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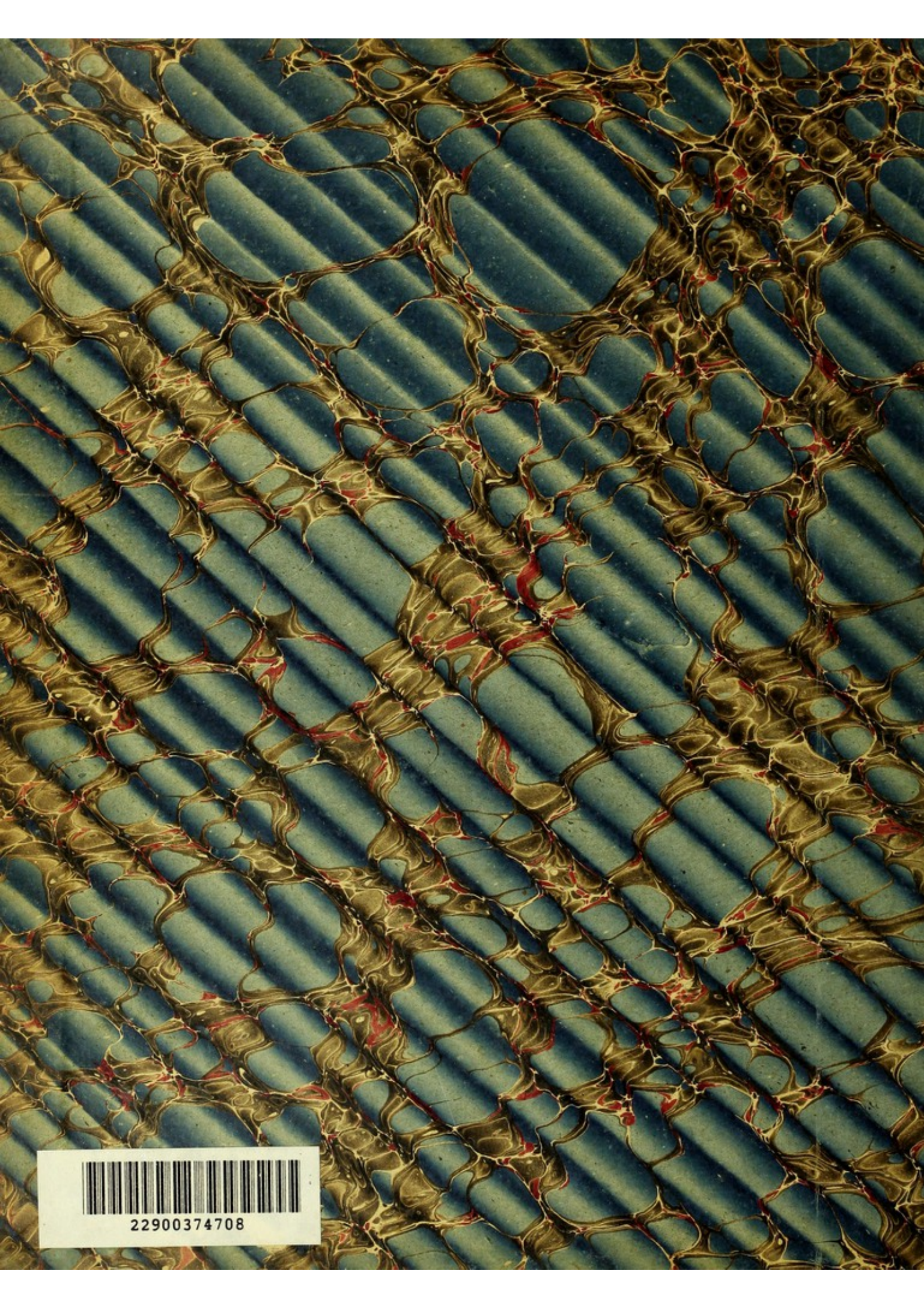
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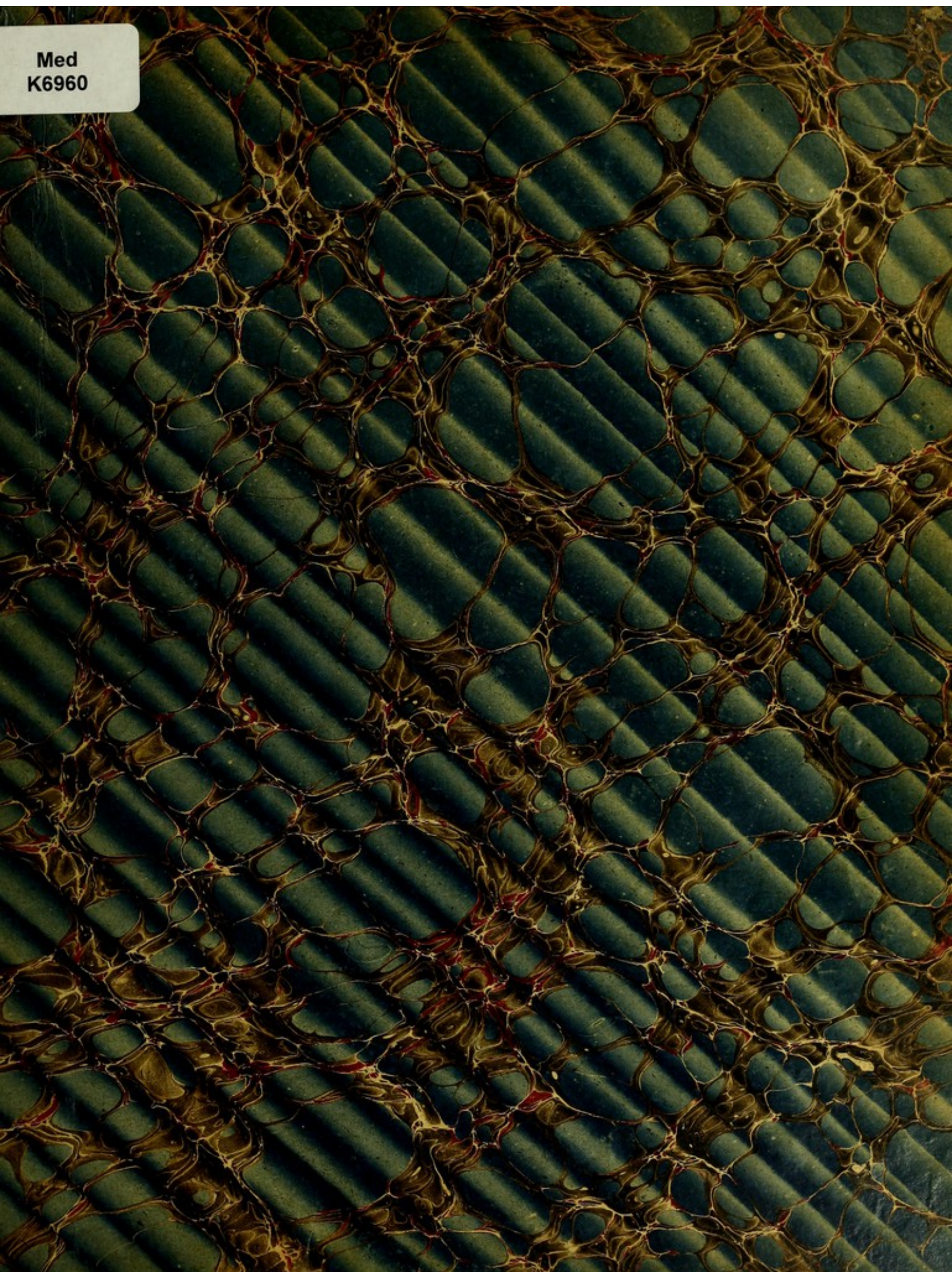
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BIOLOGIA CENTRALI-AMERICANA.

ZOOLOGIA.

Class INSECTA.

Order COLEOPTERA.

Fam. PSELAPHIDÆ*.

This family consists of minute Beetles, many of which are found in ants' nests. The majority of the species are rare and difficult to find even by experienced collectors. Mr. Champion procured a fair series of species in Guatemala and the State of Panama, but from the other divisions of our region we have received but little. Sallé's Mexican collection was very deficient in Pselaphidæ; from Nicaragua we have received only two or three species, and from Costa Rica none.

The arrangement followed is that given by Reitter in his paper entitled "Versuch einer systematischen Eintheilung der Clavigerinen und Pselaphiden" [Verh. Ver. Brünn, xx. pp. 177-211 (1882)].

In the 'Etudes entomologiques' (1855, pp. 8-25) there is a letter written by Victor de Motschulsky on board ship, giving an account of an entomological collecting expedition just made by him on the isthmus of Panama. He had established himself there at Obispo for two or three weeks, and succeeded in finding in that brief time about thirty species of Pselaphidæ. Most of these were new, scarcely anything being then known of the Panama Coleopterous fauna; and in the letter I am alluding to Motschulsky mentions these novelties seriatim, giving them names and occasionally adding a word or two of explanation. These names have no claim to be adopted, and I mention them only because they have been given as "published" in the list of Motschulsky's genera and species issued by the Entomological Society of Russia in 1868. In the case of three or four genera rude outline figures were given, and as these enable us to form an imperfect idea of what Motschulsky intended, their names have been adopted by Reitter and are also included in our list. It is certainly unfortunate that this letter

* By D. SHARP.

of Motschulsky's should never have been followed by any proper description of the objects mentioned and named therein. It is quite clear that he could not have made a proper study of these minute creatures on board ship between Colon and New Orleans, where his letter was written; and, so far as we know, he never returned to their study except to sketch the rude outline figures I have alluded to. Although some of these insects have become disseminated to a small extent under Motschulsky's names, but little value can be attached to these "typical" examples. In the case of two of these names Reitter has had an opportunity of testing them, and finds they were incorrectly applied by Motschulsky; in short, Motschulsky not only failed to describe the species he gave names to, but actually did not even discriminate them.

For these reasons I think the authors of the Munich Catalogue did right in refusing to recognize these names, and certainly Reitter has done all that courtesy and consideration demand when he treated those that were accompanied by figures as entitled to validity.

Subfam. CTENISTINÆ.

Group CTENISTINA.

DESIMIA.

Tetracis, Sharp, Ent. Monthly Mag. xi. p. 79 (1874) (nom. præoc.).

Desimia, Reitter, Verh. Ver. Brünn, xx. p. 184 (1882).

This genus has hitherto consisted of four or five African species; but in addition to the insect now added to it from our fauna I have still another in my collection from the Amazon valley, so that the genus is probably well represented in the New World.

1. *Desimia dispar*. (Tab. I. fig. 1, ♂.)

Rufescens, elytris sanguineis; antennis articulis ultimis elongatis; prothorace subtransverso, basi in medio pubescente-foveolata, utrinque dense pallide pubescente; elytris apice dense pallide pubescentibus, stria suturali aliaque discoidali integris.

Long. $1\frac{1}{2}$ millim.

Hab. MEXICO, Cordova (*Sallé*); GUATEMALA, Paraiso 300 feet (*Champion*).

Antennæ dissimilar in the sexes: in the male, joints 4-7 very small, the eighth joint very elongate and as long as the five or six preceding it, the ninth considerably shorter than the eighth, the tenth nearly as long as the eighth, the terminal joint stouter and rather longer than the eighth; in the female, joints 4-7 not quite so small, the eighth joint similar to the seventh, the ninth as long as the preceding two together, the tenth rather broader and longer than the ninth, the terminal joint stouter and a good deal longer than the tenth, the three terminal joints together equal in length to the six or seven preceding. Head with the antennal tubercles quite connate, prominent; indistinctly

bifoveolate between the eyes; bearing much sugary-white pubescence behind the eyes. Thorax rather broader than long, a little narrowed in front; with a large fovea filled with white pubescence near the base in the middle, and a conspicuous patch of white sugary pubescence on each side of the base. Elytra shining, brighter red than the rest of the surface, narrowed at the shoulders, the latter scarcely elevated; with a curved, rather deep, discoidal stria and a deep sutural stria; the apex covered with a dense pallid, sugary, or glandular pubescence. Hind body rather short, strongly margined, with a depressed fine squamose pubescence.

EPHIMIA.

Ephimia, Reitter, Verh. Ver. Brünn, xx. p. 185 (1882); Deutsche ent. Zeit. xxvii. p. 34.

This genus has recently been established by Reitter for a West-Indian insect. I have now to add a species from our region.

1. *Ephimia crassicornis*. (Tab. I. fig. 2.)

Rufo-castanea, elytris sanguineis, pube depressa flavescente irregulariter vestita; antennis articulis 3^o ad 7^m brevissimis, tribus ultimis elongatis; prothorace parvo, basi in medio foveolata; elytris quam prothorax longioribus.

Long. 2 millim.

Hab. PANAMA, San Miguel in the Pearl Islands (*Champion*).

Antennæ thick; pubescent, so that the articulations are not very distinct; the terminal three joints elongate, quite as long as the other eight together; the terminal joint rather longer than the preceding two joints united. Head narrow, with convex coarsely faceted eyes; the antennal tubercles quite connate; the front placed quite at right angles with the vertex. Thorax only about half as broad as the elytra; finely pubescent, with a large pubescent basal fovea. Elytra rather elongate, narrow at the shoulders, the latter not raised; the surface within the shoulders broadly depressed; with a fine sutural stria, but no discoidal one; the hind margin very densely covered with yellow pubescence.

This insect is rather larger than *E. simoni*, Reitter, and also has a longer terminal joint to the antennæ, much larger eyes, broader thorax, and longer elytra. The sex of the unique example discovered by Mr. Champion is doubtful.

Group TYRINA.

HAMOTUS.

Hamotus, Aubé, Ann. Soc. Ent. Fr. 1844, p. 92.

This is a genus peculiar to Tropical America; it comprises about twenty very closely allied species. An examination of the maxillary palpi is essential for the discrimination

of the species, these organs being very variable in structure in this genus and often differing in species otherwise exceedingly similar.

Hamotus is numerously represented in our region.

§ 1. *Thorax with a transverse sulcus in front of the base.*

1. ***Hamotus pubiventris.***

Major, parum latus, rufus, densius fulvo-pubescent; antennis crassis, clava triarticulata, maxima; palpis maxillaribus articulo ultimo elongato, apice intus curvato, acuminato; elytrorum stria discoidali elongata. Long. $3\frac{1}{2}$ millim.

Hab. NICARAGUA, Chontales (*Janson*).

Antennæ thick; joints 2-8 subequal, the second joint, however, rather longer than the others; the club extremely large; the ninth joint rather longer than broad, the tenth slightly longer, though scarcely so long as broad, the terminal joint very large, broader than the preceding one, subrotundate, but still longer than broad. Terminal joint of the maxillary palpus of peculiar form, and with its appendage larger than in the other known species. Head with thick antennary tubercles, which are strongly elevated and separated by a deep depression; the two foveæ on the vertex large, approximate, and but little distant from the frontal depression. Thorax subglobose; the basal fovea extending back to the basal margin, and connected to the lateral fovea by a very fine sulcus. Elytra flat, ferruginous in colour, with a remarkably distinct discoidal stria extending three fourths of their length. Hind body elongate, very broadly margined, very densely covered with a depressed fulvous pubescence.

Only one example was received of this very distinct species. I suppose it to be a female, from the absence of any peculiar structure, and from the form of the hind body.

2. ***Hamotus commodus.***

Hamotus commodus, Schaaf. Sechzig neue Pselaph. p. 33 (Dresden-Oberblasewitz, 1880)¹.

Hab. MEXICO, Teapa¹.

3. ***Hamotus tritomus.***

Hamotus tritomus, Reitt. Deutsch. ent. Zeit. xxvi. p. 132¹.

Hab. MEXICO (*Reitter*); GUATEMALA, El Reposo, Zapote, San Isidro, Cahabon, San Juan in Vera Paz, Telemán, Panzos, La Tinta (*Champion*); NICARAGUA, Granada (*Sallé*), Chontales (*Janson*); PANAMA, Bugaba, Volcan de Chiriqui, David (*Champion*).—SOUTH AMERICA, Colombia¹.

Though we have a good series of this species from Zapote and El Reposo, I have not been able to detect any sexual distinction; from most of the other localities only one or

two examples were obtained. The only Mexican exponent I have seen was sent to me by Herr Reitter, who obtained it from Hamburg. Judging from this fact and the way in which the specimen was mounted, I conclude that it was probably found by Herr Höge at Jalapa.

This species, though exceedingly similar to those following, is distinguished by the fact that the curvate sulcus in front of the base of the thorax has no definite fovea on the middle; the sulcus, however, may be described as subfoveate, as it is deeper in the middle and in this part slightly expanded in front, this expansion being somewhat concealed by a gibbosity or convexity of the surface of the thorax in front of it.

4. *Hamotus vicinus*.

Rufus, elytris dilute sanguineis, pube depressa minus dense vestitus; antennarum clava triarticulata, elongata; elytris plica intra-humerali abbreviata; abdomine segmento secundo dorsali quam segmentum basale paullo majore.

Long. $2\frac{1}{2}$ millim.

Hab. GUATEMALA, Capetillo (*Champion*).

Antennæ with joints 4-8 quite similar to one another, small and transverse; joints 9-11 forming an elongate club; the ninth joint quadrate, the tenth a little broader and slightly transverse, the terminal joint a good deal broader and quite as long as the preceding two together. Head rather broad and short, with a moderate fovea on each side near the eye. Thorax subglobose; with a large fovea in front of the base in the middle connected by a fine sulcus with the lateral fovea. Elytra with a very abbreviate intrahumeral depression.

Although extremely similar to *H. tritonus*, this insect is readily distinguished by the definite basal thoracic fovea, and the more abbreviate basal dorsal segment of the hind body. The last joint of the maxillary palpus is similar in form to that of *H. tritonus*, but is distinctly broader and shorter.

Only two examples were obtained; they are quite similar to one another and of uncertain sex.

5. *Hamotus difficilis*.

Rufus, elytris dilute sanguineis, pube depressa minus dense vestitus; antennarum clava triarticulata, elongata; elytris plica intrahumerali abbreviata; abdomine minus late marginato, segmentis dorsalibus primo et secundo æqualibus.

Long. $2\frac{1}{2}$ millim.

Hab. GUATEMALA, Zapote (*Champion*).

Although only one example of this insect was obtained, and it is very similar to *H. vicinus*, yet, as I have failed to reconcile it therewith, and it will not agree with any of the other species, I treat it as distinct. It differs from *H. vicinus* in possessing a narrower hind body with less broad lateral margins, a more slender terminal joint to

the maxillary palpus (resembling in this respect *H. tritonus*), and a rather more slender club to the antenna.

The example has no mark which would lead me to believe it to be a male.

6. *Hamotus monachus*.

