BIOLOGIA CENTRALI-AMERICANA.

INSECTA.


BY

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1895–1907.
INTRODUCTION.

This Volume is devoted to the enumeration of three families of Rhynchophora—the Brenthisæ, Scolytidæ, and Anthribidæ,—which have been dealt with by Dr. D. Sharp, Mr. W. F. H. Blandford, and Dr. K. Jordan respectively. These families are all well-represented in Central America, as noted by the authors in their introductory remarks (pp. 1, 2, 81–88, 299, 300), the total number of species being as follows:—Brenthisæ 140, with 104 new; Scolytidæ 271, with 181 new; and Anthribidæ 193, with 148 new. One species of Brenthisæ and ten of Scolytidæ have since been added by other authors, and a list of these is appended at the end of the Volume. Of the fourteen Plates, three are devoted to Brenthisæ, six to Scolytidæ, and five to Anthribidæ: the first nine have been drawn by Mr. E. Wilson, of Cambridge, and the remainder by Mr. H. Knight, these latter being coloured.

_Ed._

_February 1907._
BIOLOGIA CENTRALI-AMERICANA.

ZOLOGIA.

Class INSECTA.

Order COLEOPTERA.

Tribe RHYNCHOPHORA.

Fam. BRENTHIDÆ.

This family of Rhynchophora consists at present of about 500 species. About 125 have been found in our province. The very large proportion of forms found in Central America is due to the fact that the family is almost peculiar to the forests of the tropics, and that few species are known from Africa. Hence the larger part by far of the known species have been procured from the Neotropical region, and from Madagascar and the Indo-Malay regions. A comparison of the number of our species with that found in any one of the above regions would probably show no great disproportion to exist.

The Brenthidae include many very strange forms, conspicuous on account of their long narrow shape. They are also remarkable for the great disparity between the sexes. Indeed it is probable that the neglect of these insects by entomologists is due to this, combined with the almost complete absence of species from the European and North-American faunas. The classification in vogue is based entirely on the males, and is far from satisfactory. Hence nothing of any value can be said as to the geographical distribution of the genera and groups of genera. Most of the species of our region are apparently distinct from those of South America. The majority of the Brenthidae described from the South-American continent are, however, from Brazil; so that it is possible that when the species of the northern parts of that continent are better known many of the Central-American forms may be found there. Some of the species of Brenthidae are already known to have a very extensive range, Brenthus

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BB
RHYNCHOPHORA.

anchorago being found from Rio Janeiro to Mexico. This, however, is, I think, an exceptional case, as I have examined a small series of Brentidæ collected by Dr. Sahlberg near Rio Janeiro, and find that two or three species are all that can be considered identical with Central-American forms.

Subfam. BRENTHINÆ.

Group TAPHRODERINA.

TAPHRODERES.

Taphroderes, Schönherr, Disp. Meth. p. 72 (1826); Gen. Curc. i. p. 366 (1833).

This genus is peculiar to Tropical America, whence seven species have at present been described. The species are, however, no doubt numerous; they are very similar in appearance when the upperside only is looked at, but the lower surface of the body presents characters by which the species may be distinguished with ease. The sections I here adopt for the discrimination of our species will probably not suffice for an arrangement of the whole genus, as I have a Taphroderes from Petropolis that, as regards the structure of the metasternal crest, differs from all the species of our region. The terms I have used in describing the under surface are as follows:—“Abdominal sulcus,” for the groove running along the abdominal segments; it is more or less deeply foveolate at the base, the basal portion being sometimes all that exists: “metasternal groove,” for the groove running along the middle of the met sternum, and extending nearly or quite to a transverse depression in front, the “metasternal fossa”; this fossa is bounded just behind the middle coxa by a process I call the “metasternal crest.” The “poststernum” means the part of the prothorax behind the front coxa; the “prosternum,” the part in front thereof. There is very little difference externally between the sexes of this genus.

