

III. *Notes on various Central American Coleoptera, with descriptions of new genera and species.* By GEORGE CHARLES CHAMPION, F.Z.S.

[Read November 20th, 1912.]

PLATES III, IV.

THIS paper is mainly devoted to the enumeration and description of the Coleoptera rejected by the various contributors to the "Biologia Centrali-Americana" as not belonging to the particular groups studied by them,¹ or which have been overlooked in the sorting of the large collections that have passed through the hands of the Editors of that work during the past thirty-five years. The material has been supplemented by a number of interesting Mexican, Guatemalan, and Antillean forms recently sent for determination by the authorities of the U.S. National Museum, who have kindly allowed me to retain co-types of the new species for the British Museum. To determine these insects a few closely allied Antillean and South American forms have also had to be studied, and these, too, are dealt with in the following pages. The Coleoptera examined belong to the Clavicorn or Serricorn series, with the exception of the Psephenidae, Tenebrionidae, and Othniidae. The described Central American *Lytopeplus* (= *Brachylon*, Gorh.), *Hapalips*, *Trichodesma*, *Petalium* (= *Micranobium*, Gorh.), *Eupactus* (= *Lioolius*, Gorh.), *Priotoma* (= *Eutylistus*, Fall), etc., have all had to be re-examined, and a revised table of the species of each of these genera (*Petalium* excepted) is appended. The section Coleoptera of the "Biologia" was completed in Dec. 1911, eighteen volumes in all having been required for the enumeration of 18,039 species. This article, therefore, is practically a supplement to one of the divisions of the "Insecta" of that work, and the names of the species not occurring in Central America are, for convenience of reference, placed within square brackets. The additions to the fauna, 106, are marked (except in the preliminary list) with an asterisk, 89 of them being described as new.

¹ The Tenebrionid *Rhipidandri* were dealt with by Dr. Sharp in "B. C.-Am.," Coleoptera, II, 1, pp. 690-692 (March, 1905).

LIST OF SPECIES DESCRIBED OR RENAMED.

PSEPHENIDAE.

- | | |
|----------------------------------|------------|
| † <i>Psephenus palpalis</i> . | Mexico. |
| † <i>Psephenops grouvellei</i> . | Guatemala. |

SILPHIDAE.

- | | |
|---|--------------|
| <i>Liodes mexicanus</i> . | Mexico. |
| <i>Aglyptonotus</i> (n. n.) <i>majusculus</i> . | Mexico. |
| „ <i>melas</i> . | Mexico, etc. |
| „ <i>matthewsi</i> (n. n.) | Panama. |
| <i>Colenis phalacroides</i> . | Guatemala. |

SCAPHIDIIDAE.

- | | |
|------------------------------------|---------|
| <i>Scaphidium flavofasciatum</i> . | Mexico. |
| <i>Scaphisoma occidentale</i> . | Mexico. |
| <i>Baeocera irregularis</i> . | Mexico. |

NITIDULIDAE.

- | | |
|------------------------------------|--------------|
| † <i>Cybocephalus aciculatus</i> . | Mexico. |
| „ <i>flavicornis</i> . | Guatemala. |
| „ <i>schwarzi</i> . | Mexico, etc. |

COLYDIIDAE.

- | | |
|--|--------------|
| † <i>Pseudaulonium discolor</i> . | Panama, etc. |
| „ <i>nitidum</i> . | Guatemala. |
| <i>Pycnomerus stenosoma</i> . | Guatemala. |
| † <i>Tyrtaeus</i> (n. g.) <i>rufus</i> . | Guatemala. |
| „ <i>cribripennis</i> . | Panama. |
| <i>Lapethus sharpi</i> (n. n.) | Mexico, etc. |
| [„ <i>brasilianus</i> . | Brazil.] |
| <i>Lytopeplus substriatus</i> . | Mexico. |
| „ <i>curtulus</i> . | Mexico, etc. |
| „ <i>laevipennis</i> . | Mexico, etc. |
| „ <i>tibialis</i> . | Nicaragua. |
| „ <i>sulcimargo</i> . | Nicaragua. |
| <i>Murmidius estriatus</i> . | Mexico. |

CUCUJIDAE.

- | | |
|--|------------|
| <i>Laemophloeus quadridentatus</i> . | Guatemala. |
| <i>Lathropus minimus</i> . | Guatemala. |
| † <i>Salpingomimus</i> (n. g.) <i>deceptor</i> . | Panama. |

CRYPTOPHAGIDAE.

† <i>Truquiella</i> (n. g.) <i>gibbifera</i> .	Mexico.
<i>Platoberus nigrolimbatus</i> .	Mexico.
<i>Tomarus gibbipennis</i> .	Mexico.
„ <i>fuscicornis</i> .	Panama.
<i>Trogocryptus longiusculus</i> .	Mexico, etc.
„ <i>senecionis</i> .	Mexico.
† <i>Cleridopsis</i> (n. g.) <i>latimanus</i> .	Guatemala, etc.
[<i>Hapalips crenatus</i> .	Brazil.]
„ <i>dimidiatus</i> .	Mexico.
[„ <i>parvicollis</i> .	Brazil.]
„ <i>sulcicollis</i> .	Nicaragua, etc.
„ <i>perlongus</i> .	Guatemala.
„ <i>lucidus</i> .	British Honduras, etc.
[„ <i>batesi</i> .	Amazons.]
[„ <i>brevipes</i> .	Brazil.]
„ <i>nitidulus</i> .	Mexico, etc.
„ <i>suturalis</i> .	Guatemala.
„ <i>obliteratus</i> .	Guatemala.
„ <i>lanuginosus</i> .	Mexico.
[„ <i>sculpticollis</i> .	Jamaica.]
[<i>Pseudhapalips</i> (n. g.) <i>lamellifer</i> .	Amazons.]

LATHRIDIIDAE.

† <i>Pseudevlocera</i> (n. g.) <i>atomarioides</i> .	Guatemala.
† <i>Lycoperdinella</i> (n. g.) <i>subcaeca</i> .	Guatemala.

MYCETOPHAGIDAE.

† <i>Pseudesarcus</i> (n. g.) <i>villosus</i> .	Panama.
---	---------

LYCTIDAE.

† <i>Berginus nigricolor</i> .	Guatemala, etc.
--------------------------------	-----------------

ENDOMYCHIDAE.

<i>Micropsephus hemisphaericus</i> .	Mexico, etc.
† <i>Micropsephodes</i> (n. g.) <i>serraticornis</i> .	Guatemala.

COCCINELLIDAE.

<i>Cryptognatha rufoterminalata.</i>	Panama.
„ <i>violacea.</i>	Mexico.
„ <i>fenestrata.</i>	Panama.
„ <i>circumducta.</i>	Panama.
„ <i>tumidiventris.</i>	Panama.
„ <i>subaequalis.</i>	Guatemala.
<i>Scymnus cribripennis.</i>	Mexico.
„ <i>caeruleicollis.</i>	Panama.
„ <i>quercicola.</i>	Mexico, etc.
„ <i>nigroaeneus.</i>	Guatemala.
† <i>Lioscymnus</i> (n. g.) <i>diversipes.</i>	Mexico, etc.
† <i>Microscymnus</i> (n. g.) <i>calvus.</i>	Mexico, etc.

MELYRIDAE.

<i>Cymbolus elongatus.</i>	Mexico.
[„ <i>quadrituberculatus.</i>	Brazil.]
† <i>Eucymbolus</i> (n. g.) <i>cyaneus.</i>	Guatemala.

PTINIDAE.

<i>Trichodesma tricristata.</i>	Mexico.
„ <i>pictipennis.</i>	Guatemala.
„ <i>scripta.</i>	Mexico.
„ <i>truncata.</i>	Guatemala.
„ <i>armata.</i>	Guatemala.
<i>Eupactus subvestitus.</i>	Mexico.
„ <i>erythrocephalus.</i>	Guatemala.
„ <i>nitescens.</i>	Panama.
„ <i>semirufus.</i>	Mexico.
„ <i>caeruleus.</i>	Panama.
„ <i>comatus.</i>	Nicaragua.
<i>Caenocara quercus.</i>	Mexico.
„ <i>flohri.</i>	Mexico.
<i>Priotoma nigriventris.</i>	Panama.
„ <i>brevilinea.</i>	Panama.
[„ <i>insularis.</i>	Antilles.]
<i>Ptilinus sericeus.</i>	Guatemala.
„ <i>maculicollis.</i>	Guatemala.

CIOIDAE.

<i>Cis M-nigrum.</i>	Mexico.
----------------------	---------

TENEBRIONIDAE.

<i>Corticeus sordidus</i> .	Guatemala.
† <i>Lorelus curvipes</i> .	Guatemala.
„ <i>curticollis</i> .	Mexico, etc.
„ <i>breviusculus</i> .	Panama.
„ <i>angustulus</i> .	Guatemala.
„ <i>exilis</i> .	Guatemala.
[„ <i>rugifrons</i> .	Brazil.]
„ <i>trapeziderus</i> .	Guatemala.

OTHNIIDAE.

<i>Othnius immaculatus</i> .	Mexico.
„ <i>planatus</i> .	Mexico.

The genera marked thus (†) are additions to the Central American fauna.

PSEPHENIDAE.

PSEPHENUS.

Psephenus, Haldeman, Melsh. Cat. Coleopt. U.S. p. 34 (1853); Horn, Trans. Am. Ent. Soc. iii, p. 30 (1870), and x, p. 117, pl. 6, figs. 14, 15 (♂ ♀) (1882); Leconte, Class. Coleopt. N. Am. 1st edit. p. 115 (1861), and 2nd edit. p. 163 (1883); Casey, Ann. N. York Acad. Sci. vii, p. 578 (1893).

Eurypalpus, Leconte, Proc. Acad. Phil. 1852, p. 41.

Fluvicola, De Kay, Zool. N. York, vi, p. 53 (1844) (larva).

The four known members of this extraordinary genus, the larva of one of which was described as a Crustacean, are from the Atlantic and Pacific regions of the United States and Lower California. The species now added from Mexico is evidently a near ally of the southern *P. haldemani*, Horn, the types of which are females.

**Psephenus palpalis*, n. sp. (Plate III, figs. 1, 1a, ♂.)

♂. Oblong-ovate, rather broad, very depressed, shining above, closely pubescent; nigro-piceous, a large indeterminate patch on the disc of each elytron at the base, the sides of the front, the first two joints of the antennae, the under surface in part, the femora, and coxae testaceous, the tibiae and tarsi slightly infusate. Head densely, rugulose punctate, foveate on the vertex, the sides of the front raised; maxillary palpi (fig. 1a) about three-fourths the length of the antennae, the fourth joint cultriform; antennae moderately

long, rather slender, subserrate, 11-jointed, 3-5 elongate, 6-11 gradually becoming shorter. Thorax short, rapidly and obliquely narrowing from the outwardly directed prominent hind angles, deeply bisinuate at the base and also sinuate at the sides before the middle, densely, minutely punctate. Elytra oblong, a little wider than the thorax, rounded at the sides posteriorly; densely, rugulosely punctate, and with several longitudinal ridges on the disc and also one near the outer margin. Beneath very densely punctate; fifth ventral segment broadly emarginate, leaving the sixth in part visible, the latter triangularly excised at the apex, the seventh narrow, subcylindrical, rounded at the tip. Legs long; tibiae slender; tarsi with joints 1-4 short, somewhat thickened, 4 small, 5 very slender, longer than the others united, the claws very long.

Length 4, breadth $2\frac{1}{2}$ mm.

Hab. MEXICO (*Truqui*, in *Mus. Brit. ex. coll. Fry*).

One specimen, injured by pinning. The thorax has a very deep transverse sulcus at the base, but this is clearly accidental. It is just possible that *P. palpalis* is the male of *P. haldemani*, but this is hardly likely to be the case.

PSEPHENOPS.

Psephenops, Grouvelle, Notes Leyden Mus. xx, p. 44, (1898).

This genus is based upon a single species, *P. smithi*, Grouv., from the Antillean islands of Grenada and St. Vincent, of which the male only is known, this having a very large, elongate, acuminate-ovate fourth joint to the maxillary palpus. The Guatemalan species now added, the female only of which is known, has the second tarsal joint more strongly and abruptly lobate, with a long slender basal portion, the antennae much longer, etc. The genus *Psephenops* affords a connecting link between the Parnidae and Dascillidae.

**Psephenops grouvellei*, n. sp. (Plate III, figs. 2, 2a, ♀.)

♀. Oblong, widened posteriorly, depressed, moderately shining, densely pubescent; dark brown, the front of the head, the antennae and femora at the base, the scutellum, the margins and base of the elytra, and the under surface, testaceous; the entire surface densely, minutely punctate. Head concave and bifoveate between the eyes, the latter large; antennae moderately long, 11-jointed, 1 and 2 stout, 1 elongate, curved, 2 short, subglobose, 3-11 feebly

serrate, 4-11 very little longer than broad, gradually decreasing in size, 11 acuminate at tip; maxillary palpi comparatively short, about reaching the tip of the second antennal joint, joints 2 and 3 obconic, 4 oblong-ovate, not wider than 3. Thorax short, rapidly and obliquely narrowing from the outwardly-directed, prominent, subacute hind angles; with three small tuberculiform prominences at the base—one opposite the scutellum, and one on either side of it, the latter transverse; the base deeply bisinuate. Elytra with several longitudinal ridges on the disc, the base depressed on each side within the humeri. Abdomen with six visible segments. Legs long; tarsi (fig. 2a) with joints 1 and 2 elongate, dilated, densely spongy-pubescent beneath, 2 excavate at the apex above for the reception of the small third and fourth joints, 1 also excavate for the reception of the slender basal portion of 2, the terminal joint very slender, about half the length of 2, the claws long and slender.

Length $3\frac{2}{5}$, breadth $1\frac{4}{5}$ mm.

Hab. GUATEMALA, Lanquin in Alta Vera Paz (*Champion*).

One example only of this insect was obtained. It was captured in February, 1880, on the banks of the Rio Cahabon, probably about the entrance of the Lanquin Cave. *P. grouvellei* greatly resembles *Psephenus darwini*, C. O. Waterh., from Rio de Janeiro, figured in "Aid ident. Ins.," i, pl. 26; the latter has simple slender tarsi.

SILPHIDAE.

LIODES.

Liodes, Erichson, Nat. Ins. Deutschl. iii, p. 87 (1845); Horn, Trans. Am. Ent. Soc. viii, pp. 277, 296 (1880).

This Holarctic genus, with nine species in North America, has not hitherto been recorded from so far south as Mexico. Mr. H. H. Smith has, however, sent us a single example of a species from the mountains of Guerrero, allied to the European *L. castaneus* and *L. orbicularis*, i. e. with all the tarsi 4-jointed in the female. The only N. American form with confused elytral punctuation, *L. confusus*, has, like the other species enumerated by Dr. Horn, the ♀-tarsi 5-, 4-, 4-jointed. Some authors use the generic name *Anisotoma* for this genus.

**Liodes mexicanus*, n. sp.

Subhemispherical, very convex, shining, nigro-piceous, the labrum, the two basal joints of the antennae and the tip of the

eleventh, the margins of the thorax, and the tarsi more or less ferruginous. Head and thorax with a few widely scattered excessively minute punctures (only visible under the microscope); antennae with joint 3 elongate, 4-6 gradually decreasing in length and increasing in width, 4 and 5 obconic, 6 angular within, the 5-jointed club larger (the small strongly transverse eighth joint excepted); thorax strongly sinuate at the apex; elytra closely, finely, confusedly punctate, without trace of striae on the disc, the sutural stria shallow and running from about the middle to the apex. Beneath with excessively small and widely scattered punctures, each bearing a minute hair; prosternum deeply excavate laterally; posterior coxae deeply grooved for the reception of the femora, the coxae raised greatly above the level of the first ventral segment; fifth ventral segment unimpressed; legs long, tibiae narrow, tarsi slender, 4-jointed.

Length (excl. head) 3, breadth $2\frac{1}{16}$ mm. (♀.)

Hab. MEXICO, Omilteme in Guerrero, 8,000 feet (*H. H. Smith*).

One specimen. Larger than the European *L. orbicularis*, the antennae more elongate, the legs longer and more slender, the elytra without trace of dorsal striae, and with a shallower sutural stria, the under surface almost smooth. *L. confusus*, Horn, is said to have rather coarsely punctate elytra.

AGLYPTONOTUS, n. n.

Aglyptus, Leconte, Proc. Acad. Phil. 1866, p. 369; Horn, Trans. Am. Ent. Soc. viii, pp. 277, 307 (1880); Matthews, Biol. Centr.-Am., Coleopt. ii, 1, p. 77 (1887) [*nec* Förster].

Matthews enumerated three species of this American genus, including *A. laevis*, Lec., the type, from Central America. Two others are contained in our collection. The characters of *Aglyptus* have been given at great length by both Horn and Matthews, but I can find no mention of the very conspicuous curved impressed line (resembling one of the ventral sutures) which extends outward across the first ventral segment to a little behind the middle of the outer margin. Matthews, it is true, describes "the basal segment as slightly but broadly elevated in a curved line at its base, enclosing the whole length of the coxa," but as the line is distinct from the coxa this definition is scarcely accurate. The anterior tarsi are said by Horn

to be 4-jointed in the male, but I am unable to make out the additional joint in any of the species before me.

The generic name *Aglyptus* is preoccupied in *Hymenoptera* (Förster, 1856) and a new one is therefore required.

**Aglyptonotus majusculus*, n. sp.

Broad ovate, convex, shining, piceous or castaneous, the antennae infusate, the two basal joints and the tip of the apical one, and the front of the head, mouth-parts, and legs, rufotestaceous, the under surface ferruginous, with the metasternum more or less infusate. Head, thorax, and elytra (when viewed under the microscope) with excessively minute, widely scattered, punctures; antennae long and slender, with joints 7 and 9-11 thickened, 8 much smaller, about as broad as long, a little shorter than 6, 10 subquadrate, 11 acuminate-ovate. Beneath faintly alutaceous, the ventral segments 2-5 distinctly punctured and pubescent across the middle, the long curved line on the first segment very conspicuous and reaching the outer margin at about one-third from the apex, the metasternum obliquely hollowed on each side to receive the posterior femora when drawn forwards. Tarsi 3-, 3-, 3-jointed in both sexes, the basal joint of the anterior and intermediate pairs distinctly thickened in ♂.

Length (excl. head) 2, breadth $1\frac{1}{2}$ - $1\frac{2}{3}$ mm. (♂ ♀.)

Hab. MEXICO, Omilteme, 8,000 feet, and Chilpancingo, 4,600 feet, both in Guerrero (*H. H. Smith*).

Numerous examples, mostly in imperfect condition. Larger broader than *A. horni*, Matth., the antennae more elongate and with a longer and more acuminate apical joint; the basal joint of the anterior and intermediate tarsi distinctly thickened in male. The elytra are without a sutural stria.

**Aglyptonotus melas*, n. sp.

Short ovate, convex, shining, black, the margins of the thorax, the basal half of the antennae, and the legs testaceous, the under surface piceous. Head, thorax, and elytra with excessively minute, widely scattered punctures; antennae with joints 7 and 9-11 thickened, 8 small, 9 and 10 transversely subquadrate, 11 ovate. Beneath faintly alutaceous. Tarsi 3-, 3-, 3-jointed.

Length (excl. head) $1\frac{1}{2}$, breadth 1 mm.

Hab. MEXICO, Jalapa (*Höge*); GUATEMALA, Cerro Zunil (*Champion*).

Three specimens, probably including both sexes. Narrower and blacker than *A. horni* and *A. laevis*, Matth., and very like a small *Agathidium*. From the much smaller *A. minor*, the relatively broader thorax will sufficiently distinguish *A. melas*. One of the Jalapa examples was labelled *Agathidium estriatum* by Matthews, but it does not agree with Horn's description of that N. American species.

Aglyptonotus matthewsi, n. sp.

Aglyptus laevis, Matth., Biol. Centr.-Am., Coleopt. ii, 1, p. 79 (1887) [*nec* Leconte].

The Chiriqui insect identified and described by Matthews as *A. laevis*, Lec., has obviously nothing to do with the N. American species, as a glance at Horn's figures (Trans. Am. Ent. Soc. viii, pl. 7, figs. 15, 15a) will show, and a new name is therefore required for it. *A. laevis* has much shorter antennae. There are one or two forms in the lesser Antilles very closely allied to, if not actually conspecific with, *A. matthewsi*.

COLENIS.

Colenis, Erichson, Nat. Ins. Deutschl. iii, p. 82 (1845); Matthews, Biol. Centr.-Am., Coleopt. ii, 1, p. 86.

Matthews enumerated two species of this genus from Central America, both minute forms; a third has since been detected in our collection.

**Colenis phalacroides*, n. sp.

Short ovate, convex, shining, obscure ferruginous, the antennae and tarsi testaceous, the antennal joints 7-10 sometimes slightly infusate. Head faintly alutaceous; antennae with joints 3-6 slender, 3 elongate, obconic, as long as 2, 4-6 small, subequal, 7-11 widened into a loose 5-jointed club, 7 trapezoidal, nearly as wide as 9, 8-10 strongly transverse, 8 small, 11 acuminate-ovate; thorax almost smooth; elytra with somewhat sinuous rows of minute punctures, the interstices sparsely, transversely strigose, and with a short sutural stria on the apical declivity.

Length (excl. head) $1-1\frac{1}{10}$ mm.

Hab. GUATEMALA, Zapote, Pacific slope (*Champion*).

Three specimens. Smaller than *C. punctulata*, Matth., from Panama, ferruginous in colour, the antennae shorter, the proportions of the joints somewhat different, the ninth

and tenth strongly transverse. Very like *C. crassicornis*, Matth., from the same neighbourhood in Guatemala, but with much more slender antennae. This insect is so like a minute *Olibrus* that it was placed amongst the Phalacridae when our collections were sorted.

SCAPHIDIIDAE.

SCAPHIDIUM.

Scaphidium, Olivier, Ent. ii, 20, p. 1 (1791); Matthews, Biol. Centr.-Am., Coleopt. ii, 1, p. 159 (1888).

Matthews enumerated eight species of this genus from Central America. The very distinct new form described below was subsequently received from the mountains of Guerrero, Mexico.

**Scaphidium flavofasciatum*, n. sp.

Broad, subelliptic, robust, shining, black; the thorax (the upper half of the flanks included) testaceous or rufo-testaceous, with a narrow sinuous fascia at the base, a triangular patch or fascia at the apex, and two spots or streaks on the disc, these markings connected in one specimen, black; the elytra with two broad sinuous fasciae, not reaching the suture, testaceous or rufo-testaceous; the antennae with the basal joints obscurely rufescent and the apical joint wholly or in part yellow; the tarsi rufo-testaceous. Head finely punctate; antennae slender, joints 7-11 broadly widened. Thorax closely, finely punctate, the sinuous transverse basal sulcus foveato-punctate. Elytra more sparsely punctured than the thorax, the deep transverse basal groove foveato-punctate, the sutural stria deeply impressed and shallowly punctate.

Var. Rufo-testaceous, the thorax with the basal margin and two oblong streaks on the disc, the suture of the elytra, and the femora and tibiae, piceous, the antennae with joints 7-10 black.

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

Hab. MEXICO, Omilteme, Xucumanatlan and Chilpancingo, 4,600-8,000 feet (*H. H. Smith*).

Four specimens; the pallid varietal form is from Xucumanatlan. Near *S. variabile*, Matth., but larger and more elongate, the thorax and elytra somewhat closely punctate, the black elytral markings showing no tendency to break up into spots, the suture infusate or black.

SCAPHISOMA.

Scaphisoma, Leach, Edinb. Encycl. ix, p. 89 (1812);
Matthews, Biol. Centr.-Am., Coleopt. ii, 1, p. 170
(1888).

Matthews enumerated thirteen species of this well-known genus from Central America. The following new form was subsequently received from the Guerrero mountains.

**Scaphisoma occidentale*, n. sp.

Oblong-elliptic, very shining, pitchy-black, the labrum, palpi, and antennae, the tip of the pygidium, the ventral segments in part, and the tarsi testaceous or rufo-testaceous, the outer five joints of the antennae slightly infusate, the femora and tibiae rufo-piceous; the punctures of the upper surface each bearing a rather long, fine, adpressed, blackish hair. Head and thorax very sparsely, minutely punctulate, the elytra with a much more distinct scattered punctuation; antennae sparsely setose, joints 3-6 very slender, 3 and 4 short, 4 longer than 3, 5 as long as 3 and 4 united, 6 elongate, equalling 3-5 united, 7-11 long, subequal, arcuately widened within; thorax (as seen from above) arcuately narrowed from the base; elytra rounded at the sides anteriorly, abruptly truncate at the apex, obliquely depressed just before the tip, the sutural stria deep; legs very elongate.

Length 3, breadth $1\frac{1}{5}$ mm.

Hab. MEXICO, Omilteme in Guerrero, 8,000 feet (*H. H. Smith*).

One specimen. Narrower and smoother than *S. thoracicum*, Matth., the elytra more distinctly punctate, the femora and tibiae rufescent. The minute black, adpressed hairs, which are only visible under the microscope, and soon abraded, make the elytral interstices appear obliquely or longitudinally strigose. They are probably also present in *S. thoracicum*. The N. American *S. castaneum*, Motsch., seems to be another allied less elongate form, with more closely punctured upper surface.

BAEOCERA.

Baeocera, Erichson, Naturg. Ins. Deutschl. iii, p. 4, nota (1848); Matthews, Biol. Centr.-Am. Coleopt. ii, 1, p. 168 (1888).

Five species of this genus¹ are mentioned by Matthews as from Central America, two of which he had not seen. A sixth is now added from the mountains of Guerrero.

**Baeocera irregularis*, n. sp.

Oblong, elliptic, very convex, shining, black, the apex of the elytra indeterminately, and the tip of the abdomen, rufo-piceous. The palpi, antennae, tibiae, and tarsi testaceous or rufo-testaceous, the femora piceous. Head and thorax almost smooth; head small; antennae long, joints 3-11 elongate, subequal in length, 3-8 extremely slender, 9-11 arcuately widened within; elytra with numerous coarse deep punctures, which become obsolete towards the apex, the punctures arranged in irregular scattered sinuous lines on the disc and becoming more crowded towards the sides, the sutural stria deep and conspicuously punctate.

Length 2, breadth $1\frac{1}{4}$ mm.

Hab. MEXICO, Omilteme in Guerrero, 8,000 feet (*H. H. Smith*).

One specimen. Differs from all the described species of the genus in having the elytra impressed with extremely coarse subseriately arranged punctures; the antennae are long and very slender, and have the last three joints widened. Viewed laterally, the insect is convex above and beneath.

NITIDULIDAE.

CYBOCEPHALUS.

Cybocephalus, Erichson, in *Germ. Zeitschr.* v, p. 441 (1844); Jacquelin Duval, *Gen. Col. Europ.* ii, p. 151, pl. 40, fig. 200.

Phantazomerus, Jacquelin Duval, *Bull. Soc. Ent. Fr.* 1854, p. xxxvii.

Stagonomorpha, Wollaston, *Ins. Mader.* p. 484, pl. 10, fig. 8 (1854).

Acribis, C. O. Waterhouse, *Proc. Zool. Soc. Lond.* 1877, p. 78.

Dr. Sharp in his enumeration of the Central-American Cybocephalinae (*Biol. Centr.-Am., Coleopt.* ii, 1, pp. 372, 373) does not mention any species of the typical genus

¹ *B. punctipennis*, Matth., has the five apical joints of the antennae widened, and it should be placed under *Scaphisoma*.

Cybocephalus from that region, whence three are now described. Jacquelin Duval, it may be noted, correctly described the antennal club as 3-, and the tarsi as 4-jointed; but in his figure the club is given 4, and the tarsi 5 joints. *Acribis*, Waterh., type *A. serrativentris*, from the Galapagos Is., is not separable from *Cybocephalus*.

**Cybocephalus aciculatus*, n. sp. (Plate III. figs. 3, portion of antenna; 3a, anterior tibia and tarsus.)

Oblong-ovate, transversely convex, black, the margins of the thorax testaceous in one example, the antennae and legs piceous; glabrous above, the pygidium and under surface clothed with long cinereous hairs, the legs setulose. Head and thorax shining, almost smooth; antennae with the 3-jointed club (fig. 3) very stout, oval, about as long as the preceding five joints united. Elytra alutaceous and somewhat closely aciculate (the minute punctures, when viewed under the microscope, in the form of short needle-scratches); the apices broadly subtruncate, leaving the pygidium exposed. Under surface alutaceous and closely, minutely punctate, the hairs long and adpressed; metasternal process very broad, arcuate, margined in front. Tibiae moderately broad, the anterior pair (fig. 3a) hollowed externally at the apex, and with the outer apical angle sharp. Tarsi slender, the third joint narrow, excavate above for the reception of the fourth.

Length about 1 mm.

Hab. MEXICO, near the city (*Flohr*).

Two specimens. The chief characters of this insect are—the alutaceous, aciculate elytra, the excavate apex of the anterior tibiae, the slender tarsi, and the broadly rounded, margined metasternal process. The row of closely placed punctures along the apical margin of each of the ventral segments 2–4 gives an appearance of serrulation, hence the name *serrativentris* for one of the species of this genus.

