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Williamsocoris, a New Genus of Schizopteridae (Heteroptera) from Argentina

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A new genus and species, *Williamsocoris ornatus* (Schizopteridae: Hypselosomatinae), is described from Argentina. This is the first record of the subfamily in South America. The particular structures of the rostrum of this new taxon are unique in the family.

Key words: new genus, new species, Schizopteridae, *Williamsocoris ornatus*

INTRODUCTION

Reuter (1891) established the family Schizopteridae in his "Monographia Ceratocombidarum", in which he described all known taxa. Later, McAtee and Malloch (1925) described as the "Cryptostemmatidae" all schizopterids found in the collection of the National Museum of the United States. Emsley (1969) and Štys (1970) reviewed the morphology of the Schizopteridae, which consists of minute and edaphic bugs.

The Schizopteridae comprise two subfamilies: Schizopterinae and Hypselosomatinae. Esaki and Miyamoto (1959) first described the latter as a different tribe within the Schizopterinae, but Emsley (1969) raised it to subfamily level in his world catalogue.

The Hypselosomatinae are characterized by exceedingly large eyes; forewings with more longitudinal veins, and more complete hindwing venation, than in the Schizopterinae; and females with a well-developed ovipositor and nearly spherical spermatheca. This subfamily includes three genera: the Old World *Hypselosoma* Reuter, 1891 and two monotypic New World genera, *Glyptocombus* Heidemann, 1905 from the USA and *Ommatides* Uhler, 1894 from St. Vincent Island. In the present paper, we describe a new genus and species, *Williamsocoris ornatus*, from Argentina, establishing the first South American record of the subfamily.

MATERIALS AND METHODS

The single specimen we obtained was cleared using 10% potassium hydroxide and mounted on a slide in Canada balsam. The holotype is deposited in the Museo de La Plata (MLP) collection (Argentina).

TAXONOMIC DESCRIPTION

Williamsocoris, new genus

Etymology: The genus is named after our friend, herpetologist Prof. Jorge Williams, who collects insects using light traps during his field trips. The gender of the name is masculine.

Description: Head capsule (Fig. 1) subtriangular in frontal view, with abundant microtrichia over entire dorsal surface, and two setae shorter than half the eye width situated approximately on the basal third of vertex near the eyes. Eyes large, surpassing the lateral margins of pronotum and overlapping the anterior lateral margins of prothorax. Jugal lobe poorly developed. Buccula not inflated as in *Ommatides*. Ocelli on vertex, removed from compound eyes by a distance similar to the width of antennal segment I. Two areas of insertion of the cibarial muscles are present between ocelli. Rostrum four-segmented. Segment I broad, with two anterior "spines" internally and an irregular series of minute sclerotized teeth posteriorly. Segments III and IV indistinctly separated, with a sclerotized, horn-like structure (Fig. 1) occupying both segments and base of segment two.

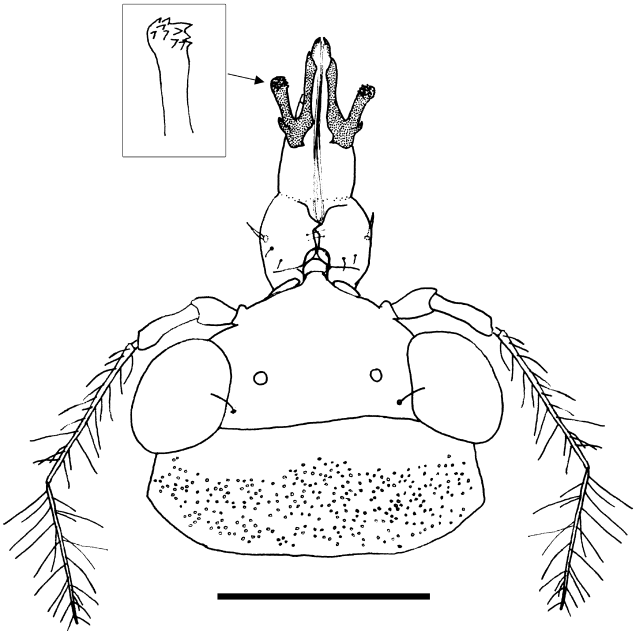

Fig. 1. *Williamsocoris ornatus*, n. sp.: head capsule. Scale: 0.5 mm.

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Rostrum surpassing base of head. Antennal segment II slightly thinner and longer than segment I; segments III and IV with long, suberect hairs.

Pronotum without collar or pronotal suture; slightly punctuate except for area of antero-lateral disks. Anterior pronotal lobe subglabrous, posterior pronotal lobe with scattered short setae, more abundant posteriorly. Metasternum small and rounded. Scutellum subtriangular, smooth, with scattered short setae, apex acute; without special structures.

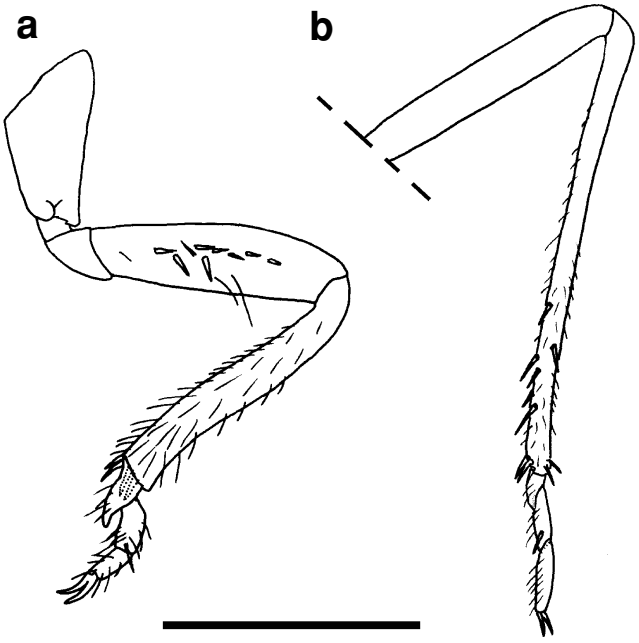

Fig. 2. *Williamsocoris ornatus*, n. sp.: **a)** foreleg; **b)** hindleg. Scale: 0.5 mm.