In describing the sculpture of the elytra I have throughout treated the sutural interstice as being the first interstice. Schönherr and others have spoken of the second interstice as being the first, calling my first interstice the sutural interstice. This course, however, renders the phraseology of descriptions more complex, without, so far as I see, offering any real advantage.

I have called the part of the rostrum anterior to the insertion of the antennæ the “prorostrum,” and the part between the antennæ and the eyes the “metarostrum.”

The Taphroderides are probably all predaceous insects: their peculiar structure allows the legs to be packed close to the body when the insect enters a burrow in wood in search of its prey.
§ 1. *Metasternum sulcata; metasternal crest bi-emarginate, being toothed in the middle.*

1. **Taphroderes rectus**, sp. n. (Tab. I. fig. 1.)

Angustus, nigerrimus; elytris lineis duabus flavis, rectis et in medio late interruptis; apicem versus vix punctulatis.

Long. 10–14½, lat. 1 millim.

_Hab._ Panama, Volcan de Chiriqui 2500 to 4000 feet (*Champion)._

Antennae black, slender; club well marked, elongate; joints 2–8 moniliform, the eighth as long as broad, the ninth joint much longer and considerably broader than the eighth. Head elongate, rather narrow; eyes placed just halfway between the front of the thorax and the insertion of the antennæ. Thorax rather deeply channelled in front, finely so behind, black, very shining, finely and very distinctly punctulate. Elytra slender, black, with a pair of elongate, exactly parallel, yellow lines extending from the base to near the middle; beyond the middle they again appear as quite parallel shorter marks; tip quite black; the common apical emargination or arch deep, narrow. Apical segments of abdomen rufescent. Abdominal sulcus broad behind, with a lateral porous projection on each side, the two being but little approximate, so that they render the exit from the groove only slightly narrower; anterior part of sulcus narrow, extremely deep, its sides rather abruptly distinguished from the sides of the posterior part of the groove. Metasternal groove deep, in front broad and very deep, the anterior limit evidently tridentate. Prosternum deeply sulcate, the groove extending to the tip; poststernum rather broadly foveolate.

There is but little difference between the sexes; the male has the terminal ventral plate hairy, and the apical arch of the elytra rather broader and less angular.

Twelve specimens, showing very little variety, except in size.

2. **Taphroderes mexicanus**, sp. n.

Angustus, nigerrimus; elytris lineis duabus flavis in medio interruptis, quorum partibus anterioribus haud omnino parallelis, sed posterioribus paululum divergentibus.

Long. 6½–13 millim.

_Hab._ Mexico, Toxpam (*Sallé*), Jalapa (*Höge)._  

_Var._ Major, robustior, pronoto medio rufescence.

Long. 15 millim.

_Hab._ Guatemala, Tamahu in Vera Paz (*Champion)._  

Very similar to *T. rectus*, but easily distinguished, as regards the upper surface, by the fact that the anterior portions of the yellow lines are not parallel, so that if they were continued they would fall outside the posterior portions. The prothorax is not canalicate behind. On the under surface the abdominal sulcus is narrower behind,
so that the two porous projections have only a narrow channel between them. The metasternal fossa is shorter; the post- sternum not definitely foveolate.

Six specimens; of the variety I have seen only one individual.

3. Taphroderes tostus, sp. n.
Niger, pronoto posterius rufescente, ibique opaco; elytris lineis duabus rectis flavis in medio late interruptis.
Long. 15 millim.

Hab. Guatemala, Cerro Zunil (Champion).

We have received only one specimen of this species, which appears to be distinct from both T. rectus and T. mexicanus, though very closely allied. In the sulcation of the under surface it agrees with the latter species, but by the form of the yellow lines on the elytra it agrees better with T. rectus; from both species T. tostus may be readily enough distinguished by the dull red colour of the posterior part of the thorax, and by the coarse punctures which exist on the middle of this opaque part of the surface.

4. Taphroderes apicalis, sp. n.
Angustus, niger, capite thoraceque medio rufescentibus; elytris basi lineis duabus flavis, apice flavo quadri-plagiatis, apicibus subexplanatis.
Long. 5½-11 millim.

