

*Wolfniana* gen. n. and redescription  
of *Wolfniana limbatula* (Osborn, 1926) comb. n.  
(Hemiptera, Auchenorrhyncha, Cicadellidae)

Rodney Ramiro Cavichioli  
Department of Zoology  
Universidade Federal do Paraná  
C.P. 19020  
81531-990, Curitiba, Brazil

**Abstract.** *Wolfniana* gen.n. is proposed to include *Cicadella limbatula* Osborn, 1926. This species has a head that is more produced than in species of *Rotigonalia* Young, 1977 and the paraphyses are not V-shaped as in *R. concedula* (Melichar, 1926), and three new species described by Cavichioli (2000).

**Keywords.** Auchenorrhyncha, Cicadellidae, *Rotigonalia*, *Wolfniana* gen. n.

### Introduction

*Wolfniana* gen. n. is proposed to include *Cicadella limbatula* Osborn, 1926. Young (1977) described *Rotigonalia* and designated as type-species *Cyclogonia rudicula* var. *concedula* Melichar, 1926 and included in this genus *C. limbatula*. In a study of the specimens in the entomological collection "Pe. Jesus Santiago Moure" of the Departamento de Zoologia, Universidade Federal do Paraná (DZUP) and the Natural History Museum, London (BMNH), Cavichioli (2000) described three new species of *Rotigonalia* that have the same shape of paraphyses and head that are present in *R. concedula* (Melichar) (Fig. 1-5), but that differ from those of *W. limbatula* (Fig. 6-12). A new genus is proposed here to accommodate this species.

### *Wolfniana* gen. n.

**Type-species:** *Cicadella limbatula* Osborn, 1926.

**Diagnosis:** Head slightly produced; antennal ledges slightly prominent, in dorsal view; antepical cells with their bases more proximal to claval apex; aedeagus short, subcylindrical, without process; paraphyses longer than aedeagus, symmetrical, with paired rami long and acute apically.

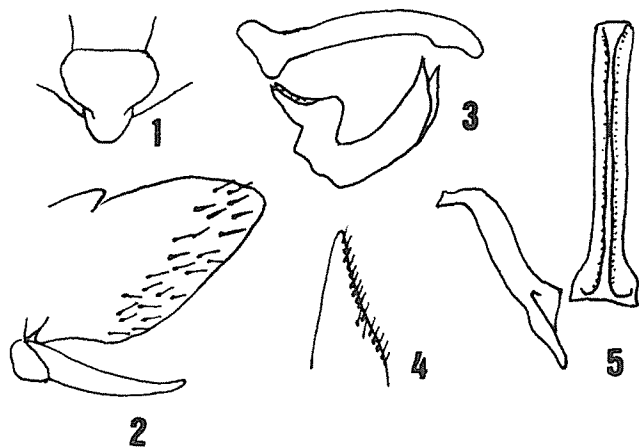
**Description:** Length, males: 6.5 mm; females: 6.5 mm.

Head slightly produced; median length almost 0.33x transocular width and slightly more than 0.44x interocular width; anterior margin round in dorsal view, without a carina at transition of crown

to face (front), but angulate; ocelli located before a line between anterior eye angles, each as proximal to the median line as it is to the anterior eye angle; surface without sculpture and setae; fronto-genal suture extending onto crown and reaching ocelli; antennal ledges prominent in dorsal view; profile oblique and without carina; frons flattened medially, muscle impressions distinct and without pubescence; fronto-clypeal suture incomplete; clypeus, in profile, continuous with frontal contour, not inflated basally.

Pronotum narrower than head; anterior margin arched, lateral margins parallel and posterior margin not emarginate medially; notopleural carina complete; without sculpturing and setae. Scutellum not striate. Forewing with membrane in all portion of apical cells; veins distinct; three antepical cells closed and with their bases more proximal to claval apex; four apical cells, base of fourth cell more proximal than base of third cell; without an antepical plexus of veins. Forewing of female at rest exceeding apex of ovipositor. Hindleg with femoral setal formula 2.1.1.