**Cybocephalus flavicornis*, n. sp. (Plate III, figs. 4, portion of antenna; 4a, anterior tibia and tarsus.)

Subrotundate, very convex, shining, glabrous above, black, the antennae and the margins of the thorax testaceous, the legs fusco-testaceous; the thorax and elytra with widely scattered excessively minute punctures, which become more distinct on the apical declivity, the interspaces polished. Antennae (fig. 4) with the oval 3-jointed club

moderately large, nearly as long as the preceding four joints united, 11 abruptly truncate at the tip. Anterior tibiae (fig. 4a) rounded at the apex externally. Tarsi moderately slender, joint 3 deeply excavate above.

Length about 1 mm.

Hab. GUATEMALA, Zapote, Pacific slope (*Champion*).

Two examples. Easily separable from *C. aciculatus* by the polished upper surface, the widely scattered excessively minute punctuation of the elytra, the pale testaceous antennae, with abruptly truncate club, the rounded outer apical angle of the anterior tibiae, and the stouter tarsi. This insect has exactly the facies of a minute *Agathidium*, and it was placed among the Silphidae when our collections were sorted.

**Cybocephalus schwarzi*, n. sp.

Subrotundate, very convex, shining, glabrous above, black or bronze-black, the antennae testaceous, the club and basal joint sometimes infusate, the legs fusco-testaceous; the thorax and elytra with widely scattered excessively minute punctures, which become more distinct and more closely placed on the apical declivity. Antennal club abruptly truncate at the tip. Under surface alutaceous, closely, minutely punctate, pubescent. Anterior tibiae rounded at the outer apical angle. Tarsi moderately slender, joint 3 deeply excavate above.

Length $\frac{1}{2}$ –1 mm.

Hab. MEXICO, Tampico in Tamaulipas (*Schwarz*, in *U.S. Nat. Mus.*).

Described from three examples. Two others from the same locality are larger and broader, and have the interspaces of the elytra distinctly alutaceous on the apical declivity; they are probably males of the same species. Another large example from Livingston, Guatemala, doubtless belongs to *C. schwarzi*. Extremely like *C. flavicornis*, but with the minute punctures on the elytra much more closely placed on the apical declivity. *C. nigrutilus*, Lec., is unknown to me, but as the surface is described as "laevis" the present insect can hardly be conspecific with it. Some of the S. European forms, too, are also very similar to the present species.

PYCNOCEPHALUS.

Pycnocephalus, Sharp, Biol. Centr.-Am., Coleopt. ii, 1, p. 373 (1891) [*nec* Kraatz, 1895¹].

Pycnocephalus metallicus.

Pycnocephalus metallicus, Sharp, loc. cit. pl. 12, figs. 6, 6a.

This species was described from four examples, from as many different localities in Guatemala and Panama. Three have the head or the entire upper surface metallic green, and one is of a uniform dark bronze colour. A short series from Tampico, N.E. Mexico, sent me for determination by the U.S. National Museum, showing similar variation, seem to belong to *P. metallicus*; but they are smaller and have the elytra more distinctly punctured on the posterior half. It is probable that the green coloration is confined to the male sex, as one of the dark examples from Tampico is certainly a female. The legs, too, in the types vary in colour from nigro-piceous to testaceous.

ADIMERIDAE.

MONOEDUS.

Monoedus, Horn, Trans. Am. Ent. Soc. x, p. 116 (1882).

Adimerus, Sharp, Biol. Centr.-Am., Coleopt. ii, 1, p. 441 (1894).

The above synonymy has already been noted by Arrow [Ann. and Mag. Nat. Hist. (8) iv, p. 195 (1909)].

Monoedus guttatus.

Monoedus guttatus, Horn, loc. cit. p. 116, pl. 4, fig. 10.

Adimerus dubius, Sharp, loc. cit. p. 443.

Additional localities for this species, which was first described from a single example from Cedar Keys, Florida, are :—

MEXICO, Tampico in Tamaulipas (*Schwarz*), Teapa (*H. H. Smith*); CUBA, Cayamas.

We have recently received from the U.S. National Museum specimens of *M. guttatus* (det. *Schwarz*) from N.E. Mexico and Cuba, and I am unable to separate them from *A. dubius*, Sharp. The elytral markings of *M. guttatus*,

¹ This genus of Colydiidae has been re-named *Cephalopycnus* by Arrow [Ann. and Mag. Nat. Hist. (8) iv, p. 193 (1909)].

as shown in Dr. Horn's figure, are, it is true, slightly different from those of *A. dubius*, but no reliance can be placed on this character.

COLYDIIDAE.

PSEUDAULONIUM.

Pseudaulonium, Reitter, Stett. ent. Zeit. 1877, p. 334.

This genus was based upon two species, *P. regale*, from Colombia, and *P. ferrugineum*, from Brazil. There are numerous specimens of the latter, from Rio Janeiro and Parana, in the Fry collection at the British Museum. Two others are now added. These were placed amongst the "genera incertae sedis" when our collections were sorted, and were thus not seen by Dr. Sharp when he enumerated the Central American Colydiidae. The tarsi are 4-, and the antennae 11-jointed, the terminal three joints of the latter being dilated into a large club.

**Pseudaulonium discolor*, n. sp. (Plate III, figs. 5, 5a, ♂.)

Elongate-oval, rather convex, densely alutaceous, dull; ferruginous, with the disc of the thorax and a large, common, elongate or oblong patch on the elytra fuscous or black, the dark markings sometimes obliterated and sometimes black and sharply defined, the head (except in front) and the two basal joints of the antennal club infusate in one example. Head minutely punctate, bifoveate, the eyes large; antennae with the joints preceding the club about as broad as long. Thorax convex, slightly broader than long, the explanate margins somewhat rounded and crenulate, the base distinctly margined, the anterior angles not prominent, the hind angles acute; densely, minutely punctate, the raised submarginal line on each side rather prominent. Elytra a little wider than the thorax, the humeri angular; minutely seriato-punctulate, the interstices flat and densely alutaceous. Beneath alutaceous, dull, sparsely, minutely, the thorax more coarsely, punctate. Prosternal process rather broad, abruptly declivous behind.

Length $2\frac{1}{2}$ - $3\frac{1}{4}$ mm. (♂ ♀.)

Hab. PANAMA, Volcan de Chiriqui, Bugaba (*Champion*); BRAZIL, Rio Janeiro, Bahia, Parana (*coll. Fry*).

Nine specimens, all but two from Brazil, varying greatly in the development of the dark markings on the upper surface. Smaller than, and perhaps an extreme form of,

P. ferrugineum, with the thorax shorter and less quadrate, and the dorsal surface of the body usually fusco- or nigro-maculate. *P. regale*, Reitt., from Colombia, is apparently a larger, differently-coloured insect, with the surface of the body shining and the anterior angles of the thorax produced forwards.

**Pseudaulonium nitidum*, n. sp.

Elongate-oval, narrow, convex, shining, very finely alutaceous; nigro-piceous or black, the antennae, palpi, front of the head, legs, humeri, and sometimes the margins of the thorax also, ferruginous. Head closely, finely punctate, bifoveate, the eyes large; antennae with the joints preceding the club subtransverse in ♂, transverse in ♀. Thorax convex, subquadrate, broader than long, somewhat rounded and sharply margined at the sides, and also conspicuously margined at the base, the anterior angles projecting forwards, the hind angles acute; closely, very finely punctate, the submarginal line on each side cariniform. Elytra oblong-oval, a little wider than the thorax, the humeri not very prominent; minutely seriato-punctulate, the interstices flat, alutaceous. Beneath shining, sparsely, minutely, the thorax more coarsely, punctate. Prosternal process narrow. Legs very slender.

Length $2\frac{1}{2}$ – $3\frac{1}{2}$ mm. (♂ ♀.)

Hab. GUATEMALA, Cerro Zunil, Calderas, San Gerónimo, Balheu (*Champion*).

Ten examples. Found on both the Atlantic and Pacific slopes, at elevations between 3,000 and 7,000 feet. Separable at once from *P. ferrugineum* and *P. discolor* by the more shining surface, the prominent anterior angles of the thorax, and the narrower, less convex prosternal process. It cannot be identified with *P. regale*, which has the elytra nigro-piceous, with suture, base, and apex, and also a spot before and beyond the middle, rufo-ferruginous.

PYCNOMERUS.

Pycnomerus, Erichson, in Wiegmann Archiv, 1842, 1, p. 214;

Sharp, Biol. Centr.-Am., Coleopt. ii, 1, p. 474 (1894).

Penthelispa, Pascoe, Journ. Ent. i, p. 111 (1860).

Endectus, Leconte, Class. Coleopt. N. Am. p. 91 (1861).

Three species of this cosmopolitan genus have been described from Central America. The very small form now added is much more finely sculptured than any of them. It has an abrupt freely 2-jointed antennal club,

much as in *Penthelispa truquii* and the N. American *Endectus*.

Pycnomerus stenosoma, n. sp.

Elongate, narrow, cylindrical, flattened above, shining, ferruginous, glabrous. Head large, as wide as the thorax, finely punctate, deeply bifoveate in front, the eyes small; antennae short, with an abrupt, freely 2-jointed club, joint 10 strongly transverse, 11 ovate, nearly as wide as 10. Thorax longer than broad, narrowed posteriorly, compressed at the sides at about the middle, finely margined, the angles obtuse; the surface somewhat closely impressed with oblong moderately coarse punctures, the interspaces alutaceous. Elytra elongate, subparallel, scarcely wider than the thorax, finely punctate-striate, the interstices narrow and alutaceous. Beneath finely punctate; fourth ventral segment in ♂ with a small tubercle in the middle behind, its apical margin slightly sinuate. Legs short.

Length 2 mm.

Hab. GUATEMALA, Livingston, Atlantic coast (*Barber and Schwarz, in U.S. Nat. Mus.*).

Two specimens, one of which has been presented to the British Museum. Smaller and narrower than the Antillean *P. aequicollis*, Grouv., the thorax and elytra more finely punctured, the terminal joint of the antennal club relatively larger.

TYRTAEUS, n. gen.

Antennae (fig. 6a) short, 9-jointed, the joints very closely articulated, completely exposed from above, 7-9 dilated into a very large, compact oval club; head broad, the epistoma large, clearly defined; labrum transverse, exposed; eyes rounded; mandibles feebly emarginate at tip; mentum small, leaving the maxillae exposed; last joint of the maxillary palpi long, stout, cultriform; anterior coxae narrowly separated, the cavities closed; prosterum transversely excavate in front of the anterior coxae, the sutures indistinct, the intercoxal process slightly widened behind; intermediate coxae narrowly, the posterior coxae rather widely, separated; metasternum long; elytra oblong, the epipleura reaching the last ventral suture and widened forwards; prothorax short, margined at sides and base, without trace of basal foveae; legs short, slender; tarsi simple, 4-jointed, sparsely pilose beneath; body oblong, glabrous.

Type, *T. rufus*.

The two species belonging to this genus have somewhat the facies of an *Anommatus*. The principal characters of *Tyrtaeus* are—the 9-jointed antennae, with a very large,

compact 3-jointed club, and the 4-jointed, simple tarsi. The genus can be placed for the present in Colydiidae, near the Cerylinae. *T. rufus* has been found in Ceiba (*Bombax*) bark in Cuba.

**Tyrtaeus rufus*, n. sp. (Plate III, figs. 6, 6a.)

Oblong, somewhat convex, very shining, rufous or rufo-testaceous, the legs and palpi testaceous. Head sparsely, finely punctate; antennae not reaching the middle of the thorax, joints 1 and 2 stout, 2 transverse, 3-6 gradually widening outwards, 3 about as long as broad, 4-6 transverse, the club as long as 3-6 united, 8 strongly transverse, 9 blunt at the tip. Thorax short, transversely convex, rounded at the sides, the latter sinuate before the base, the hind angles acute; the surface sparsely, finely punctured, and with several coarser impressions on each side near the base. Scutellum transverse, flat. Elytra moderately long, somewhat flattened on the disc, of the same width as the thorax, parallel in their basal half, the humeri angular; with rows of scattered punctures, which become almost obsolete towards the apex, the interstices broad, flat, smooth. Beneath very sparsely, finely punctate; fifth ventral segment transversely depressed at the apex in ♂.

Length 2-2½ mm.

Hab. GUATEMALA, San Gerónimo, El Jicaro, Tamahu (*Champion*); CUBA, Cayamas (*Schwarz, in U.S. Nat. Mus.*).

Described from seven specimens from Guatemala. Three others were found by Mr. Schwarz in Cuba.

**Tyrtaeus cribripennis*, n. sp.

Smaller and less elongate than *T. rufus*, obscure ferruginous, the antennal club infusate. Antennae with the intermediate joints a little shorter, the club nearly as long as the rest of the joints united. Thorax very sparsely, finely punctate, with some coarse punctures along the basal margin. Scutellum triangular. Elytra shorter than in *T. rufus*, with irregular rows of closely placed coarse punctures, the interstices narrow and somewhat uneven.

Length 1½ mm.

Hab. PANAMA, Volcan de Chiriqui, between 2,500 and 4,000 feet (*Champion*).

One specimen. In this insect the seventh joint of the antennae is so closely articulated to the club that it is not easily seen.

LAPETHUS.

Lapethus, Casey, Ann. N. York Acad. Sci. v, p. 317 (1890); Sharp, Biol. Centr.-Am., Coleopt. ii, 1, p. 494 (1895).

In this genus the metasternal and abdominal lines are sharply defined, as in *Lytopeplus*.

Lapethus sharpi, n. n.

Lapethus discretus, Sharp, loc. cit. pl. 15, fig. 22 [*nec* Casey].

Additional localities for this species are :—

MEXICO, Jalapa (*Höge*); GUATEMALA, Coatepeque, Zapote, Capetillo (*Champion*), Jocalo, Lake Yzabal (*Barber and Schwarz, in U.S. Nat. Mus.*).

Apparently a common insect in Central America. The discovery of various allied forms with the lateral margins of the thorax deeply sulcate, so as to have a thick acute marginal bead, as described by Casey for *L. discretus*, shows that the Californian and Oregon insect cannot be conspecific with the Central American form figured under that name by Dr. Sharp, and a new name is therefore required for the latter.¹ The following species from Brazil is nearly related to *L. sharpi*.

[*Lapethus brasiliensis*, n. sp.]

Short, convex, oblong-elliptic, convex, shining, piceous, the antennae, mouth-parts, and legs rufo-testaceous. Head and thorax densely, finely punctate, the latter finely margined along the sides and feebly bisinuate at the base; elytra coarsely punctate-striate to the apex, the interstices rather convex and closely, minutely punctulate. Beneath smooth down the middle, conspicuously punctured in the femoral depressions, the metasternal and abdominal lines sharply defined; prosternal process shallowly sulcate, extending beyond the anterior coxae and received in a cavity of the mesosternum.

Length $1\frac{2}{3}$ –2 mm.

Hab. BRAZIL, Blumenau (*ex coll. Sharp, in Mus. Brit.*).

Two specimens, one much larger and broader than the other.]

¹ We have now received from the U. S. Nat. Museum an example of *L. discretus*, Casey, which is a very different insect.

LYTOPEPLUS.

Lytopeplus, Sharp, Biol. Centr.-Am., Coleopt. ii, 1, p. 494 (1895) [sub Colydiidae].

Brachylon, Gorham, op. cit. vii, p. 256 (1898) [sub Erotylidae].

These genera were each based upon a single species from Central America. Various others are now known from the same region, and from the Antilles and South America. They have the antennae apparently 8-jointed, the solid ovate club being formed of three fused joints, making eleven in all; the club itself is received in repose in a deep pit in the prosternum. The tarsi are 4-jointed. The long, curved metasternal and abdominal lines (forming the inner limit of the femoral depressions) are very conspicuous in both *Lytopeplus compactus* and *Brachylon breve*, but they are not mentioned in either author's description. The broader prosternal process separates the genus from *Lapethus*. *Euxestus*, Wollaston, type *E. parkii*, Woll., from Madeira, is deceptively like *Lytopeplus*; but it wants the prosternal fossae and the metasternal and abdominal lines, and the antennae are differently formed: these organs in *Euxestus* appear to me to be 11-jointed, there being six short closely articulated joints between the elongate third (with which the extremely short fourth and fifth are obliquely fused) and the short broad blunt club, which itself is formed of two connate joints. *Eidoreus*, Sharp, type *E. minutus*, Sharp, from the Hawaiian Is., also wants the metasternal and abdominal lines. *Euxestus* appears to be cosmopolitan.¹ The eight species of *Lytopeplus* now known may be tabulated thus:—

a. Thorax without marginal sulcus.

a¹. Elytra with abbreviated series of punctures.

a². Body moderately convex or subdepressed.

a³. Thorax very sparsely punctulate,
feebly sinuate at base *compactus*, Sharp.

b³. Thorax closely punctulate, more
strongly sinuate at base . . . *substriatus*, n. sp.

¹ *E. piciceps*, Gorh. (1898), from the Antilles and Central America = *E. minor*, Sharp (1885), from the Hawaiian Is. This insect also occurs in Christmas I., Damma I., Java, etc.; it is narrower than the myrmecophilous *E. parkii* (? = *Neoplotera peregrina*, Belon).

- b*². Body more convex.
- c*³. Seriate elytral punctures few in number and present on anterior half of disc only: species very convex, larger, thorax and elytra more rounded at sides *brevis*, Gorh.
- d*³. Seriate punctures more numerous and extending outwards: species very small, thorax and elytra less rounded at sides. *curtulus*, n. sp.
- b*¹. Elytra impunctate, very convex *laevipennis*, n. sp.
- b*. Thorax with a deep marginal sulcus; elytra with abbreviated series of punctures.
- c*¹. Body ovate; tibiae broadly dilated outwards *tibialis*, n. sp.
- d*¹. Body more oblong; tibiae more gradually widened outwards.
- c*². Seriate elytral punctures inconspicuous *sulcimargo*, n. sp.
- d*². Seriate elytral punctures coarse . . . [*insularis*, Grouv.]

**Lytopeplus substriatus*, n. sp.

Oblong-elliptic, somewhat depressed, shining, nigro-piceous, the antennae, the front of the head, and legs testaceous. Head almost smooth; thorax strongly transverse, finely margined laterally, bisinuate at the base, closely, minutely punctulate; elytra with rows of fine, closely placed punctures extending to near the apex, the punctures placed in almost obsolete striae and becoming evanescent towards the suture. Beneath almost smooth; metasternal and abdominal lines well defined, the former reaching the episterna and the latter extending to near the hind angles of the first segment.

Length $1\frac{1}{2}$ mm.

Hab. MEXICO, Cordova (*Sallé*).

One specimen. Smaller and more depressed than *L. compactus*; the prothorax shorter, more closely punctulate, and with the base distinctly lobed in the middle behind.

Lytopeplus brevis.

Brachylon breve, Gorh., Biol. Centr.-Am., Coleopt. vii, p. 257 (1898).

This species has been found in Mexico (Omiteme and Jalapa) and Nicaragua. There is a single example of an allied undescribed form from Trece Aguas, Guatemala, in the U.S. National Museum, with the abbreviated rows of

scattered punctures present at the sides of the elytra only, and the femoral excavations in the first ventral segment very deep. It must be left to the American entomologists to describe.

**Lytopeplus curtulus*, n. sp.

Ovate, convex, shining, fusco-ferruginous, the antennae, mouth-parts, and legs testaceous. Head and thorax with a few widely scattered excessively minute punctures; thorax narrowing from the base, finely margined, distinctly bisinuate at the base; elytra with abbreviated series of fine scattered punctures, the interstices almost smooth, the inferior marginal carina not very prominent. Prosternal pits deep. Metasternum hollowed behind for the reception of the posterior femora. Metasternal and abdominal lines conspicuous, the former extending outwards to the episterna.

Length $1\frac{2}{5}$ – $1\frac{1}{2}$ mm.

Hab. MEXICO, Omilteme in Guerrero (*H. H. Smith*); GUATEMALA, Capetillo, Zapote (*Champion*).

Ten examples, one only of which is from Mexico. Smaller, more convex, and less elongate than *L. compactus*, Sharp. The prothorax and elytra with less prominent marginal carina, the prothorax rather strongly sinuate at the base, the prosternal fossae deeper. The seriate punctures on the elytra are coarse in the Mexican specimen.

**Lytopeplus laevipennis*, sp. n.

Short ovate, very convex, shining, black, the front of the head, the margins of the prothorax, and the prosternum sometimes rufescent, the antennae, mouth-parts, and legs testaceous. Head, thorax, and elytra smooth (the elytra without trace of the usual dorsal series of punctures, when viewed under the microscope), the thorax finely margined at the sides and rather strongly bisinuate at the base. Beneath smooth; metasternal and abdominal lines sharply defined; prosternal process very broad.

Length $1\frac{1}{2}$ –2 mm.

Hab. MEXICO, Cordova (*Sallé*); GUATEMALA, San Gerónimo (*Champion*); PANAMA, Volcan de Chiriqui (*Champion*).

Four specimens, the two from Guatemala, taken as the types, larger than the others. The very convex body and entirely impunctate upper surface readily distinguish *L. laevipennis*. The thorax is much more strongly sinuate at the base than in *L. compactus*, the type of the genus.

**Lytopeplus tibialis*, n. sp.

Ovate, convex, shining, ferruginous, the legs and antennae testaceous. Head and thorax smooth, the latter deeply sulcate along the lateral margins and bisinuate at the base; elytra with rows of scattered fine, conspicuous punctures which become obsolete beyond the middle. Beneath smooth; metasternal and abdominal lines conspicuous; prosternal process moderately broad. Tibiae short, broadly dilated.

Length 2 mm.

Hab. NICARAGUA, Chontales (*Janson*).

One specimen, in perfect condition, but somewhat immature, labelled by Dr. Sharp long ago as belonging to his genus *Lytopeplus*. The regularly ovate shape and the short, broadly dilated tibiae distinguish this species from *L. sulcimargo* and *L. insularis*. The thorax is rapidly arcuately narrowed from the base and the deep lateral sulcus extends forwards to near the apex.

**Lytopeplus sulcimargo*, n. sp.

Brachylon breve, Gorh., Biol. Centr.-Am., Coleopt. vii, p. 257 (part.).

Short, oblong-elliptic, convex, shining, piceous, the antennae, mouth-parts, and legs testaceous. Head and thorax almost smooth, the latter with a deep sulcus along the lateral margins and the base feebly bisinuate; elytra with rows of very fine, shallow, scattered punctures, which become coarser towards the sides and almost obsolete towards the suture. Beneath almost smooth; metasternal and abdominal lines fine, but conspicuous; prosternal process very broad.

Length $1\frac{1}{2}$ –2 mm.

Hab. NICARAGUA, Chontales (*Janson*).

Two specimens, one much larger than the other. The larger one was included by Gorham under his *Brachylon breve*, from which it differs in having the margins of the thorax deeply sulcate. *L. sulcimargo* is very like the Antillean *L. insularis*, Grouv. (Notes Leyden Mus. xx, p. 40, 1898), but it is less elongate and has smoother elytra.

MURMIDIUS.

Murmidius, Leach, Trans. Linn. Soc. xiii, p. 41 (1822);
Lewis, Biol. Centr.-Am., Coleopt. ii, 1, p. 243 (1888).

Two Central American species were referred to this genus by Lewis, who placed it in the Histeridae. Casey [Ann. N. York Acad. Sci. v, p. 318 (1890)] associates *Murmidius* with *Lapethus*, in his section "Murmidiini" of the Colydiidae, and this seems to me to be its proper position. The new form now added from N. E. Mexico is more elongate than the cosmopolitan *M. ovalis*, and entirely glabrous. The non-striate prosternal process, etc., distinguish it from *M. irregularis* and *M. rectistriatus*.

**Murmidius estriatus*, n. sp.

Oblong, shining, castaneous, the legs and antennae testaceous, glabrous; the upper surface somewhat closely, minutely, confusedly punctate, the punctures on the under surface widely scattered and excessively minute. Head rather small; thorax short, very gradually narrowed to the rounded anterior angles; elytra oblong, subparallel for some distance below the base, finely margined; prosternal process very broad, arcuate-emarginate at the apex, sharply separated from the flanks, but without submarginal stria; mesosternal process very broad, rounded in front, the marginal stria complete.

Length $1\frac{1}{4}$ mm.

Hab. MEXICO, Tampico in Tamaulipas (*Schwarz, in U.S. Nat. Mus.*).

Four specimens.

CUCUJIDAE.

LAEMOPHLOEUS.

Laemophloeus, Castelnau, Hist. Nat. Ins. Coleopt. ii, p. 385 (1840); Sharp, Biol. Centr.-Am., Coleopt. ii, 1, p. 513 (1899).

Dr. Sharp enumerated forty species of *Laemophloeus* from Central America, some of which have a very different facies from the type, *L. monilis*. The Guatemalan form now added should perhaps form the type of a new genus. It approaches *Rhabdophloeus*, but differs from it in having a broadly truncate intercoxal abdominal process. The last three joints of the antennae are much larger than the preceding joints, the elytra are tricostate, the anterior acetabula are open, and the upper surface of the body is densely punctulate and pubescent.

**Laemophloeus quadridentatus*, n. sp. (Plate III, fig. 7, ♂.)

Oblong-ovate, rather broad, flattened, feebly shining, closely, finely pubescent; testaceous, the head and the disc of the thorax, and the last three joints of the antennae (the eleventh pale in one specimen), more or less infusate, the elytra with a common, large, subtriangular patch, a broad angulate median fascia, and the apex fuscous, the legs testaceous; the entire upper surface densely, minutely punctate. Head broad, short, obliquely depressed on each side anteriorly, the labrum transverse; eyes very large, coarsely faceted; antennae about half the length of the body, joints 3-8 slender, gradually becoming shorter and stouter outwards, 9-11 abruptly widened, 9 and 10 transverse, 11 ovate, as long as 9 and 10 united, and constricted at the middle. Thorax broad, strongly transverse, somewhat rounded at the sides, the latter explanate, undulate, and strongly, equally crenate, the disc with a very prominent oblique ridge on each side, limited inwards by a shallow groove, the hind angles sharply rectangular. Elytra broader than the thorax, arcuato-explanate at the sides, and (viewed laterally) distinctly tricostate, the suture also a little raised posteriorly. Femora clavate, tibiae and tarsi slender.

Var. Antennae entirely rufo-testaceous, the testaceous markings of the elytra more extended, and not interrupted by the costae, which are less prominent.

Length $1\frac{2}{3}$ - $1\frac{3}{4}$ mm.

Hab. GUATEMALA, Livingston and Trece Aguas (*Barber and Schwarz, in U.S. Nat. Mus.*).

Five specimens, three paler than the others and with the elytra somewhat differently marked. In the dark form the testaceous portions of the elytral surface are clothed with cinereous pubescence, which accentuates the light markings, these being interrupted by the costae and appearing as oblong streaks. The undulation of the thoracic margin forms four equidistant teeth, one of which represents the anterior angle. In the paler form the oblique testaceous elytral fascia is broader and almost uninterrupted. The hind tarsi appear to be 4-jointed in the male.

LATHROPUS.

Lathropus, Erichson, *Naturg. Ins. Deutschl.* iii, p. 327 (1848); Sharp, *Biol. Centr.-Am., Coleopt.* ii, 1, p. 531 (1899).

Dr. Sharp enumerated two species only under this genus,

L. pictus, Schwarz, and *L. parvulus*, Grouv., which may prove to be synonymous: both were described in 1878. The N.-American *L. vernalis*, Lec., and *L. pubescens*, Casey, are unknown to me. The minute form now added is closely related to the Palearctic *L. sepicola*, Müll.

**Lathropus minimus*, n. sp.

Oblong-oval, depressed, opaque, piceous, the front of the head, the antennae (the club excepted), and legs ferruginous, almost glabrous. Head and thorax very densely, minutely, rugulose punctate; antennae short, joints 1 and 2 stout, 3-8 slender, 3 as long as broad, 4-8 transverse, 9-11 stout, about as long as 3-8 united, and forming a long, loosely-articulated club; thorax transverse, the lateral margins crenulate and moderately rounded, the hind angles acutely rectangular, the submarginal carina inconspicuous, the disc transversely impressed or obsoletely bifoveate towards the base and apex. Elytra oblong, a little wider than the thorax, finely punctate-striate, the interstices rugulose, the disc shallowly depressed below the base. Beneath alutaceous, densely, minutely punctate. Legs very short.

Length $1\frac{1}{10}$ - $1\frac{1}{4}$ mm.

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

A long series, all but two from Zapote. Very like *L. sepicola*, but much smaller, the elytra relatively narrower, the two shallow foveae on the disc of the thorax towards the apex indistinct. In *L. minimus* all the coxae are widely separated and the elytral epipleura extend rather broadly to the apex. Viewed laterally, the alternate elytral interstices appear to be slightly raised. *L. parvulus*, Grouv., is described as ovate and rather convex, with an oblique luteous mark on the anterior portion of the elytra.

SALPINGOMIMUS, n. gen.

Head short, broad, constricted behind, obliquely narrowed anteriorly, the small transverse epistoma limited posteriorly by a deep groove; eyes convex, very prominent; labrum transverse, exposed; mentum transverse; maxillae (fig. 8a) with two ciliated lobes; maxillary palpi (fig. 8a) stout, joint 4 broadly oval, obliquely truncate at tip; last joint of labial palpi narrow, conical; mandibles short, bifid at tip; antennae free, stout, the last three joints widened and forming a distinct club, the preceding joints more or less moniliform; thorax constricted behind, immarginate laterally; scutellum

transverse; elytra oblong, parallel, the epipleura extremely narrow; anterior coxae small, placed near the base of the prosternum, separated by a thin lamella, the acetabula open; middle coxae somewhat widely separated; tibiae obliquely truncated at tip; tarsi 4-jointed in both sexes, 1-3 clothed with a few long hairs beneath, 1 as long as 2 and 3 united, 3 small, free, 4 elongate; body elongate, glabrous, metallic.

