

**A Redescription of *Pseudostrebla ribeiroi* Costa Lima
and the Description of a New Genus and Species
of the *Streblidae* from Brazil.**

(*Diptera*.)

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(With 2 Text-Figures.)

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Introduction.

Last year I received two specimens of *Streblidae* from the Deutsches Entomologisches Institut, Berlin-Dahlem, for identification. On examination I found that structurally they were related to *Pseudostrebla ribeiroi* Costa Lima. However, being not quite sure about the identification, I provisionally referred them to this species, and after preparing several drawings and a description from them, sent them back to Germany. At the same time I wrote to Dr. A. Costa Lima, asking him to lend me the type specimen of *P. ribeiroi* for examination. In his reply he told me that the type specimen of this streblid was lost, with the exception of one slide with the mounted wing and the photograph of the wing. This photograph he very kindly sent me in his letter.

After comparing the photograph with the drawing of the wings of the above mentioned specimens, it became obvious that they represented a new form. However, I decided not to publish my description without examination of the structure of *P. ribeiroi*.

The opportunity arose when I received a small collection of *Streblidae* from Dr. J. Bequaert. In this collection I found one specimen which was identical with the description of *P. ribeiroi*, and of which the structure of the wings was exactly the same as that shown on the photograph received from Dr. Costa Lima. The comparison of this specimen of *P. ribeiroi* with the drawings and the description of the

above mentioned specimens showed that they belong to a new genus. They are described here under the name of *Stizostrebla longirostris*.

With the erection of this new genus the original description of *P. ribeiroi* became inadequate, and that is why in this paper I am also giving the generic and the specific redescription of this species.

For the material used in the preparation of this paper I am very grateful to Dr. Hans Sachtleben, of the Deutsches Entomologisches Institut, Berlin-Dahlem, and also to Dr. J. Bequaert, of the Harvard University Medical School, Boston, Mass.

The systematic position of the genera

Pseudostrebla Costa Lima and *Stizostrebla* gen. n.

In my paper (1936) the American *Streblidae* were classified into two subfamilies: The *Trichobiinae* and the *Streblinae*. Morphologically the two genera in question belong to the second subfamily, which should be defined now as follows: Head subtrapezoidal or trapezoidal, as broad in its posterior part as the anterior margin of the thorax; with or without ctenidium. Palps subtriangular, contiguous and horizontal, except in *Eldunnia* and *Stizostrebla*. Thorax rectangular, with a broad, shallow longitudinal groove in each antero-lateral part, where lie the femora of the fore-legs when at rest. The mesonotum slightly convex or flat, broader than the sterno-pleurae.

This subfamily includes the most specialized *Streblidae*. According to the structural modifications, the genera of this subfamily can be arranged in the following order: *Pseudostrebla*, *Eldunnia*, *Stizostrebla*, *Strebla*, *Euctenodes*, *Paraeuctenodes* and *Metelasmus*. It is seen from this order that *Pseudostrebla* is the most generalized genus of the *Streblinae*. Structurally it is more or less closely related to *Eldunnia*, from which, however, it can be easily separated by the absence of the ctenidium of the head. The new genus *Stizostrebla* morphologically represents a connecting link between the above mentioned genera and *Strebla*. It is, like *Pseudostrebla*, devoid of the ctenidium, but its thorax and especially the head have become more modified towards the type of thorax and head of *Strebla*, *Euctenodes*, *Paraeuctenodes* and *Metelasmus*. These last four genera have a very well developed ctenidium, which extends to the dorsal surface of their head. All genera of this subfamily, except *Metelasmus*, have faceted eyes and normal wings, which have six longitudinal and three cross-veins. In the genus *Metelasmus* each eye is represented by a single, not very distinct facet, and its wings are greatly reduced and are oval in outline.

These genera are distributed in Central and Tropical South America, where they parasitise the bats belonging to the family *Desmodontidae* and *Phyllostomidae*. As far as it is known they are all monotypic, with the exception of *Euctenodes*.

Key to the Genera of the *Streblinae*.

