



## An updated identification key to the pseudoscorpions (Arachnida: Pseudoscorpiones) of the Czech Republic and Slovakia

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### Abstract

An illustrated dichotomous key is provided for the identification of adults of the pseudoscorpion species found in the Czech Republic and Slovakia, based on morphological and morphometric characters. The pseudoscorpion fauna of Slovakia includes 51 species in 7 families, and that of the Czech Republic includes 38 species in 7 families. New country records are provided: *Mundochthonius carpaticus* Rafalski and *Microbisium brevifemoratum* (Ellingsen) in the Czech Republic and *Microbisium suecicum* Lohmander in Slovakia.

**Key words:** checklist, diversity, new records, Central Europe

### Introduction

Pseudoscorpions represent an arachnid order of medium diversity, with more than 3,400 described species in 25 recent families worldwide (Harvey 2009). Inhabiting almost all terrestrial habitats, they often play an important ecological role as predators. Europe is the best documented continent, with a known pseudoscorpion fauna of about 760 species (Harvey 2007). Until recently, the identification of pseudoscorpions in Central Europe was often confusing or difficult because the available keys are either outdated (Beier 1932a, b, 1963; Verner 1971) or lack relevant figures (Mahnert 2004). More detailed analyses from this region were usually limited to certain taxa (Ducháč 2003).

More intensive research on pseudoscorpions in the Czech Republic and Slovakia has been hampered by the absence of an accurate identification key. The previous national key for the Czech Republic (Ducháč 1995a) was published to identify just the most common species and higher taxa.

Soon after the split of the former Czechoslovakia in 1993, the historical data, including the first national identification key (Verner 1971), often appeared ambiguous with no further distinction of the separated states. These problems have consequentially led to incomplete faunistic records in the world checklists and catalogues (Harvey 1991, 2009).

Ducháč (1999) summarized all the available data from the Czech Republic for 28 species in 7 families, which rose to 33 species in the updated checklist of Blick *et al.* (2004). The latest world catalogue of pseudoscorpions (Harvey 2009) gives 38 species (7 families) for the Czech Republic and 37 species (6 families) for Slovakia.

A need for more detailed knowledge of the diversity of pseudoscorpions in the Czech Republic and Slovakia has encouraged us to provide an updated identification key, based on standard and sometimes new morphological characters (shape of sternite IX setae in *Chernes similis* and *C. hahnii*), as well as additional morphometric data for some species (particularly *Chthonius carinthiacus*, *C. pygmaeus*, *Neobisium slovacum*, *N. crassifemoratum*, *Roncus transsilvanicus*, *Allochernes peregrinus*, *Lamprochernes chyzeri* and *L. nodosus*), accompanied by the latest data on the national fauna, including species recorded for the first time. Used in combination with Mahnert's