



***Ochthebius (Enicocerus) aguilerai* sp.n. from central Spain, with a molecular phylogeny of the Western Palaearctic species of *Enicocerus* (Coleoptera, Hydraenidae)**

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Abstract

We describe *Ochthebius (Enicocerus) aguilerai* sp.n. from central Iberia. The species belongs to the *O. exsculptus* group, including *O. legionensis* Hebauer & Valladares, *O. halbherri* Reitter, *O. colveranus* Ferro and *O. exsculptus* Germar. There are few consistent differences in external morphology among species of the group, but characters of the aedeagus allow the unequivocal recognition of the new species. A molecular phylogeny of the European species of subgenus *Enicocerus* based on fragments of four mitochondrial and two nuclear genes recognised *O. aguilerai* sp.n. as sister to the remaining species of the *O. exsculptus* group, which according to molecular clock estimations seems to have an Iberian origin in the Late Miocene (Tortonian). There are two genetically distinct lineages within *O. exsculptus*, one in South Spain and a second from the Pyrenees to Ireland, but the lack of consistent morphological differences between them, and the incomplete sampling of other Iberian populations of the species, prevents the recognition of distinct taxa.

Key words: Hydraenidae, *Ochthebius*, *Enicocerus*, *Ochthebius aguilerai* sp.n., Iberian peninsula, molecular phylogeny

Introduction

Enicocerus Stephens is currently considered a subgenus of *Ochthebius* Leach (Coleoptera, Hydraenidae) (e.g. Jäch 1992, 2004), although it has been treated as genus by different authors (e.g. Perkins 1997; Hansen 1998), including Stephens (1829) in his original description. *Enicocerus* has been traditionally divided in two groups of species, one distributed in the Western Palaearctic (Europe and Middle East), including the type species *Ochthebius exsculptus* Germar; and a second in the Himalayas and East Asia (Jäch 2004). The latter was excluded from *Enicocerus* by Skale & Jäch (2009) (see also Jäch 1992), as they do not share some of the putative synapomorphies of the Western Palaearctic clade: cup-shaped second antennal segment, short postocular brush-like setae and ocelli almost contiguous with the eyes (Skale & Jäch 2009). Molecular data agree with the inclusion of the Eastern clade within *Ochthebius* s.str., not closely related to *Enicocerus* (I. Ribera, unpublished data). The western clade was revised by Jäch (1992), and two new species from Iran and Greece have recently been added (Skale & Jäch 2009 and Ferro 2008 respectively). In total, it currently includes 14 species from West Iberia to Iran, being conspicuously absent from northern Africa (Jäch 2004; Ferro 2008; Skale & Jäch 2009).

In this work we describe a new species of *Enicocerus* in its restricted sense (i.e. including only the Western Palaearctic species) from the central mountains in the Iberian Peninsula. It belongs to what could be considered the *O. (Enicocerus) exsculptus* group, including *O. exsculptus* (Western Europe), *O. colveranus*