Hab. Nicaragua, Chontales (Belt, Janson); Panama, Bugaba, Volcan de Chiriqui (Champion).

Very closely allied to T. rectus, but readily distinguished by the colour of the upper surface and by a slight difference in the form of the apices of the elytra; it is, too, a somewhat less elongate insect. Head vaguely rufescent or picescent; thorax rufescent along the middle, very distinctly so in front. Elytra black, marked on the basal part with two elongate, nearly parallel, yellow marks; just behind the middle with two yellow marks, each broad in front, narrower behind, and at the apex with a smaller mark somewhat prolonged externally; the apices forming conjointly an arch not at all angulate in the middle. Under surface similar to that of T. rectus, but with the abdominal sulcus less broad behind; the middle tooth in front of metasternal fossa very indistinct. The poststernum foveolate.

Seven specimens.

§ 2. Metasternum sulcate; metasternal crest simply curved, crescent-shaped.

5. Taphroderes beltianus, sp. n. (Tab. I. fig. 2.)
Robustior, nigricans, hinc inde rufescens; elytris guttis flavis ornatis; abdominis sulco posterius profundus; metasterno fossa, post crista, para profundis.
Long. 9-19 millim.

Hab. Nicaragua (Sallé), Chontales (Belt, Janson); Panama, Bugaba, Volcan de Chiriqui (Champion).
Antennae broad, all the joints except the first and last transverse, the ninth slightly longer but scarcely broader than the eighth. Thorax very elongate, canaliculate in front, and with a finer short channel at the base. Elytra with three short yellow marks, linearly arranged near the suture, each one extending in a vague manner outwards; the tip broadly reddish yellow. Apical ventral segments not punctate. Abdominal sulcus broad and deep, quite open behind, the distinct porous prominences being widely separated. Metasternal groove broad, but becoming obsolete in front, so that it does not attain the scarcely perceptible metasternal fossa; the crest in front of this latter very definite, but not strongly prominent in consequence of the slight depression of the fossa behind it. Prosternum sulcate; the sulcus not extending to the tip; poststernum foveolate. Legs stout, very much compressed.

Twelve specimens.

6. Taphroderes ventralis, sp. n. (Tab. I. fig. 3, under surface.)
Niger, politus, hinc inde vago rufescens; elytris guttis sex flavescentibus parum distincte ornatis; abdominis sulco postterius obsolete; metasterno fossa, post cristam, profunda.
Long. 10–16 millim.

Hab. Panama, Bugaba, Volcan de Chiriqui (Champion).

This insect is extremely similar to T. beltianus on the upper surface, but is a little more slender; the antennae are not so thick near the base; the thorax is polished in front, and has no trace of the obsolete lateral margin that is always present to some extent in T. beltianus; and the yellow marks on the elytra are less elongate. The under surface is different in the two species, the structure of the abdomen in T. ventralis being very curious: the posterior or vertical face of the elongate part is quite perpendicular and is unusually large, and there is a remarkable definite division between the horizontal and the perpendicular portions; the abdominal sulcus is very deep and broad in front, but becomes obsolete behind, and there are no porous spaces, but in their place are some small projections—not amounting to tubercles—on the prominent edge between the horizontal and perpendicular parts of the segment. The metasternal groove is definite and ends in front in the deep sharply defined transverse depression behind the metasternal crest. The poststernum is broadly sulcate; the prosternum vaguely sulcate in front, more deeply so behind.

Three specimens.

§ 3. Metasternum not sulcate; metasternal crest obsolete.

7. Taphroderes oscillator, sp. n. (Tab. I. fig. 4, apices of the elytra of ♀.)
Angustus, niger, hinc inde piceo-rufescens; elytris guttis vagis quatuor flavis, angulis posterioribus externis bidentiflexis, prolongatis.
Long. 8 millim.

Moe. Antennis articulis 3"–6" barbatis, quarto sextoque quam contiguis paulo lateribus.
RHYNCHOPHORA.