Hamotus monachus, Reitter, Deutsch. ent. Zeit. xxvi. p. 131¹.

Rufus, elytris dilute sanguineis, pube depressa minus dense vestitus; antennarum clava triarticulata, elongata; elytris plica intrahumerali sat abbreviata; abdomine segmento secundo dorsali quam segmentum basale paullo minore.

Long. $2\frac{1}{2}$ millim.

Hab. MEXICO, Yucatan¹; GUATEMALA, El Reposo, Zapote (*Champion*).

This insect presents the closest resemblance to *H. vicinus* and *H. tritonus*; from the latter it is readily distinguished by the definite thoracic fovea; from the former it presents the following distinctions:—The terminal joint of the maxillary palpus is rather more elongate, the intrahumeral depression on the elytra is prolonged to form a short but definite plica, and the first dorsal segment is more elongate and evidently longer than the second.

The unique example transmitted to me by Herr Reitter is a female, and is remarkable from the elongation of the apical segments of the hind body. This was the only sex known to Reitter. Mr. Champion met with only two examples, both males, the whole of the ventral plates being rather broadly and deeply impressed along the middle. The typical example received from Herr Reitter and the individual found at El Reposo by Mr. Champion are both darker in colour than I have described above; but this, I believe, is chiefly due to their imperfect preservation.

7. *Hamotus latipalpis*.

Rufus, elytris dilute sanguineis, pube subtili depressa vestitus; antennarum clava triarticulata, elongata; elytris plica intrahumerali abbreviata; abdominis segmento basali dorsali quam segmentum secundum minore.

Long. $2\frac{1}{2}$ millim.

Hab. GUATEMALA, Zapote (*Champion*).

Extremely similar to *H. vicinus*, but with very important distinctions:—The pubescence of the surface much finer and shorter; the eyes larger, and placed quite at the hinder part of the head; the terminal joint of the maxillary palpus remarkable on account of its very short broad form, being in fact nearly as broad as long, so that its extremity is not acuminate; and the basal dorsal segment is abbreviate.

Only one example, of uncertain sex, was found.

8. *Hamotus curtipalpis*.

Rufo-brunneus, elytris sanguineis, pube subdepressa vestitus; antennarum clava triarticulata, elongata; elytris

plica intrahumerali abbreviata; abdominis segmentis dorsalibus primo et secundo æqualibus; palporum articulo ultimo parvo, brevi, lato.

Long. $2\frac{1}{2}$ millim.

Hab. PANAMA, Bugaba, David (*Champion*).

This species is extremely similar to *H. vicinus* and the allied species, but differs from all of them in the shape of the last joint of the maxillary palpus. This latter is comparatively small, its inner margin nearly straight though minutely prolonged internally at the apex, while the outer margin is very convex; the length of this joint is about the same as that of the tenth joint of the antennæ.

Only two examples are extant; they are in a very decayed condition, and are, I believe, both of the male sex, though this is indicated only by a minute flattening of the basal ventral segments.

9. *Hamotus suturalis*.

Hamotus suturalis, Schauf. Sechzig neue Pselaph. p. 32¹ (1880).

Hab. MEXICO, Teapa¹.

10. *Hamotus nodicollis*.

Hamotus nodicollis, Raffray, Rev. d'Ent. ii. p. 240¹.

Hab. MEXICO¹.

§ 2. *Thorax without transverse sulcus.*

11. *Hamotus singularis*.

Hamotus singularis, Reitt. Deutsch. ent. Zeit. xxvi. p. 133, note¹.

Hab. MEXICO (*Bilimek*¹), Cordova (*Sallé*); GUATEMALA, San Isidro 1600 feet, near the city, Aceytuno, Capetillo, San Juan in Vera Paz, Senahu (*Champion*); PANAMA, Bugaba 800 to 1500 feet, David (*Champion*).

I am not able to point with certainty to any external sexual distinctions of this insect; the condition of the pencil of hairs at the extremity of the hind tibia varies according to the state of the individual, and, moreover, can be flexed outwards under the apex of the tibia and tarsus so as to be concealed, though actually present.

12. *Hamotus setipes*. (Tab. I. fig. 3.)

Rufo-castaneus, elytris sanguineis, pube erecta elongata sat dense vestitus; capite latiore, tuberculis antennariis sat distantibus; tibiis omnibus extus perspicue longius setosellis.

Long. 3 millim.

Hab. PANAMA, Bugaba 800 to 1500 feet, Volcan de Chiriqui 2000 to 4000 feet (*Champion*).

Head broad, with two moderately large foveæ on the posterior portion; the antennal tubercles clearly separated, so that a third fovea just behind the space separating them

remains quite distinct. The ninth and tenth joints of the antennæ are transverse, but not excessively short; the terminal joint very thick and large. The fovea near the middle of the base of the thorax is large and distinct. The elytra have a well-marked sutural stria which is extremely deeply impressed at the base; and external to this stria, and separated therefrom by a raised space, another deep rather long impression which is not continued backwards as a stria.

Though very similar to *H. singularis* this is a larger insect, readily distinguished by the broader head, the more widely separated antennary tubercles, and the long setosity of the tibiæ. The sexual distinctions are slight, and almost confined to a difference in the shape of the hind body, this latter being rather longer, with the under surface more curvate, and the middle of the ventral rings flattened, in the male. In each sex there is a fine pencil of hairs at the extremity of the hind tibia, and an extremely slight incurvation of the tibia itself near the apex.

13. *Hamotus parvipalpis*.

Rufo-niger, pedibus rufis; palpis testaceis, his articulo ultimo parum magno et graciliter subovali; elytris intra humeros breviter impressis.

Long. $2\frac{1}{2}$ millim.

Hab. PANAMA, Bugaba, Volcan de Chiriqui 2500 to 4000 feet (*Champion*).

This species is closely allied to *H. singularis*, having a similar structure of the antennæ and of the thoracic foveæ; it is, however, well distinguished by a number of characters, the most important of which is the smaller and more slender terminal joint of the maxillary palpi. The pubescence of the surface is darker than in the allied species; the antennæ are extremely thick, with the joints 4-10 strongly transverse, and the terminal joint very broad; the head is not broad, and the antennary tubercles, though not very broad, are well separated, so that the small fovea between them is quite definite. The thorax is smaller and more globose than in *H. singularis*.

I have seen only two examples; unfortunately both are in a very decayed condition.

14. *Hamotus rostratus*.

Piceus, elytris sanguineis, palpis pedibusque rufis, pube elongata minus dense vestitus; antennis longioribus, articulis intermediis haud transversis; capite gracili rostrato, vertice foveolis grandibus impresso; palpis majoribus.

Long. 3 millim.

Hab. PANAMA, Bugaba (*Champion*).

Antennæ with the ninth and tenth joints elongate, intermediate in breadth between those preceding it and the terminal joint, this latter elongate, rather stout, not quite twice as long as broad. Palpi very large. Antennary tubercles convex, separated by a deep depression in which the frontal fovea is lost; the two foveæ on the vertex large. Thorax subglobose, rather large; the basal fovea only moderately large, filled with fine pubescence. Elytra red, with very elongate erect pubescence, the intrahumeral plica

elongate, densely pubescent at their hind margin. Tibiæ pubescent externally; those of the hind legs quite straight and slender, and without definite tuft of hairs at the extremity.

Only one example was met with of this fine species; it forms a natural transition to the following.

15. **Hamotus grandipalpis.** (Tab. I. fig. 4.)

Piceo-sanguineus, pube elongata erecta dense vestitus; antennis, palpis pedibusque rufo-obscuris, illis elongatis gracilibus; palpis maxillaribus maximis; capite gracili rostrato, vertice trifoveolato; abdomine segmentis dorsalibus quatuor conspicuis, longitudini subæqualibus.

Long. $3\frac{1}{2}$ millim.

Hab. PANAMA, Volcan de Chiriqui 2000 to 3000 feet (*Champion*).

Antennæ with very long basal joint; the second, third, and fourth joints subequal, the fifth and sixth rather elongate, the seventh and eighth a little shorter, but each a good deal longer than broad, the ninth and tenth elongate but scarcely at all thicker than the preceding two, the tenth very long and slender and with its inner margin curvate. Palpi with very elongate second joint and very large terminal joint. Head with the strongly elevated antennary tubercles separated by a deep depression; with two foveæ near the vertex, and a third depression behind these in the middle. Thorax rather large, subglobose; the basal fovea distinct, quite isolated. Elytra with deep but short intrahumeral depression. Hind body with the margins of the first and second segments very largely developed. Hind tibia without apical pencil.

Only one example was met with of this species; it may be a male, as the depression on the metasternum is remarkably deep. Although the maxillary palpi are so strongly developed, I cannot treat this as a generic character at present, as there is very great variety in the size and form of these organs amongst the species of this genus inhabiting our region.

CERCOCERUS.

Circocerus, Motschulsky, Etudes ent. 1855, p. 16, and 1856, tab. f. 4; Leconte, New Sp. N. Am. Coll. p. 27 (1863).

Cercocerus, Leconte, Class. Col. N. Am. p. 57 (1861); Reitter, Verh. Ver. Brünn, xx. p. 186 (1882).

The characters given of this genus show nothing to distinguish it from *Hamotus*, of which I have little doubt it is merely a synonym. As, however, I do not actually know either of the species ascribed to it, I give it a distinct place in deference to Reitter, who treats it as a valid genus.

1. **Cercocerus batrisoides.**

? *Circocerus perplexus*, Motsch. Etudes ent. 1855, p. 16¹.

Circocerus batrisoides, Motsch. Etudes ent. 1856, tab. f. 4.

? *Circocerus batrisoides*, Lec. New sp. N. Am. Col. p. 27 (1863)².

Hab. NORTH AMERICA, New Orleans².—PANAMA, Obispo¹.

BIOL. CENTR.-AMER., Coleopt., Vol. II. Pt. 1, February 1887.

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Motschulsky (Etudes ent. 1855, p. 16) speaks of what we may presume to be the same insect under the name of *C. perplexus*; *C. batrisioides*, Motsch., is said by Reitter to be the same as the North-American *C. batrisoides*, Lec.

Subfam. *BATRISINÆ*.

METOPIAS.

Metopias, Gory, in Guérin's Mag. Zool. 1832, Ins. t. 42, text p. 1; Aubé, l. c. 1833, Mon. Pselaph. p. 13, t. 78. f. 1; Reitter, Deutsche ent. Zeit. xxix. p. 334 (1885).

This genus is purely tropical American, and comprises five species; Reitter having recently separated another five species under the generic name of *Metopioxys*.

1. *Metopias elegans*. (Tab. I. fig. 10.)

Pallide castaneus, elytris rufo-testaceis, antennis pedibusque testaceis, pube erecta subtili vestitus; prothorace elongato, ante basin transversim sulcato; antennis valde elongatis, articulo tertio graciliter ovali et sequentibus tribus simul sumptis majore.

Long. $2\frac{1}{2}$ millim.

Hab. PANAMA, Volcan de Chiriqui 3000 to 4000 feet (*Champion*).

Antennæ pale yellow, longer than the insect itself; the first joint as long as the following seven or eight joints together, the second longer than broad, the third broader and very much longer than the second, the five following joints subequal to one another, simple, the ninth scarcely thicker but much more elongate, the tenth small, the eleventh rather longer than the ninth and quite acuminate at the apex. Palpi rather short. Head elongate, the vertex with a deep impression; the antennal tubercles divided by a groove, and the posterior part of their prolongation projecting backwards in an angular manner into the depression on the vertex. Thorax slender, unarmed; very obsoletely longitudinally canaliculate along the middle; with a deep fine transverse sulcus in front of the base, and without lateral channels. Elytra elongate, narrowed at the shoulders, the latter only slightly prominent, with a very deep depression along the suture, and a short basal depression external to this.

The solitary example discovered is no doubt a male, the extremity of the hind body beneath being deeply excavate, while in front of the excavation there are two erect subcurvate spinous processes. The species is not closely allied to any yet described, but perhaps is nearest to *M. hirtus*, Reitt., from Brazil.

BATRISUS.

Batrisus, Aubé, in Guérin's Mag. Zool. 1833, Mon. Pselaph. p. 45.

This is now a very large genus comprising upwards of two hundred described species, and is found in most parts of the world. It contains a very great variety of forms, and is especially remarkable on account of the extraordinary sexual characters, scarcely any part of the body being exempt from being the seat of peculiar structures in the male

sex. The larger number of the Tropical-American forms belong to the subgenus *Arthmius*; this subgenus has not been correctly treated up till now: the females of the species belonging to it are different in shape and usually in colour from the males, and have been regarded as specifically distinct; the "table" recently given by Reitter of the South- and Central-American species known to him (Verh. Ver. Brünn, 1883, pp. 377 and 378) requires emendation on this account, the insects enumerated by this author under Section B of *Arthmius* being females.

§ 1. *Thorax without any longitudinal channel, but with a transverse sulcus in front of the base; elytra without discoidal stria; form different in the sexes.* (Subgen. *Arthmius*.)

1. *Batrisus geniculatus*.

Rufo-testaceus, nitidus; antennis pedibusque testaceis, illis parum elongatis; capite plano, lævigato, utrinque foveolato.

Long. 2 millim.

Mas antennis medio curvatis; tibiis anterioribus ultra medium valde dilatatis, apice abrupte angustato.

Hab. MEXICO, Jalapa (*Höge*).

The head is short and small; without sculpture, but with a distinct fovea on each side behind; the eyes small. The thorax is quite small, slender; and without channels, except the delicate transverse sulcus in front of the base.

The sexual differences are very considerable: the male is of a pallid rufescent colour and has longer elytra than the female, the female being of a more castaneous tint; the fifth joint of the antennæ is considerably enlarged behind and with the two following joints forms a curve, the tenth joint is scarcely transverse; the front tibiæ are greatly dilated, and then below the middle suddenly narrowed; the middle tibiæ are furnished with a minute internal uncus at the extremity; the apical half of the hind body is occupied beneath by a depression, and at the base of the latter is an elevated short carina from which a pubescent wing diverges on either side. Five examples were obtained by Herr Höge, and I believe I have identified the sexes with certainty.

2. *Batrisus curvicornis*.

Batrisus curvicornis, Schauf. Nunq. Otios. ii. p. 286¹; Reitt. Verh. z.-b. Ges. Wien, 1882, p. 378².

Hab. MEXICO (*Bilimek*², in coll. *Reitter*), Yucatan¹, Cordova (*Sallé*).

Schaufuss's description is a very poor one, and contains no characters that would enable his species to be discriminated from those allied to it, and I give therefore the male characters drawn from a Mexican example communicated by Herr Reitter. The unique exponent from Sallé's collection which I take to be this species is in bad preservation. In the male the front tibiæ are slightly swollen from the base to below the middle, the apical third being again slender (this apical constriction is, however, not abrupt, so that the prominent angle terminating the swelling is very obtuse and not at

all spinose); the middle tibiæ are mucronate at the extremity; and the antennæ have a curve extending from the fourth joint to the seventh, and the fourth joint is slightly enlarged beneath. The female is not known, but I think it likely that *B. quadripunctatus*, which Schaufuss received from the same source as his *B. curvicornis*, may be the other sex of this species. Reitter's tabulation² unfortunately also needs emendation, as the form of the elytra (which has led him to place *B. quadripunctatus* in a different group from *B. curvicornis*) is in these insects a sexual character.

3. *Batrisus quadripunctatus*.

Batrisus quadripunctatus, Schauf. Nunq. Otios. ii. p. 273¹; Reitt. Verh. z.-b. Ges. Wien, 1882, p. 378².

Hab. MEXICO (*Bilimek*², in coll. *Reitter*), Yucatan¹, Jalapa (*Höge*).

As mentioned above, under *B. curvicornis*, I believe this may prove to be the female of that species; but as I cannot state this with certainty, I do not venture to sink the name at present. *B. quadripunctatus* is scarcely distinguishable from the females of *B. geniculatus* and *B. simplicicornis*, except that the antennæ are decidedly shorter than those of the latter, slightly shorter than those of the former, species, and have the sixth and eighth joints more distinctly smaller than those contiguous to them. Although Schaufuss in his description of *B. curvicornis*¹ expresses himself as having both sexes of the species before him, yet it is more likely that his supposed female was a male of some other species having simple antennæ, such as *B. simplicicornis*; for the difference in form of the sexes in this subgenus has not before been correctly dealt with—the females, in fact, having been treated as a section of the genus distinct from that of their consorts.

4. *Batrisus simplicicornis*. (Tab. I. fig. 6, ♂.)

Rufo-testaceus, nitidus, parce pubescens; antennis pedibusque testaceis, illis parum elongatis; capite plano, lævigato, utrinque foveolato.

Long. vix 2 millim.

Mas tibiis anterioribus gracilibus, ultra medium paullo latioribus, apice constricto.

Hab. GUATEMALA, near the city (*Champion*).

Extremely similar to *B. curvicornis* and *B. geniculatus*, but with strongly marked differences in the male characters. In this sex the antennæ are quite straight; the front tibiæ only slightly broader from the base to below the middle, but there suddenly though only slightly contracted; the middle tibiæ armed with a mucro at the terminal inner angle; and the hind body beneath has a large transverse depression at the extremity. The female is of a more castaneous colour, and has shorter elytra, and slightly shorter antennæ, than the male; I can only distinguish this sex from the female of *B. geniculatus* by the antennæ being slightly longer and stouter, and the thorax just perceptibly more elongate.

5. *Batrisus* —?

Hab. GUATEMALA, Totonicapam between 8500 and 10,000 feet (*Champion*).

Only a single female was found of this insect, and it is therefore not advisable to attempt to found a species on it; I have little doubt, however, that it is quite distinct, as it has a much more elongate hind body than any of its allies.

6. *Batrisus truncaticeps*.

Gracilis, rufo-testaceus, nitidus, parce pubescens; antennis pedibusque testaceis, illis gracilibus; capite plano, lævigato, utrinque foveolato.

Long. $1\frac{7}{8}$ millim.

Mas capite posterius recte truncato, tibiis anterioribus inflatis, antennis basi curvatis.

Hab. GUATEMALA, near the city (*Champion*).

Although quite similar to *B. simplicicornis* and *B. curvicornis* the male characters are very different:—The head is quite straight behind, not rounded, with well-marked rectangular angles; the antennæ are slender, and the third, fourth, and fifth joints form a curve, the fifth being prolonged and projecting downwards, the sixth, seventh, and eighth joints are slender and straight, the three terminal joints forming an elongate slender club; the front tibiæ are much inflated, and when viewed in one direction appear to have the lower half abruptly more slender, and the swollen upper part is, I think, occupied by a cavity or fovea opening below on the front face of the tibia; the middle tibiæ are mucronate at the extremity; and the terminal ventral segment is flattened but not foveate.