Male genitalia. Pygofer almost twice as long as its width; apical margin slightly obtuse; macrosetae located on apical half; without process. Subgenital plate triangular, bipartite abruptly from half to apex and with one row of macrosetae located in lateral margin. Styles short, truncate apically, with pre-apical lobe. Connective long, Y-shaped. Aedeagus very short, subcylindrical, without process and slightly arched dorsally. Paraphyses long, symmetrical, basal ramus transverse, short and wide, distal rami long, slender and acute apically, with length twice its basal width.



Figures 1-5. *Rotigonalia concedula* (Melichar, 1926). 1. Head, in frontal view; 2. Pygofer and subgenital plate, in lateral view; 3. Aedeagus and paraphyses, in lateral view; 4. subgenital plate; 5. style and connective, in dorsal view. (Adaptation of fig. 431 in Young, 1977: 522).

**Comments.** *Wolfniana* gen. n. is close to the genera of the *Juliaca* genus group, but differs by the form of the paraphyses and by having the aedeagus very short.

***Wolfniana limbatula* (Osborn, 1926)**

Fig. 6-12

**Type-locality:** Santo Antônio do Guaporé, Rio Grande do Sul, Brazil.

**Material examined:** Dates of the labels as follow: (;) line and (/) other label. 1 male, Archidona; (Ecuad.); R. Haensch S./Co type, Breddin.; Purch. Of Haensch; [in manuscript] *Tettigonia; limbatula*; Breddin./1903-322/107. [BMNH]. 1 male, Archidona; (Ecuad.); R. Haensch S./Co type, Breddin.; Purch. Of Haensch; [in manuscript] *Tettigonia; limbatula* [BMNH]. 1 male, S. Gabriel; Rio Negro; Amaz.; 14.XI.1927; J.F.Zikan/ Coleção; J.F.Zikan. [DZUP]. 1 male, Vilhena, RO; 30.X.1986; C.Elias leg.; POLO-NOROESTE. [DZUP]. 1 male, Sinop Mato Grosso; Brasil X.1975; M. Alvarenga leg. [DZUP]. 1 male and 1 female, BRAZIL: Mato Grosso; 12°49'S-51°45'W.; 20.I.1969, W.J. Knight/ Gallery forest/ Roy.Soc./Roy.Geog.Soc.;Xavatina-Cachimbo; Expedition 1967-1969; B.M.1970-192. [BMNH].

**Description:** Length, male/female: 6.5 mm/6.5mm.

Morphological characters and male and female genitalia as in the description of the genus.

**Coloration.** Green in the general aspect. Head, in dorsal view, with an orange-red stripe at the anterior margin and a round black spot at the apex; disk of the crown between ocelli pale green with median line black that together with M-shaped black line separates the orange strip and the green part. Pronotum with anterior margin and lateral margin orange-red and center green. Scutellum orange-red. Forewing green with two orange-red stripes, at the costal margin and anal margin, apex smooth.