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

Antennæ rather slender, with elongate club, the ninth joint twice as long as the eighth. Head rather broad, short. Pronotum canalicate in front, scarcely so behind. Elytra very narrow, each with a yellow spot just before, and another behind the middle; the apex and the tip of the abdomen either black or rufescent; the apices are somewhat prolonged and explanate, so as to form a more distinct notch than is found in our other species. Abdominal sulcus narrow, in front very deep. Metasternum behind indistinctly channelled; in front with a scarcely elevated transverse crescent. Prosternum not sulcate. First joint of hind feet very long, as long as the tibia.

Three examples were found of this very distinct species.

**ABACTRUS, gen. nov.**

Characters fere ut in genero *Taphrocderes*, sed abdomine breviore, segmentis 1° et 2° simul sumtis femoribus posterioribus haud longioribus.

The two species for which I propose this genus are not connected by intermediate forms with *Taphrocderes*; as the form of the abdomen and its relation to the hind femora is of considerable importance in these predaceous Brenthidae, I think the genus will prove a valid one. The second species is Brazilian *.

1. **Abactrus championi**, sp. n. (Tab. I. fig. 5.)
Nigerrimus, nitidus, supra impunctatus; elytris apice leviter emarginato.
Long. 6 millim.

*Hab.* Panama, Bugaba (Champion).

Antennæ rather long, loosely articulated; seventh and eighth joints wider than the preceding, ninth and tenth subquadrate, eleventh not quite so long as the preceding two together. Rostrum broad and short, dilated towards the tip. Thorax without channel or punctuation, almost as long as the elytra. Elytra without punctuation; with a feeble common emargination at the tip. Apical ventral segments not punctate. Abdomen not sulcate, the hind margin of the prominent part porous on the middle; the suture between the two elongate segments distinct, the base deeply foveolate. Metasternum not sulcate, without crest or fossa; mesosternum polished and impunctate

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*Abactrus sahlbergi*, sp. n.
Castingus, nitidus, supra piceus, elytris vago testaceo-fasciatis; abdomine basi profunde foveolato.
Long. 7 millim.

Antennæ short and stout, none of the joints longer than broad, 4–8 each distinctly transverse, 9, 10 subquadrate, 11th as long as the preceding two together, acuminate. Thorax almost canalicate. Elytra with two vague fuscine and the tip yellowish; apical emargination scarcely present. Mesosternum coarsely punctate. Poststernum canalicate; prosternum not canalicate.

*Hab.* Brazil, Santa Rita, August 1850 (Sahlberg: no. 455 of his collections).
in front of the coxa. Prosternum not sulcate. Tarsi strongly compressed, broad in one direction.

Only one individual was found of this interesting little insect; it is no doubt of the male sex; the antennæ have much setosity on the lower surface.

Group **STEREODERMINA**.

The Trachelizides of Lacordaire should be divided into two groups: one, represented by *Stereodermus*, has the anterior tibiae more or less excised, and the hind coxae more than usually distant from one another; while the other, including *Trachelizus*, has the anterior tibiae unnotched, and the hind coxae separated by only the width usual in the Brinthidae. The group Stereodermina is here proposed for the first-mentioned forms. On the other hand, Lacordaire’s tribe Hephebocerides, consisting of two genera, *Ionthocerus* and *Hephebocerus*, should be suppressed; *Ionthocerus* being placed in Stereodermina, *Hephebocerus* in Trachelizina.

**STEREODERMUS.**


This genus of small Brinthidae consists of one Mexican, one Antillean, and one South-American species, in addition to another recently added by Dr. Senna from the island of Engano in the Austro-Malayan province.

I now describe sixteen species from our region. I have several Brazilian representatives of the genus in my collection, all of which, except one, are distinct from our species and are undescribed. The sexes in *Stereodermus* have not yet been satisfactorily distinguished. I find that in certain individuals there is a slight mucronation of the internal faces of the apices of the middle and hind tibiae. This is probably indicative of the male sex; and if I am right in this conjecture we may conclude that the sexes are extremely similar, but that the male is distinguished by the character mentioned, by a different sculpture of the last ventral plate, and by the prorostrum, or anterior part of the rostrum, being just perceptibly less elongate than it is in the other sex.

