

Shinckadunus, a new myodochine genus to accommodate
Dushinckanus mesopotamicus Dellapé & Melo, 2005 (Hemiptera:
Heteroptera: Rhyparochromidae)

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***Shinckadunus*, un nuevo género de myodochini para acomodar *Dushinckanus mesopotamicus* Dellapé & Melo, 2005 (Hemiptera: Heteroptera: Rhyparochromidae)**

RESUMEN. Se describe al nuevo género *Shinckadunus* (Rhyparochromidae: Myodochini) para ubicar a la especie *Dushinckanus mesopotamicus* Dellapé & Melo, 2005 conocida del noreste de la Argentina. Se incluyen fotografías de la genitalia masculina y fotografías electrónicas de barrido de cabeza y profemur. También se discuten las afinidades genéricas de este nuevo género monotípico con el grupo de géneros que presentan fuertes espinas esclerotizadas en el aedeagus.

PALABRAS CLAVE. Argentina. Genitalia masculina. Myodochini. Rhyparochrominae.

ABSTRACT. The new genus *Shinckadunus* (Rhyparochromidae: Myodochini) is described to accommodate the species *Dushinckanus mesopotamicus* Dellapé & Melo, 2005 known from northeastern Argentina. Photographs of the male genitalia and scanning electron micrographs of head and profemur are provided. The generic affinities of this new monotypic genus with the other myodochine genera with strong sclerotized spines on aedeagus are discussed.

KEYWORDS. Argentina. Male genitalia. Myodochini. Rhyparochrominae.

INTRODUCTION

The cosmopolitan tribe Myodochini is among the most diverse groups of Rhyparochromidae (Dellapé & Henry, 2010), with 79 extant genera worldwide (Dellapé & Henry, 2019), and 39 genera occurring in the Neotropics (Henry et al., 2015; Dellapé et al., 2018).

The genus *Dushinckanus* was erected by Brailovsky (1979) to include the new species *D. ocellatus* from Brazil. Brailovsky characterized the genus by the slender postocular region of the head, the protuberant ocelli, the rostrum not surpassing the mesocoxae, the scape extending beyond tylus, and the profemur with a few small spines. As noted by Harrington (1987) in her revision of the genus, the tuberculate ocelli -postulated as diagnostic character by Brailovsky (1979)- show the extreme condition on the type species *D. ocellatus*, but

this character varies considerably among the five species included up to that moment in the genus, in some of them no tuberculate at all. The species of *Dushinckanus* also exhibit variation in shape and length of head, from a dome-like postocular region of head abruptly constricted into a short and rounded neck as in *D. crassicornis* Brailovsky, 1981 and *D. ashlocki* Harrington, 1987, to slenderer heads where the postocular region is slanted gradually into a slender neck as in *D. camelopardus* Harrington, 1987. Leaving as the most conspicuous characters to identify the genus the slender profemur with a few minute spines in both sexes; excepting *D. mesopotamicus* Dellapé & Melo, 2005 that shows spines restricted to apical half, and the recently described *D. riegeri* Baena, 2014 based on a female specimen that exhibits well developed double ranked spines. *Dushinckanus* includes

currently seven species, most of them known from a single or a few specimens. It is a poorly known and seldom recorded genus, whose monophyly is highly questionable.

Dellapé & Melo (2005) described *D. mesopotamicus* based on three males and two females collected in Entre Ríos Province, northeastern Argentina. Besides the profemur with spines restricted to apical half, this species shows a moderately elongate postocular head, and a strongly spinose aedeagus. This was the first species included in *Dushinckanus* in which the male genitalia was described and figured. Recently, we were able to examine a female paratype of *D. ocellatus*, the type species of the genus, deposited in UNAM and we concluded that the Argentinean species is not congeneric with this species and does not fit in any other known Myodochini genus. Accordingly, we describe a new genus to include it.

MATERIAL AND METHODS

Color images of the glycerin preserved male genitalia were captured using a cellphone Sony Xperia A1 Ultra attached to an Olympus stereomicroscope SZX7. Multiple focal planes were merged using HeliconFocus software. The scanning electron micrographs were obtained from specimens mounted on a standard stub, sputter coated with a gold palladium alloy, and observed with a Jeol 6360 LV scanning electron microscope. Acronyms used for institutions cited below are MLP, Museo de La Plata, Buenos Aires, Argentina and UNAM, Instituto de Biología, Universidad Nacional Autónoma de México, D.F., México.