1. Ctenidium absent 2
Ctenidium present 3
2. Palps subtriangular, horizontal; postero-dorsal margin of the head without flap-shaped projections; prescutum with median suture.
Pseudostrebla Costa Lima.
Palps very much shorter than broad, vertical; postero-dorsal margin of the head with two flap-shaped projections overlapping the thorax; prescutum without median suture *Stizostrebla* gen. n.
3. Ctenidium composed of eighteen or nineteen spines and not extending to the dorsal surface of the head; postero-lateral parts of the dorsal surface of the head slightly convex; Palps together narrower than the anterior margin of the head, projecting antero-dorsally. Mesonotal suture complete *Eldunnia* Curran.
Ctenidium composed of numerous spines and extending to the dorsal surface of the head; postero-dorsal part of the head flat, festooned and overlapping the anterior part of the thorax. Palps large, horizontal as broad together as the anterior margin of the head, their outer margin bent dorsally and festooned. Mesonotal suture incomplete in the middle 4
4. Festooned margin and outer surface of the palps not divided into sclerotized plates; posterior margin of the frons not overlapping the antennae. Hind legs twice as long as the fore-legs. *Strebla* Wiedeman.
Festooned margin and outer surface of the palps divided into sclerotized plates; posterior margin of the frons flat, sharp and overlapping the antennae dorsally. Hind legs not elongated or elongated . . 5
5. Eyes faceted; prescutum three times as long as scutum. Wings normal. Dorsal surface of the abdomen bare 6
Eye reduced to a single not quite distinct facet; prescutum five times as long as scutum. Wings greatly reduced, oval in outline. Dorsal surface of the abdomen setose *Metelasmus* Coquillett.
6. Hind legs not elongated *Euctenodes* Waterhouse.
Hind legs elongated *Paraeuctenodes* Pessôa and Guimarães.

Genus *Pseudostrebla* Costa Lima 1921.

Head subtrapezoidal, its postero-dorsal parts rounded; frons cordiform in outline. Palps subtriangular and horizontal. Eyes faceted. Arista

of antennae very thin and long, extending to the anterior margin of the palps. Thorax rectangular, its anterior margin strongly incurved between the middle rounded part and the humeral parts; median suture of the prescutum distinct and extending to the mesonotal suture; mesopostnotum very broadly rounded. The flat, ventral surface of the thorax slightly broader than long; the anterior part of the sternopleura narrow and bifurcated. Legs normal, strong. Wings normal. Dorsal surface of the abdomen without setae.

Pseudostrebla ribeiroi Costa Lima 1921.

(Fig. 1.)

Body 2.5 mm. long (on slide). Head elevated in the antero-dorsal part; frons (f.) with a few very fine, long setae; each latero-vertex (lv.) triangular, equilateral, with seven strong setae and a few small ones arising from its anterior margin; dorsal margin of the genae bearing a row of setae, of which the most posterior one is the strongest; each postero-lateral part of the head with very strong setae directed postero-laterally; the posterior margin of the dorsal surface distinct and slightly festooned, with a row of moderately strong setae pointed postero-dorsally. The ventral surface of the head with a row of moderately strong setae along the inner margin on each side of the rostrum membrane; between these rows and the lateral margins of the head the ventral surface bears very small setae; the posterior, conical part of this surface of the head with a few moderately strong setae arising close to the front coxae. Palps (Fig. 1, B) slightly concave, their ventral surface very setose; their anterior margin with three strong setae, of which the most lateral one is the longest. Theca (th.) of the labium dome-shaped, bearing rather strong setae, directed radially. Labella (l.) slightly longer than the theca. Arista (a.) of antennae with a few short, irregularly arranged branches.

Thorax broader than long; prescutum, with the exception of the bare patch in its anterior part, bearing many small setae in the posterior part and distinctly stronger setae in the anterior and the lateral parts; scutum with setae similar to those of the prescutum, and a row of strong setae in front of the scutellum; scutellum with usual four setae, of which the middle two are the longest, its anterior margin broadly rounded and the posterior one broadly pointed; humeral parts of the thorax projecting, with strong setae; each mesopleuron bearing strong setae in the dorsal part and many small setae in the lateral part. The flat ventral surface of the thorax very setose (Fig. 1, C); the postero-lateral parts of the sternopleura and the posterior margins of the pleurotrochantines with a row of very strong setae. Coxae of the fore-legs ovoid; femora and tibiae with many small and several strong setae, of which those arising from

the dorsal surface of the hind tibiae are nearly as long as the four segments of the tarsus together.