The *Stereodermi* seem to be rather rare insects, as of our sixteen species only two are represented by a good series of examples.

I arrange our species in two groups, distinguished as follows:—

<table>
<thead>
<tr>
<th>Description</th>
<th>Species</th>
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<tbody>
<tr>
<td>Rostrum short and broad, prorostrum not greatly longer than broad. (Tab. I. fig. 11.)</td>
<td>1-14</td>
</tr>
<tr>
<td>Greater portion of under surface of head dull; front tibiae very deeply notched. (Tab. I. fig. 6 a.)</td>
<td>1-6</td>
</tr>
<tr>
<td>Under surface of head entirely, or in greater part, shining; tibial notch more or less shallow</td>
<td>7-14</td>
</tr>
<tr>
<td>Prorostrum longer and more slender, much longer than broad.</td>
<td>15, 16</td>
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</tbody>
</table>
1. **Stereodermus pygmaeus.**


If I am right in treating all the individuals before me as one species, *S. pygmaeus* is variable as regards size, colour, sculpture, and some more important characters, such as the extension of the channel on the head and the form and sculpture of the terminal plate of the venter. I have not been able to discriminate the sexes with certainty, and I am therefore at present disinclined to distinguish more than one species. The descriptions extant are by no means sufficiently good to enable one to recognize exactly the insect that was before the describers' eyes; but as all those who have dealt with the species have had Mexican examples before them, there is little doubt that the name should be ascribed to the only common Mexican species of the genus.

The length varies from 4 to 7 millim.; the channel on the rostrum is sometimes abbreviated between the eyes, in other cases it is prolonged, as a more or less fine channel, to the back of the head. The eyes are moderately large and extend very nearly to the back of the head. The thorax bears a few very distant and minute punctures. The elytra have the sutural interstice shining; the second interstice is shining, but extends only about one-fourth of the length; the third interstice is depressed, fine, placed at the bottom of a groove, and is usually dull but sometimes shining; the fourth interstice is not carinate, and the punctures by which it is separated from the third are not easily distinguished, outside it runs a series of punctures that are placed on the most elevated part of the wing-case; the fifth interstice starts from the shoulder but becomes quite indistinct, to reappear again at the apex as a short carina; outside this the surface is shining and bears coarse punctures, but the longitudinal raised interstices are abbreviate. The terminal ventral plate is highly polished and is sometimes free from punctures, while in other cases it has some very large punctures, variable in number; the penultimate ventral plate is either truncate or rounded behind.

Some of the following species are very similar to certain of the varieties of *S. pygmaeus*, but I think they are really distinct; indeed, I shall not be surprised if it prove that there are more than one species amongst the specimens I have called *S. pygmaeus*. Dr. Senna is now of opinion that his *S. brevirostris* is not truly distinct from *S. pygmaeus*. His type represents the ordinary form of the species. Some examples
from Mexico may possibly be distinct from S. pygmaeus, which, however, appears to be the only Stereodermus at all common there. From Panama we have received only two examples.

2. Stereodermus longiceps, sp. n. (Tab. I. figg. 6; 6 a, front tibia.)
Angustus, rufo-testaceus, nitidus; capite post occulso longiore; prothorace impunctato, late sulcato; elytris fortiter punctatis, interstitii tertiae discrete nitido.
Long. 5½–7½ millim.

Hab. Guatémala, Las Mercedes (Champion); Panamá, Volcan de Chiriquí (Champion).

Extremely similar to the more robust and shining varieties of S. pygmaeus, but with the head rather longer behind the eyes.

Channel of rostrum and head simple, the lateral ridges that limit it shining, not interrupted. Thorax distinctly narrowed towards the front, very shining, with scarcely any trace of punctation. Elytra with the sculpture very similar to that of S. pygmaeus, but the row of punctures on the elevated fifth interstice larger, the third interstice more distinct and not in the least opaque. Front tibiae very broad, the processes forming the notch large. Head opaque beneath.