Only one example of this curious insect was obtained; mounted on the same card with it by Mr. Champion is a female which I am unable to distinguish by any character from that sex of *B. simplicicornis*, still so close are the females of this group of species that it is just possible it may be the female of *B. truncaticeps*; under these circumstances it is doubtful whether the peculiar truncate vertex be a specific or a sexual character.

7. *Batrisus castaneus*.

Gracilis, nitidus, castaneus; antennarum apice pedibusque testaceis; capite plano, utrinque foveolato.

Long. $1\frac{3}{4}$ millim.

Mas tibiis anterioribus ultra medium rotundato-subdilatis.

Hab. GUATEMALA, San Juan in Vera Paz (*Champion*).

This is a very peculiar species of which the male only has been discovered, and of that sex only a single example. The colour and the shape of the elytra are more like those of the female sex of the preceding species; the elytra, however, though rounded at the sides and shoulders, are much longer than in the females of *B. simplicicornis*; the head also differs but little from that of the female of *B. simplicicornis*, being destitute of peculiarities of structure or punctuation. The antennæ are slender and

rather elongate; castaneous in colour, with the apical two or three joints paler; they are simple, and without peculiarity in the shape of the joints, though the eighth joint is much shorter than the seventh. The thorax is elongate and slender, with its transverse line placed far in front of the base. The elytra are rather elongate, without humeral angle or tuberculation, and the six punctures at the base are minute and indistinct. The dorsal segments bear, in addition to the scanty pubescence, a few fine long erect setæ; the apical ventral segment is feebly depressed and bituberculate at the extremity. The front tibiæ, though slender, are peculiarly distorted and appear very different in shape according to the point from which they are viewed; the middle tibiæ finely mucronate at the apex.

8. *Batrisus scaphiger*.

Nigro-piceus, nitidus, parce pubescens; antennis castaneis, apice pedibusque testaceis; capite plano, utrinque foveolato.

Long. $1\frac{3}{8}$ millim.

Mas antennis medio curvato, tibiis anterioribus medio subinflatis, trochanteribus posterioribus majoribus, scaphiformibus, dense pubescentibus.

Hab. ? MEXICO (*Sallé*).

This insect also is only known by one male example. The head is without structural peculiarities, flat and shining, and with a very evident fovea on each side. The antennæ are rather long, and are curved from the fifth to the ninth joints (although there is no very striking alteration in the shape of these joints); the fourth joint is slightly larger than the third, the fifth is much longer than either the one preceding or the one following it, the eighth joint has the lower inner face a little cut away, the tenth joint is not quite so large as the ninth, and the terminal joint is elongate and slender. The front tibiæ are only slightly inflated, the greatest width being about the middle; the middle tibiæ finely mucronate at the extremity. The hind trochanters are of a most extraordinary form, being enlarged, and with a concave face behind, the concavity densely set with pubescence. The hind body is also peculiar in form: on the ventral aspect the intermediate rings are not exposed, so that it there appears to be composed of only two segments, of which the apical one is broad and flat and its hind margin quite broad and gently emarginate—thus allowing a considerable portion of a supplementary segment to be perceived.

Although the locality is not exactly known, there can be no difficulty in identifying this insect, the structure of the posterior trochanters being unique; in the much rounded shoulders, as well as in the structure of the head, it resembles *B. castaneus*.

9. *Batrisus monoceros*.

Nitidus, parce pubescens; capite abdomineque nigris; prothorace elytrisque læte rufis; antennis pedibusque testaceis; corpore subtus rufo-obscuris; vertice subconvexo, utrinque foveolato.

Long. $1\frac{3}{8}$ millim.

Mas capite antierius in spinam elongatam acutissimam, antierius prominulam, producto; antennis medio parum curvatis; tibiis antierioribus apicem versus sat inflatis.

Hab. GUATEMALA, Quiche Mountains 7000 to 9000 feet (*Champion*).

This species also I must describe from a single male. The antennæ are unicolorous yellow, slightly curved from the sixth to the eighth joints, this latter being prolonged and acuminate beneath; the ninth and tenth joints not very much larger than the others, each not longer than broad; the terminal joint large, as long as the preceding three together. Head black; produced in the middle in a forward and upward direction so as to form a spine or horn with extremely acute point. The elytra are rather elongate, and contrast strongly in colour with the black hind body, the shoulders slightly plicate-elevate. The front tibiæ are distinctly inflated before the extremity; the middle tibiæ finely mucronate at the apex. The apical ventral segment is slightly impressed.

10. *Batrisus armatellus*.

Nitidus, parce pubescens; antennis pedibusque rufis; capite haud plano; elytris basi sexpunctatis.

Long. 2 millim.

Mas sanguineo-castaneus, capite inter antennis spina obliqua suberecta armato.

Fem. castanea, capite mutico, elytris lateribus et humeris rotundatis.

Hab. PANAMA, Bugaba, Volcan de Chiriqui 2000 to 4000 feet, David (*Champion*).

The male of this species differs from the same sex of *B. curvicornis* and its allies in having the front tibiæ and the antennæ normal in structure, while the head exhibits remarkable sexual peculiarities. In this sex, just between the insertion of the antennæ, there arises a spine or short horn, broad at the base but acuminate at its free extremity; this spine or horn is directed obliquely backwards and upwards, and behind it is a transverse depression, the depression almost divided into two parts by the spine, but in the middle behind the apex of the spine with a prolongation backwards; there is an indistinct fovea near each eye; the middle tibiæ are armed at the apex with a very evident mucro, and the trochanters of the same pair of legs provided behind with a patch of short pubescence; the last ventral segment is largely but not at all deeply impressed; and the antennæ are slightly larger than those of the female. The sexual characters are quite sufficient for the identification of the male; the female, however, is very different, it being less rufescent in colour, and with the elytra shorter and completely rounded at the sides and shoulders. The female may be distinguished from the corresponding sex of *B. simplicicornis* and its allies by its larger and longer antennæ, the sixth and seventh joints especially being larger; and still more decisively by the structure of the head, which is but little shining, and is minutely punctate and pubescent on each side near the eye, the vertex behind being a little convex in the middle and rather indistinctly foveolate on either side.

11. *Batrisus coronifer*.

Batrisus coronifer, Reitt. Verh. z.-b. Ges. Wien, 1882, p. 375¹.

Hab. PANAMA¹.

According to a type communicated by Herr Reitter, this insect is allied to *B. armatellus*, but is of more dilute colour, with elongate slender antennæ, the spine on the front of the head indistinct, and the vertex in the middle behind somewhat raised and emarginate; the depressions behind the clypeal spine slight compared with those of *B. armatellus*.

12. *Batrisus plicicollis*.

Batrisus plicicollis, Reitt. Verh. z.-b. Ges. Wien, 1882, p. 376¹.

Hab. MEXICO, Orizaba (*Bilimek*¹).

Reitter supposed he had both sexes of this species, but the five individuals I have received from him are all females; and as he has not indicated any of the characters usually distinctive of the male in this group, I imagine this sex is most probably still unknown, and anticipate it will prove to have the head ornamented by some structures analogous to those seen in *B. armatellus* and *B. coronifer*. The species is readily recognized, at any rate in the female sex, by the peculiar form of the thorax, the latter being compressed laterally so as to appear longitudinally raised along the middle.

13. *Batrisus vividus*.

Batrisus vividus, Schauf. Nunq. Otios. ii. p. 282¹ (nec Motsch.).

Hab. CENTRAL AMERICA¹.

This insect also was described from a single female, and cannot be identified at present; it is stated to differ from Schaufuss's supposed female of *B. curvicornis* in the structure of the labrum. The name was originally proposed by Motschulsky; and Reitter's remarks (Verh. z.-b. Ges. Wien, 1883, pp. 375, 376) as to the confusion with regard to specimens existing in collections under this name should be referred to. It is quite possible that Schaufuss's insect may be the female of *B. coronifer*, Reitt.

§ 2. *Thorax without longitudinal or transverse channels, but denticulate at the sides.* (Subgen. *Oxarthrius*).

14. *Batrisus hamaticollis*. (Tab. I. fig. 5, ♂.)

Sanguineus, parce pubescens, nitidus; antennis pedibusque rufis; capite utrinque pone oculos barbato; prothorace posterius fortiter bispinoso; elytris impunctatis, humeris sat prominulis.

Long. 2½ millim.

Hab. GUATEMALA, Las Mercedes 3000 feet (*Champion*).

A single male only has been obtained of this species, and the description therefore is of that sex only.

Antennæ elongate, the basal joint largely exposed; with a very elongate club, formed by the four terminal joints—these joints somewhat asymmetric in form, the eighth being slightly more incrassate on one side than on the other, the ninth transverse and with one of its angles evidently acuminate, the tenth also transverse, and with one of its faces shining and somewhat impressed, the terminal joint large and quite as long as the preceding two joints together. Head broad between the eyes, the latter placed quite as near to the antennæ as to the neck; narrowed behind the eyes, and bearing on this part an erect pubescence; its surface uneven, the vertex convex and obscurely foveolate on either side of the convexity; depressed between the antennal elevations and the vertex, and with a very indistinct carina on either side near the eye. Thorax convex, with a minute lateral spine on either side in front of the middle; much narrowed behind the denticles, and with two large acute prominences in front of the base. Elytra depressed at the base, so that the basal foveation cannot be distinguished. First segment of the hind body rather broadly margined. Hind tibiæ with a distinct mucro at the extremity; middle tibiæ more feebly mucronate; middle femora with a large straight tooth placed almost in the middle. Terminal ventral plate small, and only feebly impressed.

15. *Batrisus rivularis*.

Batrisus rivularis, Schauf. Nunq. Otios. ii. p. 285¹.

Hab. PANAMA¹.

§ 3. *Thorax without longitudinal or transverse channels, unarmed.*

The species I refer to this section represent a new subgenus, which I should have treated as generically distinct from the other New-World *Batrisci* had it not been that it shows considerable analogy with the European *B. formicarius*.

16. *Batrisus crassipes*. (Tab. I. fig. 7.)

Major, elongatus, castaneus, nitidus, crebrius pubescens; elytris intra humeros impressis, basi quadrifoveata, plica discoidali abbreviata.

Long. 3 millim.

Hab. PANAMA, Bugaba 800 to 1800 feet, Volcan de Chiriqui 2500 to 4000 feet (*Champion*).

Antennæ thick; ninth joint but little different from the eighth, the tenth joint also only slightly differing from the ninth and scarcely so long as broad, the terminal joint very stout. Head narrow, with convex, rather large, finely faceted eyes, the latter placed much in front of the hind margin; thickened over the insertion of each antenna, so that the front part consists of an elevated transverse portion behind which there is

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an angular depression, the vertex being convex. Thorax narrow, longer than broad; bearing a fine erect pubescence, quite impunctate. Elytra subquadrate, the shoulders elevated, and with a short discoidal plica; from behind appearing only quadrifoveate at the extreme base; distinctly pubescent, but almost impunctate. Hind body with an extremely large basal dorsal plate, the latter very deeply transversely depressed in front. Legs stout.

The two examples obtained are quite similar in structure, and I suspect are of the male sex, the metasternum being rather deeply impressed. The latter also exhibits an angular prominence on each side close to the outer termination of the coxa, while behind the coxa the trochanter is compressed so as to form a somewhat similar prominence, the articulation being included between the two prominences: in order to see these characters properly the insect must be viewed in profile. The ventral rings are of rather peculiar form; the basal one very short in the middle and scarcely longer there than the following two together, and the fourth longer than those preceding it; the terminal plate is not impressed. The under surface is much less pubescent than the upper.

17. *Batrisus lamellipes*.

Major, elongatus, castaneus, nitidus, breviter parce pubescens; elytris intra humeros impressis, basi quadrifoveata, plica discoidali abbreviata.

Long. 3 millim.

Hab. PANAMA, Bugaba (*Champion*).

This species bears a great general resemblance to *B. crassipes*, but exhibits some very important differences: the pubescence of the surface, especially on the anterior parts, is quite minute; the eyes are smaller and but little prominent; the anterior elevation of the head is separated from the vertex by a deep depression, the depression scarcely angular in form; the ninth and tenth joints of the antennæ are scarcely at all broader than the others, the terminal joint being very large; the legs are considerably broader, with the tarsi shorter and thicker, and the femora more compressed and lamellate; the terminal joint of the maxillary palpi is of a different and more peculiar form, being more slender, with its inner margin concave.

The unique example is probably a female, the metasternum being but little impressed and having only an excessively minute angular prominence on each side of the impression. The ventral rings are rather elongate, except the basal one, the latter in the middle being scarcely so long as the fourth.

BATOCTENUS.

Corpus sat elongatum; caput muticum, absque tuberculis antennariis; antennæ inter se parum distantes, crassiusculæ; oculi magni; prothorax parum elongatus, absque sulculis, ad latus utrinque foveatus; elytra striis discoidalibus subtilibus duabus; abdomen haud marginatum, segmento dorsali primo quam secundum paullo longiore, segmentis ventralibus primis et secundis subæqualibus.

Although closely allied to the polymorphous *Batrisus*, and without any one very salient point of difference, yet the insects I include in *Batoctenus* exhibit so many minor distinctions as to constitute the genus a very distinct one. The palpi are shorter than in *Batrisus*, and with the terminal joint ovate, acuminate; the head is simple, without depressions or any distinct elevation over the antennal insertion; the space separating the antennæ is narrower; the eyes are large and coarsely faceted; on the under surface of the body there is but little difference between the length of the first and the other ventral rings. The rest of the characters very nearly agree with *Batrisus*.

1. *Batoctenus simplex*.

Rufescens, elytris sanguineis; crebrius subtiliter pubescens, parum nitidus; capite opaco, dense subtiliter rugoso-punctato; prothorace fere impunctato.

Long. $2\frac{1}{8}$ millim.

Hab. PANAMA, Volcan de Chiriqui 2000 to 4000 feet (*Champion*).

The antennæ are dissimilar in the sexes, though joints 2-7 differ but little from one another: in the female the eighth joint differs from the seventh only in being a little longer, the ninth is rather broader, and the tenth still somewhat broader, the terminal joint being elongate, stout, and obtusely acuminate; in the male the eighth joint is oblong and much larger than the seventh, the ninth joint a little larger than the eighth, the tenth shorter than the ninth, the terminal joint very stout. The opaque densely sculptured head has no elevations or depressions except the two indistinct foveæ on the vertex. The thorax is nearly as long as broad; much narrowed behind and still more so in front. The elytra are elongate, and of a brighter red than the rest of the surface; with the shoulders slightly elevated, and a sutural and two fine equidistant dorsal striæ extending the whole length. In addition to the peculiar antennæ, the male is distinguished from the female by the possession of a mucro at the extremity of the middle tibia; and it also has the terminal ventral plate more distinctly impressed.

Four examples.

2. *Batoctenus puncticollis*. (Tab. I. fig. 9, ♂.)

Rufescens, elytris sanguineis, crebrius subtiliter pubescens, parum nitidus; capite opaco, dense subtiliter rugoso-punctato; prothorace disco dense punctato.

Long. 2 millim.

Hab. PANAMA, Volcan de Chiriqui 2000 to 4000 feet (*Champion*).

Though very similar to *B. simplex*, this insect is readily distinguished by the punctate thoracic disc. The sexual distinctions are similar, except that the male of *B. puncticollis* has an additional character in the shape of the front tibiæ, these latter, though slender, becoming slightly broader on the inner face to just below the middle, where they again become narrow.

One pair only was found.

EUPHALEPSUS.

Euphalepsus, Reitter, Verh. z.-b. Ges. Wien, xx. p. 378 (1882).

This genus, though allied in many respects to *Batrisus*, is essentially distinct by the structure of the palpi. It comprises as yet only three Brazilian species in addition to those found in our region; one, recently described by Reitter as *E. longicornis*, has had no locality indicated, but it is not, I believe, from our region.

1. *Euphalepsus globipennis*.

Euphalepsus globipennis, Reitt. l. c. p. 379¹.

Hab. MEXICO, San Marcos (*Bilimek*¹, *mus. Vindob.*).

We have not received this species.

2. *Euphalepsus centralis*.

Brevis, convexus, sanguineo-castaneus, nitidus, pube erecta vestitus; elytrorum basi et humeris marginato-elevatis; antennis sat elongatis, articulis nono et decimo in latitudine et longitudine subæqualibus. Long. 2 millim.

Hab. GUATEMALA, San Gerónimo, Quiche Mountains 7000 to 9000 feet (*Champion*).

Antennæ with joints 3-8 differing little from one another; the ninth joint considerably larger and about as long as broad, the tenth similar to the ninth, the terminal joint rather longer than the preceding two together. Head small; with two short thick antennal tubercles, and behind each of these obscurely foveolate. Thorax small, convex, with a deep transverse sulcus in front of the base, the extremity of the sulcus connected with a short deep longitudinal impression on each side. Elytra broad, convex, the base margined, the shoulders elevated; the humeral elevation not continued backwards along the sides, the basal margin crenulate owing to the three or four punctures or minute foveæ which exist on each side; without discoidal stria, the sutural stria fine; the pubescence very distinct, but the punctuation extremely feeble. Hind body very short, convex, forming in profile a curve almost continuous with the elytra. Legs rather slender.

Only one example was found in each locality; they are apparently male and female, though the differences are but slight: each has the metasternum foveolate at the extremity. The male, from San Gerónimo, has a very minute patch of pubescence on the hind margin of the intermediate femur near the base, the middle tibia slightly denticulate inwardly just below the middle, and the hind tibia with a very minute inflation of its superior face below the middle. The female is remarkable on account of the existence of a conical projection of the dorsal surface of the hind body at the extremity.

3. *Euphalepsus reitteri*. (Tab. I. fig. 8, ♂.)

Brevis, convexus, sanguineo-castaneus, nitidus, pube longa erecta dense vestitus; elytrorum basi et humeris marginato-elevatis; antennis sat elongatis, crassis, clava elongata, articulorum noni et decimi longitudine latitudinem superante.

Long. $2\frac{1}{2}$ millim.

Hab. PANAMA, Volcan de Chiriqui 2500 to 4000 feet (*Champion*).

A single male example only has been obtained. It is closely allied to *E. centralis*, but is larger, with a more dense pubescence, much more largely developed club to the antennæ, and a more elongate head; the sexual characters are also different, the hind legs being longer and thicker and with their tibiæ dilated externally below the middle, the middle femora without a patch of pubescence, and the denticle near the extremity of the middle tibiæ scarcely to be detected.

I have named this elegant species of Pselaphidæ in honour of Herr Reitter, of Vienna, who has contributed more than any other entomologist to our knowledge of this family of minute but extremely curious Coleoptera.

Subfam. *BRYAXINÆ*.Group *GONIACERINA*.*GONIACERUS*.