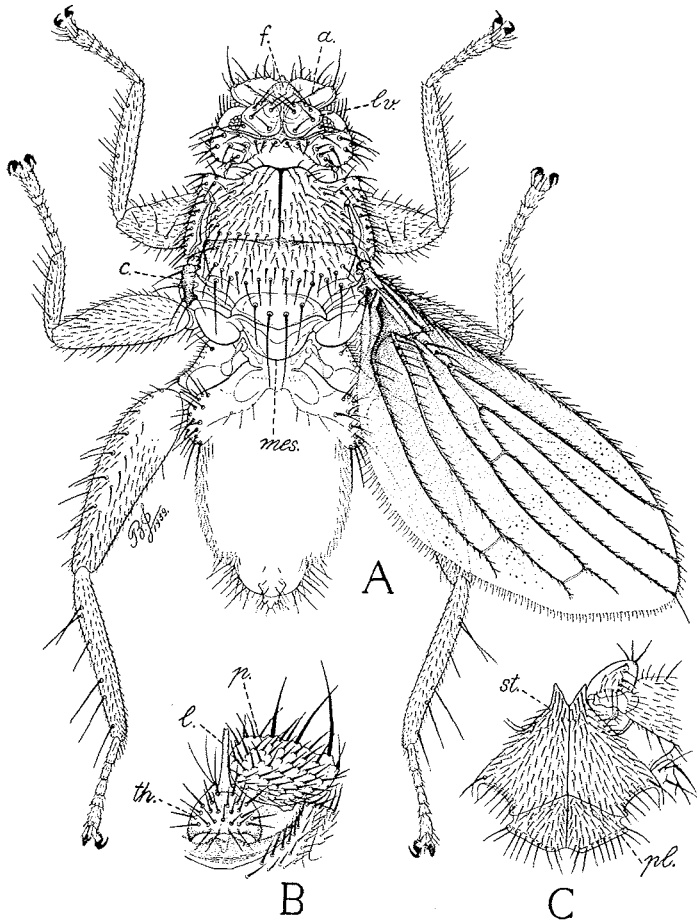


Fig. 1. *Pseudostrebla ribeiroi* Costa Lima. A, dorsal view of female, (a.) arista of antenna, (c.) calipteron, (f.) frons, (lv.) laterovertex, (mes.) mesopostnotum; B, ventral view of labium and palp (p.), (l.) labella and (th.) theca of labium; C, ventral view of thorax, (st.) sternopleuron, (p.l.) pleurotrochantin (A and C×30, B×75).

Wings 2.0 mm. long, rather broad, with narrowly rounded apex; first longitudinal vein nearly straight, second and third longitudinal veins parallel in their distal part; the apex of the wing with long setae; all longitudinal veins provided with strong setulae and in their basal part bearing strong setae; the strongest setae arising from the stem of the

radius nearly as long as the strongest scutular setae. Calipteron (c.) as shown in the drawing 1, A.

Abdomen sacciform; its ventral surface bearing besides many small setae, a few long thin ones; the sclerotized plates of the posterior part of the abdomen triangular, with a few very long setae along their dorsal margin.

The type specimen was taken from *Tonatia amblyotis* Wagner, by the botanist Hoehne in Matto Grosso. The present description was made from a single female specimen, from the collection of Dr. J. Bequart. It has been found on a bat, at Soure, Maraje Id., East Para, Brazil.

Stizostrebła gen. n.

Head trapezoidal; its postero-dorsal part with two flap-shaped projections overlapping the thorax; frons broad, its lateral parts narrow and pointed when examined from above. Palps short, as broad together as the anterior margin of the head, vertical. Eyes faceted. Arista of antennae short, with branches on one side only. Thorax rectangular, its anterior part has two depressions in which lie the flap-shaped projections of the head; median suture of the prescutum absent; the mesonotal and the scutular sutures incomplete in the middle; mesopostnotum narrowly rounded. The flat ventral surface of the thorax slightly longer than broad; the anterior part of the sternopleura broadly emarginated, forming two short, conical projections between the coxae of the fore-legs. Legs normal, strong. Wings normal. Dorsal surface of the abdomen without setae.

Genotype *Stizostrebła longirostris* sp. n.

Stizostrebła longirostris sp. n.

(Fig. 2)

Body 1.8 and 2 mm. long (on slide) in male and female respectively. Head flat; frons (f.) without setae; each laterovertex (lv.) subtriangular, with a row of very small setae along the anterior rounded margin and with strong setae behind. Eyes small. Genae and the lateral margin of the head bearing many small setae; the flap-shaped projections of the postero-dorsal part of the head with strong, short setae along their inner margin; between these projections the posterior festooned margin of the head bearing four strong setae. The ventral surface of the head (Fig. D) very flat round the rostrum membrane, and deeply concave in the postero-lateral parts, where lie the coxae of the fore-legs; with the exception of the above mentioned concave parts, the ventral surface bearing many setae and two strong, curved setae in front of each coxa. Palps (p.) with small setae and three strong marginal ones. Theca (th.) of the labium as shown in the drawing 2, B, with short and long setae and a

patch of scales in each antero-lateral corner; labella (l.) nearly twice as long as the theca.