Type, *S. deceptor*.

The insect forming the type of this genus was rejected by myself from the Pythidae in 1889, when dealing with the Central American representatives of that family of the Heteromorous Coleoptera. It has exactly the facies of a Salpingid (such as *Sosthenes*), and if excluded from the Pythidae, on account of its tarsal structure, the genus must be placed in Cucujidae, near *Phloeostichus* and *Hymaea*, which have the tarsi 5-, 5-, 4-jointed in the male. It is probable, however, that the Pythidae will have to be placed, sooner or later, in the Clavicorn series, near Cucujidae, *Salpingomimus* clearly showing that the tarsal formula alone is a character upon which too much dependence has been placed by systematists.

**Salpingomimus deceptor*, n. sp. (Plate III, figs. 8, ♂; 8a, maxilla and maxillary palpus.)

Moderately elongate, shining, glabrous, aeneous or greenish-aeneous, the mouth-parts, base of antennae, and tarsi ferruginous. Head closely punctate, the transverse groove behind the epistoma very deep; antennae moderately long, a little shorter in ♀, joint 1 very stout, 7 and 8 transverse, 9-11 much wider and stouter, 9 and 10 strongly transverse, 11 acuminate-ovate. Thorax convex, oval, as long as broad, narrower than the head with the eyes, feebly margined at the base only, closely punctate. Elytra oblong, as wide as the thorax, depressed on the disc below the base; seriato-punctate, the seriate punctures becoming almost obsolete towards the apex and more confusedly arranged at the base, the interstices usually with a few scattered punctures. Beneath densely, the metasternum more sparsely, punctate, the abdomen almost smooth. Tibiae widened on the inner side from about the middle to the apex in ♂, more feebly so in ♀. Tarsi slender, joints 1 and 2 slightly thickened.

Length 2 $\frac{1}{10}$ -3 mm. (♂ ♀.)

Hab. PANAMA, Volcan de Chiriqui, 8,000 feet (*Champion*). Twelve specimens, found in June 1882, varying in the

arrangement of the punctures on the basal portion of the elytra, as is often the case in *Salpingus* and its allies.

CRYPTOPHAGIDAE.

TRUQUIELLA, n. gen.

Body elongate, pilose throughout; last joint of the maxillary palpi narrow, ovate; antennae with joints 9–11 widened and forming an abrupt club; head short, broad, subtriangular in ♀, the sides of the front subangularly raised in ♂; thorax gibbous in front in ♂; anterior coxal cavities open behind, the prosternal side-pieces not reaching the rather broad bisulcate process; prosternal sutures obliterated; intermediate and posterior coxae about equally separated; tarsi pilose to the tip, 4-jointed, 1–3 widened, short, 3 sublobate, excavate above for the reception of the long claw-joint; tibiae very obliquely truncated at the apex.

Type, *T. gibbifera*.

This genus must for the present be placed in the subfamily Telmatophilinae of the Cryptophagidae, its 4-jointed tarsi notwithstanding.¹ The structure of the head in the male is suggestive of Tenebrionidae, and a similar dorsal hump on the thorax in the same sex is to be found in certain species of *Hapalips*. There is no trace of a node or minute additional tarsal joint at the base of the terminal one when the claw-joint is broken off for examination. The entire body is densely punctate and hairy, and the hairs even extend to the fourth tarsal joint. *T. gibbifera* has the general facies of a large *Telmatophilus*.

**Truquiella gibbifera*, n. sp. (Plate III, figs. 9, 9a, ♂.)

Elongate, moderately convex, closely pilose, feebly shining, piceous, the front of the head, the base of the antennae, and the legs in part, ferruginous. Head densely, finely punctate, without definite line behind the epistoma, the sides of the front in ♂ raised into a stout subangular ridge; eyes rounded, prominent, coarsely granulated; antennae moderately long, joint 3 longer than 2, 4–8 shorter and submoniliform, 9–11 much widened, about equal in width, 9 and 10 transverse. Thorax transversely convex, much broader than long, a little wider at the apex than at the base, slightly rounded and narrowly margined at the sides, the base also feebly margined, the hind angles not very prominent; the entire

¹ *Platoberus*, Sharp, apparently has tetramerous tarsi.

surface densely, minutely, confluent punctate, the disc with a compressed, cariniform hump in the middle in front in ♂. Scutellum small. Elytra subparallel, about as wide as the thorax, finely punctate-striate, the interstices rugulose punctured. Beneath densely, finely punctate.

Length $3\frac{3}{4}$ –4 mm. (♂ ♀.)

Hab. MEXICO (*Truqui*, in *Mus. Brit.*, ex coll. *Fry*).

One pair.

PLATOBERUS.

Platoberus, Sharp, Biol. Centr.-Am., Coleopt. ii, 1, p. 586 (1900).

Four species from Panama were referred to this genus by Dr. Sharp. A fifth, from Mexico, has since been detected in our collection. The tarsi appear to have the usual minute penultimate joint fused with the apical one, so that they are really 4-jointed.

**Platoberus nigrolimbatus*, n. sp.

Ovate, rather broad, shining, ferruginous, the elytra with more than the outer half black, the two basal joints of the antennal club infusate; clothed with long, fine, curled, decumbent, yellowish hairs. Head finely punctate, the eyes convex, very large and prominent; antennae long, the club large, joints 9 and 10 subquadrate. Thorax strongly transverse, subquadrate, sharply margined, the sides straight, the anterior angles tumid and very prominent, the basal foveae connected by a deep transverse sulcus; finely punctate. Elytra convex, oval, much wider than the thorax, the lateral excavation moderately large; finely seriato-punctate, the interstices with a few widely scattered smaller punctures, each puncture bearing a long curled hair. Legs short, stout. Beneath finely punctate, the metasternum smoother down the broad median space and hollowed in front of the posterior coxae.

Length $2\frac{2}{3}$, breadth $1\frac{1}{2}$ mm.

Hab. MEXICO, Motzorongo in Vera Cruz (*Flohr*).

One specimen. Near *P. divisus*, Sharp.

TOMARUS.

Tomarus, Leconte, Class. Coleopt. N. Am. ed. 1, p. 99 (1861); Sharp, Biol. Centr.-Am., Coleopt. ii, 1, p. 587 (1900).

Dr. Sharp (loc. cit.) enumerated fifteen species of this genus from Central America. The two others unnamed in our collection may be described thus :—

**Tomarus gibbipennis*, n. sp.

Short, broad, convex, moderately shining, brown, the legs and antennae paler, the latter with joints 9 and 10 nigro-piceous, the tibiae also infuscate at the middle, the tarsi testaceous; sparsely, very finely pubescent. Head finely punctate, the eyes small; antennae very slender, elongate, joints 5 and 7 much longer than 4, 6, and 8, 8 a little shorter than 6, 9–11 dilated into a rather long, abrupt club, 9 as long as broad, 10 transverse. Thorax short, transversely convex, rounded at the sides, slightly narrowed behind, faintly transversely grooved at the base, the base itself very feebly sinuate, the hind angles rectangular, the anterior angles prominent; densely finely punctate, without basal foveae. Elytra broad, gibbous, subcordate, a little more sparsely punctured than the thorax, the humeri obtuse. Beneath densely punctate; mesosternum feebly margined on each side between the coxae; metasternum unimpressed. Legs long and slender.

Length $1\frac{1}{2}$ mm.

Hab. MEXICO, Omilteme in Guerrero, 8,000 feet (*H. H. Smith*).

One specimen. The uniformly brown body, the alternately longer and shorter intermediate joints of the antennae, the short, transversely convex thorax, with the base subtruncate, and the broad, gibbous elytra, readily distinguish *T. gibbipennis*. The apical joint of the antennae is abruptly paler, as in the allied *T. picticornis*, Sharp, and other species of the genus.

**Tomarus fuscicornis*, n. sp.

Convex, shining, rufo-testaceous, the thorax in great part, the elytra with a very large subquadrate patch below the base (not reaching the suture) and the apex, the antennae (the two basal joints excepted), and the base of the tibiae, piceous; finely pubescent. Head broad, closely, very finely punctate, the eyes small; antennae moderately elongate, slender, joint 5 longer than 4 and 6, 8 small, transverse, 9–11 rather large and transverse. Thorax convex, transverse, rounded at the sides anteriorly, sinuously narrowed behind, subtruncate and feebly transversely grooved at the base; closely, very finely punctate. Elytra convex, ovate, wider and a

little more sparsely punctate than the thorax, the humeri prominent. Mesosternum sharply margined on each side between the coxae.

Length $1\frac{3}{4}$ mm.

Hab. PANAMA, Volcan de Chiriqui, 8,000 feet (*Champion*).

One specimen. More elongate than *T. gibbipennis*, the elytra less inflated, the antennae infusate to the tip (the two basal joints excepted), the thorax less transverse, the humeri prominent, etc. The elytra have an ill-defined basal and sub-apical fascia, connected along the suture, rufo-testaceous. *T. fuscicornis* is not very closely related to any of the species described by Dr. Sharp. The Mexican *T. cruciatus*, Reitt., was unknown to him, but it is evidently different from the Panama insect.

OCHOLISSA.

Ocholissa, Pascoe, Journ. Ent. ii, p. 85 (1863).

Two species were referred to this genus by Pascoe—*O. laeta*, from Ega, and *O. humeralis*, from Saylee, Mysol, and other eastern islands. It may be stated that in the type of *Ocholissa*, *O. laeta*, the anterior acetabula are incompletely closed behind, the prosternal sutures are almost obsolete, and the tarsi are 4-jointed. *Ocholissa* was referred by Pascoe to the Colydiidae, but it seems to me to be better placed in Cryptophagidae, near *Holosternus* and *Anepsicus*, Sharp.

**Ocholissa laeta*.

Ocholissa laeta, Pasc. loc. cit. pl. 5, fig. 1.

The following description was made from Guatemalan specimens before the identity of the species was suspected, and as the insect is somewhat variable in colour, the particulars given will supplement Pascoe's diagnosis. The measurements include a very small Amazonian example found by Bates.

Moderately elongate, parallel, depressed, shining; piceous, the elytra testaceous, with a common transverse black median fascia, which extends indeterminately up and down the suture, the antennae partly or entirely ferruginous, the legs testaceous. Head very finely punctate, shallowly transversely grooved behind the epistoma, greatly developed and as broad as the thorax in ♂, smaller in ♀; eyes moderately large, rather prominent; antennae with joints 4-8

small and transverse, the club rather large, joints 9 and 10 strongly transverse. Thorax about as long as broad, regularly quadrate, the hind angles rectangular, the narrow lateral margins not visible from above; closely minutely punctate. Elytra rather more than twice the length of the thorax, parallel, the humeri angular; finely punctate-striate, the interstices almost smooth.

Length $1\frac{3}{4}$ – $2\frac{1}{2}$ mm. (♂ ♀.)

Hab. GUATEMALA, Panzos and Teleman in the Polochic valley (*Champion*); AMAZONS, Ega.

This genus is an addition to the Central American fauna.

HOLOSTERNUS.

Holosternus, Sharp, Biol. Centr.-Am., Coleopt. ii, 1, p. 599 (1900).

This is one of four Central American genera—the others being *Anepsicus*, *Cissocryptus*, and *Trogocryptus*—referred somewhat doubtfully by Dr. Sharp to the Cryptophagidae. He described the tarsi in all of them as 5-jointed; but this is a mistake, as the types have in each case the tarsi clearly 5-, 5-, 4-jointed.¹ Additional specimens of all these insects, moreover, are now available for examination, and the tarsi prove to be heteromorous in both sexes in each of the genera mentioned. The imperfectly closed anterior coxal cavities, combined with the tarsal formula, is suggestive of Pythidae; but in this last-mentioned family the thorax is not margined laterally, etc. The four genera, therefore, must remain for the present where Dr. Sharp placed them, the heteromorous tarsi notwithstanding. Various Cucujidae are known to have this form of tarsus in the male, so that it is not surprising to find a similar structure in both sexes amongst some of the Clavicornia.

Holosternus distans.

Holosternus distans, Sharp, loc. cit. p. 600, pl. 18, fig. 18.

Described from two specimens from Capetillo, Guatemala. The following are additional localities:—

GUATEMALA, El Tumbador, Las Mercedes, Zapote, Guatemala city (*Champion*).

¹ The tarsi of *Holosternus* are correctly, and those of the other genera incorrectly, shown in the published figures of these genera.

ANEPSICUS.

Anepsicus, Sharp, Biol. Centr.-Am., Coleopt. ii, 1, p. 600 (1900).

This genus seems to me to be nearly related to *Ocholissa*, Pasc., referred by its describer to Colydiidae.

Anepsicus brunneus.

Anepsicus brunneus, Sharp, loc. cit. p. 600, pl. 18, fig. 19.

Described from three specimens only. Additional localities are:—

MEXICO, Jalapa (*Höge*); GUATEMALA, El Tumbador, Las Mercedes, Cerro Zunil, Zapote, Capetillo, San Gerónimo (*Champion*).

Numerous examples, varying from 2–3 mm. in length.

CISSOCRYPTUS.

Cissocryptus, Sharp, Biol. Centr.-Am., Coleopt. ii, 1, p. 601 (1900).

This genus would perhaps be better placed in Pythidae, near *Lissodema*, the tarsi being heteromorous.

Cissocryptus insolitus.

Cissocryptus insolitus, Sharp, loc. cit. p. 601, pl. 18, fig. 20.

Described from a single example from Guanajuato, Mexico. Three others, found by Truqui in Mexico, are contained in the Fry collection—one, a male, with the body almost black, the others, females, paler in colour.

TROGOCRYPTUS.

Trogocryptus, Sharp, Biol. Centr.-Am., Coleopt. ii, 1, p. 602 (1900).

The members of this genus are separable from the allied forms by the acutely dilated, spinulose apices of the tibiae, and the strongly marked prosternal sutures. *T. nigripectus*, was described from a single (? ♀) example found by myself at Cahabon, Alta Vera Paz; two others, from Sinanja, Alta Vera Paz, have since been detected in our collection, one with the head greatly developed, and presumably a male. The tarsi are really heteromorous, as stated above under *Holosternus*. Two additional species are now known.

**Trogocryptus longiusculus*, n. sp.

Moderately elongate, rather broad, subparallel, very shining, glabrous; ferruginous, the apical half of the elytra, the disc of the thorax, and part of the under surface sometimes piceous or black. Head very broad in fully-developed ♂, narrower in ♀, finely and somewhat thickly punctate, transversely grooved or bifoveate behind the epistoma; antennae short, joints 4-8 strongly transverse, the club very abrupt, joint 10 wider than 9. Thorax transverse, moderately convex, rounded at the sides, and a little narrowed towards the apex in ♀, broader anteriorly in ♂, finely margined, the angles obtuse; finely, somewhat closely punctate. Elytra comparatively short, finely punctate-striate, the interstices minutely uniseriate-punctate. Beneath with a few scattered fine punctures along the sides, for the rest almost smooth. Legs short; tibiae rapidly widened outwards, acutely dilated at the outer apical angle, and spinulose along their apical margin.

Length $3\frac{1}{5}$ - $3\frac{3}{4}$ mm. (♂ ♀.)

Hab. MEXICO, Jalapa (*Höge*), Teapa (*H. H. Smith*); GUATEMALA, Purula and Sinanja in Alta Vera Paz, Las Mercedes, Pantaleon (*Champion*); PANAMA, Volcan de Chiriqui (*Champion*).

Eleven specimens, some of them uniformly ferruginous, others with the disc of the thorax and the apical half of the elytra infusate, those with broader head and thorax assumed to be males. This species is considerably less elongate than *T. nigripectus*, Sharp, and also differs from it in the transverse thorax and the finely punctate-striate elytra.

**Trogocryptus senecionis*, n. sp.

Elongate, subcylindrical, moderately convex, shining, glabrous; black, the head, antennae, and legs, and in one specimen the sides of the thorax, the humeri, and the under surface also in great part, ferruginous. Head alutaceous and finely punctate, transversely grooved behind the epistoma, the eyes not prominent; antennae reaching very little beyond the middle of the thorax, joints 4-8 transverse, the club abrupt, rather large, joints 9 and 10 equal in width. Thorax convex, transverse, rounded at the sides, about equal in width at the base and apex, the sides sinuate before the rectangular hind angles, the base distinctly margined; thickly punctate, the punctures oblong in shape, the interspaces finely alutaceous. Elytra elongate, scarcely wider than the thorax, parallel to beyond the middle; punctate-striate, the interstices

sparsely, very finely, uniseriate-punctate. Beneath sparsely, finely punctate. Tibiae much widened outwards, strongly spinose along their apical margin, the anterior pair acutely produced at the outer apical angle.

Length $4\frac{1}{2}$ – $5\frac{1}{4}$ mm. (♀.)

Hab. MEXICO, near the city (*Flohr*).

Two specimens, labelled as having been found in the stems of *Senecio* by the late Julius Flohr. Larger and broader than *T. nigripectus*, the thorax (except at the sides in one example) and elytra black, the legs and antennae longer, the tibiae more strongly spinose at the apex. *T. senecionis* has quite the facies of a Tenebrionid, and this is accentuated by its heteromerous tarsi, but the insect is certainly congeneric with *Trogocryptus nigripectus*, Sharp.

CLERIDOPSIS, n. gen.

Head oblong, convex, exserted, shallowly arcuate-emarginate at the apex, leaving the small labrum exposed, the epistoma confused with the front, the eyes transverse, distant from the anterior margin of the prothorax; antennae inserted under the sides of the front, 11-jointed, 9–11 widened into an abrupt club; mentum small, triangular, leaving the maxillae exposed; last joint of the maxillary palpi long, conical, that of the labial palpi stout, ovate, truncate at the tip; anterior coxae globose, separated by a thin lamina, the cavities narrowly closed behind; intermediate and posterior coxae narrowly separated; prosternum truncate in front, the sutures obliterated; metasternum long, the episterna very narrow, cuneiform; ventral segment 1 long, the intercoxal process cariniform, the segments 2–4 much shorter, equal in length; prothorax elongate, constricted at the base, without marginal carina; scutellum small; elytra parallel, confusedly punctate; femora strongly clavate; tibiae obliquely truncate at the tip, unarmed; tarsi 4-jointed, joints 1–3 of anterior pair (♂) (fig. 10a) broadly lobate, spongy-pubescent beneath, each deeply excavate above for the reception of the succeeding joint, the corresponding joints of the intermediate and posterior pairs simple, pilose beneath, the claw-joint of all of them as long as 1–3 united, the claws simple; body subcylindrical, hairy.

Type, *C. latimanus*.

The small, subcylindrical, hairy insect forming the type of this genus has quite the facies of a Clerid, but the tarsal structure is foreign to the species of that family. For the present *Cleridopsis* would perhaps be best placed in Crypto-

phagidae or Cucujidae. The extraordinary dilatation of the anterior tarsi may prove to be peculiar to the male sex. The exserted head; the 3-jointed, abrupt antennal club; the basally constricted, long thorax; the greatly thickened anterior femora; the closed anterior acetabula, etc., are also characteristic. The two basal joints of the intermediate and posterior tarsi are so closely articulated that the separation between them is not easily seen.

**Cleridopsis latimanus*, n. sp. (Plate III, figs. 10, ♂; 10a, anterior tarsus.)

Elongate, subcylindrical, shining, ferruginous or obscure ferruginous, the elytra with a faint oblong darker patch on the outer part of the disc; clothed with long, fine, erect hairs. Head, as seen from above, nearly as long as broad, closely punctate, the eyes not prominent; antennae moderately long, joint 1 stout, 2 about as long as broad, 3 obconic, 4-8 shorter, submoniliform, 9-10 very broad, transverse, 11, stout, oval. Thorax as long as broad, convex, cylindrical, abruptly constricted into a short neck behind the inconspicuous rectangular hind angles, margined at the base only; punctured like the head. Elytra parallel, about twice the length of the thorax, strongly, transversely depressed before the middle; rather coarsely, closely, confusedly punctate, the punctures becoming very fine towards the apex. Beneath coarsely, closely, the ventral segments sparsely and finely, punctate. Anterior femora broadly, the other femora less strongly, clavate.

Length $2\frac{1}{10}$ - $2\frac{1}{2}$ mm. (♂.)

Hab. GUATEMALA, Rio Maria Linda, Pacific slope (*Champion*); PANAMA, Volcan de Chiriqui (*Champion*).

One specimen from each locality, the first taken in Guatemala on March 4th, 1881.

PHARAXONOTHA.

Pharaxonotha, Reitter, Deutsche ent. Zeitschr. 1875, Heft. iii, p. 44; Sharp, Biol. Centr.-Am., Coleopt. ii, 1, p. 598 (1900).

This genus was referred to the Cryptophagidae by both Reitter and Sharp.

Pharaxonotha kirschi.

Pharaxonotha kirschi, Reitt., loc. cit.; Sharp, Biol. Centr.-Am., Coleopt. ii, 1, p. 598 (1900).

Thallisella conradti, Gorh., Biol. Centr.-Am., Coleopt. vii, p. 249 (1898) [sub Erotylidae].

Additional localities for *P. kirschi* are :—

MEXICO, Tupataro (*Höge*), Guanajuato (*Sallé*), Cordova (*Sallé, Höge*), Mitla (*Deam, in U.S. Nat. Mus.*); GUATEMALA, (*Sallé*) Senahu, Cahabon, San Juan, Panima, San Gerónimo, and Balheu in Vera Paz, Capetillo (*Champion*), Trece Aguas, Santa Lucrecia (*Barber and Schwarz, in U.S. Nat. Mus.*). The above synonymy has already been noted by me (*Ent. Monthly Mag.* xl, p. 36). The insect has been found in corn (maize) in Guatemala.

HAPALIPS.

Hapalips, Reitter, Verh. Ver. Brünn, Abhandl. xv, p. 122 (1877) [sub Rhizophagidae]; Gorham, Biol. Centr.-Am., Coleopt. vii, p. 250 (1898) [sub Erotylidae, Languriides]; Grouvelle, Ann. Soc. Ent. Fr. 1908, p. 58 [sub Cryptophagidae].

Gorham's enumeration of the Central American species of this genus was based upon insufficient material, nearly all the examples obtained by myself having been mislaid when our collections were sorted, and were therefore not seen by him. These insects have since been found, and a complete revision of the various forms has become necessary. The unnamed American specimens in the collections of Fry and Pascoe at the British Museum have also been studied. Upwards of 20 species of *Hapalips* have been described altogether, by Reitter, Gorham, Grouvelle, and Schaeffer, one of which is African (*H. eichelbaumi*, Grouv.), and *Xenoscelis prolixus*, Sharp, an insect found in tree-ferns, must be included in it as here understood. The tarsi are described by both Reitter and Gorham as 4-jointed, whereas they are really pentamerous (as in the Cucujid genus *Xenoscelis*, Woll.), the minute penultimate joint being hidden in the lobe of the third joint; the three basal joints are short, more or less widened, and spongy-pubescent and pilose beneath. The tibiae are very obliquely truncated at the apex, much widened and angularly dilated at the outer apical angle in some of the larger species, narrow in the small forms. The first ventral segment is sometimes hollowed on each side for the reception of the hind femora, but I am unable to detect the raised cariniform lines mentioned by Gorham and Grouvelle. The resemblance to

the Languriides is purely superficial,¹ and the genus seems best placed amongst the Cryptophagidae for the present, not far from *Haplolophus* and *Leucohimatium*. The subjoined table, based upon the species represented in the British Museum, or in the U.S. National Museum at Washington, will assist in the identification of many of the American forms.

A. Thorax without impressed lines on the disc.

a. Thorax more or less truncate in front in both sexes.

a¹. Body glabrous above, shining; elytra punctate-striate.²

a². Tibiae much widened outwards; elytra about as wide as thorax.

a³. Head short; eyes large and prominent; thorax strongly crenate at sides: body moderately elongate, black or piceous [*crenatus*, n. sp.]

b³. Head longer; eyes small and depressed; thorax oblong-quadrate: body very elongate, anterior half testaceous, rest piceous. *dimidiatus*, n. sp.

b². Tibiae slender; eyes large: body rather convex: species very small.

c³. Thorax narrow, subquadrate [*parvicollis*, n. sp.]

d³. Thorax transverse, narrowed and transversely excavate towards base *sulcicollis*, n. sp.

b¹. Body pubescent (in *H. batesi* only a few hairs visible).

c². Eyes large.

e³. Thorax distinctly angulate at sides anteriorly; elytra punctate-striate, broader than thorax, usually fasciate: body very shining *cribricollis*, Gorb.
(?= *gracilicornis*, Reitt.)

¹ *Crotchida* has a stridulating file on the head, a series of setigerous pores on each side of the abdomen, etc.

² *H. dufauri* and *H. guadalupensis*, Grouv., belong to this section.

- f*³. Thorax not or feebly crenulate at sides; elytra punctate-striate.
- a*⁴. Thorax longer than broad, as wide as elytra; elytra very elongate, attenuate: body and legs black, elytra with rufous humeral patch: species large *perlongus*, n. sp.
- b*⁴. Thorax subquadrate or transverse, about as wide as elytra.
- a*⁵. Sides of thorax almost straight or feebly rounded, sometimes crenulate.
- a*⁶. Elytra long and subparallel, interstices usually conspicuously punctate; eyes very large; thorax strongly transverse, anterior angles not in line with apical margin.
- a*⁷. Eighth antennal joint moniliform *reitteri*, Gorch.
- b*⁷. Eighth antennal joint transverse, often angulate within *fuscus*, Reitt.
(= *parallelus*, Gorch.)
- b*⁶. Elytra narrowed posteriorly; thorax quadrate or subquadrate, anterior angles nearly or quite in line with apical margin.
- c*⁷. Elytral interstices with punctures similar to those of the striae: body rather convex.
- a*⁸. Thorax as long as broad in ♂, shorter in ♀ *flohri*, Gorch.
- b*⁸. Thorax transverse in both sexes *lucidus*, n. sp.
- d*⁷. Elytral interstices almost smooth, the striae regularly punctate: body more depressed.

- c⁸. Thorax quadrate,
sparsely, finely punctate; elytra more
finely punctate-striate; antennae
stout; tibiae triangular [*batesi*, n. sp.]
- d⁸. Thorax transversely
quadrate, more
coarsely punctate;
elytra strongly punctate-striate; antennae
and legs more slender. [*brevipes*, n. sp.]
- b⁵. Sides of thorax rounded,
sharply margined: surface
shining *nitidulus*, n. sp.
- c⁴. Thorax strongly transverse,
narrower than elytra; tibiae
narrow: species small . . . [*nigriceps*, Reitt.]
- d². Eyes small.
- g³. Joints 7 and 8 of antennae about
as wide as those preceding; elytra
regularly punctate-striate: body
narrow, elongate.
- d⁴. Eyes more depressed; elytral
suture usually infusate . . . *suturalis*, n. sp.
- e⁴. Eyes smaller, convex; elytral
suture not infusate . . . *filum*, Reitt.
- h³. Joints 7 and 8 of antennae wider
than those preceding; elytra
densely, confusedly punctate,
the striae not traceable: body
broader and more attenuate
posteriorly *obliteratus*, n. sp.
- c¹. Body lanuginose; thorax transverse;
elytra broad, subparallel, striae
almost obsolete *lanuginosus*, n. sp.
- b. Thorax angularly produced in front in ♂,
apical margin subtruncate in ♀; eyes
large; elytra punctate-striate, interstices
punctured: body pubescent.¹

¹ *H. angulosus*, Grouv., and *H. texanus*, Schaeff., belong to this section.

- d*¹. Upper surface rather dull; thorax densely punctate, the prominence in ♂ compressed at apex *mexicanus*, Reitt.
*e*¹. Upper surface shining; thorax more sparsely punctate, the prominence in ♂ not compressed [*grouvellei*, Gorh.]
 B. Thorax with two deeply impressed lines on disc [*sculpticollis*, n. sp.]

[*Hapalips crenatus*, n. sp.]

Elongate, somewhat depressed, narrowing posteriorly, nigropiceous or black, the antennae, legs, and mouth-parts ferruginous, glabrous above and very finely pubescent beneath, moderately shining, the head and thorax distinctly alutaceous. Head short, finely punctate, the oblique impressed line on each side of the epistoma just traceable, the eyes moderately large, prominent; antennae with joints 4-8 moniliform, the club broad and abrupt. Thorax transversely subquadrate, sharply margined and crenate at the sides, the base bisinuate and feebly margined, the apex subtruncate, the anterior angles obtuse, the hind angles acute; sparsely, finely punctate, obsoletely foveate in the middle before the base, the basal foveae distinct. Elytra about as wide as the thorax, moderately long, narrowing from the middle; regularly punctate-striate, the interstices faintly punctulate. Beneath alutaceous, finely punctate. Prosternal process rather broad. Tibiae gradually widened outwards. Tarsal joints 1-3 broad.

Length $4\frac{1}{2}$ - $4\frac{3}{4}$ mm.

Hab. BRAZIL, Parana (coll. Fry, in Mus. Brit.).