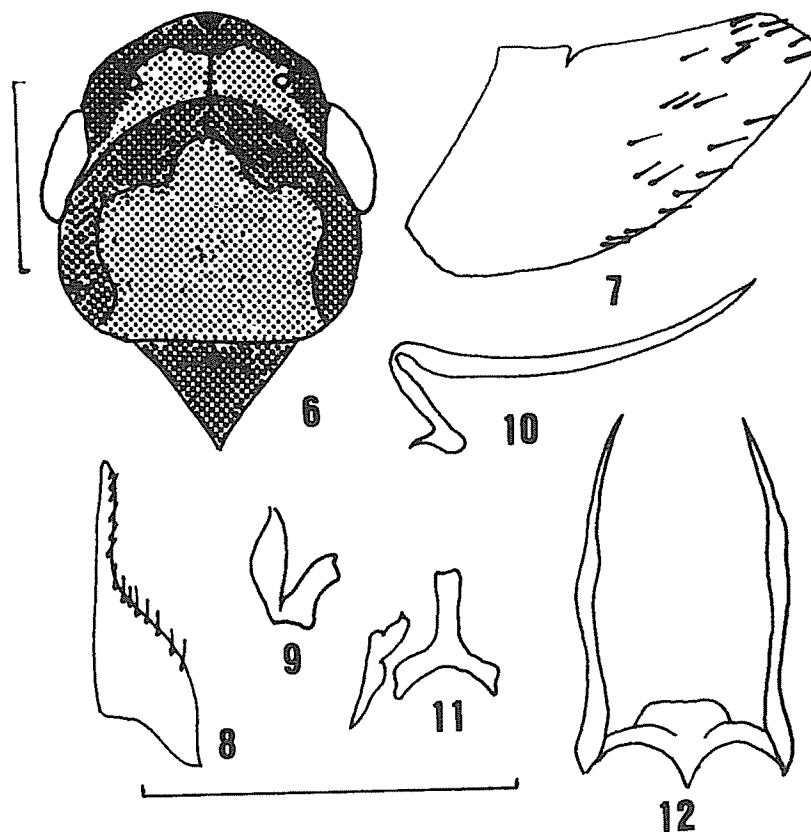
Distant (1908) regarded *Tettigonia limbatula* Breddin as a *nomen nudum* based on the specimen deposited in the British Museum. Osborn (1926) described "*Cicadella limbatula* (Germar)" and in the same year Melichar described *Cyclogonia limbatula*. Metcalf (1965) regarded Melichar's species and Osborn's species as of uncertain position. Young (1977) concluded that the two species were the same and according to the International Code of Zoological Nomenclature Osborn's action is considered a description. However, Young (1977) preserved Osborn's species and treated the author "Germar" as a *lapsus calami*. Analysing the literature I think that Osborn and Melichar knew of the specimens given manuscript names by Breddin. As Breddin did not publish a description of the species, Osborn and Melichar described it based on the information given by Distant (1908).

**Acknowledgements**

This research was supported by Fellowship CNPq 301527/85-7. This is Contribution N° 1170 of the Department of Zoology, Universidade Federal do Paraná.

**References**

- Cavichioli, R.R.** 2000. Descrição de três novas espécies de *Rotigonalia* Young (Hemiptera: Auchenorrhyncha: Cicadellidae) com chave para as espécies. Ann. Soc. Entomol. Brasil, 29 (4): 683-689.
- Distant, W.L.** 1908. Rhynchotal Notes - XLIV. Ann. Mag. Nat. Hist., 1(8): 515-531.
- Melichar, L.**, 1926. Monographie der Cicadellinen. III. Annls. Hist.-Nat. Mus. Natn. Hung., 27: 273-328.



Figures 6-12. *Wolfniana limbatula* (Osborn, 1926). 6. Head, pronotum and scutellum, in dorsal view; 7. Pygofer, in lateral view; 8. Subgenital plate, in ventral view; 9. Aedeagus, in lateral view; 10. Paraphyses, in lateral view; 11. style and connective, in dorsal view; 12. Paraphyses, in dorsal view.

- Metcalf, Z.P.** 1965. General catalogue of the Homoptera. Fascicle VI, Cicadelloidea. Part 1, Tettigellidae. Washington, Agricultural Research Service, U.S. Department of Agriculture, 730 p.
- Osborn, H.** 1926. Neotropical Homoptera of the Carnegie Museum. Part 5. Report upon the collections in the subfamily Cicadellinae, with

descriptions of the new species. Ann. Carneg. Mus., 16: 155-248.

- Young, D.A.** 1977. Taxonomic study of the Cicadellinae (Homoptera: Cicadellidae) Part 2. New World Cicadellini and genus *Cicadella*. Bull. N. Carol. Agric. Exp. Stn., 239: vi + 1135 p.