Goniacerus, Motschulsky, Etudes ent. 1855, p. 17, tab. fig. 8; Reitter, Verh. Ver. Brünn, xx. pp. 188, 206 (1882).

Goniastes, Westwood, Trans. Ent. Soc. Lond. 1870, p. 125.

This genus comprises only a single Amazonian species in addition to the one from our region.

1. *Goniacerus gibbus*.

Goniacerus gibbus, Motsch. l. c.¹

Hab. PANAMA, Obispo¹.

LISTRIOPHORUS.

Listriophorus, Schaufuss, Nunq. Otios. ii. p. 245; Reitter, Verh. Ver. Brünn, xx. p. 189 (1882).

This genus has not been characterized; it was merely tabulated by Schaufuss. *Listriophorus* comprises only one species, which probably may not belong to our region.

1. *Listriophorus felix*.

Listriophorus felix, Schauf. l. c. p. 289¹.

Hab. ? MEXICO ("wahrscheinlich")¹.

Group **BRYAXINA.****CACCOPECTUS.**

Corpus sat elongatum, subdepressum, subparallelum, pube subtili depressa vestitum. Antennæ 11-articulatæ, simplices, vix clavatæ, ad basin inter sese tantum modico distantes. Os subtus situm. Palpi maxillares minuti, articulo ultimo breviter ovali. Caput valde convexum; oculis sat magnis. Prothorax brevis, ante basin transversim impressus. Elytra elongata, striis suturalibus et discoidalibus geminatis impressis. Abdomen late marginatum.

This genus is proposed for an insect that appears anomalous in several respects; it has at first sight the aspect of the "Euplectina," though apparently possessing but little relationship with that group. I am inclined to think *Caccoplectus* would be most naturally located near *Batoctenus*; but, as I cannot discover any trace of a second claw to the tarsus, I am obliged in following Reitter's arrangement to place it in the 'Bryaxina,' to no member of which group has it, so far as I know, any resemblance. Though the mouth is placed on the underside of the head (as in the 'Ctenistina'), yet the latter is quite short, and not at all rostrate, the antennæ being inserted close to the labrum. The maxillary palpi are unusually minute, so that I can only with difficulty obtain a sight of the terminal joint. The hind coxæ are widely separated; the two basal joints of the tarsi very distinct, and setose beneath. The second, third, and fourth ventral rings are similar to one another, and rather elongate, the basal ring being very short.

1. *Caccoplectus celatus*. (Tab. I. fig. 11.)

Testaceo-castaneus, elytris magis sanguineis, pube depressa flavescente vestitus; antennis crassiusculis, articulo 2^o parvo, articulis 3^o-10^{is} subæqualibus.

Long. 2 millim.

Hab. GUATEMALA, Zapote (*Champion*).

Antennæ stout, the second joint smaller than either of the others, joints 3-10 differing very little from one another, the terminal joint as long as the preceding two together. Head very convex in the middle; antennal tubercles flat, elongate, separated in front only; eyes large, coarsely faceted. Thorax with a transverse impression near the base and behind this, in the middle, a short longitudinal depression in front of the scutellum; a longitudinal impression also on each side. Elytra elongate, narrowed, though not in the least raised, at the shoulders; the discoidal stria consisting of two very fine, rather widely separated lines, and the sutural stria also having the appearance of being limited on each side by a very fine line. The hind body is densely pubescent.

The unique example found is presumed to be a male, the middle femora being dilated so that their base is very much wider than the trochanter and exhibits a slight obtuse angle.

DECARTHON.

Decarthron, Brendel, Proc. Ent. Soc. Phil. vi. p. 35 (May 1866); Reitter, Verh. Ver. Brünn, xx. p. 189 (1882).

This genus is peculiar to the New World; only a few species have been described

as yet, though *Decarthron* ranges from the United States of North America to the tropics.

§ 1. *Thorax with a lateral fovea on each side.*

1. ***Decarthron suturale*.**

Bryaxis suturalis, Schauf. Sechzig neue Pselaph. p. 17'.

Hab. MEXICO¹.

2. ***Decarthron cochlearifer*.**

Bryaxis cochlearifer, Schauf. Sechzig neue Pselaph. p. 9'.

Hab. MEXICO¹, Cordova (*Sallé*), Jalapa (*Höge*); GUATEMALA, Calderas, Dueñas, Torola (*Champion*).

§ 2. *Thorax without lateral foveæ.*

3. ***Decarthron fallaciosum*.** (Tab. I. fig. 12.)

Læte rufo-testaceum, nitidum; pedibus testaceis; antennis palisque gracilibus.

Long. 1½ millim.

Hab. MEXICO, Cordova (*Sallé*); GUATEMALA, Cahabon (*Champion*).

Antennæ slender and long; none of the joints transverse—4-7 very similar to one another, the eighth stouter and about as long as broad, the ninth still broader and about as long as wide, the tenth broader than the ninth, as long as the preceding two together, and emarginate on one side near the tip. Head with two very large foveæ between the eyes. Thorax subglobose, with a small distinct fovea in front of the scutellum. Elytra with the sutural stria very deeply excavated at the base, and with the discoidal stria extending one half the length; with a moderately large intra-humeral impression. First dorsal segment with a very distinct plica on each side, extending more than half the length of the segment.

The unique Mexican example is, I presume, a male, as there is a very slight angular swelling of the front upper margin of the middle femur. From Guatemala also only a single example has been received; though much mutilated it apparently agrees exactly with the Mexican type. The elongate antennæ and comparatively large size of this species give it an extreme resemblance to *Bryaxis*.

4. ***Decarthron restitutum*.**

Læte rufo-testaceum, nitidum, subtiliter pubescens; antennis parum elongatis.

Long. 1½ millim.

Hab. ? MEXICO, Cordova (*Sallé*); GUATEMALA, Rio Naranjo, near the city, Rio Maria Linda, Torola, San Gerónimo (*Champion*); ? NICARAGUA (*Sallé*).—? AMAZONS.

This species at first sight resembles *D. cochlearifer* exactly, but besides wanting the lateral fovea on the thorax, is distinguished as follows:—it is slightly smaller, and

with less swollen maxillary palpi, and has a narrower head, the two foveæ on the vertex being consequently less distant. It also possesses well-marked male characters; in this sex the middle femur is angularly swollen to beyond the middle and beyond this emarginate-foveolate; and the front tibia also is a little angularly dilated above.

The Mexican habitat of this species, as well as the Nicaraguan one, rests in each case on a single female; both require confirmation. I have also a female found by Prof. Trail in the Amazons valley that apparently belongs to this species.

5. *Decarthron similare*.

Læte rufo-testaceum, nitidum, subtiliter pubescens; antennis parum elongatis.

Long. $1\frac{1}{2}$ millim.

Hab. GUATEMALA, Champerico (*Champion*).

This species is distinguished from *D. restitutum* apparently only by the sexual characters, these being very different. The male has the middle femur inflated to beyond the middle, and with the extremity subconstricted; the middle tibia has a thick mucro at its internal apical angle; and the metasternum has a broad depression in the middle behind, the depression densely covered with an extremely fine, pallid, silky pubescence.

The unique example was found upon the sea-coast.

6. *Decarthron curticorne*.

Bryaxis curticornis, Schauf. Nunq. Otios. ii. p. 263¹.

Hab. MEXICO, Yucatan¹.

7. *Decarthron denticorne*.

Bryaxis denticornis, Schauf. Sechzig neue Pselaph. p. 15¹.

Hab. MEXICO, Yucatan¹.

The condition of the thorax is not described, and I therefore can only guess at the position of the species. *D. denticorne* has apparently a peculiar structure of the head.

BRYAXIS.

Bryaxis, Leach, Zool. Misc. iii. p. 85 (1817); Leconte, Tr. Am. Ent. Soc. viii. p. 181 (1880);
Reitter, Verh. Ver. Brünn, xx. p. 190 (1882).

This is a very extensive genus of which more than two hundred species have already been described; it has a very wide distribution. Reitter (*l. c.*) does not admit in *Bryaxis* any form that has not a dorsal stria as well as a sutural stria on each elytron; but in the species of our region we have the passages from a delicate dorsal stria to its complete absence; I have therefore been obliged to abandon the use of this character as being of generic importance. The species I have placed in the second section are most probably not really congeneric with those of the first section; but as they are

far from agreeing *inter se*, except in the negative character of wanting the lateral thoracic foveæ, and as no sufficient material has been obtained for the investigation of these minute forms, I am obliged to leave them in *Bryaxis* at present.

§ 1. *Thorax with a well-marked lateral fovea on each side; elytra usually with a dorsal stria.*

1. *Bryaxis celata*.

Rufo-testacea, nitida, subtiliter pubescens; antennis tenuibus; prothorace basi in media foveola punctiformi, utrinque foveola multo majore; abdominis segmento basali haud elongato, quam secundum dimidio longiore.

Long. $1\frac{2}{3}$ millim.

Hab. MEXICO, Jalapa (*Höge*); GUATEMALA, near the city (*Champion*); NICARAGUA, Managua (*Sallé*).

Antennæ quite slender; joints 3-8 similar to one another, small, the fifth joint only slightly longer than those adjoining it, the ninth small, though slightly larger than the preceding one, the tenth larger than the ninth, as long as broad, the terminal joint still larger. Head without fovea in front, but slightly depressed between the antennæ, the vertex with two large foveæ. Thorax broader than long. Elytra with an entire sutural stria, and with a fine discoidal stria extending more than half the length. First abdominal segment with a short plica on each side. The male is distinguished by the existence of a long depression at the apex of the hind body beneath.

This species is extremely similar to the female of *B. reichei*, but the tenth joint of the antennæ is smaller; the head is more elongate, and somewhat depressed between the insertion of the antennæ, and has no fovea there; the lateral fovea of the thorax is larger, and the pubescence though very fine is not so extremely minute. Only one example has been received from Mexico; Mr. Champion, however, met with a small series in Guatemala, and M. Sallé a single specimen in Nicaragua.

2. *Bryaxis parviceps*.

Rufo-testacea, nitida, subtiliter pubescens; antennis tenuibus, modice elongatis; capite brevi trifoveolato, foveola frontali magna; prothorace basi in media foveola punctiformi, utrinque foveola majore; elytris stria discoidali valde abbreviata; abdominis segmento basali sat elongato, quam secundum duplo longiore.

Long. vix $1\frac{1}{2}$ millim.

Hab. MEXICO, Cordova (*Sallé*); GUATEMALA, Paso Antonio (*Champion*); PANAMA, near the city (*Champion*).

Though very similar to *B. celata*, this species is distinguished by the smaller head, with large frontal fovea; the smaller lateral fovea of the thorax; the more abbreviated discoidal stria of the elytra; the longer basal segment of the hind body; and the hind margin of the wing-cases pubescent in the middle. This latter character is wanting in the female of *B. reichei*, which also has only a minute fovea on the front of the head.

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B. parviceps still more closely resembles *Decarthron cochlearifer*, but has the antennæ more slender, and with eleven joints instead of ten, and a less elongate first segment to the hind body. The male is distinguished by an elongation of the fifth and sixth joints of the antennæ, and a slight asymmetry of the seventh and eighth joints.

I have seen four examples from Mexico, these being mixed in Sallé's collection with *Decarthron cochlearifer*, two from Guatemala, and one from the State of Panama.

3. *Bryaxis crassipalpis*.

Piceo-rufa, nitida, elytris sanguineis, antennis pedibusque rufis, subtiliter pubescens; capite angusto, utrinque supra antennis fortiter elevato, vertice bifoveolato; prothorace transverso, basi in media foveola parva, utrinque foveola multo majore; elytris stria discoidali ultra medium abbreviata; abdominis segmento basali elongato, quam secundum plus duplo longiore.

Long. 2 millim.

Hab. GUATEMALA, Zapote (*Champion*).

This species is readily distinguished by the strong elevation over each antenna, and the surface being foveolate between the excavations; it also has the palpi thicker than ordinary, and more like what exists in *Decarthron*, from which genus it is in fact solely distinguished by the eleven-jointed antennæ. These last-named organs are slender, with quite short basal joint, the fourth joint slightly, the fifth distinctly, elongate, the three following joints small, and the three terminal joints forming a slender club.

The unique example is probably a female. The pubescence in *B. crassipalpis* is fine but somewhat elongate, and not so extremely minute as in *B. salléi* and its allies.

4. *Bryaxis pubescens*.

Bryaxis pubescens, Schaaf. Sechzig neue Pselaph. p. 16¹.

Hab. MEXICO¹.

This insect is stated to have the head trifoveolate, the foveæ adorned with white setæ, and to be $1\frac{2}{3}$ millim. long; these characters would bring the species near *B. rubecula*, but the sixth joint of the antennæ is stated to be as long as the preceding two together, whereas in *B. rubecula* this joint is shorter than the fifth alone.

5. *Bryaxis nominata*.

Fem. Rufo-testacea, nitida, convexa, subtilissime pubescens; antennarum articulo quinto præcedentibus duobus æquali; capite elongato, nitido, impunctato, anterieus plano, vertice bifoveolato; prothorace basi in media minute foveolato, utrinque foveola majore; elytris stria suturali aliaque discoidali ante apicem abbreviata impressis; abdominis segmento basali sat elongato, quam secundum haud duplo longiore.

Long. 2 millim.

Hab. GUATEMALA, Dueñas (*Champion*).

We have received only females of this species, but it is clearly quite different from any other noticed here; in its bright colour it resembles *B. celata* and *B. parviceps*, but the head is quite flat in front, and the eyes are not placed so near to the vertex; the

antennæ have the fifth joint strongly, the sixth slightly, elongate, the club rather stout; the thorax is subglobose, about as long as broad. From the corresponding sex of *B. reichei* the present insect is distinguished by its larger size; the more elongate head, without fovea in front; and by the fifth joint of the antennæ longer than the sixth.

6. *Bryaxis reichei*.

Bryaxis reichei, Schauf. Nunq. Otios. ii. p. 264¹.

Hab. GUATEMALA¹ (*Sallé*), near the city, San Gerónimo (*Champion*).—SOUTH AMERICA, Colombia¹.

Schaufuss's description applies to the male only; the female has the antennæ slender and simple, and with the fifth and sixth joints equal and a little elongate. The species is readily distinguished by the head being flat, and having a minute but quite definite fovea in front between the insertion of the antennæ.

7. *Bryaxis sallæi*. (Tab. I. fig. 13.)

Piceo-rufa, elytris rufo-sanguineis, convexa, subtilissime pubescens; antennis maris articulis quinto sextoque incrassatis; capite brevi trifoveolato, foveola frontali magna; prothorace basi in media foveola punctiformi, utrinque foveola majore; elytris stria discoidali abbreviata; abdominis segmento basali sat elongato, quam secundum vix duplo longiore.

Long. 2 millim.

Hab. MEXICO, Cordova (*Sallé*); GUATEMALA, Cerro Zunil 4000 to 5000 feet, Senahu (*Champion*); PANAMA, Volcan de Chiriqui 2000 to 3000 feet (*Champion*).

I have what I suppose to be the sexes of this species before me. The male has the third and fourth joints of the antennæ small, the fifth large, swollen, and with its front margin polished and foveolate, the sixth joint also is enlarged though much smaller than the fifth, the seventh and eighth joints are of normal form, while the three terminal joints form an elongate club, gradually thicker from the base to near the apex. The front of the head is strongly elevated so as to give the appearance of a large fovea between the antennæ; the very fine elytral stria extends about half the length; the hind margin of the wing-cases is only exceedingly minutely pubescent in the middle; and scarcely any plica can be detected on the first dorsal segment. Beneath the metasternum is hollow in the middle, tuberculate-prominent on either side.

Of this species we have unfortunately not received males and females from the same locality. The former sex exhibits some slight variation in the structure of the antennæ, possibly of a local character, but sufficient evidence has not been obtained as to this. The female sex is represented by a good series from Senahu; these examples agree closely with what I take to be the male of the same species, except in colour, and in the fifth and sixth joints of the antennæ not being swollen though they are a little elongate, the fifth being the longer of the two.

8. *Bryaxis intacta*.

Picea, elytris piceo-rufis, convexa, subtilissime pubescens; antennis maris articulo quinto valde inflato; capite nitido, trifoveolato, foveola frontali magna; prothorace basi in media foveola punctiformi, utrinque foveola majore; elytris stria discoidali apicem haud attingente, stria suturali integra; abdominis segmento basali sat elongato, quam secundum fere duplo longiore.

Long. 2 millim.

Hab. GUATEMALA, Cahabon 1000 feet (*Champion*).

The male of this species has the fifth joint of the antennæ greatly enlarged and foveolate-impressed in front, all the other joints being normal, the sixth, seventh, and eighth small, slender, and subequal, the terminal three joints forming an elongate very slender club; it also has a conspicuous mucro directed inwards on the middle tibia just above the apex.

The male of *B. intacta* is readily distinguished from the same sex of *B. sallæi* by the structure of the antennæ; the female is unknown. Unique.

9. *Bryaxis diversicornis*.

Picea, elytris piceo-rufis, convexa, subtilissime pubescens; antennis maris articulis quinto sextoque incrassatis; capite brevi trifoveolato, foveola frontali magna; prothorace basi in media foveola punctiformi, utrinque foveola multo majore; elytris stria discoidali omnino obsoleta; abdominis segmento basali sat elongato, quam secundum haud duplo longiore.

Long. 2-2½ millim.

Hab. GUATEMALA, Sabo in Vera Paz (*Champion*).

This insect is very closely allied to *B. sallæi*, but has the discoidal stria of the elytra quite obsolete, and the antennæ of the male more peculiarly formed; in this sex the fifth antennal joint forms an irregular triangle, and is curvate and hollow in front, and the sixth joint is transverse; in the female the fifth and sixth joints are not dilated, but the fifth is as long as the preceding two together, and the sixth intermediate in length between the fifth and seventh; the male has the metasternum angularly prominent on either side, subexcavate between the prominences. There is a very slight intrahumeral depression on the wing-case, but no discoidal stria, the sutural stria being present as usual.

Only three examples were obtained.

10. *Bryaxis rubecula*.

Fem. Rufo-testacea, convexa, nitida, subtiliter pubescens; antennis tenuibus, articulo quinto vix elongato, tertio æquali; capite argute trifoveolato, foveolis omnibus pubescentibus; prothorace subgloboso, basi in media foveola punctiformi, utrinque foveola majore; elytris stria discoidali omnino obsoleta; abdominis segmento basali sat elongato, quam secundum vix duplo longiore.

Long. 2 millim.

Hab. PANAMA, Volcan de Chiriqui 2500 to 4000 feet, Los Remedios (*Champion*).

Although we have received only females this is clearly a distinct species, and the absence of a definite discoidal stria induces me to place it next *B. diversicornis*; it is

distinguished by the large definite fovea on the front of the head being similar to the two foveæ on the vertex, and like them finely pubescent; the slender intermediate joints of the antennæ and the different proportions of these joints are also important diagnostic characters.

The three examples obtained are unfortunately in a bad state of preservation.

11. *Bryaxis designata*.

Piceo-rufa, elytris rufo-sanguineis, antennis pedibusque rufis, convexa, subtilissime pubescens; antennis maris articulis quinto sextoque elongatis, leviter incrassatis; capite punctulato, bifoveolato, vertice inter foveolas convexo; prothorace basi in media minutissime foveolato, utrinque foveola majore; elytris stria suturali aliaque discoidali impressis; abdominis segmento basali sat elongato, quam secundum vix duplo longiore. Long. $1\frac{3}{4}$ millim.

Hab. GUATEMALA, Las Mercedes (*Champion*).

Head not foveolate in front, but with the vertex convex in the middle, the convexity extending forwards but not reaching the front, on either side of the convexity a small and shallow fovea. Thorax rather slender, as long as broad; with a very minute fovea at the base in the middle, and also a large distinct one on each side. The discoidal stria of the elytra is curvate, very fine, and extends more than half the length, though not reaching the hind margin. In the male the antennæ have the fifth and sixth joints about equal in length, each about as long as 2-4 together, and a little thicker than those near them, and joints 9-11 form a long slender club; in the female joints 5 and 6 are elongate, but not thicker than the contiguous joints, each as long as the seventh and eighth together. The male has the metasternum distinctly impressed, while in the female it is flat behind.

Mr. Champion secured seven examples of this insect.

12. *Bryaxis diversa*. (Tab. I. fig. 14.)

Rufo-testacea, elytris rufis, convexa, nitida, subtilissime pubescens; antennis maris articulis quinto sextoque elongatis, leviter dilatatis; capite plano, trifoveolato, foveola frontali in clypei margine anteriore sita; prothorace subgloboso, utrinque foveola parva, basi in media haud foveolata; elytris stria suturali aliaque discoidali ante apicem abbreviata, impressis; abdominis segmento basali sat elongato, quam secundum haud duplo longiore.

Long. $1\frac{1}{2}$ millim.

Hab. PANAMA, San Feliz, Tolé (*Champion*).

Allied to *B. reichei*, but distinguished by the absence of a fovea on the base of the thorax, by a slight difference in the front of the head, and very different male antennæ. On careful examination a very minute puncture can be detected in the position usually occupied by the median thoracic fovea. The front of the head is flat and shining, and appears slightly emarginate at the edge in front; on the deflexed anterior part there is a small fovea. In the male the fifth joint of the antennæ is distinctly enlarged, and the sixth joint is still larger. At the extreme base of the elytron there is a puncture

between the sutural and discoidal striæ, as well as a puncture at the base of each of these striæ.

Seven examples; these were found on the sandy banks of streams.

§ 2. *Thorax without lateral foveæ; elytra without dorsal stria.*

13. *Bryaxis pusilla.*

Bryaxis pusilla, Schauf. Sechzig neue Pselaph. p. 15¹.

Hab. MEXICO¹.

This species is said to be nearly or quite without lateral foveæ on the thorax, and to be scarcely 1 millim. long.

14. *Bryaxis cristata.*

Bryaxis cristata, Schauf. Sechzig neue Pselaph. p. 14¹.

Hab. MEXICO¹.

The thorax of this insect is stated to have a very fine crest in front of the scutellum; the lateral foveæ absent, or rather replaced by a fine linear impression composed of confluent punctures; the head to be only depressed between the antennæ (as in *B. celata*); the length $1\frac{1}{4}$ millim.

15. *Bryaxis bythinoides.*

Castanea, subtiliter pubescens; antennis tenuibus, distantibus; capite brevi, lato, bifoveolato; prothorace transverso, basi in media minutissime foveolata, lateribus haud foveolatis; elytris intra humeros foveolatis, stria suturali integra, stria discoidali nulla; abdominis segmento basali parum elongato, lateribus haud alte marginatis.

Long. vix $1\frac{1}{2}$ millim.

Hab. PANAMA, Volcan de Chiriqui 4000 to 6000 feet, Peña Blanca 3000 to 4000 feet (*Champion*).

Antennæ with small third joint which, however, is longer than the fourth, joints 4-8 each quite small and slender, the ninth slightly larger, the tenth transverse, the terminal joint acuminate and longer than the preceding two together. Head broad and short, the vertex with two large but indefinite foveæ, the front depressed but not foveolate. Thorax short, strongly narrowed behind. Elytra of a rather darker castaneous colour than the head and thorax; with a rather large fovea at the shoulders, and a very deep sutural stria. Legs slender and rather short. In the male the intermediate ventral rings are so abbreviated as to be almost invisible, and the apex is occupied by a deep transverse fissure.

One example from each locality.

16. *Bryaxis impressicollis.*

Nigro-picea, convexa, parce subtiliter pubescens, nitida; antennis, palpis pedibusque sordide testaceis, illis

brevibus; capite brevi, fronte transversim lineariter depresso, vertice bifeolato; prothorace anterieus profundissime transversim depresso, basi in media minutissime foveolata; elytris intra humeros depressis, stria suturali integra, discoidali nulla; abdomine subtiliter marginato, segmento basali haud elongato.

Long. $1\frac{1}{4}$ millim.

Hab. GUATEMALA, San Juan in Vera Paz (*Champion*).

Antennæ short, with a stout club; joints 3–8 minute, the eighth being exceedingly short, the ninth joint small, transverse, the tenth much broader and also transverse, the terminal joint stout, acuminate. Palpi rather long, with slender terminal joint. Head small, with two large foveæ on the vertex, the extreme summit slightly notched in the middle, the front margin thickened and with a linear depression behind the incassation. Thorax small, much narrowed in front and behind; with an extremely deep transverse depression extending all across it in front, and an exceedingly minute punctiform fovea in front of the base. Elytra elongate, convex; the extreme base internal to the shoulder depressed. First dorsal ring not much longer than the second.

Of this Bythinoid insect only a single example was secured.

17. *Bryaxis vulnerata*. (Tab. I. fig. 15.)

Castanea, subtiliter pubescens; antennis brevibus; prothorace transverso, medio profunde irregulariterque depresso, basi in media minutissime foveolata; elytris intra humeros depressis, stria suturali integra, discoidali nulla; abdomine subtiliter marginato, segmento basali haud elongato.

Long. $1\frac{1}{4}$ millim.

Hab. PANAMA, Tolé (*Champion*).

Antennæ short and slender, with rather large club; joints 4–8 minute, subequal, the terminal three gradually forming a club. Head short, moderately broad, the front of the clypeus a little raised and with a slight antennary tubercle; bifeolate between the eyes, the extreme vertex in the middle slightly notched or depressed. Thorax broad and short, much narrowed behind; with a very large and deep depression formed as it were of three depressions united, the larger on the disc, the smaller one a little nearer the front on each side. Elytra with a distinct sutural stria and a well-marked intra-humeral depression.

Allied to *B. impressicollis*, though with a differently formed thorax; also unique.

18. *Bryaxis simulatrix*.

Castanea, nitida, lævigata; antennis tenuibus, clava uni-articulata; capite utrinque foveolato, tuberculis antennariis discretis; prothorace basi in media minute foveolato; elytris stria suturali integra; abdomine brevissimo, segmento basali parum elongato, ceteris deflexis.

Long. $1\frac{1}{2}$ millim.

Hab. GUATEMALA, Paraiso (*Champion*).

Antennæ slender; joints 3–10 minute, similar; the terminal joint forming a rather large club, acuminate. Head small. Thorax rather elongate, the base produced in front of the scutellum; with a very minute fovea in the middle close to the base.

Of this very distinct insect one immature example was found. It is no doubt a male, and has the front legs much incrassate, the femora being much swollen and the tibiæ less so; the middle femora are also incrassate to a less extent; the metasternum is broadly depressed on the middle; and the actual apex of the hind body is occupied by a deep depression.

Leconte established a genus *Eutrichites* for a minute *Bryaxis*-like insect with unarticulate club, and a condition of the elytral striæ similar to that existing here; but his genus is stated in addition to have the antennæ approximate, and therefore I cannot place *B. simulatrix* in it. The difficulty of examining so minute an insect is increased in the present case by the immature condition of the solitary exponent, and by its wings being protruded.

19. ***Bryaxis trimioides*.** (Tab. I. fig. 16.)

Angustula, nitida, lævigata, rufo-castanea, elytris sanguineis; antennis brevibus, clava majore; capite lævigato, plano, vertice tantum minute obsoleteque bifoveolato; prothorace angustulo, inimpreso; elytris stria suturali integra, intra humeros ad summam basin foveolatis; abdomine subtiliter marginato, segmento basali quam secundum paullo longiore.

Long. $1\frac{1}{2}$ millim.

Hab. GUATEMALA, Zapote, Senahu, Tamahu (*Champion*).

Antennæ short, with the intermediate joints minute; the terminal three joints gradually forming a club, the last joint being stout. Head smooth, flat and shining, the clypeus slightly incrassate on each side; near each eye is a small very obscure fovea. Thorax small, a little narrowed behind, its greatest width in front of the middle; polished and shining. Elytra without sutural stria, with a small fovea at the extreme base within the shoulder.

Three examples.

20. ***Bryaxis impubis*.**

Subnitida, rufo-castanea; antennis brevibus, clava majore; capite margine anteriore incrassato, utrinque inter oculos vage impresso; prothorace brevi, inimpreso; elytris haud foveolatis, stria suturali impressa; abdomine brevi, segmento basali haud elongato, quam secundum paullo longiore.

Long. 1 millim.

Hab. GUATEMALA, Tamahu (*Champion*).

Antennæ short, with joints 3-8 small, the ninth and tenth joints also small, broader than the preceding, and strongly transverse, the terminal joint very large and acuminate. Head small, with the clypeus elevated; a depression on each side near the eye. Thorax small, short, a good deal narrowed behind, with a single minute puncture in the middle in front of the base. Elytra obsolete punctulate, without basal impressions, but with a moderately deep sutural stria.

This species at first sight closely resembles *B. trimioides*, but is really very distinct; the antennæ have the ninth and tenth joints smaller, so that it is difficult to decide whether

the club should be called uni-articulate or three-jointed; the head is differently formed, the thorax shorter, and the elytra exhibit a slight sculpture. It is unique.

21. *Bryaxis œdipus*.

Rufo-castanea, elytris sanguineis, omnino minutissime pubescens, sat nitida; antennis brevibus, clava magna; capite antèr impreso, utrinque inter oculos minute foveolato, vertice subconvexo; prothorace brevi; elytris stria suturali subtiliter impressis, intra humeros obsoletissime depressis; abdominis segmento basali quam secundum duplo longiore; tarsis anterioribus (? maris) articulo basali crassiore.

Long. vix $1\frac{1}{2}$ millim.

Hab. GUATEMALA (*Sallé*).

Antennæ with joints 3-8 small, the ninth and tenth joints also small, but transverse, the terminal joint very large, acuminate. Head transversely depressed in front, the clypeus being angulate in the middle and depressed; on each side near the eye is an obscure fovea, which is only indistinctly separated from the frontal depression. Thorax short and broad, much narrowed behind, without foveæ, the base slightly transversely depressed. Elytra with only a fine sutural stria, and a very feeble impression at the shoulder.

This insect also is unique; it is allied to *B. impubis*, though abundantly distinct. The example is probably a male, the metasternum being broadly impressed, and it is very probable that the peculiar swelling of the front tarsus may be peculiar to this sex.

PSELAPTUS.

Pselaptus, Leconte, Tr. Am. Ent. Soc. viii. p. 184 (1880).

This genus was established for a Texan insect, and distinguished from *Bryaxis* by the absence of striæ from the elytra. The single species from our region agrees with *Pselaptus* in this respect, but whether it be really congeneric with *P. belfragei*, Lec., must remain doubtful at present.

1. *Pselaptus batrisoides*. (Tab. I. fig 17.)

Convexa, lævigata, polita, rufa, elytris dilute sanguineis; antennis gracilibus, clava valde elongata; capite antèr subimpresso, utrinque inter oculos foveola minuta; prothorace inimpresso; abdominis segmento basali quam secundum vix duplo longiore.

Long. vix $1\frac{1}{2}$ millim.

Hab. GUATEMALA, El Reposo (*Champion*).

Antennæ rather slender, joints 3-8 small, the ninth joint slightly broader, as long as wide, the tenth joint a little larger but similar, the terminal joint very long. Head rather broad and short, rather vaguely impressed in front, and with a small obscure fovea on each side. Thorax nearly as long as broad, smooth, and shining. Elytra convex, polished, without foveæ or striæ. Legs elongate.

Unique.

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F*

Subfam. *PSELAPHINÆ*.

PSELAPHUS.

Pselaphus, Herbst, *Natursyst. bek. ausl. Ins. Käf. iv.* p. 106 (1792).

This distinct genus is widely distributed over the world, and comprises at present about seventy described species.

1. *Pselaphus longiceps*. (Tab. I. fig. 18.)

Latus, castaneus, elytris sanguineis; capite antennarumque articulo basali elongatis.

Long. $2\frac{1}{2}$ millim.

Hab. GUATEMALA, Paso Antonio (*Champion*).

Head elongate, dull, depressed between the eyes. Antennæ with the first joint as long as the following four joints together; the terminal joint elongate, nearly equal in length to the preceding four united. Palpi very elongate; second joint very long and slender, rather tortuous, and with a slender apex; third joint small; fourth joint with delicate basal stalk, about equal in length to the slender apical dilatation. Thorax slender, much rounded at the sides, without impressions. Elytra gradually narrowed from the apex to the base, shining red, with well-marked sutural stria. Prosternum in front of the coxæ densely covered with glandular pubescence; its hind margin and the base of the hind body each with a band of similar pubescence.

The unique example of this very distinct species is probably a female.

PSELAPHOMORPHUS.

Pselaphomorphus, Motschulsky, *Etudes ent.* 1855, p. 15, tab. f. 7.

Nothing I believe is known as to this genus beyond Motschulsky's imperfect figure and few words of description; but the insect is apparently very different from *Pselaphus* by its palpi. Possibly these organs have been mutilated.

1. *Pselaphomorphus sculpturatus*.

Pselaphomorphus sculpturatus, Motsch. l. c.¹

Hab. PANAMA, Obispo¹.

Subfam. *EUPLECTINÆ*.Group *EUPLECTINA*.

CANTHODERUS.

Canthoderus, Motschulsky, *Etudes ent.* 1855, p. 15, tab. f. 6; Reitter, *Verh. Ver. Brünn*, xx. p. 194 (1882).

Stratus, Schaufuss, *Nunq. Otios.* ii. p. 246 (1872).

I accept on Reitter's authority these two names as representing one genus. Reitter has not, however, informed us that the species of Schaufuss is the same as that of Motschulsky, and as the localities whence they were respectively obtained are so distant, the two insects are possibly distinct. Motschulsky's figure is very defective, and there is no specific description, so that his species can only be identified by comparison with the type.

1. *Canthoderus villosus*.

Canthoderus villosus, Motsch. Etudes ent. 1855, p. 15. tab. f. 6¹.

Hab. PANAMA, Obispo¹.

2. *Canthoderus ursinus*.

Stratus ursinus, Schauf. Nunq. Otios. ii. p. 246¹.

Hab. MEXICO, "Yucatan au Teapa"¹.

APOTHINUS.

Caput parvum, anterius utrinque maxime elevatum, elevationibus in medio conjunctis. Antennæ sat approximatæ, undecim-articulatæ; clava elongata, bi-articulata. Palpi maxillares articulo ultimo ovali, gracili. Prothorax inæqualis, posterius angustatus. Abdomen segmentibus basalibus æqualibus.

This genus is proposed for an insect of *Euplectus*-like appearance, but with a different form of head and antennæ, these latter being less widely separated. The head is narrow in front; and has on each side of the front margin a distinct elevation which meets its fellow of the opposite side in the middle, so as to form a single prominence, the surface behind this appearing greatly depressed. The antennæ have a stout basal joint; they become gradually broader from the fifth joint to the ninth, these joints being transverse; the tenth joint is quadrate, the terminal joint elongate. The eyes are small. The thorax is much contracted behind; and has a deep irregular transverse depression in front of the base, as well as a longitudinal impression on each side, and another impression near the front. The elytra possess a sutural stria, a very abbreviate dorsal stria, and a well-marked stria within the epipleural margin. The hind coxæ are contiguous. The tarsi are quite short, and possess a single claw.

1. *Apothinus impressifrons*.

Rufus-obscurus, elytris castaneis; capite anterius profundissime depresso; prothorace punctulato. Long. 1 $\frac{7}{8}$ millim.

Hab. GUATEMALA, Cerro Zunil 4000 to 5000 feet (*Champion*).

Antennæ with the second joint much longer than the third, the latter very small. Head with a fovea on the middle of the vertex, the fovea connecting in front with the very deep frontal impression. Thorax complexly and irregularly impressed at the base; with a short longitudinal impression on each side, and another depression on the disc in front of the middle. Elytra with strong humeral elevations; margined at the base,

and with a short plica between the deep sutural stria and the shoulder extending backwards from the basal margin. The basal dorsal segment of the hind body is very deeply impressed on the middle, close behind the stria.

The unique example is no doubt a male, as it has a transverse depression on the second, third, and fourth ventral rings; the fifth ring is extremely short in the middle.

2. *Apothinus obscurus*. (Tab. I. fig. 19.)

Castaneus, antennis pedibusque testaceis; antennis minus crassis, articulo nono fortiter transverso et præcedentibus evidenter latiore; prothorace parce punctato.

Long. $1\frac{1}{2}$ millim.

Hab. GUATEMALA, San Gerónimo, Capetillo (*Champion*).

Antennæ with joints 3-8 small; the ninth joint extremely short, but evidently broader; the tenth joint considerably broader and much longer than those preceding, the latter transverse; the eleventh joint large, obtusely acuminate. Head very small, the surface deeply depressed behind the front; eyes small. Thorax small, contracted behind; with an impression behind the middle, another in front of the middle, and another on each side, the lateral margin finely crenate. Elytra with a deep sutural stria, a short humeral fold, and a short fold between these. The male has the metasternum impressed, and a longitudinal impression at the extremity of the hind body. The punctures on the thorax of the female are very few and distant.

One example from each locality. This species is very much smaller than *A. impressifrons*, and has the antennæ with a shorter club, which, moreover, is almost tri-articulate.

EUPLECTUS.

Euplectus, Leach, Zool. Miscell. iii. p. 80 (1817).

This is a very widely distributed genus containing a large number of described species.

1. *Euplectus guatemalensis*.

Subparallelus, depressus, dilute castaneus, elytris testaceo-castaneis; capite quadrato, maxime impresso; prothorace elongato, basin versus fortiter angustato, profunde impresso.

Long. vix $1\frac{1}{2}$ millim.

Hab. GUATEMALA, Dueñas (*Champion*).

Antennæ short, with the ninth and tenth joints transverse; the terminal joint short, obtusely pointed. Head broad; with a large, deep, quadrate depression on the front, the depression entire anteriorly, but divided behind by a prolongation from the vertex. Thorax elongate; with a deep lateral impression on each side just behind the broadest part, and a large deep longitudinal impression on the middle, this latter being connected on either side with the lateral impression. Elytra with a deep impression within the shoulder, and a well-marked sutural stria.

This insect is allied to the European *E. signatus*, but has a larger and more quadrate head, and more elongate thorax. The unique exponent is probably a female.

2. *Euplectus solitarius*.

Rufo-castaneus, antennis pedibusque testaceis; antennis tenuibus, clava fere uni-articulata, articulis nono decimoque parvis; capite minore, subquadrato, utrinque impresso, impressionibus tantum anterieus ad clypei marginem ipsum conjunctis.

Long. $1\frac{1}{4}$ millim.

Hab. GUATEMALA, Cerro Zunil (*Champion*).

This species is readily distinguished by the structure of its antennæ, these organs differing but little from those of the genus *Trimium*, except that the terminal joint is not so large. The clypeal margin is raised in front, and the lateral depressions are connected by a transverse depression immediately behind the raised margin. The thorax is small, much contracted behind; with a sinuous transverse depression in front of the base, and an obscure depression on the disc just in front of the middle. The elytra possess a sutural stria, but are not foveolate at the base.

Unique.

TRIMIUM.

Trimium, Aubé, in Guérin's Mag. Zool. 1833, Mon. Pselaph. p. 44, t. 88. f. 2.

This genus comprises about twenty species of European and North-American insects, all of very minute stature. Reitter states that most, if not all, of the New World species should be referred to *Trimropsis*; but I find in our region one that should, I think, clearly be retained in *Trimium* if the two genera are accepted as distinct.

1. *Trimium concolor*.

Castaneum, nitidum, angustulum; capite utrinque anterieus profundissime depresso; prothorace posterius impresso; elytris basi quadrifoveatis.

Long. $1\frac{1}{4}$ millim.

Hab. GUATEMALA, Totonicapam 8500 to 10,000 feet (*Champion*).

Antennæ slender, with the intermediate joints very minute, the penultimate joints extremely short and very strongly transverse; the terminal joint very large, elongate and stout, acuminate. Head subquadrate, as broad as or slightly broader than the thorax, the eyes anteriorly placed, with a very deep depression on each side extending far forwards. Thorax small, strongly narrowed behind; with a very deep transverse depression extending across the basal portion. Elytra rounded at the shoulders; with a deep elongate fovea just inside the shoulder, and a second rather smaller fovea at the base just outside the sutural stria. Basal segment of the hind body considerably longer than the following segment. The male is a little broader than the female, and has the penultimate ventral ring extremely abbreviate, the terminal ring with a deep definite impression.

TRIMIOPSIS.

Trimiosis, Reitter, Deutsch. ent. Zeit. xxvi. p. 149 (1882).

This genus is scarcely sufficiently distinct from *Trimium*, the character on which it is founded—viz. the comparative lengths of the segments of the hind body—being liable to considerable variation in *Trimium* as well as in *Bryaxis*, *Batrisus*, and other genera of this family. Most of the species have, however, a more *Euplectus*-like build than the species of *Trimium*, and the genus may be retained at present. It is as yet peculiar to the New World, where it is probably widely distributed.

1. *Trimiosis mimula*.

Testacea, minus lata, convexa; capite haud lato, anterieus angustato, utrinque sat profunde impresso.
Long. 1 millim.

Hab. GUATEMALA, near the city, Capetillo (*Champion*).

Antennæ short, the first joint very short, the second large; joints 3–8 similar, each small, scarcely transverse, the ninth and tenth very short, transverse; the terminal joint very large, three or four times as broad as the joints preceding it, and quite as long as five or six of them united. Head small, elongate, with a moderately deep impression on each side. Thorax small, about as broad as the head, longer than wide, much narrowed behind, with a deep impression in front of the base. Elytra narrowed at the shoulders; with a deep sutural stria, which is still deeper at the base, and a deep intra-humeral depression. First dorsal segment of the hind body scarcely longer than the following one.

This species is extremely similar to *Trimium concolor*, but is readily distinguished by the shorter basal segment of the hind body; moreover, it has the head smaller and with the impressions smaller and shallower.

Two examples were met with at Capetillo and one near the city of Guatemala. From the absence of any conspicuous marks I conclude they may be all females. *T. mimula* is closely allied to *T. clypeata*, Reitter, but is rather larger, and with the thorax longer and less constricted behind.

2. *Trimiosis minuta*. (Tab. I. fig. 20.)

Brevis, testaceo-castanea; capite transversim subquadrato, utrinque anterieus sat profunde impresso.
Long. $\frac{7}{8}$ millim.

Hab. GUATEMALA, El Reposo (*Champion*).

Antennæ very short; the terminal joint very broad, extremely short oval, and only slightly acuminate. Head transverse-quadrate, the hind angles very definite, with a rather shallow and indefinite fovea on each side in front. Thorax short and broad, but narrower than the head, much contracted behind, and with a short transverse impression in front of the base. Elytra short and broad, quadrifoveate at the base.

Eight examples. I do not detect any sexual distinction.

3. *Trimipsis clavicornis*.

Rufo-castanea, subtiliter pubescens; antennis articulo decimo magno, undecimo acuminato; capite transversim subquadrato, anterieus profunde depresso, clypeo elevato.
Long. $1\frac{2}{3}$ millim.

Hab. GUATEMALA, Senahu (*Champion*).

Antennæ very short, the ninth joint very strongly transverse, the tenth joint large, much larger than the preceding one, very strongly transverse, as broad as the base of the large terminal joint; this latter strongly acuminate, and slightly irregular in form, one side being rather more curvate than the other. Head short and broad, largely and deeply impressed in front, the more elevated vertex projecting as an angle into the depression, the clypeal margin largely raised. Thorax rather slender, narrower than the head, much narrowed behind, with a deep sinuate impression in front of the base. Elytra short and broad, the shoulders elevated, the depression within these latter short, the sutural stria scarcely foveolate at the base.

Two examples.

4. *Trimipsis femoralis*.

Rufo-castanea, subtiliter pubescens; antennis articulo decimo magno, inæquali, undecimo acuminato; capite subquadrato, vertice convexo, fronte profundius irregulariter depresso.
Long. $1\frac{1}{4}$ millim.

Hab. GUATEMALA, El Tumbador (*Champion*).

Head scarcely broader than the thorax, the vertex very convex; the clypeal margin strongly raised and connected on either side by a small process to the anterior acuminate part of the convex vertex, so that the depressed space is rather less indistinctly divided into a lateral portion on each side and a median portion placed more anteriorly. This insect is closely allied to *T. clavicornis*, but differs somewhat in the structure of the head; and the tenth joint of the antennæ seems to be more unequal, that is, it has one of its sides more conspicuously longer than the other; the terminal joint is similar in the two species. The head of *T. femoralis* is not quite so broad as in *T. clavicornis*, and the middle femur is evidently inflated. This latter character may probably be peculiar to the male.

Unique.

DALMODES.

Dalmodes, Reitter, Verh. Ver. Brünn, xx. p. 197 (1882).

This genus has been recently established for two species, one Brazilian, the other Mexican. It closely resembles *Batrissus*, and I think its place will probably prove to be nearer to that genus than to *Euplectus*.

1. *Dalmodes brevicollis*. (Tab. I. fig. 21.)

Rufus, fulvo-pubescens, sat convexus; capite transverso ex parte majore depresso; prothorace transverso, ante basin transversim sulcato; elytris stria suturali impressis.
Long. $1\frac{2}{3}$ millim.

Hab. GUATEMALA, Coatepeque 1300 feet (*Champion*).

Antennæ short, the second joint not very large, joints 3-8 small, almost similar to one another, the ninth joint broader, transverse, the tenth a good deal broader, strongly transverse, the terminal joint large, acuminate. Head short and broad, with quite small eyes, the clypeal margin and the vertex elevated, the greater part of the surface depressed. Thorax very short, strongly narrowed behind, with a deep transverse sulcus extending across it near the base. Elytra without basal impressions or discoidal stria. Hind body almost unmargined. In the male the head is rather broader and the frontal depression more distinctly punctate than in the female; the hind tibiæ strongly dentate internally above the middle and much curved below the tooth. The hind body terminates in a small conical prominence which is minute in the male, but a good deal larger in the female. Two examples; one of each sex.

2. *Dalmodes rybaxides*.

Dalmodes rybaxides, Reitt. Verh. Ver. Brünn, 1882, p. 383¹; Deutsche ent. Zeit. 1885, p. 337, t. 3. f. 29².

Hab. MEXICO (*Bilimek*^{1 2}).

The figure indicates an insect similar to the female of *D. brevicollis*, but apparently with differently shaped head and hind body.

Group TRICHONYCINA.

TRICHONYX.

Trichonyx, Chaudoir, Bull. Mosc. iii. p. 164 (1845).

This is a genus of about twenty species, but it is doubtful whether it is correctly enumerated amongst those of our region. Indeed the only evidence I have of its existence in Tropical America is the fact that Schaufuss has ascribed four species to that province.

1. *Trichonyx* (?) *venustulus*.

Trichonyx venustulus, Schauf. Nunq. Otios. ii. p. 288¹.

Hab. MEXICO, Teapa¹ (*coll. Reiche*).

This is possibly an insect near *Eurhexius*, but I do not think it will prove to belong to any genus I am acquainted with. The elytra are said to be "estriate."

RHEXIUS.

Rhexius, Leconte, Bost. Journ. Nat. Hist. vi. p. 102 (1848).

This very distinct genus is apparently peculiar to the warmer regions of the New World. The structure of the prothorax is most remarkable, its anterior part being

constricted so as to form a short tube in which the head is inserted by a very short neck; this thoracic tube has the appearance of being only a development, rather greater than usual, of the neck of the head, but it is not so.

1. *Rhexius optatus*. (Tab. I. fig. 23.)

Testaceo-castaneus, subtiliter pubescens; capite fortiter impresso, vertice emarginato; prothorace anterieus abruptissime constricto, parte anteriore sat elongato; abdomine parum elongato.
Long. vix $1\frac{1}{2}$ millim.

Hab. PANAMA, Volcan de Chiriqui 4000 to 6000 feet (*Champion*).

Antennæ strongly elbowed; the ninth joint rather large, not strongly transverse. Head very short, the vertex conspicuously concave-curved behind. Thorax with the anterior constriction very abrupt and rather elongate, so as to be as long as broad.

This is extremely closely allied to the typical species, *R. insculptus*, Lec., from Louisiana, so that at first I thought they were identical. *R. optatus* is, however, a little smaller, has the ninth joint of the antennæ larger, the head shorter, the peculiar peduncle of the front of the thorax longer, and the hind body less elongate. Only one example was obtained.

EURHEXIUS.

Corpus subdepressum. Antennæ rectæ; ad basin distantes, clava tri-articulata. Caput breve transversum, collo abrupto, subtus pubescens. Palpi maxillares parvi, articulo ultimo ovali. Coxæ anteriores elongatæ, prominulæ, lineares. Coxæ posteriores contiguæ. Tarsi breviusculi, unguiculis duobus inæqualibus præditi. Abdomen marginatum.

This genus differs from *Rhexius*, to which it is closely allied, by the ungeniculate antennæ, and the comparatively normal condition of the prothorax; this latter, though with the anterior part more or less narrowed and prolonged according to the species, never exhibiting the peculiar structure seen in *Rhexius*. The basal joint of the antennæ varies in length according to the species, but though it is sometimes unusually long the antennæ are not geniculate. *Eurhexius* is probably peculiar to Tropical America, and no doubt *Rhexius simonis* and *R. procerus*, Reitter, belong to it.

1. *Eurhexius vestitus*. (Tab. I. fig. 22.)

Rufobrunneus, densius pubescens, haud nitidus; capite brevi, anterieus curvatim depresso, vertice longitudinaliter impresso; prothorace minus elongato, canaliculato, ante basin sulcato; elytris humeris subelevatis, basi sex-foveolata.
Long. $2\frac{1}{2}$ millim.

Hab. PANAMA, Volcan de Chiriqui 2000 to 3000 feet (*Champion*).

Antennæ rather stout; the basal joint moderately long, but not reaching so far outwards as the convexity of the eye; the second joint rather small; joints 3–8 still smaller, similar to one another, the ninth and tenth larger, transversely subquadrate; the terminal joint as long as the preceding two together, very pubescent. Head very broad,

with the clypeal margin raised, and the surface behind it depressed, the convex vertex rather deeply divided in the middle by a depression. Thorax not so long as broad, canaliculate along the middle, and with a transverse groove in front of the base, an angular depression existing just behind the spot where the two channels intersect one another. Elytra with a well-marked sutural stria, this latter foveolate at the base, a depression (deep at the base) within the shoulders, and a third fovea between these two. First dorsal segment only slightly longer than the second. The unique example is no doubt a male, the penultimate ventral ring being extremely abbreviate in the middle, and the large terminal segment foveolate behind.

2. *Eurhexius parviceps*.

Rufus, sat pubescens, abdomine nigricante; capite perbreve, quam prothorax angustiore, utrinque foveolato, anterieus minus discrete impresso, vertice summo posterius impresso; prothorace sat elongato, canaliculato, ante basin transversim impresso, sub-bigibboso; elytris basi sex-foveolata.

Long. $2\frac{1}{8}$ millim.

Hab. PANAMA, Volcan de Chiriqui 8000 feet (*Champion*).

First joint of the antennæ not twice as long as the second; joints 3-8 small, similar except that the last two of them are just perceptibly broader and shorter, the ninth much larger, transverse, the tenth still larger, but also transverse, the terminal joint about as long as the preceding two together. Head unusually small, but with the eyes comparatively large; with a rather indefinite impression on the middle in front, and a fovea on each side only slightly separated from the frontal depression, the convex vertex foveolate behind. Thorax nearly as long as broad, much narrowed in front as well as behind, so that the front margin is not quite so broad as the basal margin; with a fine channel along the middle, not reaching quite to the front margin, and a transverse depression in front of the base, the depression foveolate at each end and in the middle so as to give rise to the appearance of two elevations behind it. Elytra with a broad depression within the shoulder, the sutural stria foveolate in front, and another fovea near it at the base. First ventral segment not longer than the next. The unique individual is of doubtful sex; it is probably a male, though it has no conspicuous mark except the great abbreviation of the penultimate ventral ring in the middle.

3. *Eurhexius ventralis*.

Rufescens, minus subtiliter pubescens; capite perbreve, lato, anterieus curvatim impresso, vertice summo posterius foveolato; prothorace sat elongato, profunde canaliculato, ante basin transversim sulcato; elytris basi sex-foveolata; abdomine segmento primo dorsali quam secundum duplo longiore.

Long. $2\frac{1}{2}$ millim.

Hab. PANAMA, Volcan de Chiriqui 3000 to 4000 feet (*Champion*).

Antennæ with the basal joint about twice as long as the second; joints 3-8 small, almost similar to one another, the ninth and tenth broader, scarcely transverse, the

terminal joint scarcely so long as the preceding two together; the club very loosely articulated. Head broad and remarkably short, so as to be very strongly transverse; the clypeal margin elevated, a linear curved impression behind it; the vertex behind distinctly impressed in the middle. Thorax much constricted at the side behind the middle, with a very deep median channel, and a transverse sulcus before the base connecting three impressions. Elytra with the sutural stria foveolate at the base, a second fovea near this, and external to this latter a broader depression.

This insect also is unique; the individual being probably a male, as the apex of the hind body is curvate and the extremity concave. The elongate first dorsal plate of the hind body renders the species very distinct.

4. *Eurhexius trimiodes*.

Minor, angustulus, subtiliter pubescens, nitidus; antennis tenuibus, clava tri-articulata; capite minore, anteriorius impresso, utrinque foveolato; prothorace elongato, canaliculato, ante basin transversim sulcato; elytris basi sex-foveolata.

Long. $1\frac{1}{2}$ millim.

Hab. GUATEMALA, Totonicapam 8500 to 10,500 (*Champion*).

This is very distinct from the other species on account of its narrower form and slender antennæ; these latter have the basal joint not elongate, but little longer than the second, the second joint bead-like and considerably larger than the following one, the joints 3–8 small, similar to one another, the ninth and tenth markedly larger, transverse, the terminal joint rather elongate. The head is short, but almost triangular in form, the vertex impressed in the middle behind. The thorax is elongate, much narrowed behind, the greatest width rather in front of the middle. The elytra have three impressions on each at the base, the median impression extending backwards as a short fold. The first dorsal segment of the hind body is scarcely longer than the second.

Only two examples were met with; they are no doubt male and female, the penultimate ventral ring being much abbreviated in the middle in the specimen I take to be the former sex.

JUBUS.

Jubus, Schaufuss, Nunq. Otios. ii. p. 454 (1876); Reitter, Verh. Ver. Brünn, xx. pp. 199 & 211 (1882).

Schaufuss includes in this genus three species from Colombia, in addition to the one from Mexico which is apparently the type. This author assigns two unequal claws to *Jubus*, but Reitter surmises it may prove to have two equal claws; I follow the latter in the position I give the genus.

1. *Jubus denticollis*.

Jubus denticollis, Schauf. Nunq. Otios. ii. p. 454¹.

Hab. MEXICO¹.

Group **FARONINA.****DUCIOLA.**

Duciola, Reitter, Verh. Ver. Brünn, xx. p. 199 (1882).

This genus has not been formally enunciated, but the more important points of its structure may be gathered from Reitter's table: a single Venezuelan insect was included in it.

Judging from recent remarks of Raffray and Reitter (Wien. ent. Zeit. iii. p. 32) it appears probable that the name *Jubus*, Schauf., may have to be used for this genus; but the evidence in favour of the name given by Herr Schaufuss does not appear quite satisfactory at present.

1. *Duciola scydmænilla*. (Tab. I. fig. 24.)

Rufescens, sat pubescens, antennis attenuata; antennis pedibusque testaceis, illarum clava laxa, elongata, manifeste quadri-articulata; capite antennis bi-impresso; prothorace lateribus ante basin constrictis, dorso pone medium profunde transversim sulcato.

Long. $1\frac{1}{2}$ millim.

Hab. GUATEMALA, Senahu (*Champion*).

Antennæ with small basal joint, the second joint equal to the basal one; joints 3-7 quite small, 8-10 larger, similar, transverse, the terminal joint longer, but not broader than the tenth. Head attenuate in front, with two deep parallel depressions. Thorax short, broader from the front to behind the middle, where it is so suddenly constricted as to leave a prominent angle; with a deep transverse sulcus in front of the base extending across the entire width. Elytra very elongate; with a sutural stria foveolate at the base, and with another fovea between it and the shoulder, these foveæ connected at the extreme base by a sort of flattened margin. Hind body short. Metasternum rather elongate. The unique individual is in a bad state of preservation; it may be a female, though the penultimate ventral ring is excessively abbreviate.

2. *Duciola aberrans*.

Flavescens, pubescens, antennis attenuata; antennis brevibus, extrorsum crassioribus; capite antennis bi-impresso; prothorace lateribus ante basin constrictis, dorso ante basin transversim sulcato; elytris haud elongatis, basi marginata; abdomine segmento basali quam secundum duplo longiore.

Long. $1\frac{1}{2}$ millim.

Hab. GUATEMALA, San Juan in Vera Paz (*Champion*).

This species is exceedingly similar to *D. scydmænilla*, though differing in very important characters—the elytra being comparatively short; the metasternum so short that the middle coxæ almost touch the hind coxæ; the first dorsal segment much longer; and antennæ differently formed, being gradually thicker from the seventh joint to the apex. Only one example was met with; its flavescent colour is probably due to immaturity.

3. *Duciola punctata*.

Rufo-ferruginea, antennis, palpis pedibusque testaceis, pubescens; elytris crebre evidenter punctatis.
Long. $2\frac{1}{3}$ millim.

Hab. MEXICO, Acapulco (*Höge*).

Antennæ slender, with joints 8–10 subequal, each considerably longer than broad, the eighth twice as long as the seventh, the terminal joint conspicuously longer than the tenth, acuminate. Head elongate, deeply longitudinally bi-impressed; eyes not prominent. Thorax nearly as long as broad, with two very minute tubercles in the middle on the front margin of the very deep transverse channel. Elytra rather longer than the thorax, somewhat closely and distinctly punctured, pubescent. Basal dorsal segment of the hind body much longer than the second.

This insect also is unique, and I do not know the sex of the example; it has a large impression on the apical ventral plate. *D. punctata* is readily distinguished from *D. scydmanilla* by the punctate wing-cases, and from *D. aberrans* by the structure of the antennæ.

ENDYTOCERA.

Antennæ undecim-articulatæ, pubescentes, articulis inter se parum discretis; clava maxime elongata, ex articulis sex vel septem composita. Coxæ anteriores valde elongatæ, parallelæ. Corpus dense pubescens.

This genus should be placed near *Duciola*, Reitter, from which it differs remarkably in the structure of its antennæ. These organs are of a peculiar nature: the joints fit closely to one another, and are covered with a dense pubescence so that the articulations, especially those of the extremely elongate club, are difficult to count and distinguish; the first joint is rather large, and pubescent like the head, then follow three comparatively small joints, and then apparently six stouter elongate joints complete the organ; the first of the outer six joints has, however, at its base a small joint which can only be detected by greatly bending the antenna, and thus there are really eleven joints. The palpi are small, the terminal joint slender, fusiform. The head is without depressions; the points of insertion of the antennæ are without tubercles, though placed on the front of a short prolongation so as to be extremely exposed; the under surface is densely pubescent, the pubescence divided by a glabrous suture furcate in front, the sides not at all distinct. The prosternum is rather large, densely pubescent; the front coxæ are very long, parallel; the middle coxæ rather prominent; the hind coxæ contiguous; the metasternum rather long. The ventral rings are apparently only five in number, the basal ring being concealed by the coxa; on the dorsal surface five rings are visible, and the sides are strongly margined. The epipleuræ are marked off by a very sharp ridge. There are two quite small, very nearly equal, claws on the tarsi.

These characters are taken from *E. vestita*; the second species, *E. cognata*, appears to be really congeneric, though it exhibits a slight difference in the structure of the front of the head.

1. *Endytocera vestita*. (Tab. I. fig. 25.)

Brunnea, elytris rufescentibus, omnino densissime flavo-pubescent; prothorace lateribus pone medium subito constrictis, prominulis, dorso pone medium depressione magna glabra.

Long. $3\frac{1}{2}$ millim.

Hab. PANAMA, Volcan de Chiriqui 2500 to 4000 feet (*Champion*).

Antennæ rather long, densely pubescent, the apex not thicker than the middle. Head elongate, a little constricted in front of the eyes, evenly convex, without depressions, exceedingly densely pubescent. Thorax transverse, the sides abruptly constricted so as to leave a prominent angle a little behind the middle; the surface very densely punctate and pubescent, except on a large transverse depression behind the middle; on each side, scarcely connected with the median depression, is a smaller depression. The elytra are large, with a deep sutural stria, and obscure traces at the base of the false basal margin seen in many Pselaphidæ. The legs are slender, the hind tarsi elongate and slender. One example.

2. *Endytocera cognata*.

Piceo-brunnea, elytris piceo-rufis, densissime subtiliter pubescens, subopaca; prothorace brevi, lateribus pone medium constrictis, minus acute angulatis, ante basin transversim depresso.

Long. $3\frac{1}{4}$ millim.

Hab. PANAMA, Bugaba 800 to 1500 feet (*Champion*).

Head with an obscure depression on either side much concealed by pubescence; vertex foveolate. Thorax strongly transverse, very finely and minutely punctate, shining though closely and finely pubescent; with a curved transverse impression in front of the base, and near it on either side a very large foveiform depression. Elytra elongate, with a sutural stria, and between it and the shoulder a very fine but elongate plica. First dorsal segment not at all longer than the second.

This insect also is unique; though similar at first sight to *E. vestita* it is abundantly distinct. The individual is probably a female.

Fam. SCYDMÆNIDÆ*.

We have received only very few individuals of this family from Mexico, our material in fact being almost exclusively the results of Mr. Champion's collecting in Guatemala and the State of Panama. As no Scydmaenidæ have hitherto been described from any part of our region, except Mexico, it is not a matter of surprise that so large a proportion of our acquisitions in this family are new. As the genera are so few in number, it is unnecessary for the purposes of this work to make use of any subdivision of the family.

* By D. SHARP.

EUCONNUS.

Euconnus, Thomson, Skand. Col. iv. p. 88 (1862); Reitter, Ins. Deutsch. iii. pt. 2, p. 178.
Scydmaenus, Gemminger & Harold, Cat. Col. ii. p. 706 (pars).

Although *Euconnus* is not recognized by the authors of the Munich Catalogue as distinct from *Scydmaenus*, it appears nevertheless to be a valid genus, distinguished by the head being more or less narrowed behind, with the eyes placed near the front, and the anterior part abruptly deflexed at a right angle with the vertex, and the antennæ inserted immediately behind the labrum. The genus is very rich in species, and is almost cosmopolitan. As our representatives are numerous, and do not fall satisfactorily under the subgenera formed for the European species, I have, to facilitate reference, adopted a division that unfortunately is not a good one, as there are a few intermediate or doubtful forms; but I have not been able to make a more useful one.

§ 1. *Thorax at the base either bifoveolate or transversely impressed.*

This group comprises a considerable variety of forms: where the thorax is bifoveolate the two foveæ are usually connected by a nearly obsolete channel; sometimes this channel is more developed, and the foveæ are merely deeper impressions at its extremity; this transverse channel also is frequently more obsolete in the middle, and may become almost completely divided into two transverse depressions as in *E. difficilis*.

A. *Thorax without lateral carinule at the base.*

In many species of this group the sides of the thorax are more sharply deflexed at the base, giving rise to a faint appearance of a carinule, but there is really no raised line on the angle.

1. ***Euconnus bifoveolatus*.**

Scydmaenus bifoveolatus, Schauf. Mon. (in Nov. Act. Leop.-Carol. Nat. Curios. xxxiii.) p. 65 (1866)¹.

Hab. MEXICO, Teapa¹.

2. ***Euconnus chevrolati*.**

Scydmaenus chevrolati, Schauf. Mon. p. 69, t. 2. f. 8¹.

Hab. MEXICO, Yucatan¹.

Some doubt must be expressed as to whether the insects supposed to be the sexes of *E. chevrolati* are really one and the same species.

3. ***Euconnus trigeminus*.**

Scydmaenus trigeminus, Schauf. Mon. p. 37, t. 1. ff. 1, a, b¹.

Hab. MEXICO, Teapa¹.

Possibly allied to *E. hirsutus* and *E. alticola*.

4. *Euconnus gravidus*. (Tab. II. fig. 1.)

Rufus, capite, prothorace antennisque nigricantibus, pube elongata erecta laxa vestitus; antennis elongatis, hirsutis, apicem versus crassis, haud abrupte clavatis; prothorace subconico, basi utrinque foveolato; elytrorum humeris elevatis.

Long. $2\frac{3}{4}$ millim.

Hab. PANAMA, Bugaba, Volcan de Chiriqui, Caldera in Chiriqui (*Champion*).

Antennæ thickly covered with hair, nearly black, the basal portion usually very dark infusate-red, and the apical joint sordid red; the seventh joint rather larger than the sixth, as long as broad, the three following joints transverse; the terminal joint still stouter, elongate, acuminate, in the male bearing at the base on one side a large fovea. Head elongate, much narrowed behind, the vertex very densely pubescent, the pubescence dark in colour. Thorax elongate, longer than broad, broader from the front to behind the middle, bearing much erect pubescence, with a round fovea on each side near the base. Elytra with fine, elongate, erect, scanty pubescence.

We have received over twenty examples of this species. The fovea of the male antenna seems to vary somewhat in size and form, and is occasionally accompanied by a plication or elevation of the surface beyond it. The specimens are much decayed, and possibly the head, thorax, and antennæ may be naturally of a lighter tint, as in some examples the thorax agrees in colour with the elytra.

5. *Euconnus torquatus*.

Rufus, capite, prothorace antennisque nigricantibus, his articulo ultimo rufescente, pube elongata erecta laxa vestitus; antennis crassiusculis, hirsutis, apicem versus paullo crassioribus, haud discrete clavatis; prothorace sat elongato, lateribus rotundatis.

Long. $2\frac{1}{4}$ – $2\frac{1}{2}$ millim.

Hab. GUATEMALA, El Tumbador, Las Mercedes, San Isidro, Zapote, Panima (*Champion*).

This species is very closely allied to *E. gravidus*, but is slightly smaller, and has the antennæ less elongate and less thickened externally; and the sides of the thorax appear to be more rounded, so that the shape of this part is less conical. I conclude I have both sexes before me; if so, the male has longer antennæ and a more conical thorax than the female, and is consequently very similar to the female of *E. gravidus*; the female of *E. torquatus* is, however, readily distinguished from that species. These insects may possibly be distinct species and not the sexes, and my description is drawn from the form having the shorter antennæ. Ten examples.

6. *Euconnus subclavatus*. (Tab. II. fig. 2.)

Rufus, capite prothoraceque piceis, pube erecta laxa vestitus; antennis sat elongatis, crassiusculis, clava vix discreta quadri-articulata; prothorace haud magno, suboblongo.

Long. $2\frac{1}{8}$ millim.

Hab. GUATEMALA, La Tinta, Senahu (*Champion*).

Antennæ dark red, moderately pubescent; the four terminal joints all of about one width, only slightly broader than the others, and very loosely articulated, so that they scarcely form a club; joints 8-10 subquadrate, the terminal joint considerably longer than broad. Head with the sides and vertex very densely pubescent. Thorax, especially at the sides, densely pubescent, and between oblong and conical in form. Elytra short, impressed at the base, with elevated shoulders, and bearing a fine, moderately long, not dense, pubescence. Only three examples have been received; but I presume I have both sexes before me, as one of the two individuals from La Tinta is probably the male, it having the four terminal joints of the antennæ a little longer than the others.

Closely allied to *E. gravidus* and *E. torquatus*, but readily distinguished by the structure and pubescence of the antennæ.

7. *Euconnus segnis*.

Rufo-brunneus, capite prothoraceque magis obscuris, pube suberecta minus tenuiter vestitus; antennis pedibusque brevibus, illis crassis, articulis 8^o-10^m fortiter transversis; prothorace minus gracili. Long. 2 millim.

Hab. PANAMA, Volcan de Chiriqui between 2500 and 4000 feet, David (*Champion*).

Antennæ piceous; joints 3-6 subequal, nearly quadrate, joint 7 broader, transverse, joints 8-10 again broader, strongly transverse, the terminal joint short, but little longer than broad. Head rather small, very densely pubescent, the neck deeply constricted, the vertex much prolonged over the front of the thorax. Thorax also densely pubescent, and owing to this and the concealment of its anterior margin its exact shape is not easily seen; it is apparently not longer than broad, and has a subobsolete transverse impression in front of the base, the impression indefinite in the middle (varying according to the point from which it is viewed), and deeper on each side externally so as to form a slight lateral fovea. Elytra with only a very short humeral elevation; rather closely pubescent. Legs short. Three examples.

8. *Euconnus auritus*.

Rufo-brunneus, capite prothoraceque piceis, pube suberecta sat dense vestitus; antennis pedibusque parum elongatis, illis vix clavatis, crassiusculis; prothorace conico-oblongo, basi evidenter bifoveolato. Long. 2½ millim.

Hab. PANAMA, Volcan de Chiriqui 2500 to 4000 feet (*Champion*).

Antennæ stout, rather short, with an indistinct club, which is 5- rather than 4-jointed, joints 7-10 being subequal, each scarcely transverse, the terminal joint rather long, the sixth joint scarcely differing from the fifth. Head rather narrow, with much prolonged densely pubescent vertex. Thorax broader towards the base, longer than wide, very distinctly bifoveolate, densely pubescent at the sides. Humeral elevation of the elytra slight.

BIOL. CENTR.-AMER., Coleopt., Vol. II. Pt. 1, April 1887.

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Closely allied to *E. segnis*, but rather larger, with longer thorax, antennæ, and legs. Only one mutilated example has been preserved.

9. *Euconnus difficilis*.

Rufo-castaneus, dense pubescens; antennis parum elongatis, clava laxè articulata; capite parvo; prothorace subconico, ante basin transversim impresso; elytrorum humeris minus breviter elevatis.

Long. $1\frac{3}{4}$ millim.

Hab. GUATEMALA, Dueñas (*Champion*).

Antennæ with the basal portion rather slender, and with an ill-defined 5-jointed club, the seventh joint differing more from the sixth than it does from the eighth; joints 8-10 rather small, transverse; the terminal joint small, scarcely longer than broad. Head small and narrow, very densely pubescent, the vertex prolonged. Thorax densely pubescent, rather slender, deeply transversely impressed in front of the base, the impression slightly interrupted in the middle, and deeper at its external termination. Elytra depressed at the base so that the shoulders are rather strongly elevated; finely, rather closely, pubescent. Legs moderately short.

Unique. This species is readily distinguished from *E. segnis* by the more slender legs and antennæ and the deeper thoracic impression.

10. *Euconnus oscillans*. (Tab. II. fig. 3.)

Rufo-castaneus, capite prothoraceque piceis, pube suberecta subelongata vestitus; antennis parum elongatis, clava brevi, quadri-articulata; prothorace utrinque profunde foveolato; elytrorum humeris evidenter plicatis.

Long. $1\frac{3}{4}$ millim.

Hab. GUATEMALA, San Isidro, Zapote (*Champion*).

Antennæ with joints 3-7 subequal, the seventh being scarcely different from the sixth; joints 8-10 rather short, transverse; the terminal joint rather short. Head much narrowed behind, rather densely pubescent, the vertex much elevated. Thorax longer than broad, not much narrowed in front, evidently foveate on either side in front of the base, the depression between the foveæ obsolete. Elytra moderately broad, with rather long, slender, humeral elevation, and scanty, rather long, pubescence. Legs slender, moderately short. One example only from each locality.

11. *Euconnus obesus*.

Robustus, brevior, latus, rufus, capite prothoraceque piceis, elytris pube elongata sparsa vestitis, capite prothoraceque densius pubescentibus; antennis haud abrupte clavatis, extrorsum crassioribus, articulis 8^o-10^m transversis; prothorace oblongo-subquadrato, basi evidenter bifoveolato; elytrorum humeris longius plicato-elevatis.

Long. $1\frac{3}{4}$ millim.

Hab. GUATEMALA, Zapote (*Champion*).

Antennæ moderately stout; joints 3-6 similar to one another, the seventh joint only

slightly larger, the four others forming an ill-defined club gradually increasing in breadth outwards, the terminal joint moderately long. Head rather broad, the sides scarcely narrowed behind, rather densely pubescent. Thorax longer than broad, not much narrowed in front. Shoulders of the elytra abruptly elevated so as to form an elongate plica. Legs short.

This species is closely allied to *E. oscillans*, but I think distinct; the elytra are broader, of a bright red colour, and with more scanty pubescence; the head is more quadrate in form; and the antennæ rather longer and less abruptly clavate. Unique.

12. *Euconnus indutus*. (Tab. II. fig. 4.)

Brunneus, pube elongata erecta omnino densissime vestitus; antennis crassis, vix clavatis; prothorace basi utrinque ad latus carinula elevata, medio longitudinaliter subconvexo, ante basin prope medium utrinque minute obsoleteque foveolato.

Long. 3 millim.

Hab. PANAMA, Volcan de Chiriqui between 2500 and 4000 feet (*Champion*).

A very distinct species, distinguished at first sight by the very dense pubescence, but possessing also numerous other peculiarities. Antennæ with joints 3-7 subequal, the eighth and ninth joints rather broader, subquadrate, the tenth joint a little broader, transverse, the terminal joint rather short, obtuse. Palpi elongate. Head very densely pubescent; eyes rather convex. Thorax uniformly covered with a very dense pubescence, obscurely longitudinally elevated along the middle; with a fine short carina on each side at the base, and between this and the middle only obscurely foveolate. Elytra densely pubescent, the pubescence more flavescent than that of the anterior parts, the shoulders elevated. Unique.

13. *Euconnus calvus*. (Tab. II. fig. 5.)

Rufus, nitidus, fere glaber; antennis gracilibus, clava elongata, gracili, laxè articulata; capite subtransverso; prothorace ad angulos posteriores utrinque foveola majore; elytris sanguineis, humeris elevatis.

Long. $1\frac{7}{8}$ millim.

Hab. GUATEMALA, San Isidro, Pantaleon (*Champion*); PANAMA, Caldera in Chiriqui 1200 feet (*Champion*).