Two specimens, one with the lateral margins of the thorax strongly, the other with the margins more feebly, crenate. A moderately elongate, rather broad form, glabrous above, with two or three short teeth at the sides of the thorax. *H. crenatus* bears a certain resemblance to the cosmopolitan *Nausibius dentatus*, Marsh.]

**Hapalips dimidiatus*, n. sp.

Very elongate, depressed, gradually narrowing posteriorly, shining, testaceous, the head ferruginous, the eyes black, the antennae with joints 1, 2 and the club ferruginous and the intermediate joints black, the elytra piceous from about the basal fourth, the dark colour extending forwards along the suture to near the base; glabrous above and very sparsely pubescent beneath. Head rather long, moderately convex, finely punctate, the oblique

impressed lines conspicuous, the eyes not prominent and comparatively small; antennae about as long as the prothorax, joints 3–8 moniliform, 6–8 transverse. Prothorax about as long as broad, subquadrate, slightly widened anteriorly, truncate at the apex, the anterior angles obtuse and deflexed, the hind angles rectangular, the base finely margined, the foveae almost obsolete; sparsely, finely punctate, except along a narrow space down the middle. Elytra very elongate, gradually narrowed towards the apex; regularly punctate-striate, the interstices flat, the alternate ones with a few very widely scattered fine punctures. Tibiae much widened outwards, the joints 1–3 of the tarsi broad.

Length $5\frac{1}{2}$ mm. (? ♂.)

Hab. MEXICO, Oaxaca (*Höge*).

One specimen. Smaller and more shining than *H. perlongus*, and differently coloured, the upper surface glabrous, the eyes depressed, much smaller, the thorax not longer than broad and sparsely punctate, the elytral interstices much smoother.

[*Hapalips parvicollis*, n. sp.

Moderately elongate, rather convex, fusco-ferruginous, the elytra, legs, and antennae testaceous, the eyes black; shining, glabrous above, very finely pubescent beneath. Head triangular, finely punctate, the oblique line on each side of the epistoma distinct, the eyes moderately large and prominent; antennae reaching to a little beyond the base of the thorax, joints 3–8 comparatively slender, 8 transverse, the club moderately large. Thorax small, transversely subquadrate, the anterior angles obtuse, the hind angles acute; thickly, finely punctate. Elytra moderately long, somewhat convex, considerably wider than the thorax, slightly rounded at the sides, narrowing from about the middle; finely punctate-striate, the interstices faintly punctulate. Leg slender; tibiae but little widened outwards.

Length $3\frac{1}{10}$ mm. (♀.)

Hab. BRAZIL, Rio de Janeiro (*coll. Fry, in Mus. Brit.*).

One specimen. This small form is not unlike the insect here identified as *H. nigriceps*, Reitt., but differs from it in having the upper surface glabrous and more shining; the intermediate joints of the antennae longer and more slender; the thorax relatively narrower (and therefore less transverse); the elytra more convex; and the legs more slender. In its general shape *H. parvicollis* approaches *H. cribricollis*, Gorb.]

**Hapalips sulcicollis*, n. sp.

Moderately elongate, narrow, convex, shining, ferruginous, the eyes black; glabrous above, the under surface with a few minute scattered hairs. Head short, thickly punctate, the line behind the epistoma almost obsolete, the eyes large and prominent; antennae comparatively slender, joints 4-8 short, subquadrate, the club abrupt. Thorax transverse, convex, somewhat rounded at the sides, and distinctly narrowed behind, the lateral margins feebly crenulate posteriorly, the hind angles acute, the disc deeply transversely grooved before the base; the surface somewhat thickly punctate. Elytra about as wide as the thorax, moderately long, gradually narrowed posteriorly; punctate-striate to near the apex, the striae faintly impressed, the interstices almost smooth. Beneath very sparsely punctate, the ventral segments almost smooth down the middle. Tibiae narrow.

Length $2\frac{1}{2}$ mm.

Hab. NICARAGUA, Chontales (*Janson*); PANAMA, Tolé (*Champion*).

Three specimens. Smaller and more convex than any of the other species of the genus known to me; the thorax narrowed posteriorly and also deeply transversely grooved on the disc before the base. *H. sulcicollis* was placed under the Languriid-genus *Crotchida* when our collections were sorted, and, indeed, is not unlike *C. parvula*, Gorh., from which it differs in having a smaller antennal club, a less constricted thorax, etc. The species agrees sufficiently well with *H. cribricollis* to be included in the same genus.

Hapalips cribricollis.

Hapalips cribricollis, Gorh., Biol. Centr.-Am., Coleopt. vii, p. 250.

Described from Mexican specimens. The following are additional localities for it:—

BRITISH HONDURAS, Belize (*Blancaneaux*); GUATEMALA, Trece Aguas (*Barber and Schwarz*, in *U.S. Nat. Mus.*); PANAMA, David (*Champion*), Tabernilla, Canal Zone (*Busck*, in *U.S. Nat. Mus.*); BRAZIL, Pernambuco (*coll. Fry*).

Amongst the long series received from Teapa there are some specimens with the post-median fascia of the elytra almost or quite obsolete. They have the thorax shaped exactly as shown in Reitter's figure of the Colombian

H. gracilicornis, but the intermediate joints of the antennae in *H. cribricollis* are apparently more transverse than in that insect. The prothorax often has a longitudinal vitta on each side of the disc, and the elytra a more or less distinct, common, oblique post-median fascia, infusate or black.

**Hapalips perlongus*, n. sp. (Plate III, fig. 11, ♂.)

Very elongate, depressed, gradually narrowing posteriorly, shining, very finely alutaceous, black, the head, thorax, and base of the antennae nigro-piceous, the tips of the tarsi and a large elongate humeral patch on each elytron ferruginous; somewhat thickly clothed with rather long, fine, yellowish hairs. Head triangular, feebly convex, thickly, finely punctate, bifoveate between the points of insertion of the antennae, the impressed oblique lines short, the eyes moderately large and prominent; antennae rather stout, barely as long as the prothorax, joints 4-8 transverse and moniliform. Thorax oblong-subquadrate, longer than broad, sharply margined at the sides and base, truncate at the apex, the sides faintly emarginate before the acute hind angles, the anterior angles rounded and not prominent, the basal foveae very shallow; closely, finely punctate, except along a narrow space down the middle. Elytra very elongate, gradually narrowed towards the apex; regularly punctate-striate, the dorsal interstices with a few scattered punctures, the sides, apex, and suture closely punctate. Tibiae much widened outwards, the joints 1-3 of the tarsi broad.

Length $7\frac{1}{2}$ mm. (♂.)

Hab. GUATEMALA, Senahu in Alta Vera Paz (*Champion*).

One specimen, somewhat abraded above. A very elongate, black form, with a large oblong rufous humeral patch on each elytron; the thorax longer than broad, and closely punctate, except along the median line; the tibiae much widened outwards. The latero-basal emargination of the thorax is preceded by a minute tooth.

Hapalips reitteri.

Hapalips reitteri, Gorh., Biol. Centr.-Am., Coleopt. vii, p. 251.

This insect is very like the ferruginous form of *H. fuscus*, Reitt. (*parallelus*, Gorh.), but it is more elongate and much larger, and the joints of the antennae preceding the club are moniliform. The head is short, and the eyes

very large and prominent. The thorax is strongly transverse in the female, and a little longer and with the anterior angles placed further backward in the male [described as nearly square, not wider than long]. I cannot detect the very short raised carinae on the abdomen mentioned by Gorham.

Hapalips fuscus.

Hapalips fuscus, Reitt., Verh. Ver. Brünn, Abhandl. xv, p. 127.

Hapalips brevicornis, Reitt., loc. cit.

Hapalips parallelus, Gorh., Biol. Centr.-Am., Coleopt. vii, p. 252.

Additional localities for this species are :—

MEXICO, Tampico (*Schwarz, in U.S. Nat. Mus.*), Acapulco (*Baker, in U.S. Nat. Mus.*); BRITISH HONDURAS (*Blancaneaux*); GUATEMALA, Champerico (*Baker, in U.S. Nat. Mus.*); PANAMA, Volcan de Chiriqui (*Champion*); BRAZIL, Rio Janeiro, Santa Catharina (*Fry*).

After examining a long series of specimens from Brazil and Panama I am unable to separate the Mexican *H. parallelus* from the Brazilian *H. fuscus*, the punctuation of the elytral interstices being somewhat variable. *H. brevicornis*, from Parahyba, is doubtless a ferruginous form of the same species, of which there are several in the Fry collection. The similarly-coloured variety mentioned by Gorham, from Mexico and British Honduras, has the elytral interstices much smoother than usual. Dark examples usually have the humeri rufescent. The eyes are coarsely faceted, very large, and prominent. The antennae are rather short, and the joints preceding the club are transverse, the eighth often subangulate within. The thorax is strongly transverse in both sexes, a little shorter in the female than in the male. The elytra are long and subparallel, and usually have the interstices conspicuously seriate-punctate. Two of the Brazilian examples are smoother and more shining, as well as being larger and more elongate, than the rest, but they seem to belong to the same species; these specimens come near *H. grandis*, Reitt.

Hapalips flohri.

Hapalips flohri, Gorh., Biol. Centr.-Am., Coleopt. vii, p. 251.

Described from a single specimen (♂) from Motzorongo, Mexico. The following localities may be added:—

GUATEMALA, Telemán and Chacoj in the Polochic valley (*Champion*: ♂ ♀).

Compared with *H. reitteri*, the present species has the eyes smaller and less prominent; the thorax more coarsely punctate, and with the anterior angles in a line with the front margin; the elytra more narrowed posteriorly, regularly punctate-striate, and with the interstices much more distinctly punctured; the anterior tibiae more acutely dentate at the outer apical angle; and the surface of the body more shining and clothed with longer hairs. The thorax is nearly square in the male, and transverse in the female.

**Hapalips lucidus*, n. sp.

Moderately elongate, narrowing posteriorly, shining, ferruginous, the eyes black, strongly pilose. Head short, closely punctate, shallowly bifoveate, the oblique impressed line on each side of the epistoma distinct, the eyes moderately large; antennae barely reaching the base of the thorax, joints 4–8 short, the club abrupt. Thorax transversely subquadrate, margined at the sides and base, obliquely narrowed immediately before the acute hind angles, the anterior angles almost in line with the apical margin, the basal foveae distinct; closely punctate. Elytra moderately long, about as wide as the thorax, narrowing posteriorly; finely punctate-striate, the interstices irregularly seriate-punctate. Legs short; tibiae rapidly widened outwards, the anterior pair more or less toothed at the outer apical angle.

Length 4–4½ mm.

Hab. MEXICO, Tampico (*Schwarz*, in *U.S. Nat. Mus.*), Vera Cruz (*Höge*; *U.S. Nat. Mus.*); BRITISH HONDURAS, Belize (*Blancaneaux*).

Very near the Mexican *H. flohri*, Gorh., but less robust, smaller, and not so elongate, the thorax strongly transverse. The more dilated tibiae and the less distinctly punctate-striate elytra separate *H. lucidus* from the females of *H. grouvellei*, Gorh., and *H. mexicanus*, Reitt. The description is taken from the three specimens from Belize, these even varying in the intensity of the punctuation of the upper surface. Five others have been seen from Mexico.

[*Hapalips batesi*, n. sp.]

Elongate, depressed, narrowing posteriorly, shining, ferruginous, the eyes black; almost glabrous above, the margins of the thorax and elytra only with a few fine hairs. Head broad, subtriangular, finely punctate, the oblique impressed line on each side of the epistoma conspicuous, the eyes large; antennae short, stout, joints 4-8 transverse, the club large. Thorax subquadrate, nearly as long as broad, the hind angles somewhat acute, the base feebly, the sides more sharply margined, the basal foveae distinct; sparsely, finely punctate, except along a narrow smooth space down the middle. Elytra elongate, narrowing towards the apex; punctate-striate, the interstices almost smooth. Beneath very sparsely, finely punctate; fifth ventral segment shallowly foveate in the middle before the apex. Legs short, stout, the tibiae triangular, the anterior pair acutely produced at the outer apical angle; joints 1-3 of the tarsi broad.

Length $4\frac{1}{2}$ mm. (♂.)

Hab. AMAZONS, Ega (*Bates, in Mus. Brit.*).

One specimen, labelled "*Temesia batesii*, Pasc., type," in the Pascoe collection, but I cannot find a published description of the insect. It is very like a *Rhizophagus*. The broad head; the stout antennae; the finely punctate, subquadrate thorax; the punctate-striate, attenuate elytra; the triangular tibiae; the clear ferruginous colour; and the almost glabrous upper surface readily distinguish *H. batesi*. The type is perhaps somewhat rubbed on the dorsal surface, as some fine hairs are still present along the margins.]

[*Hapalips brevipes*, n. sp.]

Elongate, depressed, narrowing posteriorly, testaceous, the eyes black; shining, finely pubescent. Head triangular, short, closely, rather coarsely punctate, the oblique groove on each side of the epistoma conspicuous, the eyes moderately large and prominent; antennae with joints 4-8 short, 7 and 8 transverse, the club abrupt. Thorax subquadrate, slightly broader than long, the sides sharply, and the base obsoletely, margined, the anterior angles obtuse and in line with the apical margin; rather coarsely, closely, uniformly, punctate, the basal foveae barely traceable. Elytra moderately long, about as wide as the thorax, gradually narrowing from a little below the base; regularly punctate-striate, the interstices impunctate. Legs short, the tibiae gradually widening outwards.

Length $4\frac{1}{2}$ mm.

Hab. BRAZIL, Rio de Janeiro (coll. Fry, in Mus. Brit.).

One specimen, probably somewhat immature, the head and antennae being of a darker and more ferruginous colour than the rest of the body. Recognisable by its depressed form and shining, pubescent surface; the attenuate, regularly punctate-striate elytra; the transversely subquadrate, evenly punctured thorax; the moderately large eyes; and the comparatively short legs. The smoother head and thorax, the less thickened antennae and legs, and the pubescent surface distinguish *H. brevipes* from *H. batesi*.]

[*Hapalips nigriceps*.

Hapalips nigriceps, Reitt., Verh. Ver. Brünn, Abhandl. xv, p. 126.

The only locality given for this insect is "Brazil." In Fry's collection there are three specimens apparently belonging to it, from S. Paulo (Campinas) and Rio de Janeiro.]

**Hapalips nitidulus*, n. sp.

Elongate, rather convex, narrowing posteriorly, shining, varying in colour from piceous with the margins of the prothorax and the elytral humeri rufescent to entirely ferruginous or testaceous, the eyes black; finely pubescent. Head short, triangular, much narrower than the thorax, closely punctate, obsoletely bifoveate, the oblique line on each side of the epistoma distinct, the eyes moderately large; antennae extending to a little beyond the base of the thorax, joints 3-8 rather slender, gradually decreasing in length, the club abrupt. Thorax transverse, still shorter in the ♀, the sides rounded, sharply margined, and obsoletely crenulate, the base bisinuate and obsoletely margined, the anterior angles obtuse and not in line with the apical margin; closely, finely punctate, except along a narrow median space, shallowly bifoveate at the base. Elytra about as wide as the thorax narrowing from about the middle; finely punctate-striate, the interstices flat, finely seriate-punctate. Beneath sparsely, very finely punctate. Tibiae rather narrow, gradually widened outwards.

Length $3\frac{2}{3}$ - $4\frac{2}{3}$ mm.

Hab. MEXICO, Cerro de Palmas (*Höge*); GUATEMALA, near the city (*Salvin, Champion*), Capetillo, Dueñas, Zapote (*Champion*).

Found in abundance in Guatemala; a single immature example only from Mexico. This species may be known

by the rounded, sharply margined sides of the thorax, the comparatively long antennae, the moderately large eyes, the posteriorly narrowed elytra, and the rather narrow tibiae. Amongst the forms described by Reitter, it can only be compared with *H. semifuscus*, from Brazil, which is said to have rather short, stout antennae. *H. nitidulus* is broader and less elongate than *H. suturalis*, and it has the intermediate joints of the antennae more slender, much as in *H. cribricollis*, Gorh. (? = *gracilicornis*, Reitt.).

**Hapalips suturalis*, n. sp. (Plate III, fig. 12, ♀.)

Very elongate, narrow, narrowing posteriorly, depressed, shining, finely alutaceous, the body varying in colour from black, with the front of the head, the basal joint of the antennae, and a broad stripe down the disc of each elytron ferruginous, to entirely testaceous, the head, thorax, and scutellum usually fusco-ferruginous and the elytra testaceous with the suture piceous, the legs always testaceous; clothed with rather long, fine, adpressed hairs. Head triangular, closely punctate, obsoletely bifoveate, the oblique impressed line on each side of the epistoma just traceable, the eyes moderately large, somewhat depressed; antennae not reaching the base of the thorax, joints 5-8 transverse. Prothorax subquadrate, as long as or longer than broad in ♂, shorter in ♀, obsoletely margined at the base, truncate in front, the anterior angles obtuse and not in a line with the apical margin; closely punctate, except along a narrow median space. Scutellum almost smooth. Elytra elongate, narrowing towards the apex; regularly punctate-striate, the interstices almost impunctate. Legs short.

Length $4\frac{1}{4}$ - $5\frac{1}{2}$ mm. (♂ ♀.)

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

A long series. A narrow, elongate, posteriorly attenuate form, with the suture of the elytra usually infusate (as in many small Elaterids), the thorax subquadrate, longer in the male than in the female. Much smaller than *H. dimidiatus*, pubescent above, the head shorter, the thorax more closely punctured, the eyes more prominent. Compared with *H. perlongus*, the eyes are more depressed; the antennae are not so stout; the thorax is more coarsely punctate, and less distinctly margined at the base; and the sutural interstice and apex of the elytra are smoother. The eyes are larger and more depressed than in *H. filum*.

Hapalips filum.

Hapalips filum, Reitt., Verh. Ver. Brünn, Abhandl. xv, p. 125 (1877); Gorh., Proc. Zool. Soc. Lond. 1898, p. 335; Biol. Centr.-Am., Coleopt. vii, p. 251.

? *Hapalips tenuis*, Reitt., loc. cit.

Recorded by Gorham from Mexico on the authority of a single specimen from Frontera in Tabasco. Additional localities for it are:—

MEXICO, Teapa (*H. H. Smith*); GUATEMALA, Purula, Tamahu, Chacoj, and Senahu in Vera Paz, Paraiso, Las Mercedes (*Champion*), Trece Aguas (*Barber and Schwarz*, in *U.S. Nat. Mus.*); PANAMA, Volcan de Chiriqui (*Champion*); BRAZIL, Parana (*coll. Fry*, in *Mus. Brit.*); CUBA, Cayamas (*Schwarz*, in *U.S. Nat. Mus.*).

Also found in the Antillean island of Grenada. *H. tenuis*, Reitt., to judge from the description, and from the long series of specimens before me, is no doubt the female of *H. filum*, the sexes of some of the allied species also having the thorax shorter in the female than in the male. The types of both came from Colombia, and were contained in the Schaum collection. The eyes in this insect are small and prominent; the thorax is subquadrate, longer than broad in the male (*H. filum*), much shorter in the female (*H. tenuis*), and always has a narrow smooth space down the middle; the elytra are very long, strongly punctate-striate, subparallel in some examples, and narrowed posteriorly in others, even amongst a series from the same locality. The length varies from $3\frac{1}{10}$ –5 millim. The specimens from Cuba are labelled as having been found in corn (maize) stalks.

**Hapalips obliteratus*, n. sp. (Plate III, fig. 13.)

Elongate, depressed, narrowing posteriorly, moderately shining, obscure ferruginous, the eyes black; closely, finely pilose; the entire upper surface, a narrow line along the disc of the thorax excepted, densely, finely, confusedly punctate, the under surface more sparsely, minutely punctate. Head short, triangular, much narrower than the thorax, obsoletely bifoveate, the usual oblique line on each side of the epistoma wanting, the eyes small, but prominent; antennae stout, reaching the base of the thorax, joints 4–6 moniliform, 7 and 8 strongly transverse, wider than 6, 9–11 much wider than 8. Thorax transversely subquadrate, truncate at the base and apex, finely margined at the sides and base, the

anterior angles rounded, the hind angles subacute, the basal foveae small, but distinct. Scutellum strongly transverse, somewhat tumid on each side. Elytra moderately long, narrowed towards the apex, without trace of striae. Tibiae gradually widened outwards, the anterior pair bowed at the apex. Tarsi with joints 1-3 moderately stout.

Length $4-4\frac{1}{8}$ mm.

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

Four examples, found in Nov. 1880. This insect differs from all its allies in having joints 7 and 8 of the antennae intermediate in width between those preceding and the club, and in the complete obliteration of the elytral striae, the entire upper surface being densely, finely, confusedly punctate.

**Hapalips lanuginosus*, n. sp.

Moderately elongate, rather broad, obscure ferruginous, the eyes black; alutaceous, feebly shining, thickly clothed with long decumbent hairs, the entire surface closely, finely punctate, the elytra with indications of faint striae. Head short, the oblique line on each side of the epistoma just traceable, the eyes moderately large; antennae with joints 4-8 subequal in length, the club abrupt. Thorax feebly margined at the sides, transversely subquadrate, the angles somewhat obtuse, the anterior ones almost in line with the apical margin. Elytra much wider than the thorax, moderately long, subparallel in their basal half. Tibiae gradually widened outwards.

Length $4\frac{1}{3}-4\frac{1}{2}$ mm.

Hab. MEXICO, Guajuco in Nuevo Leon (*Dr. Palmer*).

Six specimens, mostly in very dirty condition. A comparatively broad, moderately elongate form, thickly clothed with long hairs; the thorax strongly transverse; the elytra much wider than the thorax, confusedly punctured, the striae so faint as to be scarcely visible till the insect is viewed from the side. *H. lanuginosus* has the general facies of a very large elongate *Cryptophagus*. *H. delauneyi*, Grouv., from the island of Guadeloupe, is described as having similarly long hairs.

**Hapalips mexicanus*.

Hapalips mexicanus, Reitt., Verh. Ver. Brünn, Abhandl. xv, p. 128, pl. 2, figs. 4a (♀), 4b (♂) (1877).

This species was omitted from Mr. Gorham's enumeration

of the Mexican species in the "Biol. Centr.-Americana." The locality given by Reitter was simply "Mexico." We have received examples of both sexes from Tehuacan, Puebla. The male has a compressed, oblong, cariniform prominence at the middle of the angularly produced anterior margin of the thorax (as in the Texan *H. texanus*, Schaeffer), and a tubercle on each side of the disc towards the apex; and the epistoma of the head tumid between the oblique impressed lines. *H. grouvellei*, Gorh., from St. Vincent and Grenada, and *H. angulosus*, Grouv., from Guadeloupe, have a somewhat similarly shaped thorax in the male. *H. angulosus* is recorded as having been found in the flowers of a cactus, *Cereus triangularis*.

[*Hapalips grouvellei*.

Hapalips grouvellei, Gorh., Proc. Zool. Soc. Lond. 1898, p. 334, pl. 27, figs. 11, 11a (♂), 12 (♀).

Described from a long series from the Antillean islands of Grenada and St. Vincent. There is a male of it from Trinidad in the Fry collection.]

[*Hapalips sculpticollis*, n. sp. (Plate III, fig. 14, thorax.)

Elongate, rather broad, feebly shining; rufo-piceous above, ferruginous beneath, the antennae and legs testaceous; the smaller punctures each bearing an excessively minute squamiform hair, these soon becoming abraded on the upper surface. Head subtriangular, rather small, finely punctured, the eyes coarsely faceted, moderately large; antennal club large, abrupt. Thorax transverse, somewhat rounded at the sides, a little narrowed anteriorly, the angles obtuse; closely punctate, and with a deep, longitudinal, crescentiform sulcus on each side of the disc behind, extending forwards from the transverse basal groove to about the middle and there becoming slightly sinuous, the intervening space smoother than the rest of the surface. Elytra moderately long, subparallel in their basal half; coarsely punctate-striate, the interstices convex and closely punctulate. Beneath finely, the metasternum and first ventral segment more coarsely, punctate. Tibiae moderately widened outwards.

Length 4 mm. (? ♂.)

Hab. JAMAICA (*Hubbard, in U.S. Nat. Mus.*).

One specimen. Differs from all the other forms known to me in having two deep longitudinal arcuate sulci on the

disc of the thorax behind. This insect has the general facies of a *Tribolium*.]

[*PSEUDHAPALIPS*, n. gen.

Head short and broad, the epistoma confused with the front, differently shaped in the two sexes; eyes convex, coarsely granulated; terminal joint of the maxillary palpi narrow, cultriform, that of the labial palpi stout and subsecuriform; mandibles acute, with a small tooth towards the tip; antennae with an abrupt 3-jointed club; thorax transversely quadrate, sharply margined, with two basal foveae connected by a deep transverse sulcus; scutellum strongly transverse; elytra elongate, sharply margined laterally; prosternum with deep sutures, the intercoxal process horizontal; anterior coxal cavities closed behind; tarsi 5-jointed, 1-3 short and broad, spongy-pubescent beneath, 2 and 3 lobate, 4 minute, hidden in the excavate lobe of 3; tibiae very obliquely truncate at apex; body elongate, subglabrous.

Type, *P. lamellifer*.

The single species referred to this genus is closely related to *Hapalips*, from which it differs in having deep basal foveae on the thorax connected by an equally deep transverse sulcus, in the extraordinary form of the head in the two sexes (suggestive of certain Tenebrionids), and in the very prominent convex eyes. The penultimate tarsal joint is so small that it can scarcely be seen unless the tarsus is viewed laterally. The thorax is shaped as in *Platoberus*. The head is considerably broader in the female than in the male.

Pseudhapalips lamellifer, n. sp. (Plate III, figs. 15, ♂; 15a, head from in front, ♂.)

Elongate, somewhat depressed, ferruginous, shining, the eyes black; almost glabrous above (the minute hairs arising from the punctures soon abraded). Head (♀) uneven, bifoveate, very sparsely punctate, with a broad, arcuate, tumid margin in front which extends round to the greatly swollen antennary orbits, (♂) with a prominent, mesially depressed, vertical ridge between the points of insertion of the antennae (the ridge concave behind and somewhat convex in front), and the transversely depressed inter-ocular space smooth; antennae moderately long, joints 3-8 moniliform, the two basal joints of the club (9 and 10) strongly transverse. Thorax about one-half broader than long, the disc transversely convex, the lateral margins explanate, crenulate, slightly sinuate towards the base,

the anterior angles projecting a little forwards, obtuse, the hind angles acute, the base slightly sinuate; the surface sparsely, irregularly punctate, the convex portion of the disc limited outwards by a stout longitudinal callosity, the basal sulcus and foveae very deep. Elytra moderately long, a little wider than the thorax, narrowing from about the middle; regularly punctate-striate, the interstices almost smooth. Beneath very finely punctate.

Length 4-5 mm. (♂ ♀.)

Hab. AMAZONS, Santarem (*Bates*), Ananá, R. Solimoes (*Trail*).

Three specimens.]

LATHRIDIIDAE.

PSEUDEVOLOCERA, n. gen.

Head retractile, small; antennae (fig. 16a) apparently 10-jointed, the basal joint very stout, the last three connate and forming a very large oval club; palpi stout; eyes small; prothorax with a deep basal groove; scutellum transverse; prosternum with large fossae for the reception of the antennal club, the sutures deep, the intercoxal process broad, parallel between the anterior coxae, truncate behind, and extending convexly forward across the long ante-coxal portion to the apical margin; anterior acetabula closed by the short mesosternum; metasternal lines present; first ventral segment about as long as the other four segments united, the intercoxal process very broad, truncate in front; legs very short; femora compressed, clavate, received in depressions of the under surface; tibiae broad; tarsi slender, 3-jointed, joints 1 and 2 very short; body ovate, glabrous.

Type, *P. atomarioides*.

This genus is nearly related to the monotypic *Evolocera*, Sharp, from which it differs in having the head much smaller; the antennal club 3-jointed; the prosternum much more developed before the anterior coxae, and with a large pit on each side for the reception of the antennal club; the coxae more widely separated, the convex intercoxal process of the anterior pair extending forwards to the anterior margin; the coxal lines present on the metasternum, but scarcely traceable on the first ventral segment, the latter about as long as the following four segments united. The slender intermediate joints of the antennae (3-7) are so closely articulated that it is possible another

short joint may be present. The type is a minute insect superficially like an *Atomaria*.

**Pseudevlocera atomarioides*, n. sp. (Plate III, figs. 16, 16a.)

Ovate, convex, shining, obscure ferruginous, the elytra infusate and subalutaceous, the antennae and legs testaceous; the surface above and beneath not visibly punctate. Thorax with an abrupt deep basal groove extending across more than half its width, but without trace of foveae. Antennae with joints 2 and 3 elongate, 3-7 slender, 4 and 5 apparently longer than broad, 6 and 7 transverse, the club (8-10) with the last two joints strongly transverse.

Length $1\frac{1}{2}$ mm.

Hab. GUATEMALA, Cerro Zunil, 4,000 feet, Pacific slope (*Champion*).

Two specimens. The less dilated, non-foveate thorax and the smooth surface separate *P. atomarioides* at once from *Evolocera championi*, Sharp, which also is an inhabitant of Guatemala.

LYCOPERDINELLA, n. gen.

Antennae (fig. 1a) 10-jointed, 1 and 2 stout, subcylindrical, 3-9 obconic, decreasing in length, 10 dilated into a very large triangular club; terminal joint of the maxillary palpi narrow; head subtriangular, deeply sunk into the prothorax, the labrum and epistoma transverse, the antennae inserted immediately before the eyes, which are reduced to four or five facets; prothorax largely developed, sharply margined, strongly plicate on each side behind, and deeply transversely sulcate before the base; scutellum small; elytra acuminate-ovate, with a deep sutural stria and extremely narrow and incomplete epipleura; prosternum well developed in front of the anterior coxae, the sutures sharply defined, the intercoxal process narrow and parallel-sided; metasternum rather long, the episterna moderately broad; ventral segments 2-5 subequal in length, the sutures straight; legs long, the femora clavate, the tibiae narrow, the tarsi slender, 3-jointed, joint 1 longer than 2, 3 elongate; body oblong-ovate, convex, setose.

Type, *L. subcaeca*.

This interesting genus must, I think, be included in the subfamily *Merophysiinae* of the *Lathridiidae*, near *Holoparamecus*. It has the facies of a miniature *Lycoperdina*.

The metasternum and first ventral segment are without femoral lines, and the posterior coxae are not grooved.

**Lycoperdinella subcaeca*, n. sp. (Plate IV, figs. 1, 1a, 1b.)

Shining, castaneous above, rufo-testaceous beneath, the legs and antennae testaceous; sparsely clothed, the legs and antennae included, with long pallid bristly hairs. Head almost smooth; antennae reaching to a little beyond the base of the thorax. Thorax broader than long, the sides rounded anteriorly and parallel at the base, the margins finely denticulate, the deep transverse basal sulcus extending outwards to the abrupt longitudinal submarginal plica; the surface with very minute scattered punctures and a row of larger impressions along the basal margin. Elytra a little wider than the thorax rounded at the sides below the base and obliquely narrowed thence to the apex, the sutural stria extending to the apex; the scattered piligerous punctures irregularly arranged. Beneath very sparsely, minutely punctate.

Length $1\frac{1}{3}$ mm.

Hab. GUATEMALA, Livingston, Atlantic coast (*Barber and Schwarz, in U.S. Nat. Mus.*).

Two examples, one of which has been presented to the British Museum.

MYCETOPHAGIDAE.

PSEUDESARCUS, n. gen.

Antennae inserted under the obliquely raised sides of the head, long, stout, perfoliate, 11-jointed, widening outwards, 11 abruptly truncate at tip; head deeply inserted, subtriangular, small, the epistoma sharply separated from the front; labrum transverse, exposed; eyes strongly transverse, emarginate; mentum small, longer than broad, leaving the maxillae exposed; last joint of the maxillary palpi cultriform, that of the labial pair oval, truncate at tip; ligula corneous, triangular; coxae rather narrowly, subequally separated; anterior acetabula closed behind; prothorax with broadly expanded margins, emarginate in front; scutellum large; elytra broadly oval, the epipleura wide, reaching to very near the apex; metasternum short, the episterna broad; ventral segments 1 and 2 equal in length, 1 triangularly produced between the hind coxae; tibiae narrow, unarmed at apex; tarsi simple, freely 4-jointed, 1-3 short, 4 as long as the others united, clothed with long hairs beneath, the claws long; body broad ovate, convex, villose, winged.

Type, *P. villosus*.

The Panama insect from which the above characters are taken seems to me to be nearly related to *Esarcus*, Reiche, type *E. leprieurii*, from Algeria, three other species of which occur in the Mediterranean region. The long, stout, perfoliate, loosely-articulated antennae, with abruptly truncated terminal joint, the freely 4-jointed simple tarsi, and somewhat narrowly separated coxae, are its chief characters. The general facies is that of a Coccinellid or Endomychid (*Stenotarsus*, etc.). *Pseud-esarcus* must, for the present, be included in Colydiidae or Mycetophagidae, agreeing perhaps best with the latter. Two specimens only have been found, possibly both females.

**Pseudesarcus villosus*, n. sp. (Plate IV, fig. 2.)

Shining, ferruginous, the elytra and the disc of the thorax with a cupreous or purplish lustre, the under surface darker, the outer seven joints of the antennae black; thickly clothed with long, erect, fulvous hairs, the under surface, legs, and antennae also set with long hairs. Head closely, finely punctate, the eyes rather small; antennae reaching beyond the base of the thorax, stout, joints 1 and 3 obconic, 2 short, 3 about as long as 1 and 2 united, 4-11 broad, subtriangular, 5-11 more or less transverse. Thorax transverse, rounded and sharply margined at the sides, the latter sinuate towards the base, the hind angles sharply rectangular, the anterior angles angularly extending forwards; the convex disc very minutely punctate, the expanded lateral portions granulate. Elytra much wider than the thorax, transversely convex, subparallel at the base; with rows of closely placed, transverse, rather coarse punctures, the interstices broad, convex, minutely punctate. Beneath sparsely punctate.

Length $5\frac{1}{2}$, breadth 3 mm. (? ♀.)

Hab. PANAMA, Volcan de Chiriqui, Bugaba (*Champion*).
One specimen from each locality.

LYCTIDAE.

BERGINUS.

Berginus, Erichson, Naturg. Ins. Deutschl. iii, p. 405 (1848);
Wollaston, Ins. Mad. p. 194 (1854); Leconte, Class.
Coleopt. N. Am. 2nd edit. p. 139 (1883).

Three species have been referred to this genus, one of which, the type, abounds on tamarisks in the Mediterranean region, the others are American. The 2-jointed antennal club, and the 4-jointed tarsi, the anterior pair with three joints only in the male, are its chief characters. Casey is of opinion that *Berginus* should be placed near *Lyctus* [cf. Journ. N. York Ent. Soc. viii, p. 129 (1900)]; the latter was included in the Bostrychidae by Gorham in the "Biologia."

**Berginus nigricolor*, n. sp.

Moderately elongate, opaque, black or piceous, the legs sometimes obscure ferruginous; thickly clothed with short, curled, squamiform, cinereous hairs, which are seriatly arranged on the elytra. Head and thorax very densely, somewhat coarsely punctate; the latter convex, about as long as broad, narrowed anteriorly, the sides rounded and finely serrulate, the hind angles distinct; eyes convex, small, prominent; antennae barely reaching the base of the thorax, joints 1 and 2 stout, 3 narrow, as long as 2, 4-9 short, about as broad as long, the two joints of the club (10 and 11) stout. Elytra moderately long, considerably wider than the thorax, subparallel in their basal half; with rows of closely packed rather coarse punctures, the interstices narrow, transversely rugose. Beneath densely, coarsely, the ventral segments 2-5 more finely, punctate.

Length $1\frac{1}{8}$ - $1\frac{2}{3}$ mm. (♂ ♀.)

Hab. GUATEMALA, San Gerónimo, Mirandilla (*Champion*); NICARAGUA, Chontales (*Janson*); PANAMA, Tolé (*Champion*), Portobello, Paraiso, Panama city (*Schwarz*, in *U.S. Nat. Mus.*).

Apparently a common insect in Central America. From *B. pumilus*, Lec., it may be known by its smaller size, more slender build, the non-costate, regularly punctate-striate elytra, and the finer vestiture; and from *B. bahamicus*, Casey, by its black antennae. In the U.S. National Museum there is a mutilated example from Brownsville, Texas, labelled as having been found in dead cotton bolls, that may be referable to this species. Specimens of the described American forms have been sent us by the U.S. National Museum.¹ *B. bahamicus* has been found on

¹ In the British Museum there is a single example (♀) of an unnamed species related to *B. nigricolor*, with much larger eyes and stouter tarsi; it is from Grahamstown, S. Africa.

cotton. The genus is an addition to the Central American fauna.

ENDOMYCHIDAE.

MICROPSEPHUS.

Micropsephus, Gorham, Biol. Centr.-Am., Coleopt. vii, p. 149 (1891).

The type of this genus is a minute, globose, shining insect, not unlike an *Aspidophorus*, with 11-jointed antennae (joints 1 and 2 long and stout, 1 curved and longer than 2, 3-8 very slender and closely articulated, 9-11 dilated into a long, loosely-articulated club), stout, compressed femora, slender tibiae, slender, elongate, 4-jointed tarsi, widely separated intermediate and posterior coxae, and an elongate first ventral segment. The additional species now added from Central America has the intermediate antennal joints more slender and reduced in number, but otherwise agrees perfectly with *M. mniophilinus*. The Antillean insect described by Gorham (Proc. Zool. Soc. Lond., 1898, p. 338) under the name *Dialexia punctipennis* is very like *M. hemisphaericus*, and also has 9-jointed antennae, but it differs from the latter in having basal sulci to the thorax, etc.

**Micropsephus hemisphaericus*, n. sp.

Orbicular, convex, shining, nigro-piceous above, piceous beneath, the antennae and legs testaceous. Head, thorax, and elytra impressed with closely placed, small, conspicuous punctures; antennae 9-jointed, 1 and 2 long and stout, 3-6 very slender, 3 elongate, as long as 4-6 united, the latter strongly transverse, 7-9 dilated into a long, stout, loosely-articulated club. Tibiae and tarsi very slender.

Length $1\frac{1}{10}$ - $1\frac{1}{5}$ mm.

Hab. MEXICO, Tampico and Trece Aguas (*Barber and Schwarz, in U.S. Nat. Mus.*), Motzorongo in Vera Cruz (*Flohr*); GUATEMALA, Cerro Zunil (*Champion*); NICARAGUA, Chontales (*Janson*).

Seven specimens, some of which were placed amongst the *Scymni* when our collections were sorted. Smaller than *M. mniophilinus* (from Mexico and Guatemala), the elytra closely, conspicuously punctate, the antennae with

four slender joints only between the two stout basal ones and the club, the tarsi relatively less elongate. The antennae have been examined in three examples and nine joints only can be counted, the two missing joints being doubtless fused into the elongate third.

MICROPSEPHODES, n. gen.

Head retractile, broad, abruptly narrowed before the large, prominent eyes; labrum small, exposed; last joint of the maxillary palpi (fig. 3b) oblong-ovate, obliquely truncated at the tip; antennae (fig. 3a) moderately long, inserted under the sides of the front, 7-jointed, 1 and 2 stout, 3 and 4 slender, 5-7 widened into a very large, loosely-articulated, serrate club; prothorax finely margined laterally, bisinuate at the base and apex, the median basal lobe almost covering the scutellum; elytra very convex, closely embracing the prothorax; legs moderately elongate; tibiae narrow; tarsi (fig. 3c) very slender, long, 3-jointed, the first joint extending beneath the second to near its apex and clothed with some long hairs, 2 short, 3 nearly as long as 1 and 2 united, the claws slender; body globose, glabrous.

Type, *M. serraticornis*.

This minute insect seems to be nearly related to *Microapsephus*, from which it differs in its 3-jointed tarsi, the larger eyes, and the very peculiarly formed antennae, suggestive of that of a *Dorcatoma*. The unique example found is in such fragile condition that it cannot be safely taken off the card again for the examination of the under surface. The intermediate and posterior coxae are doubtless widely separated, as in *Microapsephus*. The very slender antennal joints between the thickened basal ones and the broad loose serrate club are so closely articulated that it is not easy to make out their exact number, and it is possible one more joint may be present.

**Microapsephodes serraticornis*, n. sp. (Plate IV, figs. 3, 3a-c.)

Rotundate, very convex, shining; black with an aeneous reflection, the antennae with the club piceous and the other joints flavo-testaceous, the first slightly infusate, the palpi, femora, and tibiae piceous, the tarsi fusco-testaceous; the entire upper surface sparsely, minutely, confusedly punctate. Antennae with joint 1 curved, stout, elongate, clavate, 2 much shorter, obconic, 3 and 4 extremely

slender, 3 elongate, 4 transverse, 5 and 6 greatly enlarged, triangular, hollowed at the apex (so as to appear subcylindrical), 7 broad ovate.

Length $1\frac{1}{4}$ mm.

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

One specimen. Till the limbs of this species are examined, it might be passed over for a very convex small Phalacrid or Silphid. The tibiae are a little broader than in *Micropsephus*.

COCCINELLIDAE.

Shortly after the conclusion of Gorham's work on the Central American species of this family, in Feb. 1899, Captain Casey's "Revision of the American Coccinellidae" was issued [Journ. N. York Ent. Soc. vii, pp. 71-169 (June 1899)]. He added one new genus (*Nephaspis*) and four new species to the Central American list—**Cycloneda hondurasica*, from Honduras, **Nephaspis gorhami* and **N. brunnea*, and **Zagloba beaumonti*, from Panama. The descriptions of the few species added here were written before I had seen Casey's paper; but it does not appear that any of them were known to him. The true generic position of various Coccinellids described in the "Biologia" could doubtless be ascertained by a study of Casey's work; but this task is beyond the scope of the present "Notes," the material examined consisting mainly of forms left unnamed by Gorham.

CRYPTOGNATHA.

Cryptognatha, Mulsant, Spec. Col. Trim. sécur. p. 497 (1850); Gorham, Biol. Centr.-Am., Coleopt. vii, pp. 181, 258 (1894).

Gorham enumerated eleven species of this genus from Central America. Various others are contained in our collection, some of which are now described.

**Cryptognatha rufoterminalata*, n. sp.

Hemispherical, very convex, shining, glabrous; head, thorax, and apex of the elytra rufous, the rest of the elytra cupreo-aeneous, the under surface in part and the legs obscure ferruginous, the metasternum rufo-piceous. Head and thorax closely, minutely, the elytra more sparsely and a little more coarsely, punctate; thorax very broad, and with the anterior angles considerably produced,

the broad retractile head invisible from above; elytra finely margined. Coxal lines prominent, that of the metasternum extending round the coxae to the episternal suture, that of the first ventral segment running in front of the apical margin of the latter to its outer limit. Tibiae broad, the anterior pair deeply sulcate for the reception of the tarsus.

Length $2\frac{1}{5}$, breadth $1\frac{9}{10}$ mm.

Hab. PANAMA, Bugaba (*Champion*).

One specimen, found in our collection mixed with *Scymnus panamensis*, to an abraded unset example of which it bears a certain amount of resemblance. The aeneous elytra, with rufous apex, and the rufous head and thorax, are characteristic of the present species.

**Cryptognatha violacea*, n. sp.

Hemispherical, very convex, shining, glabrous; cupreo-violaceous, the head above (in part or entirely) and beneath, the last four ventral segments, and the legs ferruginous, the rest of the under surface black. Head and thorax closely, minutely, the elytra more sparsely and distinctly, punctate, the punctures on the elytra becoming coarser towards the outer margin; thorax very broad; elytra finely margined. Beneath rather closely punctate. Coxal lines prominent, that of the metasternum extending round the coxae, that of the first ventral segment running just in front of the apical margin of the segment to its outer limit. Tibiae broad, the anterior pair deeply sulcate for the reception of the tarsus.

Length $2\frac{1}{10}$ – $2\frac{1}{4}$, breadth 2 mm.

Hab. MEXICO, Atoyac in Vera Cruz (*H. H. Smith*).

Two specimens, found placed in our collection under *C. flaviceps*, Crotch, but not agreeing with the author's description, nor with the other Central American examples identified by Gorham as that species. These latter have more broadly margined elytra, the upper surface black, etc.

**Cryptognatha fenestrata*, n. sp.

Hemispherical, very convex, shining, glabrous; black, the elytra each with a large rufous patch on the middle of the disc, the coxae and legs testaceous. Thorax closely, minutely, the elytra more sparsely and much more distinctly, punctulate. Coxal line of the first ventral segment extending outwards in a feeble curve to within some little distance of the outer margin of the segment. Tibiae broad, the anterior pair deeply sulcate,

Length $1\frac{2}{3}$ mm.

Hab. PANAMA, Bugaba (*Champion*).

One specimen. A small black form, with a rufous patch on the middle of each elytron and pallid legs. The coxal lines are placed as in *C. tumidiventris*.

**Cryptognatha circumducta*, n. sp.

Hemispherical, very convex, moderately shining, glabrous; ferruginous, the elytra with the base, apex, outer margin, and suture broadly piceous, the metasternum also infuscate or piceous. Head, thorax, and elytra somewhat closely punctulate, the interspaces alutaceous. Beneath very finely punctate, the metasternum with a transverse smoother space behind each coxa; coxal line of first ventral segment extending arcuately outwards at some distance behind the coxae to near the outer margin of the segment. Tibiae broad, the anterior pair deeply sulcate.

Length $1\frac{1}{3}$ mm.

Hab. PANAMA, Tolé, Peña Blanca (*Champion*).

Two specimens, left labelled *Cryptognatha* sp.? by Gorham. The dark margins to the elytra in this insect leave a very large, ill-defined, ferruginous dorsal patch. The elytral surface is alutaceous and distinctly, finely punctate. The coxal line on the first ventral segment is somewhat strongly curved.

**Cryptognatha tumidiventris*, n. sp.

Hemispherical, very convex, shining, glabrous, black, the antennae, coxae, and legs, and in one specimen (♂?) the head and a patch at the anterior angles of the thorax also, testaceous, the ventral segments rufous. Head and thorax closely, the elytra very sparsely, punctulate; elytra finely margined. Beneath very sparsely, minutely punctate; intercoxal process of the first ventral segment broadly tumid in the middle; coxal lines prominent, that of the metasternum curved round the coxae, that of the first ventral segment extending far outwards in a feeble curve to within a short distance of the outer margin of the segment. Tibiae broad, the anterior pair deeply sulcate for the reception of the tarsus.

Length $1\frac{1}{2}$ – $1\frac{2}{3}$ mm.

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

Two specimens, the one with a pallid head (from Tolé) presumably a male. The elytral punctuation is excessively minute and scattered in this insect. The general shape is that of *C. erythrodera*, Gorh.

**Cryptognatha subaequalis*, n. sp.

Hemispherical, very convex, shining, glabrous, black, the legs testaceous. Head, thorax, and elytra closely punctulate, the punctures on the elytra nearly as approximate as those on the thorax. Beneath closely, very finely punctate; intercoxal process of the metasternum hollowed in the middle, that of the first ventral segment flattened; coxal line on latter extending outwards almost parallel with the apical margin to within some little distance of the outer margin. Tibiae moderately widened, the anterior pair shallowly sulcate.

Length $1\frac{1}{5}$ mm.

Hab. GUATEMALA, Cerro Zunil, 4,000 feet (*Champion*).

One specimen. Extremely like *C. tumidiventris*, but with the elytra much more closely punctured, the anterior tibiae narrower and less deeply sulcate, the coxal line of the first ventral segment less curved and a little less extended outwards, etc. The tibiae are broader than in *Scymnus*.

SCYMNUS.

Scymnus, Kugelann, in Schneider's Mag. i, p. 545 (1794);
Gorham, Biol. Centr.-Am., Coleopt. vii, p. 226 (1897).

Gorham (loc. cit.) enumerated 25 species of this genus from Central America, and left many others undetermined. Amongst the latter, four are worth naming. The whole of these Tropical American *Scymni* require further study, the structural characters in the palpi, antennae, under surface, etc., having been to a large extent overlooked.

**Scymnus cribripennis*, n. sp.

Short-ovate, convex, shining, black, the antennae, mouth-parts, tibiae, and tarsi testaceous; clothed with rather long, fine, cinereous pubescence. Head broad, very finely punctulate; last joint of the maxillary palpi acuminate-ovate; thorax and elytra closely punctate, the punctures on the latter coarse and crowded. Beneath closely, rugosely, the ventral segments more finely, punctate; intermediate femora received in a very deep, and the posterior femora in a shallower, depression, the depressions extending on to the elytral epipleura; metasternum without lines; first ventral segment with the coxal lines complete and sharply defined, extending round to

the metathoracic epimera; epipleura slightly depressed for the reception of the tips of the intermediate and posterior femora.

Length $1\frac{1}{8}$ mm.

Hab. MEXICO, Motzorongo (*Flohr*), Cordova (*Höge*).

Three specimens, all from the State of Vera Cruz. A minute convex form, with unusually coarsely punctate elytra, a rugose metasternum, a narrow apical joint to the maxillary palpi, and semicircular coxal fossettes on the first ventral segment. This species belongs to the subgenus *Pullus*, Muls., following the arrangement adopted by Gorham, and it is allied to his *S. granum*, from which it differs in the very coarsely punctate elytra.

**Scymnus caeruleicollis*, n. sp.

Broad ovate, short, convex, glabrous above, shining, the head and thorax blue, the scutellum and elytra cupreo-aeneous, the body beneath black, the labrum, mouth-parts, antennae, under surface of the head, and legs testaceous, the femora slightly infusate. Head and thorax very closely, the elytra more sparsely, punctulate; maxillary palpi stout, short, the last joint obliquely subsecuriform; eyes depressed, large, vertical as seen from in front. Beneath sparsely, finely punctate; anterior coxae very widely separated; coxal lines sharply-defined, that of the metasternum curving outwards and forwards just behind the coxae to the episternal suture, that of the first ventral segment running obliquely to the outer apical angle; epipleura excavate for the reception of the tips of the intermediate and posterior femora. Legs short, tarsi rather stout.

Length $1\frac{1}{2}$ – $1\frac{3}{10}$ mm.

Hab. PANAMA, Volcan de Chiriqui, Tolé, Peña Blanca (*Champion*).

Four specimens. The metallic, glabrous upper surface and large eyes are characters foreign to *Scymnus*, as generally understood, but the present species can quite well be included in that genus till the allied forms are properly studied. It would be out of place amongst the heterogeneous Coccinellids referred by Gorham to *Neaporis*.

**Scymnus quercicola*, n. sp.

Short ovate, convex, glabrous above, shining, black, the antennae testaceous at the base, the tibiae and tarsi piceous; the entire upper surface rather closely, minutely punctulate. Last joint of the maxillary palpi elongate, narrow, cultriform. Antennal club oblong-

ovate, rather stout, blunt at the tip. Body beneath finely pubescent, sparsely, minutely punctulate, alutaceous, the middle of the metasternum smoother and shining. Coxal lines very fine, oblique, that of the metasternum extending outwards to the middle of the episternal suture, that of the first ventral segment feebly curved and running obliquely to the apical margin of the latter at about one-third from the outer margin. Epipleura excavate for the reception of the tips of the intermediate and posterior femora.

Length $1-1\frac{1}{5}$ mm.

Hab. MEXICO, near the city (*Flohr*); GUATEMALA, San Gerónimo (*Champion*).

Six specimens, the five from Mexico labelled as having been beaten from small oaks. The long narrow apical joint to the maxillary palpi, the position of the coxal lines, the dark legs, and the glabrous upper surface, are the chief characters of this minute insect.

Scymnillus, Horn, appears to include some equally minute glabrous forms, but the legs in this genus, according to Casey, are free.

**Scymnus nigroaeneus*, n. sp.

Short ovate, broad, convex, glabrous above, shining, black with a faint aeneous lustre, the front and under surface of the head and last three ventral segments ferruginous, the legs, antennae, and palpi testaceous. Head and thorax closely, excessively minutely, the elytra much more distinctly, punctate; last joint of the maxillary palpi narrow, subcultriform; eyes rather small. Beneath sparsely, very finely punctate; coxal lines long, fine, that of the metasternum extending round behind the coxae to very near the episternal suture, that of the first ventral segment running obliquely and arcuately to very near the apical margin of the latter and continued parallel with it to about one-fourth from the outer margin.

Length $1\frac{1}{8}$ mm.

Hab. GUATEMALA, Zapote (*Champion*).

One specimen. Broader than *S. quercicola*, nigro-aeneous above, the elytra much more distinctly punctured than the thorax, the legs testaceous, the coxal lines differently placed, that on the first ventral segment extending further outwards, the maxillary palpi stouter.

LIOSCYMNUS, n. gen.

Head strongly retractile, in repose closely applied to the projecting, raised, prosternal chin-piece, the palpi and antennae received in

grooves beneath; last joint of the maxillary palpi (fig. 4b) elongate-ovate, stout, acuminate; antennae (fig. 4a) apparently 11-jointed, 1 very stout, 2 small, obovate, 3-8 very slender, 3 elongate, 4-8 short, 9-11 dilated into an elongate compact club; eyes depressed, moderately large; anterior tibiae long, narrow, almost straight on their outer edge, feebly arcuately dilated towards the base within; intermediate and posterior tibiae moderately long, angularly dilated externally; tarsi 3-jointed, long, slender, 1 and 2 each produced beneath the succeeding joint, 1 elongate, 2 short, excised for the reception of 3, the lobe beneath reaching the middle of the next joint, the latter slender at the base, the claws appendiculate; femora stout, clavate, compressed, grooved, received in deep cavities of the under surface, those for the intermediate and posterior pairs extending outwards across the elytral epipleura and limited behind by the curved, cariniform coxal lines; intermediate and posterior trochanters large, elongate, laminiform; body hemispherical, glabrous above.

Type, *L. diversipes*.

This genus may be known by the strongly retractile limbs; the prominent, raised, prosternal chin-piece; the long, narrow, sinuous, anterior, and the angularly dilated intermediate and posterior, tibiae; the greatly developed intermediate and posterior trochanters; the long, slender tarsi, with elongate basal joint; and the hemispherical almost glabrous body. The head in repose is so closely applied to the prosternum that the mouth-parts and antennae cannot be seen till the head is forcibly raised, the legs also being equally retractile, though the tibial grooves are wanting on the anterior pair. The type is a minute, convex insect superficially resembling the Endomychid genus *Micropsephus*. *Delphastus*, Casey, of the group Oenini, seems to be related to *Lioscymnus*.

**Lioscymnus diversipes*, n. sp. (Plate IV, figs. 4, 4a, b.)

Very convex, shining, black, the antennae, mouth-parts, and legs flavo-testaceous, the under surface of the head, the pro- and mesosternum, and the ventral segments testaceous or rufescent, the head in one specimen testaceous in front. Head and thorax sparsely, very finely punctate, the elytra almost smooth. Beneath minutely punctulate.

Length $1\frac{1}{4}$ - $1\frac{1}{2}$ mm.

Hab. MEXICO, Cuernavaca (*H. H. Smith*), Motzorongo

(*Flohr*); BRITISH HONDURAS, Rio Hondo (*Blancaneaux*); GUATEMALA, Zapote, Aceituno (*Champion*).

Six specimens, sex not ascertained. Apparently a rare but widely distributed insect.

MICROSCYMNUS, n. gen.

Maxillary palpi (fig. 5*b*) very stout, the last joint subconical; antennae (fig. 5*a*) apparently 11-jointed, joints 1 and 2 very stout, 8-11 dilated into an oblong club; eyes very large, depressed; anterior tibiae (fig. 5) broadly widened, sulcate above for the reception of the tarsi, and received in repose in a deep groove in the anterior femora, the other tibiae moderately widened and imperfectly sulcate for the reception of the tarsi; coxae widely separated; intermediate and posterior femora received in deep grooves, which extend outwards across the elytral epipleura and are limited behind by the curved, cariniform coxal lines, the groove for the posterior pair extending forwards into the metasternum; tarsi 3-jointed, short, joints 1 and 2 strongly lobed beneath, the claws appendiculate; ventral segments 2-4 very short, 5 as long as 2-4 united; body spherical, glabrous above.

Type, *M. calvus*.

The minute Scymnid from which the above characters are taken is a fairly common insect in Central America. It was rejected from the Coccinellidae by Gorham, and one of our specimens is marked "? Histeridae," owing to its convex, glabrous, shining body, and the broadly dilated anterior tibiae. These characters are quite sufficient for the recognition of the insect. There is apparently a minute node at the base of the terminal tarsal joint.

**Microscymnus calvus*, n. sp. (Plate IV, figs. 5, 5*a*, *b*.)

Very convex, shining, black, the antennae, mouth-parts, and legs flavo-testaceous, the inter-ocular portion of the head and the sides and under surface of the thorax sometimes similarly coloured. Head and thorax closely, the elytra more sparsely, punctulate. Beneath shining down the middle, the ventral segments 2-5, and the sides of 1, alutaceous and more or less punctulate.

Length 1-1 $\frac{1}{5}$ mm.

Hab. MEXICO, Teapa (*H. H. Smith*); BRITISH HONDURAS, Belize, Rio Hondo (*Blancaneaux*); GUATEMALA, San Juan and Tamahu in Vera Paz (*Champion*).

A long series. This insect might, at first sight, easily be mistaken for a minute convex Histerid, or a *Cercyon* or *Micropsephus*.

MELYRIDAE.

CYMBOLUS.

Cymbolus, Gorham, Biol. Centr.-Am., Coleopt. iii, 2, p. 324 (1886).

Three species were included under this genus by Gorham—two from Guatemala and one from Mexico. A second was subsequently received by us from Mexico, and this is now described, as well as one from Brazil, this latter extending the distribution of *Cymbolus* southward. The genus is related to *Arthrobrachys*, Solier. It belongs to the section Dasytinae.

**Cymbolus elongatus*, n. sp.

Elongate, broad, rather depressed, shining; brown, the eyes and abdomen black, the rest of the under surface, mouth-parts, antennae, and legs ferruginous; thickly clothed above with very long, erect, fine, fulvous hairs, the under surface sparsely pubescent, the legs villose. Head sparsely punctate; eyes large, coarsely faceted; antennae moderately long, joints 4-10 strongly serrate. Thorax short, nearly or quite as wide as the elytra, rounded at the sides, narrowing from a little before the base, the angles obtuse, the lateral margins crenulate; the surface impressed with coalescent umbilicate punctures between the irregular polished raised spaces, which are large and here and there confluent on the disc and small and more scattered towards the sides. Elytra elongate, somewhat depressed on the disc, subparallel in their basal half; closely, coarsely confusedly, punctate, the submarginal ridge narrowly separated from the marginal carina and bordered within by a row of slightly coarser impressions. Beneath finely punctate, the ventral segments much smoother down the middle and subequal in length.