RESULTS

Shinckadunus gen. nov.

<http://lsid.speciesfile.org/>

urn:lsid:Lygaeoidea.speciesfile.org:TaxonName:503281

Type species. *Shinckadunus mesopotamicus* (Dellapé & Melo, 2005) comb. nov.

Description. Myrmecomorphic. Jugum with a poorly developed ridgelike carina; buccular juncture V-shaped; eyes longitudinally oval; ocelli small, not tuberculate, located before an imaginary line passing across the posterior border of eyes; postocular region of head rounded, abruptly constricted into a short neck (Fig. 1a). Mesepimeron emergent; evaporative area extensive; metapleura slightly swollen. Procoxa with a short spine; profemur with a double row of spines restricted to apical half (Fig. 1b). Aedeagus with spined conjunctiva, spines large and strongly sclerotized (Fig. 1d).

Etymology. The generic name is an anagram of *Dushinckanus*.

Shinckadunus mesopotamicus (Dellapé & Melo, 2005) comb. nov.

<http://lsid.speciesfile.org/>

urn:lsid:Lygaeoidea.speciesfile.org:TaxonName:491441

For a detailed description and measurements of the species see Dellapé & Melo (2005). Male genitalia as in figures 1c-f

Studied material. Holotype, brachypterous male, Colonia Hocker, Colón, Entre Ríos, ARGENTINA, III-2003, D.L. Carpintero col., sweeping net, MLP #5165/1. Paratypes: 2 males, 2 females, same data as holotype, MLP #5165/3-6.

DISCUSSION

The female paratype of *D. ocellatus* examined (♀ Paratype, Brazil, Rondonia, Vilhena, XI-1973, Alvarenga M. (UNAM)) exhibits a long head with a slender postocular region, large protuberant ocelli and an elongate profemur with a few small spines, whereas in *Shinckadunus mesopotamicus* comb. nov. the postocular region of head is rounded, abruptly constricted into a short neck, the ocelli are small, widely separated and not tuberculated, and the profemur in both sexes is incrassate and shows spines restricted to apical half but not minute or conspicuously reduced.

Following the aedeagal classification of Harrington (1980), in her revision of the genus (Harrington, 1987) she mentioned that *Dushinckanus* species have type IV male genitalia. This type of male genitalia has a well-developed sperm reservoir, with a pair of sclerotized lobes next to it (holding sclerites), and unspined vesica and conjunctiva, although the conjunctiva can exhibit tiny spines in some genera. She does not mention which species in the genus were dissected or studied, and there are no illustrations or descriptions of the male genitalia of any species. The aedeagus of *S. mesopotamicus* n. comb. shows a conjunctiva with large and strongly sclerotized spines, two large hornlike spines and two lobes spined apically adjacent to the ejaculatory reservoir (Fig. 1d). This being relatively small to the size of the aedeagus. The aedeagus fits into the type III in Harrington's classification.

Besides *Shinckadunus* gen. nov., eight Myodochini genera exhibit strongly sclerotized spines on conjunctiva: *Perigenes* Distant, 1893, *Zeridoneus* Barber, 1918, *Froeschneria* Harrington, 1980, *Ligyrocoris* Stål, 1872, *Slaterobius* Harrington, 1980, *Neomyocoris* Dellapé & Montemayor, 2008, *Catenes* Distant, 1893, and *Myodacanthus* Dellapé, 2012. The affinities among these genera are not clear. The last two genera show rather particular spines as they seem to be hollow and strongly acute and sclerotized at apex (Dellapé & Melo, 2008; Dellapé, 2012). *Slaterobius* and *Neomyocoris* show heavily sclerotized strong spines as figured in Slater et al. (1993) and Dellapé & Montemayor (2008) and are similar to those of *Shinckadunus* gen. nov. (Fig. 1d). Dellapé & Melo (2005) related *Shinckadunus mesopotamicus* comb. nov. with *Slaterobius* by the slightly swollen metapleura, character possibly related to the ant mimetic condition.

