ZOOLOGIA 30 (3): 353–355, June, 2013
http://dx.doi.org/10.1590/S1984-46702013000300016

A new species of *Aeneolamia* (Hemiptera: Cercopidae: Tomaspidinae) from the Neotropical Region

Andressa Paladini[1] & Rodney Ramiro Cavichioli[1]

[1] *Departamento de Zoologia, Universidade Federal do Paraná. Caixa Postal 19020, 81531-980 Curitiba, PR, Brazil. E-mail: andri_bio@yahoo.com.br; cavich@ufpr.br*

ABSTRACT. *Aeneolamia bucca* **sp. nov.** is described and illustrated based on specimens collected in the municipality of São José do Barreiro, state of São Paulo, Brazil. This new species can be distinguished from others of the genus by presenting an aedeagus with two long and slender processes directed upward (in the other species of the genus, this processes are directed downward); paramere with only one subapical strong spine and a concavity located below this spine, which is unusual in the Neotropical genera.

KEY WORDS. Auchenorrhynca; Cercopoidea; new species; Tomaspidini.

Aeneolamia was described by Fennah (1949) who designated *Monecphora semifascia* Walker, 1851 as the type-species. Species belonging to *Aeneolamia* are one of the main pests of sugar cane. The genus includes eight species and 34 subspecies, which have a wide variation in the color pattern on the tegmina. According to Fennah (1949) there is a considerable variation in color between specimens of *Aeneolamia*, whether they are from the same localities or are separated in space. It is important to highlight that this polymorphism refers only to the coloration of the tegmina. The characters from male genitalia are conservative within the genus and are reliable to identify the species.

Species of the genus have a wide distribution, occurring in Brazil, Colombia, Costa Rica, Guatemala, Guiana, Honduras, Mexico, Panama, Venezuela, Trinidad, and Tobago.

Fennah (1949) listed the following diagnostic characteristics for *Aeneolamia*: 1) eyes two-thirds as wide as pronotum where it is widest; 2) ocelli nearer to each other than to the eyes, situated on a common protuberance; 3) antennae with second segment twice as long as broad; 4) postclypeus moderately inflated, not laterally compressed, distinctly wider medially than at base, in profile rounded, with a well-developed median carina; 5) rostrum moderately short; 6) tegmina 2.5 times as long as broad, distal area with apical reticulation; 7) subgenital plates never greatly elongated, relatively broad, distally transverse, obliquely truncate, or with apicomesal angle produced in a spine; 8) aedeagus tubular, with one pair of slender strongly-deflexed spines attached anteriorly near middle.

Based on specimens collected from São José do Barreiro, São Paulo, Brazil, one new species of *Aeneolamia* is described and illustrated.

MATERIAL AND METHODS

The specimens studied herein are deposited in the Coleção Entomológica Padre Jesus Santiago Moure, Departamento de Zoologia, Universidade Federal do Paraná, Curitiba, Brazil (DZUP). The morphological terminology follows mainly Fennah (1968), and Paladini *et al*. (2008, 2010). Techniques for preparation of genital structures follow those of Oman (1949). The dissected parts were stored in micro vials with glycerin. The photographs were obtained with a Leica DFC-550 digital camera attached to the stereoscopic microscope (Leica MZ16). Images were taken at different focus levels and composed with the software IM50 (Image Manager; Leica Microsystems Imaging Solutions Ltd, Cambridge, UK) and mounted with the Auto-Montage Syncroscopy, Taxonline (Rede Paranaense de Coleções Biológicas). The genitalia structures were drawn with a camera lucida and the final drawings were made using vectors with the software CorelDraw version X5.