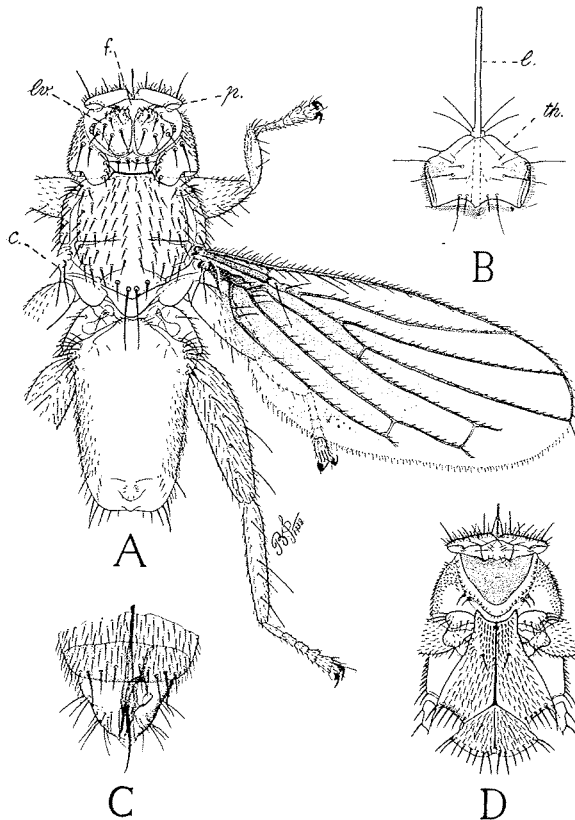


Fig. 2. *Stizostrebla longirostris* gen. n., sp. n. A, dorsal view of female, (c.) calipteron, (f.) frons, (lv.) latero-vertex, (p.) palp; B, ventral view of labium, (l.) labella, (th.) theca; C, ventral view of hypopygium of male abdomen; D, ventral view of head and thorax (A, C and D $\times 30$, B $\times 100$).

Thorax broader than long; prescutum and scutum bearing uniform, strong setae; scutellum rhomboidal, with usual four setae, of which the inner two are very much longer than the other setae. The flat ventral surface of the thorax longer than broad; the anterior part of sterno-pleura with a patch of very short, broad, scale-like setae; the rest of the sterno-pleura and the pleurotrochantines with many small setae, and one very much stronger seta arising from the middle of each of these four scle-

rites; their posterior margins fringed with very strong setae. Femora and tibiae of the legs with many small and several strong setae.

Wings 1.5 and 1.6 mm. long in male and female respectively, with broadly rounded apex bearing a long apical seta; first longitudinal vein curved, second and third longitudinal veins divergent near the apex of the wing; all longitudinal veins provided with strong setulae, and in their basal parts bearing strong setae; the sixth longitudinal vein with a short portion of its basal part devoid of setae. Calipteron (c.) as shown in the drawing 2, A.

Abdomen sacciform, its lateral surfaces with many small setae, the ventral one with slightly stronger setae, especially in the male. The sclerotized plates of the posterior part of the abdomen with long setae along their dorsal margin.

The male abdomen differs from that of the female in the following respects: — its posterior part ends in a conical hypopygium, of which the structure is shown in the drawing 2, C. In the posterior part of the ventral surface of the abdomen, there is a sternite-like plate which bears strong setae near the posterior margin.

Two specimens were examined, the holotype, female, and the allotype, male, from the collection of the Deutsches Entomologisches Institut. The specimens were collected by Mr. J. F. Zikan from a bat, in Brazil (Estado do Rio de Janeiro).

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Two New Species of *Platychalcis* from Costa Rica.

(*Hymenoptera: Chalcidoidea*.)

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(With 6 Text-Figures.)

The genus *Platychalcis* Cameron was established in 1904 for a species of *Chalcidinae* from Nicaragua, and was said to be „near *Haltichella*“. Through the kind assistance of Dr. Ch. Ferrière of the British Museum, London, I have been able to identify this genus as a member of the tribe Chalcidini, closely allied to *Chalcis*. The genus may be redescribed as follows: