

ON SOME EARWIGS (FORFICULIDÆ) COLLECTED IN
GUATEMALA BY MESSRS. SCHWARZ AND BARBER.

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During the spring of 1906 several weeks were spent in eastern Guatemala by Messrs. E. A. Schwarz and H. S. Barber, who are both skillful collectors, having special aptitude for the discovery of minute forms of insect life. Being coleopterists, their particular attention while collecting was naturally directed toward beetles, but that other groups were not neglected is well proven by the following list of Forficulidae collected by them. There are 88 specimens of these earwigs, representing 18 species, distributed in 13 genera, of which 6 species and 1 genus are undescribed. All of this material is in the United States National Museum.

The locality most frequently mentioned—"Cacao"—is situated in the Province of Alta Vera Paz, between Panzós and Senahú, at an altitude of about 900 feet, near the foot of the waterfalls, above which the coffee plantation of Trece Aguas is situated.

Notes by Mr. Barber are appended to the discussions of some of the species. These notes are inclosed in quotation marks.

DIPLATYS JANSONI Kirby.

Two females, Cacao, Trece Aguas, Alta Vera Paz, March 26, 31.

"One specimen beaten from dead banana leaves, the other from dead leaves from a recently felled tree. This species so closely resembles the very common Staphylinid beetle, *Puederus latus*, in form, coloration, and movements that it was by accident we discovered that it was a Forficulid, and it is probable that many more specimens were seen without being recognized."

DIPLATYS SEVERA Bormans.

Two males, 6 females, 2 larva, Cacao, Trece Aguas, Alta Vera Paz, April 13-21.

These larvae exhibit the slender, many-segmented anal cerci, as described by Westwood some years ago under the synonymous genus

Dyscritina. The matter provoked much discussion at the time, and the rearing of the adult insects by Green definitely settled the question of the affinities of Westwood's genus, showing it to be Forficulid and congeneric with *Diplatys*. These specimens from Guatemala are, so far as I can learn, the first examples of this ancestral type of forficulid larvae ever reported from the New World. The adult form, however, is not at all rare in certain places.

D. severa, which was described from a single female specimen, is a good species, but is very variable in coloration. The series before me comprises one with the color almost entirely black, some with the base of the abdomen and the forceps, or only the base of the abdomen, reddish, and some with the apical part of the abdomen and the forceps, or only the forceps, red. The pronotum is usually unicolorous, sometimes margined with lighter color, as in the type, and the elytra of the specimens before me are uniformly black. The projecting portion of the wings is usually, but not always, darker on the apical portion than basally. The legs are sometimes wholly black, and sometimes the middle and posterior femora are basally yellowish.

"Several specimens, including long-tailed larvæ, beaten from dead banana leaves that hang on the growing plant."

CYLINDROGASTER DIPLATYOIDES, new species.

One female, Cacao, Trece Aguas, Alta Vera Paz, April 11.

Description.—Head slightly broader than the pronotum; color shiny black above, below and about the mouth parts brownish; antennæ imperfect, clear reddish yellow in color, the long basal and very short second segments darker. Pronotum shining black above, lighter below, longitudinally broadly sulcate above, the disk anteriorly convex, posteriorly flattened; the whole pronotum is distinctly narrowed and neck-like in nearly the anterior half, the posterior portion parallel sided, truncate behind, the entire disk less than twice as long as the mesial width. Elytra piceous, not quite twice as long as the pronotum and together almost twice as broad as the pronotum, posteriorly subtruncate. Scutellum showing between the bases of the elytra, small but distinct; projecting portions of the wings a little less than one-half the length of the elytra and of the same color and texture, but narrower. Abdomen narrowing basally, reddish yellow above and below, somewhat infuscated laterally above on the basal third; there are inconspicuous lateral folds near the base of the abdomen, and the last segment is very large and subquadrate. Legs clear reddish yellow, without distinct infuscation. Forceps somewhat longer than the pronotum, moderately stout, and separated basally by a space nearly as great as the width of one of them at that point, parallel sided in the basal half, then narrowing in two terraces to a point; unarmed, the tip considerably incurved.

Length.—Body, without forceps, 7.5 mm.; forceps 2 mm.

Type-specimen.—Cat. No. 10365, U.S.N.M.

The posteriorly broader pronotum and the obscurely laterally folded abdomen is not in full accord with characters given for the genus *Cylindrogaster*, inclining rather to *Diplatys*. Other characters, however, have led me to place it here.