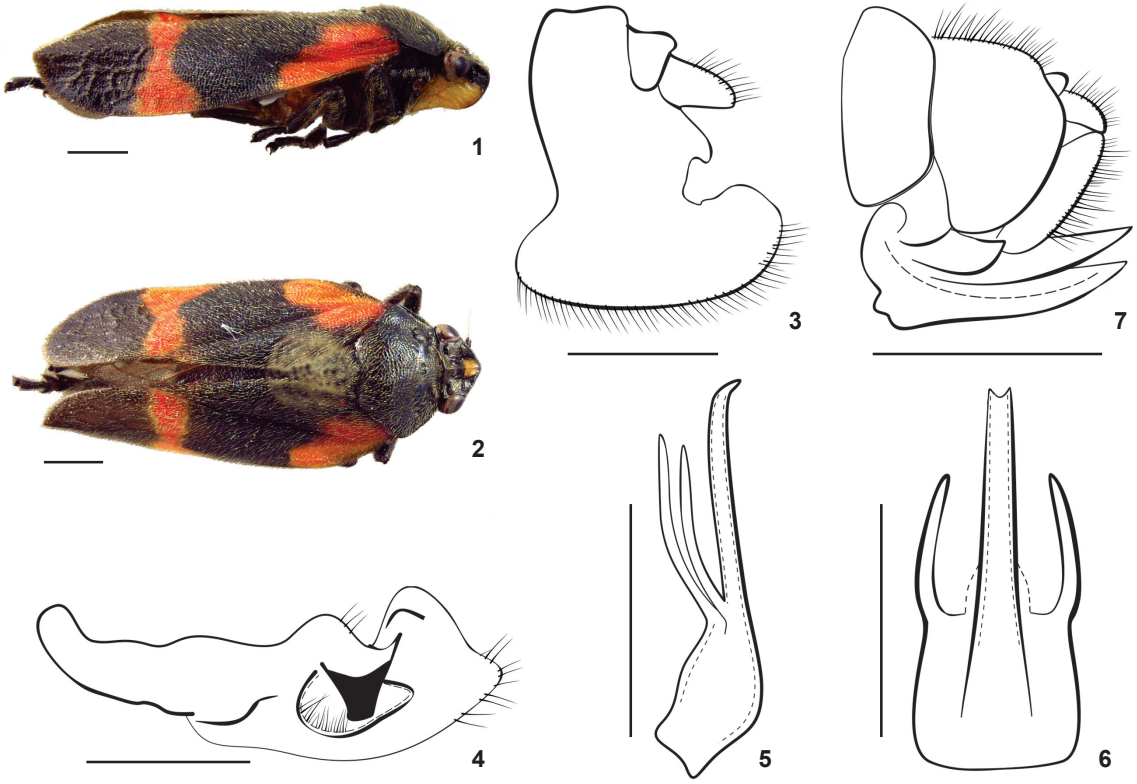
Aeneolamia bucca sp. nov.

Figs 1-7

Diagnosis. General coloration black; tegmina with basal red macula and one apical red stripe; Pygopher short with finger-like process between anal tube and subgenital plates; aedeagus with one pair of dorsal, slender processes directed upward.

Description. Length (mm) holotype: 8.24; paratypes: males 7.44 and 8.12; female 8.24

Head black with fine pubescence; compound eyes rounded, arranged transversally; vertex smooth and rectangular, with strongly marked median carina; ocelli reddish (paratype) or with red border, closer to each other than to compound eyes; tylus



Figures 1-7. *Aeneolamia bucca* **sp. nov.**: (1) holotype, lateral view; (2) holotype, dorsal view; (3) male pygofer, lateral view; (4) paramer, lateral view; (5) aedeagus, lateral view; (6) aedeagus, dorsal view; (7) female pygofer, lateral view. Scale bars: 1-2 = 1.0 mm, 3 and 7 = 0.5 mm, 5 and 6 = 0.25 mm.

orange, smooth and subquadrangular, lacking a median carina; supra antennal margin carinate in dorsal view; antenna black, pedicel sparsely setose, basal body of the flagellum ovoid, arista slightly shorter than pedicel; apical third of postclypeus black and basal one orange, postclypeus inflated, convex in profile, with one median carina, lateral grooves strongly marked; rostrum black reaching mesocoxae. Prothorax and mesothorax black, metathorax reddish; pronotum without median carina, pilose and strongly punctured, anterior margin straight, lateral-anterior margins straight, converging anteriorly and strongly carinate, lateral posterior margin slightly sinuous, posterior margin grooved; scutellum with slight central concavity, with slightly marked horizontal grooves on apical third; tegmina black with basal area reddish and reddish transversal stripe located between median and apical third before apical reticulation; venation distinct with apical reticulation developed; hind wings translucid with brown venation, vein Cu_1 not thickened at the base; legs black, metathoracic tibia with two lateral spines, the basal smaller and the apical one and larger than those located in the apical crown of the tibia; basitarsus with one row of apical spines covered with a large amount of setae, subungueal spine present, small and triangular.

