; but I think it should come near *Æme* and its allies.

Not rare. In many collections—British Museum, Pascoe's, Fry's, my own, &c.

APHOPLISTUS*, nov. gen.

Angustus, parallelus, alatus, irregulariter sparsim punctatus et tenuiter pilosus, textura opaca. Caput parvum, mandibulis parvis; labrum transversum, recte truncatum; palpis tenuibus, brevibus, articulo ultimo ceteris paululum latiore, truncato; labio brevi, lato, vix emarginato; oculis sat fortiter granulatis, lateralibus, distantibus, subreniformibus, subtus multo majoribus et latioribus; antennis (fœm.) te-

* Ἀφοπλιστός, *disarmed*, in allusion to the absence of spines on the thorax.

nubibus, simplicibus, dimidia corporis longitudine, undecim articulis, primo majore, tertio longiore, quarto tertio dimidio brevior, quinto tertio fere æquali, sequentibus gradatim minoribus. Thorax capite duplo longior, sine spinis vel tuberculis æqualiter subovatus, ad medium latior, antice et postice recte truncatus, sat convexus, dorso hic et illic leviter impressus. Scutellum semicirculare. Elytra dorso subplana, thorace sesqui latiora et fere triplo longiora, ad basin recte truncata, ad humerum rotundatim rectangula, in lateribus parallela et ad apicem regulariter rotundata. Pedes breves, validiusculi, inermes; femoribus modice clavatis, ad inum infra breviter canaliculatis; tibiis simplicibus; tarsis brevibus, subtus dense setosis. Subtus modice convexus, æqualis; prosternum postice arcuatum; coxis anticis et intermediis distincte apertis. Abdomen quinque segmentis, primo latiore, sequentibus gradatim minoribus.

This genus should come, I think, somewhere between *Hesperophanes* and *Sphæron*. It has at first sight a good deal of resemblance to *Asemum*; but a more careful examination shows that this is only superficial. The texture is different, the thorax and the eyes different in shape, the antennæ more slender, and the underside of the tarsi clothed with a thick brush of hair, while in the *Asemidæ* it is only sparingly furnished with finer hairs. The ligula would supply a test by which it could at once be settled whether it belongs to the section in which the *Asemidæ* are placed, or to the section to which I have referred it; but I have only one specimen in rather a fragile state, and I hesitate to risk it in dissecting out the ligula, the more so that I think the above characters are sufficient to show that it does not belong to the *Asemidæ*, but that it either belongs to the *Hesperophanidæ* or is in their vicinity.

The species for which I have found it necessary to propose this genus was described by M. Chevrolat as an *Æmona*; but it seems to me not to belong to the group in which *Æmona* is placed, and is most certainly not an *Æmona*, which has a cylindrical thorax with transverse folds or wrinkles, neither of which this has.

Aphoplistus pilosellus.

Æmona pilosella, Chevr. Rev. et Mag. d. Zool. 1858, p. 53.

Saturate purpureo-brunneus, fere niger, sat crebre sparsim irregulariter punctatus, pilis brevibus inflexis cinereis sat dense vestitus; labio et palpis ferrugineis; antennis nigris. Long. 7 lin., lat. 2 lin.

Deep purplish brown, irregularly and sparsely punctate,

covered with sparing ashy hairs springing from the punctures, generally bent. Palpi and labium ferruginous. Mandibles and antennæ black. Scutellum smooth, black, and impunctate. Legs fuscous. Body below lightly pubescent and finely punctate.

I have only seen a single female specimen. In my collection.

HESPEROPHANES, Muls.

Hesperophanes fasciatus.

Callidium fasciatum, Bilberg, Appx. ad Schön. Syn. pp. 191, 269.

Hesperophanes caliginosus, Dej. Cat. 3rd ed. p. 354.

Valde pubescens, fusco-castaneus; capite, thorace fasciisque tribus elytrorum villosio canescentibus; antennis longis.

Long. 6-12 lin., lat. $1\frac{1}{2}$ -3 lin.

This has come in tolerable abundance.

SMODICUM, Lec.

Smodicum ebeninum, Pl. II. fig. 3. Chevr. Rev. et Mag.

d. Zool. 1855, p. 183.

Dense punctulatum, nigro-piceum, nitidum; antennis (11 articulis) pedibusque obscure rufis; capite longitudine sulcato; thorace longiore quam latiore, subovali, antice posticeque recto, vix marginato, in dorso circulatim depresso; elytris rotundatis, bicostatis; corpore infra nitidior; abdomine quinque segmentis.

Long. 7 lin., lat. 2 lin.

Piceous black, densely punctulated, shining; antennæ and legs dull rufous. Head longitudinally sulcate. Thorax longer than broad, somewhat oval, scarcely margined, with a circular depression on the disk. Elytra rounded, with two costæ. Body below more shining. Abdomen with five segments.

In Chevrolat's and my collection.

This is the first instance that has occurred of a species of the American genus *Smodicum* having been met with out of the New Continent.

DISTENIA, Serv.

Distenia apicalis, Rev. et Mag. d. Zool. 1855, p. 290.

Nigro-picea, nitida; ore, palpis, antennis, elytris basi et apice, pedibus (femoribus medio geniculisque nigris) anoque rufopallidis; thorace antice posticeque recto, transversim bistricto, lateribus angulato; elytris singulatim in humerolate, in apice anguste rotundatis, punctato-striatis (sex striis,

secunda ante medium tertiaque prope maculam apicalem, abbreviatis).

Long. 7 lin., lat. 2 lin.

Shining piceous black; the mouth, palpi, antennæ, the base and apex of the elytra, the legs (except the middle of the thighs and the knees, which are black), and the termination of the abdomen pale rufous. Thorax constricted transversely before and behind, the sides angled. Elytra punctate-striate—six striæ, the second abbreviated before the middle, the third near the apical spot.

One specimen. This also is a Brazilian genus.

[To be continued.]

XV.—On two New Species of Subspherous Sponges, with Observations. By H. J. CARTER, F.R.S. &c.

[Plate XIII.]

AT the request of my kind friend Dr. J. E. Gray, I have examined, described, and illustrated the two following Sponges belonging to the British Museum. Both appear to me to be new, and one the type of a new genus. The former is a *Tethya*, and, from its dark purple colour externally, will be designated "*atro-purpurea*;" and the latter, from its asperity externally, will be generically termed "*Trachya*," and specifically "*pernucleata*," from the number of nucleated groups of spicules internally.

Let us direct our attention to the former first.

Tethya atro-purpurea, mihi. Pl. XIII. figs. 1–10.

Sessile, subcircular, convex, compressed, muricated externally, presenting a radiated structure inferiorly, where it appears to have been excised horizontally from the object on which it grew. Surface covered with a dark purple, smooth layer of sarcode, interrupted by the spine-like projections which give it the muricated appearance, and which are composed of bundles of spicules, now truncated by fracture (Pl. XIII. fig. 5, *a*), but which probably, in the natural state, protruded from them in a brush-like form (fig. 6); raised into aliform ridges (fig. 5, *b*) extending from the base of one spine to the other, and thus forming polygonal interspaces in which are situated the pores, with here and there an osculum. Internally composed of radiated structure consisting of long, straight spicules extending, in bundles, from the centre of the base to the periphery (fig. 4, *a*), imbedded in a light-brown