Length 7-7 $\frac{1}{16}$, breadth 3-3 $\frac{1}{4}$ mm.

Hab. MEXICO, Chilpancingo in Guerrero, 4,600 feet, (H. H. Smith).

Two specimens, probably male and female, one of them having the thorax broader than the other. More elongate than *C. castaneus* and *C. rufopiceus*, differing also from the former in its ferruginous antennae and the very irregular

sculpture of the thorax, and from the latter in the much smaller submarginal foveae on the elytra. The polished spaces on the disc of the thorax are large and irregularly shaped, much as in *C. rufopiceus* and *C. punctipennis*, Gorh.

[*Cymbolus quadrituberculatus*, n. sp.

Moderately elongate, depressed, shining; above brown, the thorax piceous on the disc and rufescent in front, beneath obscure ferruginous, the antennae, mouth-parts, and legs testaceous, the eyes black; thickly clothed with very long, erect, pale brownish hairs, the legs also villose, the under surface sparsely pubescent. Head short, irregularly punctate; eyes large, coarsely faceted; antennae serrate from the fourth joint (8–11 are missing). Thorax short, rounded at the sides, slightly narrowed in front, the base sinuate near the obtuse hind angles, the margins crenulate; the surface densely, confluent, umbilicate-punctate, the disc with several small, scattered, polished, tuberculiform callosities, four of which (quadrangularly placed) are more prominent than the rest. Elytra moderately elongate, depressed, very little wider than the thorax, subparallel to beyond the middle; coarsely, closely, confusedly punctate, and with a row of larger foveiform impressions along the submarginal ridge, the latter placed extremely close to the crenulate outer margin. Beneath finely punctate.

Length $4\frac{1}{8}$, breadth 2 mm.

Hab. BRAZIL, Rio de Janeiro (*Fry, in Mus. Brit.*).

One specimen. This insect unquestionably belongs to *Cymbolus*; it differs from the northern forms in having four small polished tuberculiform prominences on the disc of the thorax and the submarginal ridge of the elytra placed extremely close to the marginal carina.]

EUCYMBOLUS, n. gen.

Eyes transverse, sinuato-emarginate in front, finely faceted; elytra with a very sharp submarginal carina, corresponding in length with the deeply excavate epipleuron, the latter becoming very broad anteriorly and narrow behind, and about reaching the second ventral suture; metasternum short; ventral segments 3–5 much shorter than those preceding; body broad-ovate, convex, metallic, strongly villose; the other characters as in *Cymbolus*.

Type, *E. cyaneus*.

The single species referred to this genus has the general structure of *Cymbolus*—serrate antennae, securiform apical

joint to the labial and maxillary palpi, lobed tarsal claws, a coarsely punctured villose surface, etc.; but differs from it in the shape of the body, and in the less coarsely faceted, transverse eyes, and the more sharply carinate sides of the elytra. The type appears to have been placed amongst the Eumolpid Phytophaga when our collections were sorted.

**Eucymbolus cyaneus*, n. sp. (Plate IV, fig. 6.)

Shining, cyaneous above, black beneath, the head rufous, the mouth-parts, antennae, legs, mesosternum, and fifth ventral segment rufo-testaceous; above thickly set with long, erect, cinereous hairs, the under surface sparsely clothed with adpressed pallid pubescence, the legs villose. Head rather sparsely punctate; antennae moderately long, joints 4-10 strongly, and 3 more feebly, serrate. Thorax short, rapidly narrowing forwards, finely margined and bisinuate at the base, the angles rounded, the margins crenulate; sparsely, finely punctate on the disc, the punctures becoming coarser, closer, and umbilicate towards the sides. Elytra coarsely, closely, confusedly punctate, with a row of coarser impressions within the submarginal ridge, the latter becoming somewhat widely separated from the marginal carina towards the base; transversely compressed below the humeral callus. Beneath finely punctate.

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

Hab. GUATEMALA, Sinanja in Alta Vera Paz (*Champion*).

One specimen, found in April 1880. Seen from above the sides of the thorax form an almost continuous outline with those of the elytra, the general shape being broad ovate.

PTINIDAE.

OZOGNATHUS.

Ozognathus, Leconte, Class. Coleopt. N. Am. p. 205 (1861), and Proc. Acad. Phil. 1865, p. 226; Fall, Trans. Am. Ent. Soc. xxxi, pp. 132, 135 (1905); Pic, Cat. Anobiidae, p. 16 (1912).

Micranobium, Gorham, Biol. Centr.-Am., Coleopt. iii, 2, p. 202 (1883) (part.); Pic, L'Echange, xix, p. 171 (1903).

Durangoum, Pic, L'Echange, xix, p. 182 (1903).

Mr. Fall (loc. cit. p. 136) correctly states that two very dissimilar insects, belonging to two different groups of the Ptinidae, were placed by Gorham under *Micranobium*: one, *M. exiguum*, appertains to the genus *Ozognathus*, Lec.,

of the Dryophilini; the other, *M. pulicarium* (under which various species, as already pointed out by M. Pic, were confused by the author), to the genus *Petalium*, Lec., of the Dorcatomini. The characters of the genus *Micranobium*, Gorh., were drawn from the two species: those referring to the structure of the antennae, head, and thorax having been taken from the *Ozognathus*, and that of the relative length of the abdominal segments from the *Petalium*. The synonymy of *O. exiguus* is given below. *O. mexicanus*, Pic, is unknown to me.

Ozognathus exiguus.

Micranobium exiguum, Gorh., Biol. Centr.-Am., Coleopt. iii, 2, p. 202 (nec *M. exiguum*, Gorh., Proc. Zool. Soc. Lond., 1898, p. 325).

Ozognathus exiguus, Fall, loc. cit.; Pic, loc. cit.

This insect has only been found at San Gerónimo, Guatemala. It has been examined by Fall, who records three other species of the genus from the Southern United States, one of which has a horn on each mandible in the male. The Antillean specimens subsequently referred by Gorham to *M. exiguum* belong to two genera—*Cryptorama* (?) and *Petalium*, and of course have nothing to do with the Guatemalan *Ozognathus*.

**Ozognathus mexicanus*.

Micranobium (s. g. *Durangoum*) *mexicanum*, Pic, L'Echange, xix, p. 183 (1903).

Ozognathus mexicanus, Pic, Cat. Anobiidae, p. 17 (1912).

"Luteo pubescens, robustus, latus, paululum nitidus, subconvexus, brunneus sed ad suturam et apice rufescens, antennis testaceis; thorace transverso, postice dilatato-subrotundato; elytris satis latis et brevibus, minute et dense punctatis, instriatis; pedibus testaceis; subtus corpore nigro. Long. 2, 6 m." The subgenus *Durangoum* is characterised thus:—"Prothorace minus late ad basin lateraliter sejuncto, antennarum articulis intermediis satis brevibus, ultimis modice crassis et submodice longioribus, distinctis."

Hab. MEXICO, "Sierra de Durango."

TRICHODESMA.

Trichodesma, Leconte, Class. Coleopt. N. Am. p. 204 (1861), and Proc. Acad. Phil. 1865, p. 230; Gorham, Biol.

Centr.-Am., Coleopt. iii, 2, p. 199 (1883); Fall, Trans. Am. Ent. Soc. xxxi, pp. 154, 171 (1905); Pic, Ann. Soc. Ent. Belg. xlv, p. 408 (1902), and Cat. Anobiidae, p. 30 (1912).

Gorham enumerated four species of this genus from Central America, eight are recorded by Fall from the United States or Lower California, and various others have been described by Pic from Mexico or S. America. *T. imperator*, Cast., from Mexico, was, as stated by Pic, wrongly identified by Gorham, and the examples from the Mexican and Guatemalan localities quoted by him belong to various different species. These are described below, and some notes on the other Mexican forms are also appended. The thirteen species now known from Mexico and Central America may be tabulated thus:—

Thorax without lateral tooth, simply sinuate
at the sides behind.

Elytra conjointly rounded at apex.

Elytral vestiture dense, in great part
whitish.

Elytra with brown lines on disc and a
broad white fascia towards apex . . . *imperator*, Cast.

Elytra with spots on the disc and a broad
common saddle-shaped post-median
fascia blackish brown, strongly
nigro-tricristate on disc . . . *tricristata*, n. sp.

Elytra with apical fourth sparsely set
with small tufts of fulvous pubes-
cence, and with an irregular trans-
verse row of small dark tufts at
about one-fourth from the tip . . . *texana*, Schaeff.

Elytra with a large black lateral patch . . . *albina*, Gorh.

Elytral vestiture dense, pale brownish,
that of the numerous small fascicles
whitish: body elongate . . . *gorhami*, Pic.

Elytral vestiture close, mottled, greyish-
brown, fulvous, and whitish, the
whitish pubescence condensed into
transverse lines at tip. . . *pictipennis*, n. sp.

Elytral vestiture dense, brown, spotted
with black, and with a sharply-defined
common, narrow, W-shaped median
fascia and other markings white . . . *w-album*, Gorh.

Elytral vestiture rather sparse, in great part black, the whitish pubescence condensed into sharply-defined markings.

The whitish pubescence condensed into a broad W-shaped median fascia and other markings; antennae ferruginous *scripta*, n. sp.

The whitish pubescence condensed into a submarginal line and a common transverse mark on disc; antennae black *albistolata*, Gorh.

Elytral vestiture rather sparse, in great part plumbeous, the black pubescence condensed into two common transverse patches *plumbea*, Gorh.

Elytra truncate at apex, the vestiture mottled.

Elytra with several large tufts of fulvous and black setae on disc: body elongate *mexicana*, Pic.

Elytra with three small oblong tufts of black decumbent setae on third interstice and a common pallid subapical fascia *truncata*, n. sp.

Thorax toothed at the sides; elytra truncate at apex; vestiture mottled *armata*, n. sp.

Trichodesma imperator.

Anobium imperator, Cast., Silb. Rev. iv, p. 58 (1836).

“Granuleux, brun, couvert d’un duvet blanc; corselet avec une strie longitudinale et présentant au milieu une forte élévation de couleur jaune; élytres couverts de gros points enfoncés bruns avec quelques lignes longitudinales; sur la base un trait sinueux au milieu et une large bande transversale en arrière formée d’un duvet blanc; dessous du corps noir et velu, ainsi que les pattes; antennes rougeâtres. Long. 3, larg. $1\frac{1}{2}$ lig.”

Hab. MEXICO.

This species cannot be identified from the Mexican material before me.

**Trichodesma tricristata*, n. sp.

Oblong, broad, black, the antennae and tarsi, and the margins of the dorsal abdominal segments, rufo-ferruginous; variegated with a dense clothing of decumbent pale brown, whitish, and

brownish-black pubescence, the whitish pubescence condensed on the elytra into a narrow, conspicuous, sharply-angulated, common, submedian fascia, which is preceded by two dark spots and followed by a broad, common, transverse, saddle-shaped blackish-brown patch; the surface also set with very long, erect, scattered whitish hairs and black setae, the latter condensed into three large fascicles on the elytra (one at the suture before the middle, and one on the disc of each towards the apex) and two smaller tufts on the dorsal hump of the thorax. Antennae long, rather slender, the three joints of the club elongate, the terminal joint longer than the preceding. Thorax arcuato-explanate anteriorly, sinuate at the sides behind, densely punctate, the dorsal hump abrupt. Elytra much wider than the thorax, moderately long, parallel, conjointly rounded at the apex; with rows of closely placed coarse transverse punctures.

Length $4\frac{1}{2}$, breadth $2\frac{2}{5}$ mm. (? ♂.)

Hab. MEXICO, Orizaba (*Sallé*).

One specimen, with the dense whitish woolly vestiture somewhat matted and discoloured, but nevertheless leaving the sharply angulate submedian elytral fascia (which extends some distance down the third interstice, and is followed by one of the tufts of black setae) very conspicuous. Near *T. w-album*, Gorh., but with the tufts of black setae on the disc of the elytra towards the apex much longer, the common **W**-shaped mark broader, and preceded and followed by sharply-defined dark patches. This is one of the examples quoted by Gorham under *T. imperator*, the insect having been thus labelled in the *Sallé* collection. *T. sellata*, Horn, from Lower California, has somewhat similarly marked elytra.

**Trichodesma texana*.

Trichodesma texana, Schaeff., *Canad. Ent.* xxxv, p. 263 (1903); Fall, *Trans. Am. Ent. Soc.* xxxi, pp. 172, 175 (1905).

Hab. NORTH AMERICA, Texas; MEXICO, Matamoros.

This species has the elytra densely clothed with whitish pubescence to the apical fourth, which is more sparsely clothed with fulvous hairs; the thorax strongly sinuate at the sides behind and with four blackish spots on the dorsal hump; and the anterior tufts of black hairs on the elytra almost wanting, the posterior tufts small but obvious, the dark ones in a transverse line at the apical fourth. *T. sordida*, Horn, from Texas, has also been taken at Brownsville,

on the Mexican frontier; it has numerous brush-like tufts of blackish hairs arranged in three longitudinal lines on each elytron. We are indebted to Mr. C. Schaeffer, of the Brooklyn Museum, for a specimen of each of these insects, and also for *T. pulchella*, Schaeff., and *T. gibbosa*, Say.

**Trichodesma gorhami*.

Trichodesma imperator, Gorh., Biol. Centr.-Am., Coleopt. iii, 2, p. 199, pl. 10, fig. 9 (*nec* Cast.).

Trichodesma gorhami, Pic, L'Echange, xvii, p. 94, nota (1901).

Elongate, piceous, the antennae and tarsi ferruginous; densely clothed with pale brown and whitish decumbent pubescence, intermixed with very long, erect, light hairs and dark setae, the whitish pubescence here and there clustered into dense fascicles, which become larger and more crowded on the apical declivity of the elytra (two on each elytron near the suture, the anterior one followed by a cluster of blackish setae, being very conspicuous) and at about the middle of the disc coalescing into two oblique streaks (the inner one reaching the suture and forming with the corresponding streak on the opposite elytron a common Λ -shaped mark), the dark setae clustered into a few small oblong or rounded widely scattered fascicles on the disc of the elytra and two on the anterior declivity of the thorax. Thorax broadly arcuato-explanate, the sides feebly sinuate towards the base, the sculpture hidden by the vestiture, the compressed dorsal hump angular as seen in profile. Elytra elongate, parallel, rather convex, granulate, very uneven, conjointly rounded at the apex, the closely-packed rows of coarse, transverse punctures interrupted by the inequalities of the surface.

Length 5-5½, breadth 2½-2¾ mm.

Hab. MEXICO, Almolonga in Puebla (*Höge*).

The above description is taken from the two examples in the "Biologia" collection, one of these having been figured by Gorham as *T. imperator*. Pic renamed the insect from this figure, but he did not describe it in any way, neither did Gorham give any characters for the specimens he referred to *T. imperator*.

**Trichodesma pictipennis*, n. sp.

Elongate, piceous, the antennae and tarsi obscure ferruginous; mottled with grey, pale brown, and whitish, decumbent pubescence, intermixed with long scattered erect hairs and black setae, the latter

clustered into four small tufts on the dorsal hump of the thorax and various fascicles on the elytra (giving the appearance of black spots), the whitish pubescence condensed into three oblique lines on each side of the thorax, some small spots or streaks on the disc of the elytra, and two, narrow, curved, transverse lines near the apex, the pale brownish hairs condensed into an indeterminate, common, post-scutellar patch. Eyes very large. Antennae with the three joints of the club very elongate, the apical joint much longer than the preceding. Thorax arcuato-explanate anteriorly, strongly sinuate at the sides behind; densely granulato-punctate, the dorsal hump very prominent, angulate as seen in profile. Elytra elongate, parallel, much wider than the thorax, conjointly rounded at the apex; with rows of coarse, closely placed, transverse punctures visible through the vestiture, the interstices narrow, faintly granulate.

Length $4\frac{1}{2}$, breadth $2\frac{1}{10}$ mm. (? ♂.)

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

One specimen. Very like *T. armata*, but wanting the tooth at the sides of the thorax; the eyes larger; the elytra conjointly rounded at the tip, and with the markings differently arranged, the small scattered tufts of black setae giving a spotted appearance to their surface.

Trichodesma w-album.

Trichodesma w-album, Gorh., Biol. Centr.-Am., Coleopt. iii, 2, p. 200.

Described from a single ♀ from Vera Paz. A male was subsequently received from Atoyac, Mexico, and it proves to have very much longer antennae than the type.

**Trichodesma scripta*, n. sp. (Plate IV, fig. 7.)

Oblong, nigro-piceous or black, the antennae, tarsi, and abdomen rufo-ferruginous, the femora and tibiae slightly infusate; variegated with black and cinereous decumbent pubescence, intermixed with very long light and dark hairs and black setae, the cinereous pubescence on the thorax confined to the sides and anterior portion and an oblong median vitta at the base (leaving a black horseshoe-shaped mark on the disc), and that on the elytra into a common quadrate patch at the base, extending outwards along the anterior margin, a common sharply-angulated rather broad median fascia, and a transverse patch at the apex, the black setae condensed into

a large oblong fascicle on the suture of the elytra before the middle and a small one on the dorsal hump of the thorax. Antennae moderately long, comparatively slender, joints 1 and 2 of the club subequal in length, elongate-triangular, the apical joint longer and more slender than the preceding one. Thorax convex, moderately dilated anteriorly, the sides sinuate before the distinct hind angles, the anterior angles sharply produced; densely, finely granulato-punctate, the dorsal crest abrupt and very prominent. Elytra convex, much wider than the thorax, oblong-quadrate, conjointly rounded at the apex; with regular rows of closely-placed, coarse, transverse punctures, the interstices sparsely granulate.

Length 3, breadth $1\frac{1}{2}$ mm. (? ♀.)

Hab. MEXICO, Atoyac in Vera Cruz (*H. H. Smith*).

Two examples. Broader than *T. albistolata*, Gorh., from Vera Paz, the sharply-defined cinereous markings very differently arranged, the antennae ferruginous, shorter, and with a comparatively slender club. The angulate W-shaped median fascia of the elytra is suggestive of *T. w-album*, Gorh., but the two insects are not otherwise very nearly related.

**Trichodesma mexicana.*

Trichodesma mexicana, Pic, L'Echange, xvii, p. 93 (1901).

Elongate, nigro-piceous, the antennae fusco-ferruginous; variegated with a thick clothing of whitish, grey, and fulvous, decumbent pubescence, intermixed with scattered very long, erect, pallid hairs and black and fulvous setae, the whitish pubescence predominating on the thorax and on the base of the elytra, and on the latter condensed into a large oblique patch at the middle of the sides, a common A-shaped mark at the middle of the suture, and several curved transverse lines near the apex, the fulvous setae clustered into a single fascicle on the dorsal hump of the thorax, several others on the basal third of the elytra, and some larger ones at about one-fourth from the apex, the black setae condensed into several small fascicles on the anterior declivity of the thorax and various larger ones on the elytra, one on the disc before the middle, one near the suture below the base, and one on the outer part of the disc towards the apex being more prominent than the rest. Thorax broadly arcuato-explanate anteriorly, the sides strongly sinuate towards the base, the compressed dorsal hump angular as seen in profile, a space on the disc behind it bare and granulate. Elytra elongate, parallel, much wider than the thorax, somewhat depressed, narrowly

truncate at the apex; with rows of coarse transverse punctures, the interstices feebly convex. Beneath densely clothed with whitish pubescence.

Length 6, breadth $2\frac{2}{3}$ mm.

Hab. MEXICO, "Sierra de Durango" (*coll. Pic*), Almolonga in Puebla (*Höge*).

The above description is taken from a very clean fresh example in the "Biologia" collection. This insect agrees very nearly with Pic's definition of *T. mexicana*. Compared with *T. gorhami* it is broader and less convex, the thorax is more strongly sinuate at the sides behind, and the colour and arrangement of the vestiture is very different.

**Trichodesma truncata, n. sp.*

Elongate, nigro-piceous, the antennae and tarsi ferruginous; variegated with greyish-brown, fulvous, and whitish decumbent pubescence, intermixed with scattered semi-erect hairs and black setae, the latter clustered into three small oblong fascicles on the third elytral interstice, the fulvous pubescence condensed into several spots or streaks about the base, middle, and apex of the elytra, and a large, common, saddle-shaped, subapical fascia (the pubescence here becoming whitish on the second interstice), the whitish pubescence forming a scutellar spot. Thorax arcuato-dilatate anteriorly, strongly sinuate at the sides behind, densely granulato-punctate, the dorsal hump large and subangular. Elytra elongate, parallel, much wider than the thorax, sinuato-truncate at the apex, the sutural angles sharp; with rows of closely-packed coarse transverse punctures, the interstices narrow and conspicuously granulate. Beneath pubescent, very densely punctulate, with scattered intermixed slightly coarser punctures, the spaces occupied by the latter bare, giving a mottled appearance to the surface.

Length 5, breadth $2\frac{1}{3}$ mm. (? ♂.)

Hab. GUATEMALA, Dueñas (*Champion*).

One specimen, worn, but easily recognisable by the sinuato-truncate apex of the elytra, the pallid saddle-shaped subapical fascia, the white scutellum, the conspicuously granulate upper surface, and the mottled vestiture of the ventral surface. The non-dentate sides of the thorax separate *T. truncata* from *T. armata* and the truncate apex of the elytra from *T. pictipennis*.

**Trichodesma armata*, n. sp.

Elongate, piceous, the antennae, tibiae, and tarsi ferruginous; mottled with grey, fulvous, and whitish pubescence, intermixed with a few long semi-erect hairs and black setae, the grey pubescence predominating and somewhat scattered on the elytra, the whitish pubescence on the latter condensed into a Λ -shaped mark on the shoulders and two transverse rows of small fascicles near the apex, and the fulvous hairs into various spots at the base and three narrow oblique streaks at the middle (the inner one meeting the corresponding streak on the opposite elytron at the suture, the two forming a common Λ -shaped mark, which extends some distance down the third interstice), the black setae clustered into a few small tufts, two in front of the dorsal hump of the thorax and one at about the basal fourth of the third elytral interstice being more conspicuous than the rest. Antennae rather long, the three joints of the club elongate, moderately broad, the terminal joint about one-half longer than the preceding. Thorax moderately explanate anteriorly, the sides acutely dentate behind this, and sinuously converging thence to the base; densely punctate, obliquely biplicate on each side of the angular dorsal hump, and with the triangular bare space at the base finely granulate. Elytra elongate, a little wider than the thorax, parallel, narrowly truncate at the tip; with sinuous rows of moderately coarse transverse punctures, the interstices here and there finely granulate. Beneath very densely minutely punctulate, with scattered coarser punctures intermixed, the pubescence fine, fulvous in colour.

Length 4, breadth 2 mm. (? ♂.)

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

One specimen, in very fresh condition. Smaller and less elongate than *T. mexicana*, the elytral vestiture finer, differently coloured, and not clustered into large tufts, the thorax sharply toothed at the sides behind the middle. The clothing on the elytra and under surface does not completely hide the sculpture. *T. dentatithorax*, Pic, from Brazil, must be an allied form; it is described as having the thorax quadridentate on the disc and the elytra furnished with a pilose humeral gibbosity.

PETALIUM.

Petalium, Leconte, Class. Coleopt. N. Am. p. 204 (1861), and Proc. Acad. Phil. 1865, p. 234; Fall, Trans. Am. Ent. Soc. xxxi, pp. 211–213 (1905); Pic, Cat. Anobiidae, p. 58 (1912).

Rhadine, Baudi, Berl. ent. Zeitschr. 1873, p. 331.

Micranobium, Gorham, Biol. Centr.-Am., Coleopt. iii, 2, p. 202 (1883) (part.).

This genus includes a number of minute forms with a strongly produced and broadly expanded metasternal lobe which covers the mouth when the head is withdrawn into the mesosternal cavity. Six N.-American species are recognised by Fall, under one of which, *P. bistratum*, Say, he describes three named varieties. About a dozen Central American forms (including one from the Pearl Is.), several of which were confused by Gorham with *Micranobium pulicarium*, are represented in the "Biologia" collection, but the material at present available is too scanty for the description of these small insects. M. Pic has named various Central and S.-American and Antillean species, but, as Fall remarks (loc. cit.), his characterisations are insufficient for their acceptance unless supported by further description. Some attempt has been made by me to identify the Mexican and Antillean forms described by Pic after he purchased the Gorham collection. The changes in their synonymy are also noted.

Petalium pulicarium.

Micranobium pulicarium, Gorh., Biol. Centr.-Am., Coleopt. iii, 2, p. 202, pl. 10, fig. 14 (part.).

Petalium pulicarium, Fall, Trans. Am. Ent. Soc. xxxi, p. 213; Pic, Rev. d'Ent. xxiv, p. 186 (1905).

Hab. GUATEMALA, Dueñas and Capetille (*Champion*).

The examples from the other localities quoted by Gorham belong to different species. The *M. pulicarium*, too, recorded by him from the Lesser Antilles appertain to *P. antillarum*, Pic.

**Petalium striatipenne.*

Rhadine striatipennis, Pic, L'Echange, xix, p. 172 (1903); Rev. d'Ent. xxiv, p. 186 (1905).

Hab. MEXICO, Mexico city (*Flohr*).

This species is described as having "une coloration générale noire, l'aspect presque mat et les élytres plus longs que ceux de *pulicarium*, Gorh., et ses stries ponctuées fortes." Long. 2.5 mill. Four specimens from Mexico city, sent us by the late Julius Flohr, doubtless belong here.

They have deep oblique depressions on the disc of the thorax and a long deep metasternal sulcus.

**Petalium apicale.*

Rhadine apicalis, Pic, L'Echange, xix, p. 172.

Petalium apicale, Fall, Trans. Am. Ent. Soc. xxxi, p. 217, note; Pic, Rev. d'Ent. xxiv, p. 188 (1905).

Hab. MEXICO, "Sierra de Durango," Manantial, Jalapa. "Moins allongée [que *R. striatipennis*, etc.], et très reconnaissable à sa pubescence distincte et fournie ainsi que sa particulière coloration élytrale, les élytres étant foncés avec une étroite bordure apicale rousse." Long. 1.8–2 mill. According to Fall, who has seen one of the types, *P. apicale* is exceedingly like *P. brunneum*, Horn, from Lower California. We have an abraded *Petalium* from Chilpancingo (*H. H. Smith*) that may belong here.

**Petalium gorhami.*

Micranobium pulicarium, Gorh., Biol. Centr.-Am., Coleopt. iii, 2, p. 202 (part.).

Rhadine gorhami, Pic, L'Echange, xix, p. 171, nota.

Petalium gorhami, Pic, Rev. d'Ent. xxiv, p. 187 (1905).

Hab. GUATEMALA, San Gerónimo, Dueñas, Cerro Zunil (*Champion*).

According to Pic, *M. gorhami*, from San Gerónimo, is "distincte [de *M. pulicarium*] par la forme plus allongée, la coloration plus claire, brunâtre, le dessus du corps orné d'une pubescence grisâtre assez rapprochée, le prothorax faiblement impressionné en dessus et à étranglement à peine marqué." Long. 2 mill.

[*Petalium antillarum.*

Micranobium pulicarium, Gorh., Proc. Zool. Soc. Lond. 1898, p. 325.

Rhadine antillarum, Pic, L'Echange, xix, p. 171 (1903).

Petalium antillarum, Pic, Rev. d'Ent. xxiv, p. 186 (1905).

Hab. ANTILLES, Grenada and Grenadines.

M. Pic characterises this species thus:—"Très voisine de *Gorhami*, Pic, par sa coloration, s'en distingue par la pubescence jaune dorée et plus serrée du dessus du corps, la ponctuation élytrale plus fine ou l'absence de stries

discales, enfin la forme moins allongée du corps, le prothorax à bord antérieur abaissé et non relevé; antennes testacées, courtes, à 1^{er} article très long, deuxième large, suivants courts avec les trois derniers longs et un peu épaissis. Long. 1.6 mill. environ." There are four Antillean specimens standing under the name *M. pulicarium* in the British Museum, probably belonging to two species, both very different from the Guatemalan type, one of which is doubtless the insect *M. Pic* describes. He also characterises a var. *dufawi* from Guadeloupe.]

EUPACTUS.

- Eupactus*, Leconte, Class. Coleopt. N. Am., p. 203 (1861), and Proc. Acad. Phil. 1865, pp. 235-236; Fall, Trans. Am. Ent. Soc. xxxi, pp. 211, 218 (1905).
Lioolius, Gorham, Biol. Centr.-Am., Coleopt. iii, 2, pp. 203 (1883), 347 (1886).
Mirosternus, Gorham, Proc. Zool. Soc. Lond. 1898, p. 327 (*nec* Sharp).