Male. Pygofer black with one finger-like process slightly acute, turned downward located between anal tube and subgenital plates, these short, slightly surpassing pygofer length, with truncated apex (Fig. 3); parameres long with acute apex, apical third, in lateral view, robust, dorsal margin with two rounded processes, one rugose subapical spine with truncated apex, located upon concavity similar to a hole (Fig. 4); aedeagus slender with wide base and two long and slender dorsal processes turned upward, originating at median third and almost reaching apex of shaft (Figs 5 and 6).

Female. Morphologically similar to the male. First valvulae of the ovipositor long and slender with an acute apex, dorsal margin smooth with one small triangular projection in the apical third, basal process not developed, rounded and directed backward. Second valvulae of the ovipositor long and slender with an acute apex, apical third of the dorsal margin smooth. Third valvulae short and wide, with long hair in the ventral surface.

Remarks. *Aeneolamia bucca* **sp. nov.** is included in *Aeneolamia* based on the following morphological features: head shape, moderately inflated posclypeus, the coloration pattern, and the general aspect of male genitalia, such as the shape of

the parameres and the processes on aedeagus. It can be distinguished from the other species of the genus by the following characteristics: aedeagus with two long and slender processes oriented upward (in the other species of the genus, this processes are oriented downward); and paramere with only one subapical strong spine and a concavity located below this spine, which is unusual in the Neotropical genera.Type material. Holotype (male). Brazil, *São Paulo*: São José do Barreiro (Serra da Bocaína, 1050 m, 22,675°S 44,613°W), 22.X.2011, Sweep; R.R. Cavivhioli *leg*. (DZUP). Paratypes: two males and one female with same data as holotype (DZUP); two females, 4.XI.1965, F.M. Oliveira *leg*. (DZUP); *Rio de Janeiro*: Itatiaia, two males and one female, 8-25.X.1931, J.F. Zikan *leg*. (DZUP).

Etymology. The epithet *bucca* comes from Latin and it means hole. The name refers to the unusual hole present in the paramere of this species.

ACKNOWLEDGMENTS

We thank two anonymous reviewers for providing comments and corrections on a manuscript draft of this paper. The junior author is a research fellow from Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq, process 303.127/2010-4). This research was partially funded by PROTAX/CNPq research grants to the junior (process 561.298/2010-6) author. This paper is the contribution number 1888 of the Departamento de Zoologia, Universidade Federal do Paraná.

LITERATURE CITED

Fennah, R.G. 1949. New genera and species of Neotropical Cercopoidea (Homoptera). **Annals and Magazine of Natural History 12**: 605-620.

Fennah, R.G. 1968. Revisionary notes on the New World Genera of cercopid froghoppers (Homoptera: Cercopoidea). **Bulletin of Entomological Research 58**: 165-190.

Oman, P.W. 1949. The Nearctic leafhoppers (Homoptera: Cicadellidae). A generic classification and check list. **Memoirs of the Entomological Society of Washington 3**: 1-253.

Paladini, A.; A. Ferrari & G.S. Carvalho. 2008. Cladistic analysis of *Kanaima* Distant, 1909 (Hemiptera, Cercopidae). **Zootaxa 1704**: 47-63.

Paladini, A.; R.R. Cavichioli & G.S. Carvalho. 2010. Taxonomic review of *Sphenoclypeana* and cladistic analysis of Ischnorhinini (Hemiptera, Cercopidae, Tomaspidinae). **Zootaxa 2502**: 24-36.

Submitted: 24.VII.2012; Accepted: 16.IV.2013.
Editorial responsibility: Claudio J.B. de Carvalho