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## Hypogean pseudoscorpions (Arachnida) from Jaén province (Andalusia, Spain), with descriptions of four new species and a new synonymy

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### Abstract

Four new hypogean species are described from the Jaén province (southern Spain): *Chthonius (Ephippiochthonius) espanyoli* sp. nov., *C. (E.) giennensis* sp. nov., *C. (E.) villacarrillo* sp. nov. and *Neobisium (Ommatoblothrus) perezruizi* sp. nov. New records are given for the species *Chthonius (E.) cazorlensis*, *C. (E.) perezi*, *C. (E.) tetrachelatus*, *Neobisium (O.) perezi*, *Microcreagrella caeca caeca* and *Allochernes masi*. *Chthonius (E.) verai* and *C. (E.) minutus* are removed from the list of the Andalusian fauna. A new synonymy is proposed: *Neobisium (O.) gev* Carabajal Márquez, García Carrillo & Rodríguez Fernández, 2011, is a junior subjective synonym of *N. (O.) perezi* Carabajal Márquez, García Carrillo & Rodríguez Fernández, 2011.

**Key words:** Pseudoscorpiones, caves, troglobiont, new records

### Resumen

Se describen cuatro nuevas especies hipogea de la provincia de Jaén (Sur de España): *Chthonius (Ephippiochthonius) espanyoli* sp. nov., *C. (E.) giennensis* sp. nov., *C. (E.) villacarrillo* sp. nov. y *Neobisium (Ommatoblothrus) perezruizi* sp. nov. Asimismo, se aportan nuevas citas para las especies *Chthonius (E.) cazorlensis*, *C. (E.) perezi*, *C. (E.) tetrachelatus*, *Neobisium (O.) perezi*, *Microcreagrella caeca caeca* and *Allochernes masi*. Se descarta la presencia de las especies *Chthonius (E.) verai* and *C. (E.) minutus* para la fauna andaluza. Se propone una nueva sinonimia: *Neobisium (O.) gev* Carabajal Márquez, García Carrillo & Rodríguez Fernández, 2011, es un sinónimo subjetivo júnior de *N. (O.) perezi* Carabajal Márquez, García Carrillo & Rodríguez Fernández, 2011.

### Introduction

The first mention of cave pseudoscorpions from Andalusia was that of Jeannel & Racovitza (1913–1914) from La Pileta Cave, Benaoján, Málaga province, which was explored in 1912 by the Abbé Henri Breuil. That material was not identified, but a new pseudoscorpion species has recently been described from the same cave: *Chthonius (E.) bullonorum* Carabajal Márquez, García Carrillo & Rodríguez Fernández (2011).

Volker Mahnert described the first known hypogean pseudoscorpion from Andalusia: *Neobisium (Ommatoblothrus) gaditanum* from the Cádiz province (Mahnert 1977) and other two cave species from the Granada province (Mahnert 1982). Carabajal Márquez *et al.* (2000, 2001a, 2001b, 2001c, 2011, 2012) have since described a considerable number of new hypogean species from Andalusia.

The first known biospeleological expedition in caves of Jaén province were carried out by Antonio Cobos, Francesc Español and Joaquín Mateu in 1953, who sampled from caves from Sierra de Cazorla (Auroux 2013). The material obtained included a pseudoscorpion specimen collected by F. Español and deposited in MCNB, which is recorded for the first time in this paper.