Antennæ rather slender, with distinct fine exserted pubescence; joints 3-6 subequal, the seventh joint longer but not broader; the joints 8-10 each longer than broad, the eighth longer than the tenth, the terminal joint about equal to the eighth. Head short, broad in front, abruptly narrowed behind. Thorax much narrowed in front, its greatest width in front of the middle, the sides nearly straight behind. Elytra convex, strongly curvate at the sides, the humeral elevation quite short; without punctuation or pubescence. Legs slender. Under surface finely pubescent.

Only one example was obtained in each locality; the specimen from the State of Panama is in a very bad state of preservation, and only doubtfully assigned to *E. calvus*.

14. *Euconnus solitarius*.

Rufus, nitidus, tantum in prothorace et in elytrorum basi setulis perpaucis munitus; antennis gracilibus, clava sat elongata, gracili, laxè articulata; prothorace ad angulos posteriores utrinque foveolato; elytris sanguineis, humeris breviter elevatis.

Long. 2 millim.

Hab. GUATEMALA, San Gerónimo (*Champion*).

Although very close to *E. calvus* I think this insect is probably distinct, the club of the antennæ being considerably shorter, so that the eighth joint is scarcely longer than the seventh, and the penultimate joint only about as long as broad, the terminal joint also being short. The thorax, moreover, is rather shorter and broader, and the basal foveæ not quite so large. Unique.

15. *Euconnus gracilicornis*. (Tab. II. fig. 6.)

Rufus, capite prothoraceque piceis, antennarum clava obscura, prothorace hirtello, capite elytrisq. calvis pernitidis; prothorace oblongo; antennis gracilibus, clava tri-articulata.

Long. 1½ millim.

Hab. PANAMA, Los Remedios (*Champion*).

Antennæ unusually slender, rather long; eighth joint slender, but slightly broader than the seventh, elongate, much longer than broad; three terminal joints broader, but slender, forming a loosely articulated club. Head rather small, much narrowed behind. Thorax oblong, a little narrowed in front, with an irregular pubescence; the basal foveæ of moderate size. Elytra with small deep basal impressions, the shoulders not raised. Legs slender, the femora delicately clavate. Two examples.

Similar to *E. calvus*, but smaller, and very distinct by the structure of the antennæ.

16. *Euconnus mirandillæ*.

Rufescens, capite prothoraceque obscurioribus, pube subtili omnino sparsim vestitus; antennis vix elongatis, clava quadri-articulata; prothorace oblongo ad angulos posteriores utrinque foveola majore impresso; elytrorum humeris parum elevatis.

Long. 1½ millim.

Hab. GUATEMALA, Mirandilla (*Champion*).

This species is closely allied to *E. guatemalensis*, but the antennæ are rather shorter, each of the joints 8–10 being scarcely so long as broad; the thorax is less elongate and slender, and possesses a rather large fovea on each side at the base, the fovea, however, rendered rather obscure by being placed quite at the outside.

Although so similar to *E. guatemalensis* I have placed this insect in a different group of the genus, as there is apparently no thoracic carinule.

17. *Euconnus giraffa*. (Tab. II. fig. 7.)

Castaneus, nitidus, minus dense pubescens; antennarum clava longissima, fere quinque-articulata; capite elongato, postice fortiter angustato.

Long. 2½ millim.

Hab. GUATEMALA, San Juan in Vera Paz (*Champion*).

Antennæ elongate; second joint very long, the third joint small, only about half the size of the fourth; joints 4-6 subequal; the seventh joint a little broader, much longer than wide; the eighth rather broader, but scarcely so long, its apical portion a little attenuate; the ninth similar in form but slightly broader; the tenth larger, longer, and broader; the terminal joint elongate, acuminate. Head very long, regularly narrowed behind, only very sparingly pubescent. Thorax more globose than usual in the genus, longer than broad; rather densely pubescent at the sides, bare on the disc, and with a fine transverse channel close to the base. Elytra convex, sparsely pubescent, almost destitute of intrahumeral depression. Pectoral lamina very long and slender.

This remarkable little insect is unique. Although the thoracic channel is placed very near the hind margin it undoubtedly exists.

18. ***Euconnus excavatus***. (Tab. II. fig. 8.)

Rufus, capite prothoraceque rufo-obscuris, pube minus elongata suberecta sat dense vestitus; antennis crassiusculis, clava quinque-articulata, articulo ultimo brevi; prothorace ante basin utrinque foveolato, ad basin externe breviter plicato; elytrorum humeris brevissime elevatis.

Long. 2 millim.

Hab. NICARAGUA, Chinandega (*Sallé*).

This species is readily distinguished by the structure of the antennæ, and by the fact that each flank of the thorax is marked by a depression concealed from above by a small but sharp prominence. The sixth joint of the antennæ is a little larger than the fifth, and the seventh is about equal to the eighth, joints 8-10 being each transverse, and the terminal joint unusually short. The head is densely pubescent, with much elevated vertex. The thorax is subquadrate and is distinctly foveate on each side, and its peculiar construction is distinctly visible on each side at the base. The elytra are rather elongate and narrow, with rather short distinct pubescence.

Two examples. I do not think there is any thoracic carinule, although the side at the base is very sharply deflexed.

19. ***Euconnus distans***.

Minimus, rufo-castaneus; antennis parvis, clava tri-articulata; prothorace conico-oblongo, basi transversim impresso.

Long. $1\frac{1}{10}$ millim.

Hab. GUATEMALA, Torola (*Champion*).

Antennæ with joints 3-7 minute and slender, the eighth joint a little broader, the ninth and tenth much broader, transverse, the terminal joint short. Head rather long and narrow, with but little pubescence. Thorax slender, hirsute; with a deep transverse impression in front of the base, the impression only slightly interrupted in the middle.

Elytra rather slender, sparingly pubescent, with a short but distinct humeral elevation. Front tibiæ rather strongly incurved at the apex.

This distinct little insect is unique.

20. **Euconnus mutandus.** (Tab. II. fig. 9.)

Gracilis, castaneus, elytris rufo-castaneis, pube sat elongata suberecta sat dense vestitus; antennis basi gracili, clava magna; capite angusto, elongato, oculis subprominulis; prothorace conico-oblongo, ante basin tenuiter transversim sulcato.

Long. 2 millim.

Hab. PANAMA, Volcan de Chiriqui between 2500 and 4000 feet (*Champion*).

Antennæ with the basal joint short, the second joint rather long, the third joint small, the fourth, fifth, and sixth joints each slightly longer; the seventh much longer, but scarcely broader; the eighth not longer than the seventh, but much broader, subquadrate; the ninth a little broader, evidently transverse; the tenth larger, subquadrate; the terminal joint short, a little longer than the tenth. Head slender, much narrowed behind, with elevated pubescent vertex; the eyes more convex and more convexly faceted than usual in this genus. Thorax rather long and slender, the transverse impression near the base delicate. Elytra with rather scanty pubescence, and a slight humeral plica. Legs slender.

B. *Thorax with a minute carinule at the base on each side.*

21. **Euconnus guatemalenus.** (Tab. II. fig. 10.)

Rufescens, capite prothoraceque picescentibus, pube elongata sparsim vestitus; antennis sat elongatis, clava laxissime articulata; capite subtransverso; prothorace suboblongo, basi utrinque tantum minute foveolato; elytrorum humeris parum elevatis.

Long. 1½ millim.

Hab. GUATEMALA, El Tumbador 2500 feet, Capetillo (*Champion*); PANAMA, Volcan de Chiriqui (*Champion*).

Antennæ red; joints 3-6 small, equal, the seventh joint distinctly longer but only very slightly broader; club not broader towards the extremity, very loosely articulated, the eighth joint rather longer than broad, the tenth hardly so long. Head short, rather abruptly narrowed behind, with only scanty pubescence. Thorax slender, oblong, only a little narrowed in front, bearing a scanty long pubescence, and with the basal fovea minute and close to the side. Elytra rather broad, much curvate at the sides; with moderately long, rather scanty, pubescence. Legs rather long and slender.

Four examples. The Panama exponent is very mutilated and decayed, and has entirely lost its antennæ, and may not be really conspecific.

22. *Euconnus championi*.

Castaneus, elytris dilutioribus, nitidus, fere glaber; antennis clava elongata, gracili, laxe articulata; prothorace suboblongo, basi utrinque evidenter foveolata; elytrorum humeris vix elevatis.

Long. $1\frac{5}{8}$ millim.

Hab. GUATEMALA, El Tumbador, Capetillo, Tamahu, San Juan in Vera Paz (*Champion*).

This species is closely allied to *E. calvus*, but is rather smaller and more delicate; the club of the antennæ is much less elongate, each of its four joints being shorter though the proportions are similar; there are some scanty hairs on the sides of the thorax; the thoracic foveæ are not so large, but are connected by a subobsolete channel; there are a very few hairs on the humeral portion of the elytra, and the shoulders are but little elevated owing to the basal depressions extending only a very short distance backwards.

E. championi is almost equally close to *E. guatemalensis*; but the latter has a more slender thorax with obsolete foveæ, and a distinct though scanty pubescence on the elytra.

23. *Euconnus subtilis*. (Tab. II. fig. 11.)

Rufus, capite, prothorace antennisque nigricantibus, perparum pubescens; antennis subgracilibus, clava quadri-articulata; prothorace oblongo, externe foveolato.

Long. $1\frac{1}{2}$ millim.

Hab. GUATEMALA, Dueñas, Capetillo (*Champion*).

Antennæ black; joints 3-6 but little different from one another, the seventh joint longer; joints 8-10 subequal, slender, longer than broad; the terminal joint not at all stouter, evidently longer than the tenth. Head rather broad and short, much narrowed behind, almost destitute of pubescence. Thorax slender, suboblong, being but little narrowed in front; with a moderately large fovea near the hind angle, and very little pubescence. Elytra rather slender, bright red, shining, without pubescence, the shoulders scarcely elevated. Legs slender, red.

Six examples. Although very similar to *E. calvus* and *E. solitarius*, a very minute thoracic carinule exists in this species.

24. *Euconnus frontalis*.

Subrobustus, rufus, capite prothoraceque piceis, parvisime pubescens, pernitidus; antennis sat elongatis, clava elongata et laxe articulata; prothorace robusto, utrinque foveola majore impresso; elytris intra humeros depressis.

Long. $2\frac{1}{4}$ millim.

Hab. GUATEMALA, Capetillo (*Champion*).

Antennæ moderately long and stout, entirely red; joints 3-5 similar, the sixth joint a little longer, the seventh much longer; joints 8-11 forming an elongate loosely

articulated club, each of them longer than broad, the eighth and eleventh joints about equal in length, the other two a little shorter. Head very broad in front, short, abruptly narrowed behind. Thorax much narrowed in front, its greatest width in front of the middle, thence nearly straight, being only very slightly narrowed behind; the basal foveæ deep, and there is a third, though obsolete, depression between them. Elytra rather broad, with a distinct depression near the shoulders; glabrous, except for a few hairs on the humeral portion. Legs rather slender.

Closely allied to *E. calvus*, but readily distinguished by the broad thorax, as well as by the minute thoracic carinule. Unique.

25. **Euconnus chiriquensis.** (Tab. II. fig. 12.)

Brunneus, elytris rufo-brunneis, pube brevi depressa sat dense vestitus, minus nitidus; antennis clava magna, elongata; prothorace subconico, ante basin haud profunde transversim impresso, ad latera utrinque breviter subtiliter carinulato.

Long. $2\frac{1}{2}$ millim.

Hab. PANAMA, Volcan de Chiriqui between 2500 and 4000 feet (*Champion*).

Antennæ with joints 3-7 subequal, small; the eighth joint much larger, a good deal longer than broad; the ninth and tenth joints each a little shorter and each rather longer than broad; the terminal joint acuminate, slightly longer than the eighth. Head transverse, but subcircular, the erect pubescence of the vertex very slight; eyes rather large, but not convex. Thorax rather large, broader towards the base, its pubescence fine and depressed; with a transverse depression, deeper at its termination on each side, in front of the base, and external to this a very fine minute carina. Elytra depressed at the base, with the shoulders plicate, but the plica very short; their pubescence short and depressed. Pectoral lamina remarkably broad, sulcate; middle of the metasternum prominent but deplanate.

26. **Euconnus germanus.** (Tab. II. fig. 13.)

Brunneus, elytris rufo-brunneis, pube brevi depressa vestitus, elytris subopacis; antennis clava magna, elongata; prothorace subconico, ante basin transversim impresso; elytrorum humeris vix elevatis.

Long. 2 millim.

Hab. GUATEMALA, Dueñas, Capetillo (*Champion*).

Allied by the structure of the antennæ and the remarkably broad lamina between the middle coxæ to *E. chiriquensis*, but smaller and quite distinct by the extremely obsolete lateral carinulæ on the thorax. The head is not all transverse, the thoracic depression is scarcely deeper at the sides, and the shoulders of the elytra are almost without plication.

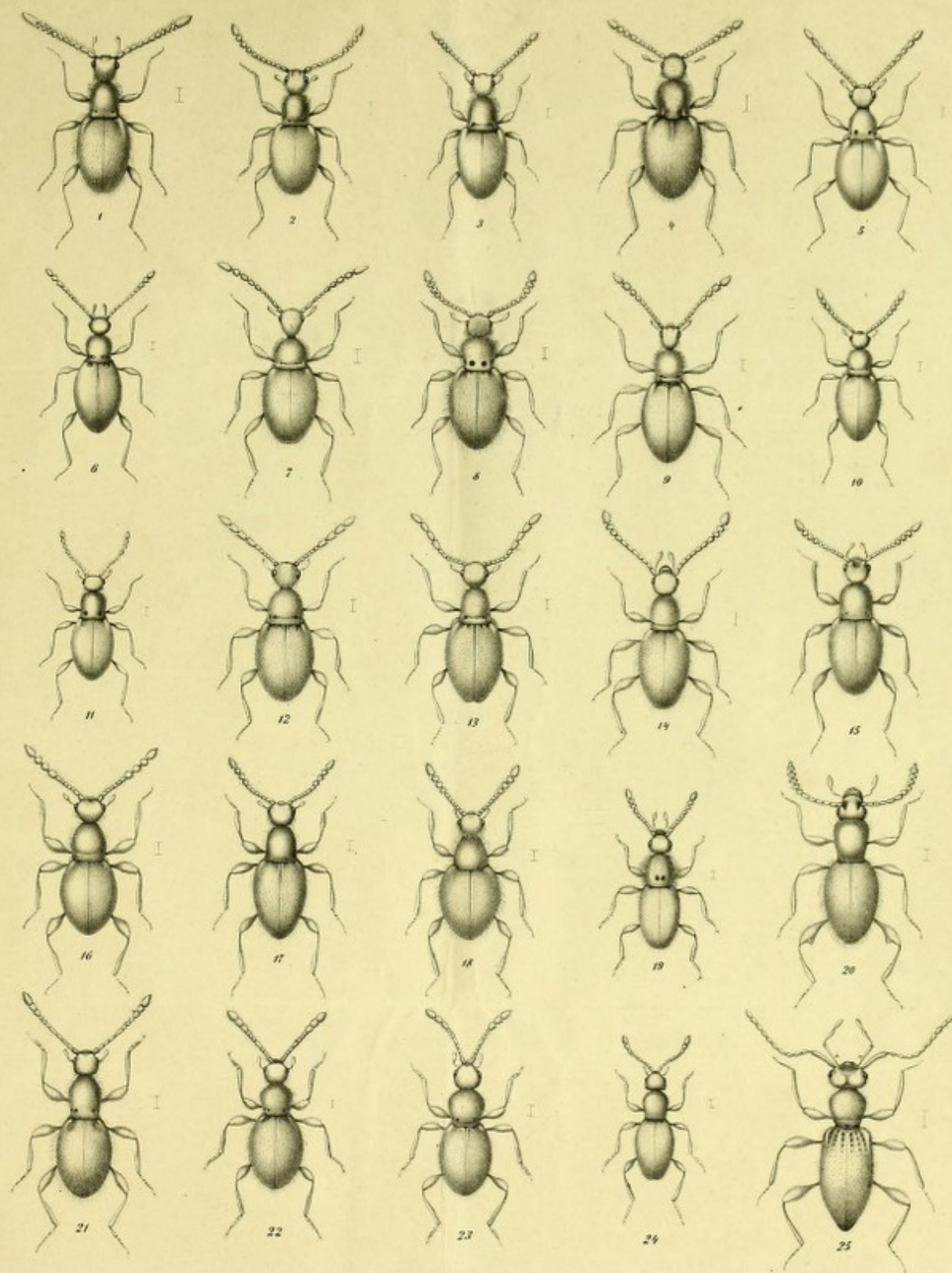
One example from each locality. The thoracic carinule is excessively minute, and can only be seen in a quite clean example.



- 1 DESIMIA DISPAR.
- 2 EPHIMIA CRASSICORNIS.
- 3 HAMOTUS SETIPES.
- 4 GRANDIPALPIS.
- 5 BATRISUS HAMATICOLLIS.
- 6 SIMPLICICORNIS.
- 7 CRASSIPES.
- 8 EUPHALEPSUS REITTERI.

- 9 BATOCTENUS PUNCTICOLLIS.
- 10 METOPIAS ELEGANS.
- 11 CACCOPECTUS CELATUS.
- 12 DECARTHRON FALLACIOSUM.
- 13 BRYAXIS SALLÆI.
- 14 DIVERSA.
- 15 VULNERATA.
- 16 TRIMIOIDES.

- 17 PSELAPTUS BATRISOIDES.
- 18 PSELAPHUS LONGICEPS.
- 19 APOTHINUS OBSCURUS.
- 20 TRIMIOPSIS MINUTA.
- 21 DALMODES BREVICOLLIS.
- 22 EURHEXIS VESTITUS.
- 23 RHEXIS OPTATUS.
- 24 DUCIOLA SCYDMAENILLA.
- 25 ENDYTOCERA VESTITA.



1 EUCORINUS

GRAVIDUS.

2. "

SUBCLAVATUS.

3. "

OSCILLANS.

4. "

INDUTUS.

5. "

CALVUS.

6. "

GRACILICORNIS.

7. "

GIRAFFA.

8. "

EXCAVATUS.

9 EUCORINUS

MUTANDUS.

10. "

GUATEMALENSIS.

11. "

SUBTILIS.

12. "

CHIRIQUENSIS.

13. "

GERMANUS.

14. "

INCULTUS.

15. "

PUBIFER.

16. "

VIVIDUS.

17. "

MEDIALIS.

18 EUCORINUS FUSTIGER.

19 EUCORINUS BREVIPEDES.

20 HOMOCORINUS SPINIPES.

21 EUMICRUS BRUNNEUS.

22. "

COMMILITONIS.

23. "

BREVIPEDES.

24. "

CONCRETUS.

25. HECOTUS AGILIS.

