



Revision of the Ochthebiinae of Venezuela (Coleoptera: Hydraenidae)

LUIS F. VALLADARES¹ & ANDREW EDWARD Z. SHORT²

¹Departamento de Biodiversidad y Gestión Ambiental (Zoología), Facultad de Ciencias Biológicas y Ambientales, Universidad de León, 24071 León, SPAIN. E-mail: lfvald@unileon.es

²Division of Entomology, Biodiversity Institute, and Department of Ecology & Evolutionary Biology, University of Kansas, Lawrence KS 66045, USA. E-mail: aezshort@ku.edu

Ochthebiinae Thomson, 1859 is a subfamily of Hydraenidae represented in the Neotropical region by the genera *Ochthebius* Leach, 1815, *Gymnochthebius* d'Orchymont, 1943 and *Ochtheosus* Perkins, 1997 (only in southern South America, Chile). Neotropical Ochthebiinae were mostly revised by Perkins (1980). Also important are the contributions by Balfour-Browne (1971), Anderson (1983), Perkins (1997), Perkins & Archangelsky (2002), Arce-Pérez & Jäch (2004) and Aguilera *et al.* (2006).

In the context of an ongoing survey of the aquatic insects of Venezuela, we present the results on the subfamily Ochthebiinae (Coleoptera: Hydraenidae) collected in Venezuela.

Material and methods

A total of 224 specimens of Ochthebiinae from Venezuela were examined for this study. Specimens are deposited in the Museo de Artrópodos, Universidad del Zulia, Venezuela (MALUZ; J. Camacho), Museo del Instituto de Zoología Agrícola, Maracay, Venezuela (MIZA; L. Joly), Museum of Comparative Zoology, Harvard University (MCZ; P. Perkins), University of Kansas, USA (SEMC), the US National Museum of Natural History (USNM) and Valladares Collection, Universidad de León, Spain (CVL).

The aedeagus was drawn (J.A. Delgado) through a drawing tube (Nikon YDT) attached to a Nikon Eclipse E600 microscope. Dorsal habitus images were taken using a Visionary Digital imaging system and CombineZ image stacking software.

Results

Three species of Ochthebiinae have been identified in Venezuela. They can be identified by means of the following key:

Key to the species of Ochthebiinae of Venezuela

- 1 Pronotum with prominent lobe-shaped anterior angles.; foveae well developed and deep (Fig. 1A). Aedeagus (Fig. 2A) with the main piece bifid; parameres longer than main piece *Gymnochthebius fossatus* (LeConte)
- Pronotum without lobate anterior angles; foveae shallow (Fig. 1B,C). Aedeagus with the main piece single; parameres shorter than main piece (Fig. 2B,C) 2
- 2 Pronotum (Fig. 1B) with the anterior and posterior foveae united forming a sinuate line; anterior margin without postocular tooth. Aedeagus (ventral view) with the distal lobe subcylindrical, slightly widened near the apex (Fig. 2B)..... *Ochthebius lineatus* LeConte
- Pronotum (Fig. 1C) with the anterior and posterior foveae not externally united; with postocular tooth in the pronotal anterior margin. Aedeagus (ventral view) with the distal lobe apically arcuate (Fig. 2C) *Ochthebius atrittus* LeConte