"In company with *Labia cacaoensis*."

PYRAGRA CHONTALIA Scudder.

"One male, one immature female, taken onto steamer with firewood. Polochic River, below mouth of Cahabon River, March 22."

ARTHROEDETUS, new genus.

Description.—Female, unknown. Male, head convex above; antennae of more than 19 segments,^a the basal segment moderately large and somewhat enlarged apically, scarcely longer than the greatest width; second segment smaller than the basal one and about one-third as long; third segment very long, being almost twice as long as the basal one and mesially about as thick; fourth segment about the same length as the second, scarcely as long as broad; the next four or five segments are about as long as broad, beyond them the segments gradually grow more elongate, the nineteenth being about four times as long as broad. Pronotum no longer than broad, no broader than the head. Elytra and wings absent. Abdomen elongate, scarcely broadened mesially and moderately convex, without lateral folds, the last dorsal segment slightly transverse. Legs moderately stout, the second tarsal segment small and simple, the first and third subequal in length, no arolium visible between the claws. Forceps of moderate length and simple, subcontiguous basally.

This genus is allied to *Echinopsalis*, but the antennal segments are somewhat different from those of the type of that genus, more like those of Rehn's *E. brevibractea*. *Arthradetus*, moreover, is apterous.

Type of the genus.—*Arthradetus barberi*.

ARTHROEDETUS BARBERI, new species.

One male, Polochic River, May 2.

Description.—Of moderate large size; general color almost uniformly light brown above, somewhat lighter below. Head slightly darker above than the rest of the body and with a distinct transverse occipital line, and from the center of this line a longitudinal depressed line extends to the hind margin where it meets the anterior end of a deep and distinct median sulcus which extends the entire length of the pronotum and obsoletely over the meso- and metanotum. Pronotum

^aThe antennae of the only specimen known are imperfect.

quadrate with the anterior margin well rounded, the sides and posterior margin more broadly so; metanotum as broad as long and posteriorly roundly and deeply concave. Abdomen long and somewhat flattened. Legs light brown with a scarcely perceptible infuscated tint medially on the femora. Forceps straight, moderately swollen, and triangular basally, curved slightly inwards and cylindrical in the apical fourth, the inner margin armed on the basal three-fourths with a number of very minute denticles.



DIAGRAMMATICAL FIGURE OF THE
BASAL SEVEN SEGMENTS OF THE
ANTENNE OF ARTHRÖDETUS
BARBERI.

Pygidium small, about as broad as long, rapidly tapered and apically truncate.

Length.—Body, without the forceps, 12 mm.; forceps, 2.5 mm.

Type-specimen.—Cat. No. 10366, U.S.N.M.

The accompanying figure represents diagrammatically the first seven segments of the antennæ *Arthrodetus barberi*.

"This insect was beaten from a tangle of spiny plants and vines at a landing made to take on firewood, on the left bank of Polochic River below the mouth of the Cahabon River."

PSALIS, species.

One immature male, Cacao, Trece Aguas, Alta Vera Paz, April 23.

BRACHYLABIS NIGRA Scudder.

One male, Cacao, Trece Aguas, Alta Vera Paz, April 19.

This is the first reference, so far as I know, of this species being found north of South America.

The tarsus of the left middle leg of this specimen is deformed, having the second joint aborted and the others somewhat swollen, the whole tarsus a little shorter and stouter than normal. The golden luster is but little noticeable in this specimen. The measurements are: Length, body, without the forceps, 8 mm.; forceps, 1.75 mm.

SPARATTA MINUTA, new species.

One female, Polochic River, March 22.

Description.—Male, unknown. Female, smaller than usual in the genus. Head black; antennæ imperfect, the segments present, eleven in number, unicolorously brown. Pronotum black, somewhat longer than broad, rapidly and much constricted anteriorly, being necked, and posteriorly gradually and slightly narrowing, the posterior margin rounded; the disk is mesially carinate longitudinally, but inconspicuously so, and is more flattened on the posterior portion. Abdomen much flattened, broadest in the middle, the lateral folds scarcely visible, the last segment very slightly transverse; subgenital plate projecting backward between the lower part of the forceps as a quadrate apically

notched plate, the outer apical angles of which are acute. The color of the abdomen is black above except the anal segment, which is reddish yellow, beneath paler. Elytra black, twice as long as broad, together much broader than the pronotum, posteriorly obliquely roundly truncate. Projecting portion of the wings similar to the elytra in texture and color and nearly as long but somewhat narrower, being noticeably more than twice as long as broad, posteriorly rounded. Legs reddish brown, the femora stout and somewhat infuscated basally. Forceps blackish with a reddish tinge at the extreme base inwardly, long and stout, straight, the tips incurving, armed inwardly about the middle with a minute sharp tooth and at the base on the inner inferior margin with a larger triangular tooth. Pygidium nearly quadrate, the posterior margin slightly projecting mesially and the lateral margins very little rounded.

