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Review of the genus *Bilobella* Caroli, 1912 in the Balkan Peninsula with description of a new species (Collembola: Neanuridae)

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Abstract

A review of the genus *Bilobella* in the Balkan Peninsula is presented. This region represents a diversity hot-spot for this group, hosting 9 of the 13 known species, to which one species new to science is added from the Lovćen Mountains, Montenegro. *Bilobella mahunkai* **sp. nov**. has an extraordinary appearance, as its colour is sulphureous yellow and the tubercles on the posterior abdominal segments are prolonged and of finger-shape. The new species is distinguished from all known members of the genus by having three chaetae on De tubercle of the first thoracal segment. The new species is illustrated with drawings and SEM pictures. Description of *Bilobella matsakisi* Cassagnau, 1967 specimens from the Peloponnesus, Greece is given, because of the species' indistinct relation to *Bilobella proxima* Cassagnau & Peja, 1979. Taxonomical value of some characters investigated for the first time in this genus is discussed and a key to the species of the genus on the Balkan Peninsula is provided as well. Nematoda phoresis on the new taxon's specimens is documented.

Key words: taxonomy, springtails, *Bilobella mahunkai* **sp. nov.**, *Bilobella matsakisi*, Paleonurini, Nematoda, phoresis

Introduction

Regarding the research on the fauna, the Balkan Peninsula is the most underrepresented region in Europe. The Southern, Western and Eastern geographical borders of the region are marked clearly by the Adriatic, Ionian Aegean and Black Seas while its Northern limit is debatable. In this paper I consider this line as it was done by Reed *et al*. (2004) as running along the Hungarian-Croatian, and Hungarian-Serbian border, including the whole territory of Slovenia and following the Southern foothills of the Carpathians till the Southern edge of the Dobrogean region in Romania. Situated on the Southeastern part of the continent, the area could have been an important glacial refugium for forest communities during the Quaternary period (Kryštufek & Reed 2004). Additionally, high environmental stability and topographic diversity, typical for the Balkan region could play an important role in the development of a biodiversity which is of an extremely high level in Europe (Kryštufek & Reed 2004).

Our knowledge of the actual diversity and the zoogeography of springtails is even today relatively poor (Deharveng 2004, Hopkin 1997). This is also indicated by the discovery of striking occurrences (e.g. Kontschán *et al*. 2003; Traser & Kontschán 2004; Skarżyński & Kaprus' 2009) and the high number of descriptions of new taxa even on higher taxonomical levels (e.g. Deharveng 1991; Deharveng & Bedos 2000; Deharveng *et al*. 2007; Smolis 2000, 2007, 2008). Undescribed species are found even in relatively well investigated areas, such as Poland (e.g. Smolis 2000, 2002, 2006; Smolis & Skarżyński 2009) or Hungary (Traser & Dányi 2008). Thus, there is a huge perspective where a lot of interesting results can be expected in research carried out in little known areas in terms of Collembola fauna, such as the Balkan Peninsula in Europe.

The subfamily Neanurinae consists of six tribes according to Cassagnau (1989) from which *Bilobella* Caroli, 1912 belongs to the Paleonurini. The genus contained 13 species till now, one of which, *Bilobella carpatica*, was described just recently (Smolis & Kaprus' 2008). The locus typicus of this species is situated in the Carpathians, however, the diversity hotspot of the genus lies probably on the Balkan Peninsula

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