Four examples. The unique specimen from Las Mercedes is a variety of very small size.

3. Stereodermus latirostris, sp. n.
Robustus, rufus, fere opacus, prothorace disco nitido; rostro carinulis ante-ocularibus opaque, crassiusculis; elytris param discrete punctatis, interstitii tertiae lato, opaco, quinto carinate, nitido.
Long. 5½–8 millim.

Hab. Guatémala, Teleman (Champion); Nicaragua, Chontales (Janson); Panamá, Volcan de Chiriquí (Champion).

Antennæ long and thick. Rostrum broad; the insertion of the antennæ rather far from the eyes, the space between the two dull, the channel not divided, rather fine on the posterior part. Vertex shining, not divided, sparingly punctate, the posterior angles prominent. Thorax deeply constricted near the front, the channel broad, the sides dull, sparingly setose, the disc shining, almost impunctate. Elytra rather broad, the sutural interstice shining, the others dull, except that the fifth, which forms the most elevated part of the elytron, is a little shining; punctures moderately large, but subobsolete; the carinula-like interstices on the apex much less distinct than usual. Front tibiae very broad, their notch very large and deep. Under surface of the head dull to as far forwards as the insertion of the antennæ. Ventral segments opaque.

A series of about forty individuals was obtained of this species; most of them are from the Volcan de Chiriquí at low elevations. It varies but little. I think the sexes may be distinguished by the mucronation of the apices of the middle and hind tibiae in the male. The very large and deep metasternal and abdominal depressions are as strongly marked in the female as they are in the male.

4. Stereodermus carinatus, sp. n.
Gracilis, piceus, nitidus, prothorace parce subtiliter punctulato; elytris intervallis fortiter carinato-elevatis, punctatura indiscrta.
Long. 5½–7 millim.

_Hab._ GUATEMALA, Zapote (Champion).

Very similar superficially to the larger and darker examples of _S. pygmaeus_, but readily distinguished by the strong carina-like interstices of the elytra and by the punctuation being indistinct on them. Antennae thick, broad. Channel on the rostrum elongate, its lateral boundaries between the eyes and the insertion of the antennae somewhat depressed and opaque: the groove continued to the vertex. Vertex with the angles rounded. The thorax sparingly but distinctly punctate. Fifth, sixth, and seventh interstices of the elytra each elongate and carina-like. On the under surface the head is dull and similar in the arrangement of the setae and other respects to that of _S. pygmaeus_. The tibiae are not quite so broad as they are in _S. pygmaeus_, and the notch and its processes are less pronounced.

Seventeen specimens.

Var. tenuis.
Angustior, elytrorum punctatura haud adeo indiscrta.
Long. vix 5 millim.

_Hab._ PANAMA, Volcan de Chiriqui (Champion).

The var. _tenuis_ is represented by a single specimen only; in addition to the distinction of punctuation it appears to me to have the tibial process of the front legs smaller, and the opaque space on the under surface of the head narrower. If this should be confirmed, it will probably prove to represent a distinct species.

5. Stereodermus chontalenisis, sp. n.
Elongatus, angustius, rufo-piceus, nitidius; antennis crassis, articulo ultimo elongato; prothorace minus subtiliter punctato; elytris fortiter punctatis, intervallis minus carinato-elevatis.
Long. 6–8 millim.

_Hab._ NICARAGUA, Chontales (Belt, Janson); PANAMA, Volcan de Chiriqui (Champion).

This species, on account of the distinct punctuation of the thorax, is only likely to be confounded with _S. puncticollis_ and _S. carinatus_; from the latter species _S. chontalenisis_ is distinguishable by a glance at the less carinate interstices of the elytra, while from _S. puncticollis_ it is also easily to be distinguished by the very distinct coarse punctures of the elytra, and by the broad front tibiae furnished with a large notch.

The last joint of the antenna is a little longer than usual. The head is rather short and broad; the hind angles are distinct; the sulcus is rather elongate, connected with the emargination on the vertex only by a fine channel, its lateral boundaries