Length.—Body, without the forceps, 5 mm.; forceps, 1.5 mm.

Type-specimen.—Cat. No. 10367, U.S.N.M.

This small species seems distinct from any of the described members of the genus. It does not appear to be found among the species recently described by Rehn and Borelli, nor does it appear to be any of the older established species. In color it is something like the *S. dentifera* of Rehn, but is much smaller.

"Under bark of Ceeropia wood taken onto the steamer from the left bank of the Polochic River below the mouth of the Cahabon."

SPARATTA FLAVIPENNULA Rehn.

Four immature specimens, Cacao, Trece Aguas, Alta Vera Paz, April 2, 21, and 26.

LABIA ARCUATA Fabricius.

Twelve males, 16 females, 3 immature specimens, Cacao, Trece Aguas, Alta Vera Paz, March 24 to April 26.

"A few individuals found singly under various circumstances, but the species was found in abundance in and under a pile of old corn husks lying on the ground beside the trail and also on the ground under and in a rotting banana plant."

LABIA BILINEATA Scudder.

One male, Cacao, Trece Aguas, Alta Vera Paz, April 20.

LABIA SCHWARZI, new species.

Two males, 2 females, Cacao, Trece Aguas, Alta Vera Paz, April 11.

Description.—Head broader than the pronotum, shining black; eyes prominent; antennæ 14 jointed, light brown in color, the basal three segments paler. Pronotum noticeably longer than broad, a little narrower anteriorly, the posterior margin rounded, the disk posteriorly transversely depressed. Elytra dark brown with a lateral yellowish line,

broadening at the humeral angle; in length the elytra are fully twice that of the pronotum and together are considerably broader than it, posteriorly truncate. Wings brown on the inner half, yellowish on the outer, projecting beyond the tips of the elytra a distance equal to about two-thirds the length of the latter, rounded posteriorly. Legs brownish or black, the femora very stout. Abdomen convex, short, distinctly broader mesially, lateral folds scarcely in evidence, the terminal segment broadly transverse; forceps of the male about as long as the abdomen, triangular basally, apically cylindrical, curved moderately inward basally widely separated and armed on the inner margin with some minute teeth; of the female slender, somewhat shorter and straighter, the denticles in the inner margin a little larger, basally less widely separated. Pygidium of the male very broad, somewhat longer than broad and apically rounded, entire.

Length.—Body, without forceps, male, 3.5–4 mm., female, 3.5 mm.; forceps, male, 1.25–1.5 mm., female, 1 mm.

Type-specimen.—Cat. No. 10368, U.S.N.M.

Except for size this species bears a superficial resemblance to *Spongophora pygmaea* as figured by Bormans.^a The pygidium of the male will serve to separate it from *Labia bilineata* Seudder, to which it bears a somewhat close resemblance.

"Found running on and under the bark of a tree resembling *Xanthoxylon*."

LABIA BREVIFORCEPS, new species.

One female, Livingston, Guatemala, May 5.

Description.—General color yellowish brown, the basal two segments of the antennæ lighter, beyond infuscated, the lateral margins of the pronotum and elytra and the legs yellow. The elytra show the yellow color mostly at the humeral angles, from where it shades off to brownish posteriorly. The inner margins of the projecting portions of the wings show a trace of lighter yellow. Eyes black.

Head convex, broader than the pronotum; antennæ with eighteen segments; may be more as some of the terminal ones may be missing; the third segment is about as long as the first, three times as long as the second, being about three times as long as it is wide. Pronotum about as long as wide, posteriorly semicircularly rounded, mesially transversally depressed on the disk. Elytra three times as long as broad, together considerably broader than the pronotum, posteriorly truncate; wings projecting a distance equal to about one-third the length of the elytra, posteriorly narrowly rounded. Legs short and stout, the femora thick, second tarsal joint small and simple, the third but little hairy beneath, and the claws have a small pad between them. Abdomen without lateral folds, convex, broad, mesially somewhat broadened, the last dorsal segment somewhat transverse, dorsally

^a Biol. Cent.-Amer., Orthoptera, I, pl. II, figs. 4, 5.

broadly concave, truncate, the apex obscurely bituberculate; last ventral segment transverse, rounded. Forceps very short and stout, triangular basally, nearly contiguous and curved decidedly upwards, but only slightly inwards and that only at the tip.