This genus is mainly characterised by the very long, parallel-sided, flattened, 3-jointed antennal club, the closely articulated apical two joints of which united are about as long as the elongate preceding joint, the club itself being sometimes much wider in the male than in the female. The metasternum is notched in front, leaving the tips of the antennae exposed when these organs are retracted into the meso- and metasternal cavities. The species are numerous in Central America and nine are recognised by Fall from the United States or Lower California. Pic, in his "Catalogue of Anobiidae," 1912, p. 64, sinks *Eupactus*, Lec., *Eutheca*, Kies., and *Thaptor*, Gorh., under *Calymmaderus*, Sol.; but in this I cannot follow him, the last named Chilian genus having a very prominent hood-like anterior prolongation to the thorax. *Thaptor* (and not *Lioolius*), Gorh., is also sunk by Fall as synonymous with *Eupactus*, but they are here retained as distinct. The type of *Eupactus*, *E. nitidus*, Lec., is a small, oblong-oval, shining, glabrous insect; that of *Thaptor*, *T. pupatus*, Gorh., a large, subfusiform, densely pubescent insect (approaching *Calymmaderus* in shape), with a single submarginal stria to the elytra, and a dense double system of punctuation, above and beneath.

The following table will assist in the identification of the

fourteen Central American *Eupacti*, one of which is unknown to me. Gorham's descriptions, it may be observed, were mostly made from one specimen, the others placed by him under the same name often proving on examination to belong to different species. His *E. (Mirosternus) laevis* was from the Antillean island of St. Vincent.

- a. Elytra with two submarginal striae :
surface punctuation simple.
 - a¹. Submarginal striae very deep, abbreviated anteriorly : body oblong-ovate, metallic, bare above *punctatus*, Gorh.
 - b¹. Submarginal striae shallower, punctate, almost complete ; elytra subparallel : species small.
 - a². Upper surface (when fresh) very finely pubescent : body black . *subvestitus*, n. sp.
 - b². Upper surface bare : body ferruginous *donckieri*, Pic.
- b. Elytra with a broad deep submarginal groove along the apical half.
 - c¹. Elytra with two abbreviated rows of punctures on disc : upper surface sparsely, minutely punctate : body black, head red. . . . *erythrocephalus*, n. sp.
 - d¹. Elytra with one short row of punctures on disc near suture : upper surface sparsely, minutely punctate : body castaneous . . . *nitescens*, n. sp.
 - e¹. Elytra confusedly, sparsely, minutely punctate.
 - c². Head, thorax, and elytra black ; ventral segments very densely punctate *glaber*, Gorh.
 - d². Head and thorax rufous, the elytra black ; ventral segments more sparsely punctate *semirufus*, n. sp.
- c. Elytra with a broad submarginal groove at apex only, the elytra themselves long and subparallel. [*laevis*, Gorh.]
- d. Elytra convex, without submarginal striae or definite lateral groove.
 - f¹. Surface punctuation single.

- e*². Elytra distinctly or faintly striate on disc; upper surface glabrous.
- a*³. Upper surface more sparsely punctate, bluish; elytral striae more distinct *striatus*, Gorh.
- b*³. Upper surface more closely punctate, piceous or black; elytral striae less distinct . . . *exiguus*, Gorh.
- f*². Elytra not or very obsoletely striate on disc.
- c*³. Upper surface pubescent.
- a*⁴. Thorax and elytra densely, rather coarsely punctate: body blue above *caeruleus*, n. sp.
- b*⁴. Thorax rather densely, the elytra more sparsely, punctate: body nigro-piceous: species very small *dejeani*, Pic.
- d*³. Upper surface glabrous; thorax and elytra sparsely, minutely punctate: body ferruginous: species very small *ovulum*, Gorh.
- g*¹. Surface punctuation double.
- g*². Upper surface very densely punctate and pubescent; vertex not carinate: species larger *pubescens*, Gorh.
- h*². Upper surface more shining and less densely punctate, pubescence long; vertex carinate: species very small *comatus*, n. sp.

Eupactus punctatus.

Lioolius punctatus, Gorh., Biol. Centr.-Am., Coleopt. iii, 2, p. 203 (part.) (*nec* pl. 10, fig. 15).

Oblong ovate, convex, very shining; cyaneous above, black beneath, the head, legs, apical margin of the elytra, and abdomen rufo-piceous, the antennae partly or entirely ferruginous; glabrous. Head densely, finely punctate; eyes large, angularly compressed; antennae with joints 2-8 strongly, irregularly serrate, transverse, 3 triangular, 4-8 extremely short, 9-11 very broad, 9 longer than 10 and 11 united, the latter closely articulated; thorax closely, finely punctate; elytra oblong, dilated at the sides posteriorly, broadly rounded at the tip, rather sparsely and distinctly more

coarsely punctured than the thorax, the punctures here and there arranged in lines (which give the appearance of very faint striae on the disc), the two submarginal striae confined to the apical half, the inner one very deep and sulciform and not reaching the suture, the humeral callus smooth. Beneath densely, the middle of the metasternum coarsely and more sparsely, punctate, the intercoxal process of the latter broader than long and triangularly notched in front.

Length (excl. head) $2\frac{1}{5}$ – $2\frac{3}{4}$, breadth $1\frac{2}{5}$ – $1\frac{1}{2}$ mm.

Hab. HONDURAS (*Sallé*); GUATEMALA, Panzos in Alta Vera Paz (*Champion*).

Gorham's description of *Lioolius punctatus* was taken from the three Honduras examples, and the Panama insect figured by him belongs to the different species characterised below under the name *E. caeruleus*. A fresh description, however, is required in each case.

**Eupactus subvestitus*, n. sp.

Oblong, moderately shining, nigro-piceous or black, the antennae and legs obscure ferruginous; the punctures bearing excessively fine short hairs, which are soon abraded. Head, thorax, and elytra very sparsely, excessively minutely punctate, the interspaces somewhat alutaceous, the elytra with two punctured submarginal striae, the inner one abbreviated anteriorly and not nearly reaching the suture behind; eyes moderately large; antennal club elongate, not very broad, the apical two joints united slightly longer than 9; thorax (as seen from above) obliquely narrowing from the base; elytra a little wider than the thorax, subparallel in their basal half, the humeri rather prominent. Beneath densely, minutely, the metasternum rather sparsely, punctate, the latter sulcate down the middle and deeply notched in front.

Length $2\frac{1}{10}$ – $2\frac{1}{8}$, breadth $1\frac{1}{8}$ – $1\frac{1}{5}$ mm. (? ♀.)

Hab. MEXICO, near the city (*Höge, Flohr*).

Two examples. This species and the following have the elongate form of the Antillean *E. laevis* (Gorh.), a much larger insect without submarginal striae to the elytra. Found on oak, according to Flohr.

**Eupactus donckieri*.

Eupactus donckieri, Pic, L'Echange, xx, p. 19 (1904).

Oblong-ovate, narrow, compressed, very shining, castaneous, glabrous above. Head, thorax, and elytra very sparsely, excessively

minutely punctate, the elytra with two punctured, narrowly separated, submarginal striae, the inner one not reaching the base or apex; eyes very large; antennal club elongate, moderately broad, the apical two joints united slightly longer than 9; elytra a little wider at the base than the thorax, rather long, subparallel in their basal half, the humeri prominent.

Length $1\frac{2}{3}$, breadth $\frac{9}{16}$ mm.

Hab. MEXICO, Manantial (*Flohr*), "Sierra de Durango" (*coll. Pic*).

One specimen. Very like *E. subvestitus*, but a little less elongate, smaller, narrower, and more compressed, and uniformly castaneous in colour. The elytral punctures, seen under the microscope, are shallow and flat-bottomed. The insect described appears to be referable to *E. donckieri*, *Pic*, the type of which was from the Sierra de Durango; the latter is said to be 2 mm. in length.

**Eupactus erythrocephalus*, n. sp.

Lioolius glaber, *Gorh.*, *Biol. Centr.-Am.*, *Coleopt.* iii, 2, p. 203 (1883) (part.).

Oblong-ovate, convex, very shining, black, the head, palpi, antennae, and tarsi rufescent; glabrous above and beneath. Head, thorax, and elytra very minutely punctate, the punctures more closely placed on the thorax than on the elytra, the latter with two short irregular rows of coarser impressions on the disc below the base and with a very shallow broad submarginal groove along the apical half; eyes large; antennal club moderately broad, the apical two joints together as long as 9. Metasternum and ventral segments very sparsely and minutely, the anterior portion of the posterior coxae closely and rather coarsely, punctate; ventral sutures 3 and 4 double, sharply defined.

Length 3, breadth 2 mm.

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

This is the insect doubtfully referred by Gorham to *Lioolius glaber*, the types of which came from Dueñas and Capetillo. The red head, the two short abbreviated striae on the disc of the elytra near the suture, and the very sparsely punctured glabrous ventral surface readily distinguish *E. erythrocephalus* from *E. glaber*. The length of the latter was incorrectly given as "1-3 mm.": it should be 2-2½ mm. *E. glaber*, it may be noted, is extremely

like the N.-American *E. nitidus*, Lec., the type of *Eupactus*, but may be separated from that species by the densely, very finely punctured ventral surface and the non-carinate vertex.

**Eupactus nitescens*, n. sp.

Lioolius ovulum, Gorh., Biol. Centr.-Am., Coleopt. iii, 2, p. 205 (1883) (part.).

♀. Oblong-ovate, rather narrow, convex, very shining, castaneous, the suture and apical margin of the elytral and the metasternum slightly infusate, glabrous. Head, thorax, and elytra sparsely, minutely punctate, the punctures on the elytra subseriatly arranged on either side of a smooth space along the suture before the middle, the apical elytral margin explanate, leaving a broad shallow groove within; eyes extremely large; antennae with joints 4-8 very small, short, alternately serrate, the club long, moderately broad, its apical two joints united rather longer than 9. Beneath shining, very sparsely, finely punctate; metasternum grooved, the notch in front deep.

Length $1\frac{9}{10}$, breadth 1 mm.

Hab. PANAMA, Volcan de Chiriqui, 3,000 feet (*Champion*).

One specimen. More elongate and much more shining than *E. ovulum*, the eyes extremely large, the apical two joints of the antennae relatively longer, the apical margin of the elytra explanate, the upper surface much more sparsely punctate.

**Eupactus semirufus*, n. sp.

Oblong-ovate, convex, very shining, rufous, the elytra nigropiceous or black, the metasternum and posterior coxae more or less infusate; glabrous above, the ventral segments finely pubescent. Head, thorax, and elytra sparsely, very minutely punctate; elytra subparallel in their basal half, broadly hollowed along the outer margin from about the middle to the apex, and with moderately prominent humeri; head obsoletely carinate on the vertex; eyes very large; antennae with joints 3-8 minute, irregularly serrate, the club long, moderately broad, the apical two joints together rather longer than 9. Metasternum very sparsely and irregularly, the ventral segments densely, minutely (the first more sparsely so towards the sides) punctate, the third and fourth sutures double, the metasternal process broader than long.

Length $2\frac{1}{4}$ - $2\frac{1}{2}$, breadth $1\frac{2}{5}$ - $1\frac{1}{2}$ mm.

Hab. MEXICO, Teapa in Tabasco (*H. H. Smith*).

Four specimens, possibly all females, the antennal club being rather narrow in all of them. Very like *E. glaber* (Gorh.), but with the elytra only black and the ventral segments 1-4 much less densely punctate. In *E. glaber* the entire ventral surface is extremely densely punctured and pubescent, a character not mentioned by its describer, though visible in one of the Dueñas examples dissected by him. *E. punctulatus*, Lec. (*viticola*, Schwarz), and *E. nitidus*, Lec., are closely allied larger forms, the former having a much more sparsely, and the latter a more coarsely, punctured under surface.

Eupactus striatus.

Lioolius striatus, Gorh., Biol. Centr.-Am., Coleopt. iii, 2, p. 204 (1883).

Described from specimens found at Chontales, Nicaragua. Additional localities are:—

MEXICO, Teapa (*H. H. Smith*); GUATEMALA, Purula (*Champion*); PANAMA, Bugaba (*Champion*).

E. striatus was treated as somewhat doubtfully distinct from *E. glaber*. The long series subsequently received shows that the species is perfectly valid: the elytra are closely, finely punctate, faintly striate on the disc, and the broad shallow marginal depression is wanting; the upper surface has a bluish tint, and would be better described as nigro-cyaneous; and the ventral segments are piceous or rufous, like the antennae. The male has the antennal club much more broadly widened than the female. The under surface is finely pubescent. The metasternal process is broader than long and the notch is deep. The length varies from 2-2½ mm.

Eupactus exiguus.

Lioolius exiguus, Gorh., Biol. Centr.-Am., Coleopt. iii, 2, p. 347 (1886).

Described from two examples from Honduras. Additional specimens have since been received from Teapa, Mexico, and Bugaba, Panama. This is a form of *E. striatus*, black or piceous above, with the thorax and elytra more densely and a little more distinctly punctate, and the dorsal striae of the latter almost obsolete. Gorham presumably meant to compare it with *E. striatus*, and not with *E. punctatus*, a very different species with two deeply impressed submarginal striae.

**Eupactus caeruleus*, n. sp.

Lioolius punctatus, Gorh., Biol. Centr.-Am., Coleopt. iii, 2, p. 203, pl. 10, figs. 15 (1883) (part.).

Ovate, very convex, shining; blue (with a greenish tint in certain lights) above, piceous beneath, the antennae, legs, and abdomen obscure ferruginous; thickly clothed with fine ashy pubescence. Head, thorax, and elytra densely, rather finely punctate; antennae with joints 3-8 small, 4-8 transverse, feebly subserrate, 9-11 very broad, 9 elongate, as long as 10 and 11 united, 10 excised on the inner side at the base; elytra with traces of very faint impressed lines on the disc, the submarginal striae entirely wanting the humeral callus smooth. Beneath densely, finely punctate, the metasternum with a narrow smooth space down the middle, the intercoxal process of the latter triangularly notched in front.

Length (excl. head) $2\frac{1}{10}$, breadth $1\frac{2}{3}$ mm.

Hab. PANAMA, David in Chiriqui (*Champion*).

One example. This is the insect figured by Gorham under the name *Lioolius punctatus*. The densely punctured cinereo-pubescent surface, the complete absence of the submarginal striae of the elytra, the almost simple intermediate joints of the antennae, and its ovate general shape distinguish *E. caeruleus* at a glance from *E. punctatus*. The legs (which were not properly seen by the artist) are shown much too long in the figure, the tarsi especially, which are not half the length of the tibiae.

**Eupactus dejeani*.

Eupactus (Thaptor) dejeani, Pic, L'Echange, xxi, p. 115 (1905).

This species is unknown to me. The description of it is as follows:—Minutus, convexus, nigro-piceus, distincte punctatus, sat dense in thorace et capite, sat sparse in elytris; antennis testaceis; elytris instriatis. Court et assez large, convexe, peu brillant, brièvement pubescent, à ponctuation forte, plus serrée sur l'avant-corps, noir de poix avec les pattes rembrunies; antennes testacées, premier article courbé, suivants petits, trois derniers gros et épaissis, les deux de l'extrémité peu détachés l'un de l'autre; tête peu convexe; prothorax assez court, progressivement atténué en avant; élytres courts et larges, à épaules marquées, un peu rétrécis au sommet avec une faible dépression latérale incomplète, mais sans aucune trace de

strie. Long. 1.5 mm. Mexique: Teapa (*coll. Pic*). Très distincte par sa petite taille jointe à sa forte ponctuation.

Eupactus ovulum.

Lioolius ovulum, Gorh., Biol. Centr.-Am., Coleopt. iii, 2, p. 205 (1883) (part.).

♀. Ovate, convex, moderately shining, castaneous, the antennae, legs and abdomen rufo-testaceous; glabrous above. Head, thorax, and elytra closely, minutely punctate, the interspaces on the thorax closely alutaceous, those on the elytra more shining, the elytra without trace of striae or marginal depression; eyes rather small; antennae with joint 3 triangular, rather stout, 4-8 very small, transverse, the club moderately long, the apical two joints united barely as long as 9; thorax rapidly and obliquely narrowing from the base.

Length $1\frac{2}{3}$, breadth 1 mm.

Hab. NICARAGUA, Chontales (*Janson*).

Four specimens were doubtfully referred to *E. ovulum* by Gorham, belonging to three perfectly good species. The above description is taken from the example selected by him as the type. *E. ovulum* is closely related to *E. striatus* and *E. exiguus*, differing from both in the non-striate, extremely finely punctate elytra, the castaneous colour of the body, etc.

**Eupactus comatus*, n. sp.

Lioolius ovulum, Gorh., Biol. Centr.-Am., Coleopt. iii, 2, p. 205 (1883) (part.).

Ovate, convex, shining, rufo-castaneous, the antennae rufo-testaceous; thickly clothed with long yellow pubescence. Head, thorax, and elytra densely impressed with very small flat-bottomed punctures intermixed with excessively minute ones, the elytra without trace of striae or marginal groove; head distinctly carinate on the vertex; eyes extremely large in ♂, much smaller in ♀; antennal club elongate and very broad in ♂, narrower in ♀, the apical two joints united as long as 9; thorax (as seen from above) rapidly and obliquely narrowed from the base. Beneath densely, minutely punctate; metasternum deeply notched in front, the notch extending as far back as the posterior margin of the middle coxae.

Length $1\frac{2}{5}$ - $1\frac{1}{2}$, breadth $\frac{9}{16}$ -1 mm. (♂ ♀.)

Hab. NICARAGUA, Chontales (*Janson*).

One pair, the sexual differences in the antennae of which were noted by Gorham. The double system of punctuation is like that of *E. pubescens*, which is a much larger, duller, and more densely pubescent form.¹ The types of the latter, two females from Chiriqui and Vera Paz respectively, do not agree very well *inter se*, but as the Vera Paz specimen is not in good condition it must be included under *E. pubescens* for the present. *E. dejeani*, Pic, from Teapa, Mexico, is probably an allied form.

THAPTOR.

Thaptor, Gorham, Biol. Centr.-Am., Coleopt. iii, 2, pp. 205 (1883), 348 (1886).

This genus *Thaptor*, according to Mr. Fall [Trans. Am. Ent. Soc. xxxi, p. 219 (1905)], was created quite unnecessarily by Gorham; nevertheless it is convenient to retain it for the various Central American forms described by that author. These species, it is true, have the antennae and sterna formed as in *Eupactus* (= *Lioolius*, Gorh.); but they are very different in general facies, having the dense double system of punctuation and close pubescence of *Cathorama*. They are rather large, elongate, subfusiform, or broad oblong, insects, with setose antennae, and a single submarginal stria running down the apical half of the elytra. Fall's synonymy is also quoted by Pic [L'Echange, xx, p. 31 (1904)], who had just before added (loc. cit. pp. 18, 19) three species to the genus *Thaptor*—one from Chile, one from Australia (!), and one from Mexico. The last named, *T. mexicanus*, is clearly nothing but *T. oblongus*, Gorh., the only difference mentioned being "moins brillant." The four Central American species may be tabulated thus:—

Elytra without definite rows of punctures
at the sides preceding the sub-
marginal stria.

Body somewhat fusiform.

Species larger; setae on inner edge of
antennal joints 2, 3, 5, 7 very long;
under surface more densely punctate. *pupatus*, Gorh.

¹ *E. amoenus* and *E. mixtus*, Fall, also belong to this section.

- Species smaller; antennal setae shorter;
 under surface smoother, less densely
 punctate *throscoides*, Gorh.
 Body broader, oblong; punctuation ex-
 cessively dense *sharpi*, Gorh.
 Elytra with two or three rows of punctures
 at the sides preceding the sub-
 marginal stria *oblongus*, Gorh.
(*mexicanus*, Pic.)

DORCATOMA.

Dorcatoma, Herbst, Käfer, iv, p. 103 (1790); Mulsant et Rey, Térédiles, p. 338 (1864); Leconte, Class. Coleopt. N. Am., 2nd edit., p. 226 (1883); Gorham, Biol. Centr.-Am., Coleopt. iii, 2, p. 208 (1883) (part.); Fall, Trans. Am. Ent. Soc. xxxi, pp. 212, 261 (1905); Pic, Cat. Anobiidae, p. 72 (1912).

Gorham included three Central American species under *Dorcatoma*, two of which he subsequently [op. cit. p. 350 (1886)] transferred to *Priotoma*, at the same time remarking that the third, *D. tomentosa*, would probably have also to be withdrawn from it.

Dorcatoma tomentosa.

Dorcatoma tomentosa, Gorh., loc. cit. p. 208, pl. 10, fig. 16.
Priotoma tomentosa, Pic, Cat. Anobiidae, p. 72 (1912).

A specimen of this insect has now been dissected, and it proves to have the usual, erect, ciliate process arising from each posterior angle of the intercoxal portion of the prosternum; but these processes are shorter than in the European species of *Dorcatoma* I have examined (*D. flavicornis*, F., and *D. chrysomelina*, Sturm), being simply dentiform in *D. tomentosa*. This species, which has 11-jointed antennae (as stated by its describer) and a very broad securiform apical joint to the maxillary palpus, can, therefore, quite well remain in *Dorcatoma*, the additional minute joint to the antennae being a character of no importance.

CAENOCARA.

Caenocara, Thomson, Skand. Col. i, p. 90 (1859), and v, p. 174 (1863); Leconte, Class. Coleopt. N. Am., 2nd edit., p. 226 (1883); Fall, Trans. Am. Ent. Soc. xxxi, pp. 212, 260 (1905); Pic, Cat. Anobiidae, p. 76 (1912).

Tylistus, Leconte, Class. Col. N. Am., p. 203 (1861).

Enneatoma, Mulsant et Rey, Térédiles, p. 367 (1861).

This genus, as restricted by Fall, includes various forms related to *Dorcatoma* in which the intercoxal portion of the prosternum is simply truncate behind and the long horn-like processes are altogether wanting, and the eyes are very deeply excised. In the type of *Caenocara*, *C. bovistae*, the eyes are so deeply notched as to be nearly divided into two, but in one of the new species now added, *C. flohri*, the notch extends only half-way across them. In all these forms the elytra have an additional sublateral callosity at about the middle, thus appearing constricted below the swollen humeri. The antennae are 9-jointed, and the elytra have a short subhumeral and two deep submarginal striae. Three species only are known to me from Central America, one of which, *C. bovistae*, has not previously been recorded from the New World;¹ Fall enumerates twelve from the United States, based mainly upon the form of the palpi, antennae, or eyes, in the male sex. The Central American forms may be tabulated thus:—

Eyes almost divided into two : body black.

Thorax and elytra densely punctate . . . **bovistae*, Hoffm.

Thorax and elytra more sparsely punctate . . . *quercus*, n. sp.

Eyes notched to about the middle; thorax

and elytra densely punctate : body

castaneous above *flohri*, n. sp.

**Caenocara quercus*, n. sp.

Dorcatoma contracta, Gorh., Biol. Centr.-Am., Coleopt. iii, 2, p. 209 (part.).

Priotoma contracta, Gorh., loc cit. p. 351 (part.).

♂. Suborbicular, very shining, black, the antennae ferruginous, with the basal joint infusate, the legs piceous or rufo-piceous, the tarsi and anterior femora ferruginous; somewhat thickly clothed above and beneath with long cinereous hairs. Head closely, the rest of the upper surface more sparsely, finely punctate; eyes rather small, the antennal groove extending nearly across them; antennae 9-jointed, the dentiform first joint of the club greatly produced inwards, the two succeeding joints broad, elongate; elytra

¹ *Dorcatoma dresdensis*, Herbst (= *pallicornis*, Lec.), is recorded by Fall as rather common in the United States.

with a prominent humeral callus and also tumid in a line with this beyond the middle (thus appearing subquadrate above), the outer submarginal stria reaching the suture, the inner one a little less produced, the subhumeral stria not extending to the middle. Beneath densely, somewhat coarsely punctate, the metasternum obsoletely canaliculate, the intercoxal process of the latter broad, truncate in front; ventral segments free.

Length 2, breadth $1\frac{1}{2}$ mm.

Hab. MEXICO, near the city, San Miguel del Soldado in Vera Cruz (*Flohr*), Xucumanatlan in Guerrero (*H. H. Smith*); GUATEMALA, Calderas (*Champion*).

Two very different species were confused by Gorham under the name *Dorcatoma contracta*—a larger one, from Calderas, with the eyes very deeply excised, which is absolutely congeneric with *Caenocara*, Th., and is here described under the name *C. quercus*; the other smaller form, from Capetillo and Aceituno, with the eyes feebly excised, which must be taken as the type. *C. quercus* is closely related to *C. bovistae* (Hoffm.), differing from it in the more sparsely punctured thorax and elytra, the longer and sparser pubescence, and the very shining black body. The Mexican examples received from Flohr were beaten from oaks. He has also sent us a ♀ example of a *Caenocara*, from Mexico city, which is certainly referable to *C. bovistae*.

**Caenocara flohri*, n. sp.

♂. Suborbicular, shining, castaneous above, piceous beneath, the antennae and legs ferruginous; thickly clothed with yellowish pubescence. Head, thorax, and elytra densely, finely punctate, the punctures minute on the disc of the thorax; eyes moderately large, the groove extending nearly half way across them; antennae 9-jointed, long, the dentiform first joint of the club greatly produced inwards, the two succeeding joints broad, elongate; elytra with a prominent humeral callus and also tumid in a line with this beyond the middle, the outer submarginal striae reaching the suture, the inner one a little less produced, the subhumeral stria short. Beneath densely punctate.

Length 2, breadth $1\frac{2}{5}$ – $1\frac{1}{2}$ mm.

Hab. MEXICO, Real del Monte (*Flohr*).

Two males. Larger than *C. bovistae*; the antennae and legs longer; the eyes larger, the groove not extending more than half way across them. The denser puncturing

of the upper surface and the much shorter ocular groove separate *C. flohri* from *C. quercus*.

PRIOTOMA.

Priotoma, Gorham, Biol. Centr.-Am., Coleopt. iii, 2, p. 350 (1886); Proc. Zool. Soc. Lond. 1898, p. 327; Pic. Cat. Anobiidae, p. 72 (1912).

Eutylistus, Fall, Trans. Am. Ent. Soc. xxxi, pp. 212, 264 (1905).

The species referred to *Priotoma* simply differ from *Caenocara*, Thoms., in having the eyes feebly excised, and the body more regularly convex, due to the obliteration of the latero-submedian callosities of the elytra. *Byrrhodes*, Lec.,¹ type *B. setosus*, Lec., again, is said by Fall to differ from *Eutylistus* in one character only, viz. in the sharp striation of the elytra. Some of the Central American forms with very finely striate elytra, e. g. *P. tenuistriata*, Gorh., etc., would therefore be almost as well placed in *Byrrhodes*, Lec.; these insects, however, are connected with the typical *Priotoma*, type *P. quadrimaculata*, Gorh., by intermediate forms. It is probable that, sooner or later, the whole of them will have to be included under *Caenocara*, *C. flohri* forming the connecting link between that genus and *Priotoma*. Fall enumerates eight species of this genus from the United States, and says that the European *Dorcatoma dommeri*, Rosenh., also belongs to it. The six now known from Central America, and the one before me from the Lesser Antilles, may be tabulated thus:—

- a. Antennae 11-jointed; elytra spotted,
the two submarginal striae abbreviated
anteriorly: body very convex . . . *quadrimaculata*, Gorh.
- b. Antennae 9-jointed.
 - a¹. Elytra with two submarginal striae,
the subhumeral stria wanting.
 - a². The two submarginal striae not
abbreviated anteriorly.
 - a³. Elytra coarsely, confusedly
punctate, and obsoletely striate
throughout: body bluish-green
above *brevis*, Gorh.

¹ *Byrrhodes*, Sharp (Dascillidae), published a few months later in 1878, requires a new name: *Byrrhopsis* is here substituted for it.

- b*³. Elytra very finely punctate, distinctly striate throughout: body black above.
- a*⁴. Body oblong-ovate; elytra more distinctly striate; antennae and ventral segments red, the latter free . . . *tenuistriata*, Gorh.
- b*⁴. Body rotundate-ovate; elytra more finely striate; antennae and ventral segments black, the latter subconnate . . . *nigriventris*, n. sp.
- b*². The two submarginal striae abbreviated anteriorly, the punctures on the elytra seriatly arranged; eyes compressed: body black: species small . . . *brevilinea*, n. sp.
- b*¹. Elytra with a short subhumeral and two submarginal striae, the punctuation scattered: body black or fusco-castaneous: species very small.
- c*². Metasternum coarsely punctate; ventral segments connate at middle; eyes moderately large . . . *contracta*, Gorh.
- d*². Metasternum finely punctate; ventral segments free; eyes very large, less widely separated above [*insularis*, n. sp.]

**Priotoma nigriventris*, n. sp.

Priotoma tenuistriata, Gorh., Biol. Centr.-Am., Coleopt. iii, 2, p. 351 (1886) (part.).

♀. Short-ovate, broad, convex, shining, black, the head and palpi piceous, the second antennal joint and the tarsi rufo-testaceous; clothed with long, fine, cinereous pubescence. Head, thorax, and elytra closely, very minutely punctate; eyes large, feebly excised; antennae 9-jointed, the two basal joints of the club triangular, the apical one oval; elytra excessively finely striate, the two submarginal striae deeply impressed and sulciform from about the basal third, the inner one not nearly reaching the suture. Metasternum sparsely and finely, the ventral segments minutely, punctate, the latter subconnate at the middle.

Length 2, breadth $1\frac{1}{2}$ mm.

