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A new species and new records of Arrhopalitidae (Collembola: Symphypleona) from the Republic of Moldova

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Abstract

Eight species of the family Arrhopalitidae Stach, 1956 are listed from the Republic of Moldova. A new species, *Arrhopalites prutensis* sp. nov. is described. It belongs to the *diversus* group of species with 3, 2, 1, 1 anterior setae on dens, possesses neosminthuroid seta on the furca base region—a character rarely noted for the family. The new species is closely related to *A. baccettii* Dallai, 1969 and *A. antonioi* Giuga & Jordana, 2013 described from Sicily. Five species of the family are firstly recorded for the country.

Key words: *Arrhopalites prutensis* sp. nov., taxonomy, *Arrhopalites*, *Pygmarrhopalites*, Eastern Europe

Introduction

The investigation of the Moldavian collembolans, in collaboration with M.M. da Gama, W.M. Weiner and L. Deharveng, resulted in the description of several species from the genera *Pseudosinella*, *Xenylla*, *Neamura*, *Lathriopyga* and *Micraphorura*—new for science and for the fauna of the country (Bușmachiou 2010; Bușmachiou & Deharveng 2008; Bușmachiou & Weiner 2008, 2013; Bușmachiou *et al.* 2010, Gama & Bușmachiou 2004). These results encouraged us to continue the research over other groups, including family Arrhopalitidae. Currently family Arrhopalitidae Stach, 1956 consists of three genera: *Arrhopalites* Börner, 1906 with 34 species, *Pygmarrhopalites* Vargovitsh, 2009 with almost hundred species and monotypic *Troglopalites* Vargovitsh, 2012 (Bellinger *et al.* 1996–2015, Vargovitsh 2009b).

The list of Arrhopalitidae from the Republic of Moldova hitherto included three species: cosmopolitan *Arrhopalites caecus* (Tullberg, 1871), Holarctic *Pygmarrhopalites pygmaeus* (Wankel, 1860) and Palaearctic *P. secundarius* (Gisin, 1958) (Bușmachiou 2010). The rich faunistic material which has been collected since 1995 by the second author contains specimens from eighteen localities. Revision of this material shows that in Moldova *Arrhopalites* is represented by four and *Pygmarrhopalites* by at least four species.

One species belonging to the *Arrhopalites diversus* group is recognized as new to science. This group of species is characterized by anterior dens chaetotaxy with five rows of setae (formula: 3, 2, 1, 1) and includes seven described species (Vargovitsh 2013). Most of them are distributed in Europe (*A. acanthophthalmus* Gisin, 1958, *A. antonioi* Giuga & Jordana, 2013, *A. baccettii* Dallai, 1969 and *A. microphthalmus* Cassagnau et Delamare, 1953), two in Asia (*A. ezoensis* Zeppelini, 2004 and *A. nivalis* Yosii, 1966) and one in North America (*A. diversus* Mills, 1934).

In present paper, we are describing a new *Arrhopalites* belonging to *diversus* group and giving provisional description of immature specimen, which possibly represents another new species from the same species group. The new records of other Arrhopalitidae species from the Republic of Moldova are listed.