Length.—Body, without forceps, 5 mm.; forceps, 0.5 mm.

Type-specimen.—Cat. No. 10369 U.S.N.M.

This insect presents characters, such as the many jointed antennae, smooth abdomen, etc., not in accord with those of the genus *Labid*, but for the present I have preferred to place it questionably in that genus.

"This was beaten from leaves of recently felled trees in a new clearing at the mouth of the Rio Dulce, about two miles from Livingston."

SPHONGOPHORA PYGMAEA Dohrn.

Four males, 3 females, Cacao, Trece Aguas, Alta Vera Paz, April 2, 5, 20, and 21.

One of these specimens, a male taken April 2, represents a variety differing from the typical form in the shape of the forceps, which are uniformly bowed instead of nearly straight, and are almost unarmed on the inner margin. One of the females has the elytra and wings unicolorously black.

OPISTHOCOSMIA AMERICANA Bormans.

Four males, 2 females, 3 immature specimens, Cacao, Trece Aguas, Alta Vera Paz, April 11 to 27.

The females sometimes have the wings conspicuously marked by a yellow spot, and sometimes the spot is almost entirely absent. The forceps of the male are sometimes shaped as shown in Bormans's original figure, but in three of the four representatives of that sex now before me the forceps are tubercled about as prominently as in Bormans's figure but are nearly straight, not so sinuate, in this respect approaching the *O. anomala* of Rehn.

"Running on brush. Not uncommon."

NEOLOBOPHORA RUFICEPS Burmeister.

Two immature females, Cacao, Trece Aguas, Alta Vera Paz, April 5.

SPHINGOLABIS LINEARIS Eschscholtz.

Six males, 2 females, Cacao, Trece Aguas, Alta Vera Paz, April 9 to 27.

FORFICULA CACAOENSIS, new species.

One male, 1 female, Cacao, Trece Aguas, Alta Vera Paz, March 29 and April 19.

Description.—Male: Head moderate; eyes prominent; antennae 13 jointed, of the usual structure. Pronotum equaling the head in width, subquadrate, posteriorly broadly rounded, anteriorly very slightly excavate, the sides straight, thin and inclined a very little upwards; disk a little convex with a persistent slender median sulcus, broader in the anterior half. Abdomen moderate, broadest mesially, the surface punctured, the segments apically rounded, the second and third with distinct lateral tubercles, those on the third segment the larger. Elytra nearly twice as long as broad, together slightly broader than the pronotum, posteriorly truncate, the sides deflexed, the posterior lateral angles rounded; the elytra meet in a slightly curved line and the left one has a slight curved depression in the middle near the inner margin. Wings projecting a very little beyond the tips of the elytra, scarcely extending over the basal segment of the abdomen, but when more specimens are examined this will probably be found to vary somewhat. Legs moderately stout, the second joint of the tarsi distinctly cordiform. Forceps contiguous on the basal eighth, or slightly less, by a basal expansion which extends almost horizontally inwards from the arm of the forceps and is dentate on the inner margin; from the ampliate contiguous base the forceps are rounded, unarmed and uniformly curved. Pygidium not visible. Color of the head, pronotum, elytra, wings, abdomen and most of the forceps black, antennae dark brown, uniform, legs light brownish yellow, the femora slightly darkened above, forceps at the extreme base above yellowish.

Female: Similar to the male, the abdomen more uniformly heavy, not noticeably widened mesially; the wings project more than in the male type, the projecting portion of each being longer than wide; the forceps are nearly straight, the tips a little incurved apically and the basal two-thirds are triquetreous, inwardly slightly depressed and minutely serrate, the apical third cylindrical and unarmed.

Length.—Body, without the forceps, male, 7 mm., female, 10 mm.; forceps, male, 2 mm., female, 2 mm.

Type-specimen.—Cat. No. 10370, U.S.N.M.

This black earwig is superficially somewhat allied to *F. lugubris*, but is amply distinct from that species. It resembles somewhat the *F. metraca* of Rehn, but the forceps of the male will at once separate it from that species.