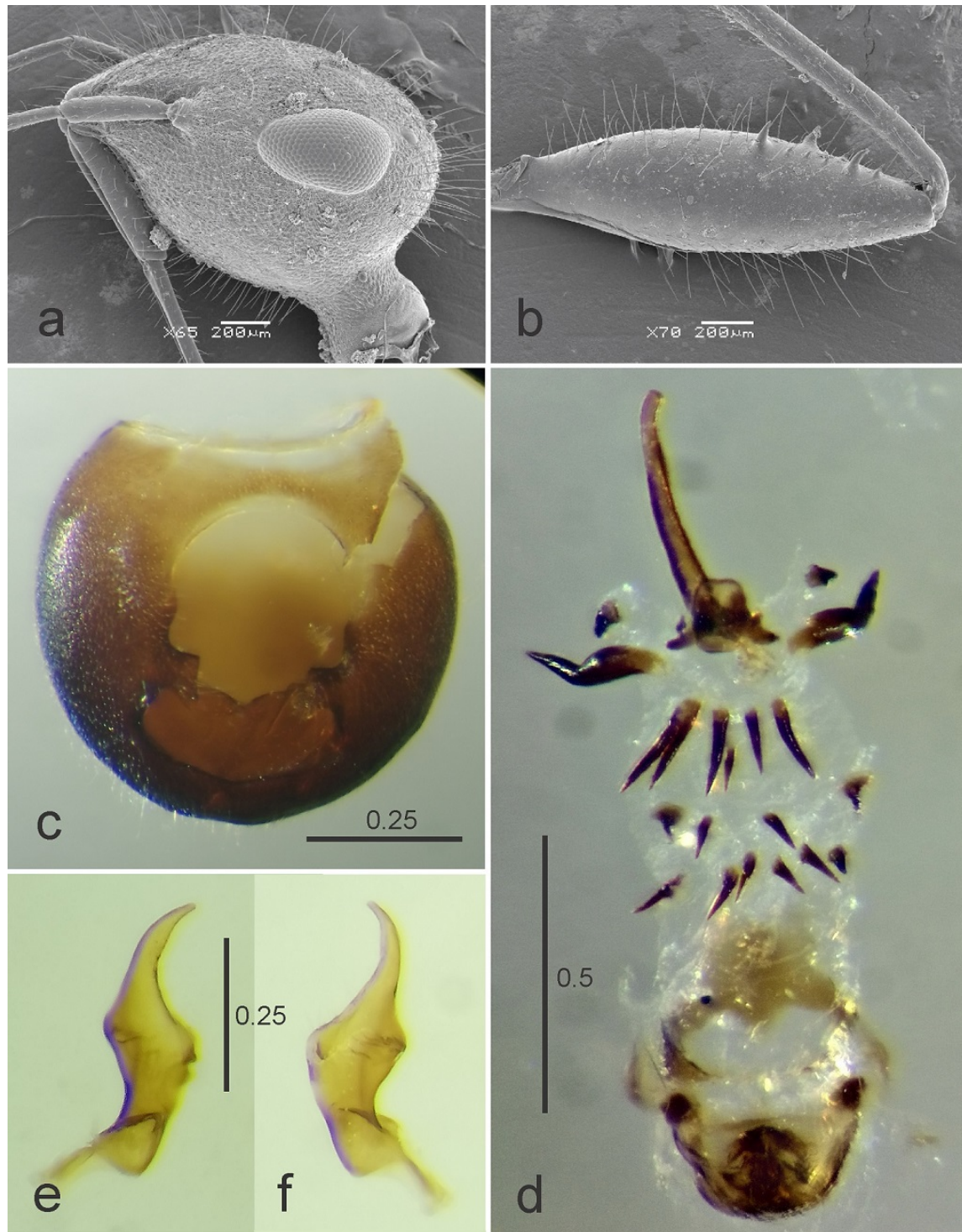


Fig. 1. *Shinckadunus mesopotamicus* (Dellapé & Melo, 2005) gen. nov., comb. nov. (a) Head, lateral view. (b) Profemur. (c) Pygophore, dorsal view. (d) Aedeagus. (e) Right paramere, inner view. (f) Right paramere, outer view.

This article has been registered in the Official Register of Zoological Nomenclature (ZooBank) as [urn:lsid:zoobank.org:pub:AF6ED2B2-D2DC-4D40-BE2C-5A04EAAA4F14].

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