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

Gorham based his description of *P. tenuistriata* upon two females from Chiriqui belonging to different species. The larger form (length $2\frac{1}{2}$, breadth $1\frac{3}{4}$ mm.), with reddish legs, antennae, and abdomen and clearly cut fine elytral striae (marked type by the author) must be taken as the type. The other form, from which the above description is taken, is smaller and subrotundate in shape, almost wholly black, and with the fine elytral striae only just traceable on the disc and the inner sulciform submarginal one less extended posteriorly; the ventral segments subconnate, and the entire surface less densely and very minutely punctate.

**Priotoma brevilinea*, n. sp.

Priotoma contracta, Gorh., Biol. Centr.-Am., Coleopt. iii, 2, p. 351 (part.).

♀. Short ovate, broad, convex, very shining, black, the palpi and antennae ferruginous, the basal joint of the latter slightly infusate, the femora and tibiae rufo-piceous, the tarsi ferruginous; very sparsely, finely, cinereo-pubescent. Head broad, densely, finely punctate; eyes moderately large, angularly compressed (when viewed laterally), not very deeply excised; antennae 9-jointed, the first two joints of the club triangular, the first very stout, the apical joint elongate; thorax closely, minutely punctate; elytra short, sparsely, finely, seriato-punctate, the two submarginal striae deep and confined to the apical half, the inner one not nearly reaching the suture, the short subhumeral stria wanting, the humeral callus inconspicuous. Beneath densely punctate.

Length $1\frac{3}{4}$, breadth $1\frac{1}{4}$ mm.

Hab. PANAMA, Peña Blanca (*Champion*).

One specimen. A small, short, convex, very shining, black form, broader than *P. contracta*, with angularly compressed eyes, finely seriato-punctate elytra, and the two submarginal striae of the latter abbreviated anteriorly. The ventral segments are apparently free, but this character was unfortunately not noted when the specimen was remounted. *P. brevilinea* is related to *P. brevis* and *P. tenuistriata*, Gorh., both of which have almost complete submarginal striae to the elytra.

Priotoma contracta.

Dorcatoma contracta, Gorh., Biol. Centr.-Am., Coleopt. iii, 2, p. 209 (part.).

Priotoma contracta, Gorh., loc. cit. p. 351 (part.).

Short ovate, convex, shining, varying in colour from black to castaneous, the antennae in some specimens wholly rufo-testaceous, in others infusate, the tarsi rufo-testaceous; sparsely clothed with rather long whitish hairs. Head and thorax very sparsely, minutely punctate; eyes moderately large, widely separated, feebly excised; antennae apparently 9-jointed—(♂) long, with the dentiform first joint of the club greatly produced inwards, and the succeeding joints broad and elongate, (♀) shorter, and with the joints of the club smaller; elytra very sparsely, finely, subseriately punctate, the punctures becoming coarser and more crowded towards the suture, the two submarginal striae deep, the subhumeral stria short, the humeral callus moderately prominent, the latero-submedian prominence wanting. Beneath finely, the middle of the metasternum coarsely, closely punctate; ventral segments connate in the centre.

Length $1\frac{1}{4}$ – $1\frac{3}{4}$, breadth 1 – $1\frac{1}{10}$ mm. (♂ ♀.)

Hab. MEXICO, Teapa in Tabasco (*H. H. Smith*); GUATEMALA, Capetillo, Aceituno, Cahabon (*Champion*); PANAMA, Tolé (*Champion*).

Eleven examples. Gorham first included *P. contracta* in his section of *Dorcatoma* with 8-jointed antennae, subsequently placing it in *Priotoma* to which he ascribed 10 joints, though the actual number of joints is nine. The feebly excised eyes, the partially connate ventral segments, the absence of the latero-submedian elytral callosities, the narrower form, and much smaller size, at once separate *P. contracta* from the other species he confused with it, which is described above under the name *Caenocara quercus*. *P. tenuistriata* and *P. brevis* (Gorh.) are larger allied forms.

[*Priotoma insularis*, n. sp.]

Priotoma brevis?, Gorh., Proc. Zool. Soc. Lond. 1898, p. 327 [nec *P. brevis*, Gorh., Biol. Centr.-Am., Coleopt. iii, 2, p. 351].

Short ovate, convex, shining, black, the antennae and tarsi rufo-testaceous, the femora and tibiae rufo-piceous; sparsely clothed with long whitish hairs. Head and thorax very sparsely, minutely punctulate; eyes very large, separated above by about the width

of one of them, feebly excised; antennae 9-jointed, 1 greatly thickened, 3-6 minute and very closely articulated, 7-9 large, 7 triangular; elytra very sparsely, finely punctate, the punctures becoming coarser, closer, and subseriately arranged towards the suture, the two submarginal striae deep, the subhumeral stria short, the humeral callus moderately prominent. Beneath sparsely, finely punctate; ventral sutures distinct.

Length $1\frac{1}{2}$, breadth 1 mm. (♀.)

Hab. ANTILLES, St. Vincent (*H. H. Smith*).

Five examples. This insect, like *P. contracta*, is so like a small immaculate *Scymnus* that it might be passed over as such. Then, again, *P. insularis* so closely resembles *P. contracta* that at first sight it appears to be referable to the same species; but the much larger, more contiguous eyes, the finely punctured metasternum, and the non-connate ventral segments readily distinguish *P. insularis*. Gorham presumably intended to write *P. contracta*?, as the present species bears no resemblance to the much larger submetallic *P. brevis*.]

Ptilinus.

Ptilinus, Geoffroy, Hist. Ins. Paris, i, p. 64 (1762); Mulsant et Rey, Térédiles, p. 226 (1864); Gorham, Biol. Centr.-Am., Coleopt. iii, 2, p. 198 (1883); Fall, Trans. Am. Ent. Soc. xxxi, pp. 277, 278 (1905); Pic, Cat. Anobiidae, p. 41 (1912).

Gorham has recorded a species of this genus from Guatemala. A second very different form, also from the same country, was subsequently detected in our collection, and a third, *P. mexicanus*, Pic, from Mexico, was added in 1901. Six are now known from the United States. The two from Guatemala are described below.

**Ptilinus sericeus*, n. sp. (Plate IV, fig. 8, ♂.)

Ptilinus sp. ?, Gorh., loc. cit.

♂. Elongate, rather broad, cylindrical, opaque, obscure ferruginous, the tibiae and the base of the femora infusate; thickly clothed with fine, silky, brownish-cinereous pubescence, the thorax with a broad, sharply defined, anteriorly abbreviated, darker, velvety median vitta, and various curved, sinuous dark marks on either side of it, the elytral depressions also appearing darker, owing to the diverted arrangement of the vestiture. Head very broad, densely rugulose,

the eyes enormously developed; antennae with joints 4–10 each furnished with a long ramus, that on joint 4 much shorter than that on 5, joint 3 acutely, triangularly dilated. Thorax transverse, very broad, compressed at the sides anteriorly, obliquely narrowed (as seen from above) forwards; densely, rugulosely punctate, the sinuous depressions on each side of the disc interrupting the arrangement of the pubescence. Scutellum rather large. Elytra distinctly narrower than the thorax, finely, interruptedly, subseriato-punctate, the interstices rugulose; with a transverse depression on the disc below the base and various other rounded depressions on the apical half, interrupting the arrangement of the pubescence. Legs moderately elongate, the tarsi shorter than the tibiae.

Length 4, breadth $1\frac{1}{2}$ mm.

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

Gorham suggested that this species was probably a known N.-American form, on what grounds I know not. The enormously developed eyes, the very broad thorax, with a sharply defined darker median vitta, and the uneven elytra are characteristic. The unique example is somewhat immature, and the elytral depressions may be in part due to the softness of the integument, but as they are symmetrical, this is not likely to be the case.

**Ptilinus maculicollis*, n. sp. (Plate IV, fig. 9, ♂.)

♂. Elongate, narrow, cylindrical, opaque, black, the thorax with a large rufous patch on each side extending forwards to the anterior angles; closely, very finely pubescent. Head broad, densely, rugulosely punctate, the eyes large; antennae with joints 3–10 each furnished with a moderately long ramus, the rami becoming gradually longer outwards, that on joint 10 nearly twice as long as that on joint 3. Thorax transverse, compressed at the sides anteriorly, obliquely narrowed (as seen from above) from about the middle to the apex, the sides and base sharply margined, the hind angles rounded, the anterior angles sharp and reaching to the middle of the eyes (when the head is in a vertical position); densely, rugulosely punctate, subgranulate on the disc towards the apex, the disc feebly canaliculate. Scutellum small. Elytra elongate, of the same width as the base of the thorax; regularly punctate-striate, the interstices narrow, feebly convex, and densely rugulose. Legs elongate, the tarsi fully as long as the tibiae.

Length 3, breadth 1 mm.

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

One example only was obtained of this species, which is easily recognisable by its small size and black coloration, the thorax with a large rufous patch on each side. **P. mexicanus*, Pic [L'Echange, xvii, p. 95 (1901)], must be an allied form. It is described thus: "Allongé, subparallèle, peu brillant, revêtu d'une très fine pubescence grisâtre, entièrement noir y compris les antennes et les pattes, à l'exception seulement du labre et de la base des mandibules qui sont roussâtres; tête assez petite; antennes progressivement dentée à partir du 4^{me} article; prothorax court, fortement dilaté-arrondi en arrière, explané sur les côtes; élytres à peu près de la largeur du prothorax, très longs, faiblement striés. Long. 4-5 mill.—MEXIQUE, 'Sierra de Durango' (*coll. Pic*)."

CIOIDAE.

Cis.

Cis, Latreille, Préc. Car. Gen. Ins. p. 90 (1796); Gorham, Biol. Centr.-Am., Coleopt. iii, 2, pp. 220 (1883), 357 (1886).

Gorham enumerated sixteen species of this genus from Central America, three of which he did not name. One other is here added, received some time after his work was published.

**Cis M-nigrum*, n. sp.

Elongate, convex, shining; piceous, the elytra fusco-testaceous, with a common sharply-angulate, post-median, nigro-piceous fascia, the labrum, base of antennae, and legs testaceous; the entire upper surface densely, somewhat coarsely punctate, each puncture (seen under the microscope) bearing an excessively minute squamiform hair. Head broad, unarmed, the transverse, arcuate, inter-antennal groove deep, the epistoma very short, truncate in front; eyes small; antennae 10-jointed, 3 elongate, 4-7 small, the 3-jointed club moderately stout. Thorax ample, broader than long, longitudinally convex, a little narrower at the base than at the apex, rounded at the sides, the margins narrowly explanate and very prominent. Elytra about twice as long as the thorax, narrowed at the base and there considerably narrower than the latter.

Length 2½, breadth 1 mm.

TRANS. ENT. SOC. LOND. 1913.—PART I. (JUNE) M

Hab. MEXICO, Omilteme in Guerrero, 8,000 feet (*H. H. Smith*).

One specimen. This is so different from any of the previously known Mexican species of the genus that it is worthy of a name. The common angulate elytral fascia is somewhat M-shaped, as seen from above. *C. M-nigrum* has the general shape of the European *C. alni*. The Hawaiian *C. signatus*, Perkins, has somewhat similar elytral markings.

TENEBRIONIDAE.

CORTICEUS.

Corticeus, Piller and Mitterpacher, Iter per Pos. Slav. p. 87 (1783); Champion, Biol. Centr.-Am., Coleopt. iv, 1, p. 171 (1886).

Hypophloeus, Fabricius, in Schneider's Neu Mag. Ent. i, 1, p. 24 (1791).

Six species of this genus were recorded by myself from Central America in 1886. The one now added approaches *C. mexicanus*, Reitt.

**Corticeus sordidus*, n. sp.

Elongate, narrow, cylindrical, shining, testaceous, the eyes black. Head densely, finely punctate, the transverse frontal groove deep, the eyes very large and coarsely faceted; antennae with joints 6-11 very stout, 6-10 strongly transverse. Thorax convex, longer than broad, finely margined at the sides and base, the sides very feebly rounded and constricted immediately before the hind angles, the latter just visible; closely, minutely punctate. Elytra elongate, parallel, about as wide as the thorax; alutaceous, with rows of fine punctures, the interstices flat, each with a single irregular row of scattered punctures, which are very little smaller than those of the striae.

Length $3\frac{3}{4}$, breadth $\frac{7}{8}$ mm.

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

This small species is very different from any of the other described Central American forms, and is more like some of the Palaearctic members of the genus (*C. linearis*, etc.) found in pines. The single example obtained was placed by mistake amongst our unnamed *Clavicornia*, and was thus overlooked.

LORELUS.

Lorelus, Sharp, Ent. Monthly Mag. xiii, p. 76 (1876).

The typical species of this genus were obtained in New Zealand, an Antillean form, *L. brevicornis*, Ch., having subsequently been added by myself (Trans. Ent. Soc. Lond. 1896, p. 14). Seven other tropical American representatives are now known to me; two of these, *L. rugifrons* and *L. trapeziderus*, approach *Lorelopsis* (type *L. pilosus*, Ch., from St. Vincent, Antilles), but they have a less developed penultimate tarsal joint. *L. priscus* has been found on tree ferns; *L. brevicornis* in rotten cacao-husks and stems of *Cissus*. It is probable that some of them are carried about in commercial products. The American forms may be tabulated thus:—

Thorax subquadrate, a little narrowed posteriorly; elytra parallel.

Thorax sharply margined laterally; body glabrous above.

Posterior tibiae of ♂ bowed *curvipes*, n. sp.

Posterior tibiae of ♂ simple *curticollis*, n. sp.

Thorax more finely margined laterally.

Species larger; body glabrous above.

Body somewhat depressed.

Eyes smaller; thoracic punctuation coarser; elytra more elongate . [brevicornis, Ch.]

Eyes larger; thoracic punctuation finer; elytra shorter *breviusculus*, n. sp.

Body more convex *angustulus*, n. sp.

Species very small, narrow; body pubescent above *exilis*, n. sp.

Thorax trapezoidal, much narrowed behind; elytra widened posteriorly; body pilose above.

Head rugosely punctate; antennae stouter; penultimate tarsal joint small, feebly lobed *rugifrons*, n. sp.

Head closely punctate; antennae not so stout, with more abrupt club; penultimate tarsal joint larger, lobed . . . *trapeziderus*, n. sp.

**Lorelus curvipes*, n. sp. (Plate IV, fig. 10, ♂.)

Moderately elongate, rather convex, shining, glabrous; nigropiceous, the elytra fusco-castaneous, the antennae, palpi, legs, and

under surface in part, ferruginous; the upper surface closely, confusedly punctate, the punctures on the elytra much coarser than those on the head and thorax. Head transversely grooved in front; antennae moderately stout, reaching to a little beyond the base of the thorax, the last three joints abruptly widened. Thorax convex, transverse, slightly narrowed posteriorly, sharply margined and feebly crenulate at the sides, and also margined at the base, the anterior angles obtuse, the hind angles rectangular. Elytra a little wider than the thorax, moderately long, parallel in their basal half. Beneath very finely, the head and prosternum more coarsely, punctate. Legs short; posterior femora distinctly hollowed on the lower side near the apex; posterior tibiae in ♂ sinuate at the base and arcuately bowed thence to the apex.

Length 3 mm. (♂ ♀.)

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

Two males and two females. Distinguishable from all its allies by the peculiarly formed posterior tibiae of the male. The posterior femora appear to be feebly dentate, owing to the slight hollowing of the lower surface near the tip.

**Lorelus curticollis*, n. sp.

Moderately elongate, somewhat depressed, feebly shining, glabrous; black or piceous, with the elytra wholly or in part (leaving a broad common dark sutural stripe) castaneous, and the antennae, palpi, and legs ferruginous, the legs in one example infusate; the upper surface closely, confusedly punctate; the punctures coarse on the elytra and much finer on the head and thorax. Antennae rather stout, reaching to a little beyond the base of the thorax, the last three joints abruptly widened. Eyes rather small. Thorax transversely subquadrate, much broader than long, distinctly narrowed towards the base, sharply margined and crenulate at the sides, and also margined at the base, the hind angles subrectangular, the surface alutaceous. Elytra considerably wider than the thorax, parallel in their basal half, somewhat flattened on the disc. Beneath very finely, the head and prosternum more coarsely, punctate; prosternal process narrow. Legs short.

Length 3-4 $\frac{1}{5}$ mm.

Hab. MEXICO, Cordova (*Sallé*); GUATEMALA, El Tumbador, Las Mercedes, Cerro Zunil (*Champion*); PANAMA, Volcan de Chiriqui (*Champion*).

Twelve examples, doubtless including both sexes, varying a good deal in size and colour. Very like *L. curvipes*, and

at first confused by me with that species; but differing from it in the less convex, duller, and more finely punctured thorax, the less convex elytra, and the simple posterior tibiae of the male. The thorax is more sharply margined at the sides than in *L. brevicornis*. The legs are shorter than in the New Zealand *L. priscus*, *crassicornis*, and *pubescens*. In the Fry collection at the British Museum there are two specimens that apparently belong to *L. curticolis*—one labelled "Pacific, N. Cal." (? = New Caledonia), and the other (wholly rufo-testaceous in colour) "Brazil, Parana."

**Lorelus brevisculus*, n. sp.

Moderately elongate, shining, glabrous, uniformly ferruginous; the upper surface closely, confusedly punctate, the punctures on the head and thorax rather fine, those on the elytra much coarser. Head rather convex, without definite groove in front; eyes large, transverse, somewhat prominent; antennae reaching the base of the thorax, joints 6–8 transverse, 8–11 much broader and stouter, together forming an abrupt club. Thorax rather convex, strongly transverse, narrowing posteriorly, narrowly margined at the sides and also distinctly margined at the base, the hind angles rectangular. Elytra comparatively short, a little wider than the thorax, subparallel in their basal half. Legs short.

Length $2\frac{1}{2}$ mm. (? ♀.)

Hab. PANAMA, Bugaba (*Champion*).

Two specimens. Closely related to *L. curticolis*, uniformly ferruginous in colour, the eyes larger, the thorax more finely punctate, the elytra less elongate, the surface a little more shining.

**Lorelus angustulus*, n. sp.

Elongate, narrow, rather convex, shining, glabrous, varying in colour from obscure castaneous with the humeri rufescent to entirely ferruginous; the upper surface closely punctate, the punctures on the elytra very coarse and confusedly arranged, those on the head and thorax finer. Head truncate and margined in front; antennae reaching to a little beyond the humeri, rather stout, the last three joints abruptly widened; eyes rather small. Thorax subquadrate, a little narrower at the base than at the apex, the sides finely margined and obsoletely crenulate, the hind angles sharp, the anterior angles obtuse, the base finely margined. Elytra elongate, much wider

than the thorax, parallel in their basal half. Beneath coarsely and closely, the ventral segments sparsely and finely, punctate; prosternal process narrow.

Length $2\frac{1}{3}$ –3 mm. (? ♂.)

Hab. GUATEMALA, Livingston, Atlantic coast (*Barber and Schwarz, in U.S. Nat. Mus.*).

Four specimens. Two females found by Mr. Schwarz at Tampico, in N.E. Mexico, may belong to the same species; they are larger and broader than the others, and have the epistoma immarginate in front and the prosternal process broader. More convex than the Antillean *L. brevicornis*, Ch., the thorax subquadrate (♂), the eyes a little smaller. The simple posterior tibiae, etc., separate *L. angustulus* from *L. curvipes*. This insect might easily be mistaken for a Cryptophagid.

**Lorelus exilis*, n. sp. (Plate IV, fig. 11.)

Elongate, very narrow, depressed, shining, finely pubescent; varying in colour from piceous with the elytra castaneous to wholly rufo-testaceous; the upper surface densely, confusedly punctate, the punctures on the elytra a little coarser than those on the head and thorax. Head deeply transversely grooved behind the epistoma, the groove reaching the antennary orbits (in one specimen reduced to two lateral impressions); eyes small, rather prominent; antennae barely reaching the base of the thorax, joints 4–8 strongly transverse, 9–11 moderately widened. Thorax as long as broad, subquadrate, very narrowly margined, the sides obliquely constricted before the rectangular hind angles; the disc with a shallow, transverse, arcuate depression before the base, on either side of which a basal fovea is just traceable. Elytra elongate, a little wider than the thorax, subparallel in ♂, broader and slightly widened posteriorly in ♀. Legs very short.

Length $1\frac{7}{8}$ – $2\frac{1}{4}$ mm.

Hab. GUATEMALA, El Tumbador and Las Mercedes, Pacific slope (*Champion*), Trece Aguas in Alta Vera Paz (*Barber and Schwarz, in U.S. Nat. Mus.*).

Six examples, assumed to include both sexes. A very small, narrow, pubescent form, with the head transversely grooved across the front, the eyes small, and the thorax oblongo-quadrate. In the single specimen from Vera Paz the transverse frontal groove is interrupted at the middle.

[*Lorelus rugifrons*, n. sp.]

Elongate, shining, obscure ferruginous, the legs testaceous, clothed with long, fine, yellow hairs; the upper surface closely, confusedly punctate, the punctures on the elytra much coarser than those on the thorax, those on the head confluent. Head shallowly, transversely grooved behind the epistoma, the antennary orbits feebly developed; eyes transverse, rather small; antennae stout, barely reaching the base of the thorax, joint 3 longer and stouter than 2, 4-8 transverse, 9-11 moderately thickened. Thorax convex, trapezoidal, rather small, very narrowly margined, the anterior angles obtuse, the hind angles rectangular. Elytra moderately elongate, depressed, much wider than the thorax, widening posteriorly. Legs short.

Length 4 mm. (? ♀.)

Hab. BRAZIL, Rio de Janeiro (*coll. Fry, in Mus. Brit.*).

Two specimens. Distinguishable by the rugose head; the small antennary orbits; the stout antennae, with thickened third joint and moderately dilated club; the trapezoidal, convex, feebly margined thorax; and the pubescent, uniformly coloured surface. *L. rugifrons* approaches *Lorelopsis pilosus*, but it has the thorax much more widened anteriorly, the antennae stouter, and the penultimate joint of the tarsi smaller.]

**Lorelus trapeziderus*, n. sp. (Plate IV, fig. 12, ♀.)

Elongate, depressed, varying in colour from piceous to testaceous, shining, clothed with long fine yellow hairs; the upper surface closely confusedly punctate, the punctures on the elytra coarser than those on the head and thorax. Head transversely grooved in front, the antennary orbits well developed; eyes transverse; antennae moderately stout, joints 2 and 3 equal in length, 4-8 short, 9-11 abruptly widened. Thorax trapezoidal, nearly as long as broad, truncate in front, sharply margined at the sides and also feebly margined at the base, the anterior angles prominent, the hind angles rectangular. Elytra moderately elongate, a little wider than the thorax, widening posteriorly. Legs short; penultimate tarsal joint somewhat strongly lobed.

Length $3\frac{3}{4}$ -4 mm. (♀.)

Hab. GUATEMALA, Senahu in Alta Vera Paz (*Champion*), Trece Aguas (*Barber and Schwarz, in U.S. Nat. Mus.*).

Eight specimens. Differs from *L. rugifrons* in its less rugose, broader head; the prominent antennary orbits;

the more abrupt club of the antennae, with less thickened basal joints; the sharply margined, larger thorax; and the more strongly lobed penultimate tarsal joint, the insect in this respect more nearly approaching *Lorelopsis*.

OTHNIIDAE.

OTHNIUS.

Othnius, Leconte, Class. Col. N. Am., p. 103 (1861); Horn, Trans. Am. Ent. Soc. ii, p. 132 (1868); Champion, Biol. Centr.-Am., Coleopt. iv, 1, p. 466 (1888).

Six species of this genus from Central America were known to me in 1888; two others, one from Mexico, have since been found in the Fry collection.

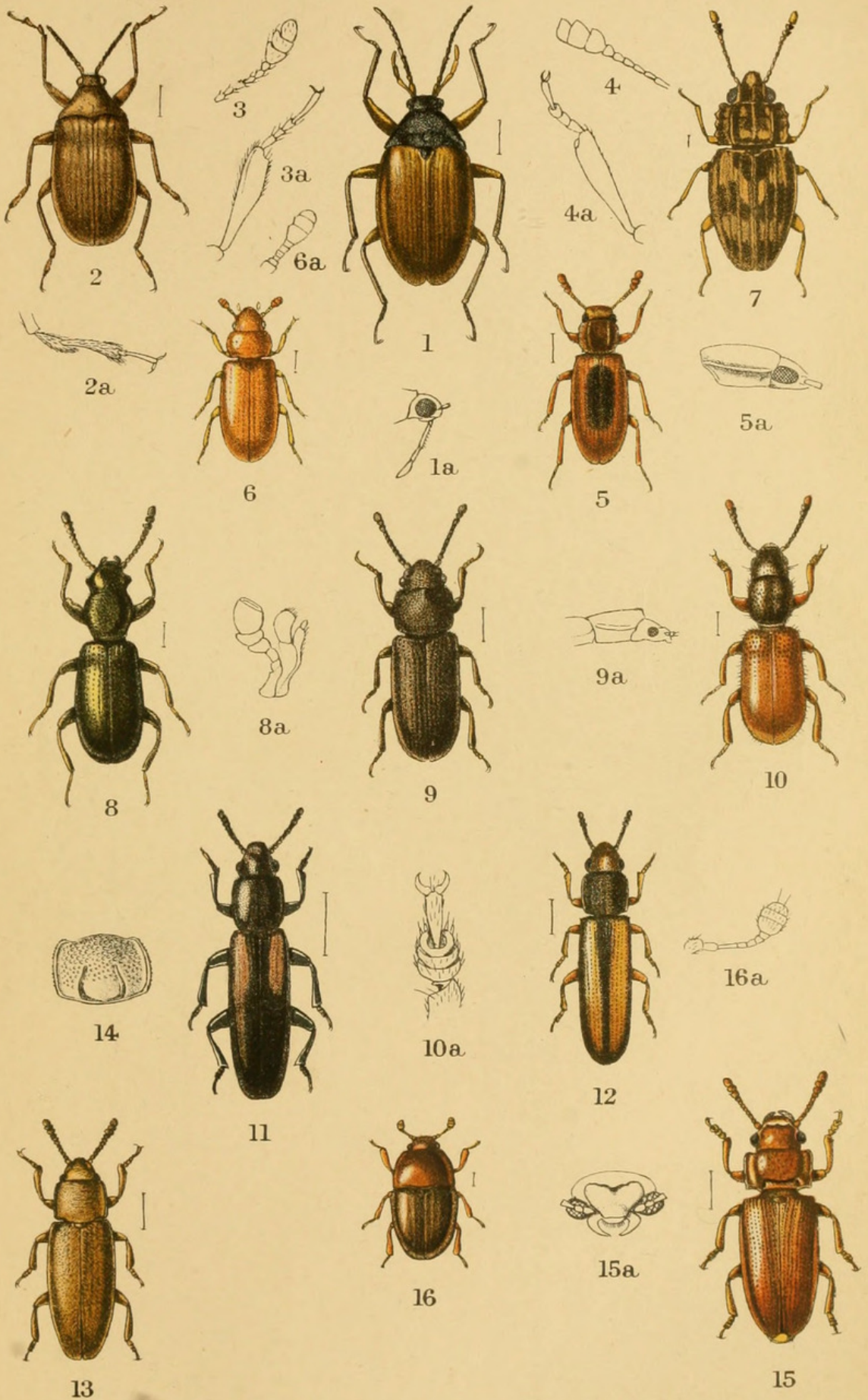
**Othnius immaculatus*, n. sp. (Plate IV, fig. 13, ♀.)

Elongate, depressed, shining, aeneo-piceous, the elytra brown, the antennae, palpi, and tarsi, and sometimes the under surface also, ferruginous, the femora and tibiae reddish-brown; thickly clothed with brownish hairs. Head, thorax, and elytra densely, rather coarsely punctate; antennae (♂) reaching the base of the thorax, and with the three widened terminal joints distinctly longer than broad, (♀) shorter and with the tenth joint transverse; head with the eyes slightly broader than (♂), or as broad as (♀), the thorax, the eyes very large; thorax a little broader than long, about equal in width at the base and apex, the sides rounded and unarmed, the marginal carina becoming obsolete towards the apex, the hind angles subrectangular; elytra long, wider than the thorax, subparallel in their basal half, the base depressed within the humeri. Beneath densely, minutely punctate, the coriaceous ventral sutures 1-4 very conspicuous.

Length $5\frac{1}{5}$ - $6\frac{1}{5}$, breadth $1\frac{1}{2}$ -2 mm. (♂ ♀.)

Hab. MEXICO (*Truqui*, in *Mus. Brit.*, ex coll. *Fry*).

Four specimens, the two with broader head and longer antennae (both injured by pinning) assumed to be males. This species and the following, *O. planatus*, differ from the known Central American forms in having the sides of the thorax completely unarmed and the upper surface of the body immaculate. *O. umbrosus*, Lec., from Nebraska, seems to be similarly coloured, but it is said to have the sides of the thorax feebly serrate.



Edwin Wilson del. et lith.



Champion, G. C. 1913. "III. Notes on various Central American Coleoptera, with descriptions of new genera and species." *Transactions of the Entomological Society of London* 61, 58–169.

<https://doi.org/10.1111/j.1365-2311.1913.tb02781.x>.

View This Item Online: <https://www.biodiversitylibrary.org/item/51004>

DOI: <https://doi.org/10.1111/j.1365-2311.1913.tb02781.x>

Permalink: <https://www.biodiversitylibrary.org/partpdf/5249>

Holding Institution

Smithsonian Libraries and Archives

Sponsored by

Smithsonian

Copyright & Reuse

Copyright Status: Public domain. The BHL considers that this work is no longer under copyright protection.

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.