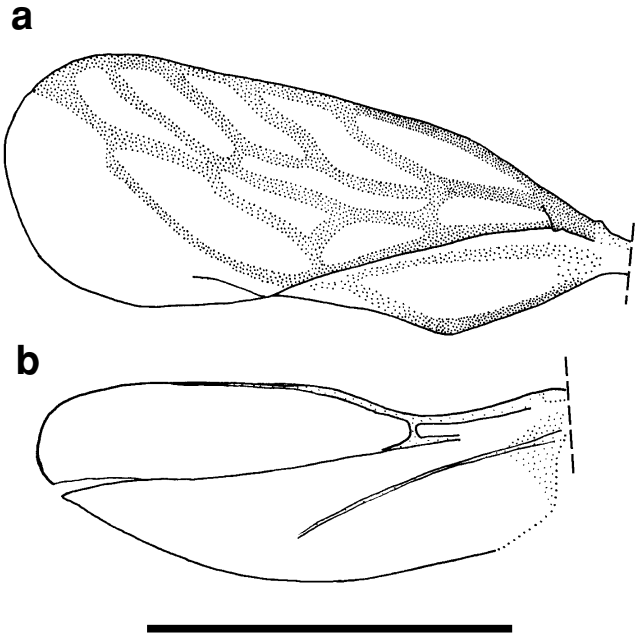

Fig. 3. *Williamsocoris ornatus*, n. sp.: **a)** forewing; **b)** hindwing. Scale: 1 mm.

Femora subglabrous; tibiae with scattered, semidecumbent setae. Foretibiae (Fig. 2a) with three large sclerotized spines at distal end and smaller, less sclerotized spines. Meso- and hindtibiae bearing only smaller spines. Forefemora (Fig. 2a) with a row of five or six long, thin spines and two additional irregular spines medially. Apical half of hindtibia with spiniform setae (Fig. 2b). Tarsi three-segmented, tarsal segment II arising near base of tarsal segment I. Forewings (Fig. 3a) similar to *Hypselosoma*. Sc, R to bifurcation in R1 and basal half of V2 sclerotized. Hindwings (Fig. 3b) developed as in other Hypselosomatinae. Abdomen with spiracles on segments II to VIII. Pregenital segments I to VI symmetrical, VII and VIII strongly asymmetrical, distinctly sinistral. Parameres strongly asymmetrical.

***Williamsocoris ornatus*, new species**

Etymology: The specific epithet refers to the unusual structures of the rostrum.

Holotype male: Argentina, Formosa, Estancia "La Marcela", 35 km east. El Colorado, VIII-2003; collector J. Williams; mounted on slide, MLP accession no. 5216.

Description: Macropterous male. General coloration dark brown.

Abdomen (Fig. 4): Segment VII with a prominent digitiform appendage with very long, thick setae on inner margin and with thinner ones on outer margin. Segment VIII without appendage. Pygophore with a subtriangular caudal process. Vesica slender and strongly biangular. Right paramere elongate, digitiform, slightly curved, apically rounded, with very long setae. Left paramere subtriangular, also with very long apical setae.

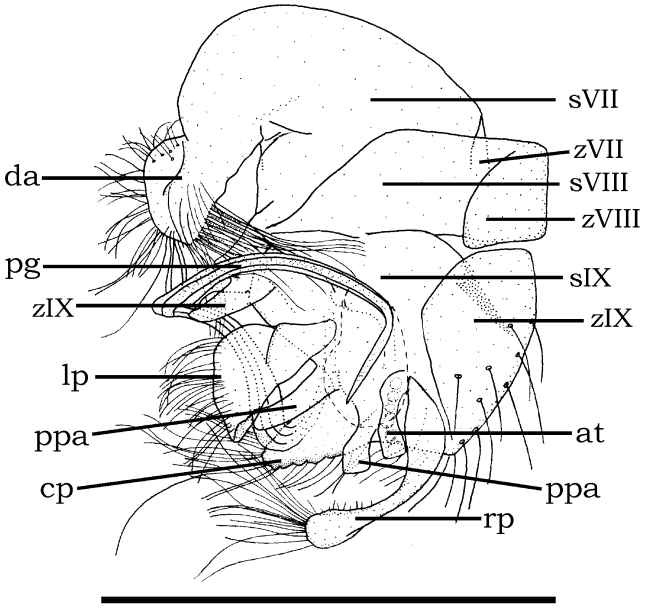

Fig. 4. *Williamsocoris ornatus*, n. sp.: male genitalia and associated segments. at, anal tube; cp, caudal process; da, digitiform appendage; lp, left paramere; pg, *processus gonopori*; ppa, paraproctal appendages; rp, right paramere; sVII, sVIII, sIX, segments seven, eight, and nine, respectively; zVII, zVIII, zIX, zygosterna seven, eight, and nine, respectively. Scale: 0.5 mm.

DISCUSSION

It was very difficult to determine the systematic position of this new taxon. We have placed *Williamsocoris* in the Hypselosomatinae because of the typical hypselosomatine wings (Fig. 3a, b). This new genus is easily distinguishable from the other three genera of Hypselosomatinae by the unusual structures of the rostrum, wing venation, and male genitalia. Among these genera, *Williamsocoris* seems more closely related to *Hypselosoma* on the basis of the similarities in fore- and hindwing venation and eye morphology.

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