Notes on the morphology and the Romanian distribution of

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Abstract. A very rare Uropodina mite species; Uroobovella hungarica Hirschmann & Zirngiebl-Nicol, 1962 was discovered in several parts (e.g. Transylvania, Oltenia) of Romania. A new description is given accompanied with several characters not investigated earlier.

Keywords. Uropodina, Uroobovella hungarica, first record, redescription, Romania.

INTRODUCTION

The mites of the suborder Uropodina occur worldwide in soil, moss and leaf. The Central European countries (Germany, Hungary, Poland, Romania, and Slovakia) are intensively studied. Currently more than 80 species are recorded from these countries (Wiśniewski 1993, Mašán 2001, Kontschán 2008). Despite of the intensive studies, several interesting and characteristic species are not recorded from these countries yet.

Uroobovella hungarica is one of these rare and poorly investigated species which was described by Hirschmann & Zirngiebl-Nicol (1962) on the basis of specimens collected in Hungary. However, the description of this species is very incomplete; several characters are not mentioned nor illustrated. No detailed redescription of this species is available in the literature and no other records have been added to its distribution, until current addition of two new occurrences from Bosnia-Herzegovina by Kontschán (2013).

Examining a rich material from different part of Romania I have found many other, well-preserved specimens of Uroobovella hungarica which are described herein.

MATERIAL AND METHODS

Specimens were cleared in lactic acid and drawings were made with the aid of a drawing tube. After the investigation, specimens are stored in 75% ethanol and deposited in the Soil Zoology Collections of the Hungarian Natural History Museum, Budapest (HNHM).

RESULTS

Uroobovella hungarica Hirschmann & Zirngiebl-Nicol, 1962

(Figures 1–12)


Diagnosis. Dorsal setae spine-like, dorsal shield covered by small oval pits. Marginal shield reduced caudally, three pairs of caudal setae situ-
Kontschán: Notes on the morphology and the Romanian distribution of Uroobovella hungarica


Description. Female. Length of idiosoma 650–670 µm, width 540–570 µm (n=17). Shape oval, posterior margin rounded.

Dorsal idiosoma (Fig. 1). Dorsal and marginal shield fused anteriorly. Dorsal setae thin and spine-like (ca. 16–20 µm), dorsal shield covered by small oval pits. Marginal shield reduced caudally, marginal setae smooth and needle-like (ca. 17–20 µm), surface of marginal shield with irregular pits. Three pairs of caudal setae situated on small platelets.

Ventral idiosoma (Fig. 2). Sternal shield without sculptural pattern. All sternal setae short (ca. 10 µm), smooth and needle-like. St1 situated near anterior margin of sternal shield, St2 at level of anterior margin of coxae II, St3 at level of anterior margin of coxae III, St4 at level of posterior margin of coxae III, St5 placed near posterior edges of genital shield.

Ventral shield covered by small oval pits, preanal line present. Four pairs of ventral setae situated anteriorly to preanal line, other setae can be seen posteriorly to preanal line. All ventral setae smooth, short (ca. 20–21 µm) and needle-like. Adanal setae (ad1, ad2) similar in shape and length to other ventral setae. Pedofossae deep, their surface covered by numerous oval pits, separate furrows for tarsi IV absent. Surface between pedofossae III and IV covered by large oval pits.

Peritremes (Fig. 3). Long, prestigmatid part S-shaped, poststigmatid part short. Stigmata situated between coxae II and III.

Genital shield. Linguliform, its surface covered by small oval pits, on its anterior margin a wide process present which bears two-three small apical rounded spines. Genital shield situated between coxae II and IV.

Tritosternum (Fig. 4). With narrow base, tritosternal lacinia divided into four, marginally pilose branches.

Gnathosoma (Fig. 5). Corniculi horn-like, internal malae long and apically serrate. Hypostomal setae h1 smooth and long (ca. 66 µm), h2 smooth, robust and very short (ca. 12 µm), h3 long and needle-like (ca. 37 µm), h4 apically serrate (ca. 20 µm). Four rows of denticles pre-

Epistome with serrated basal margin, apically pilose (Fig. 6). Digitus fixus of chelicerae bearing long apical process, with one tooth and bulbiform apical sensillum. Digitus mobilis short, without tooth, internal sclerotized node present (Fig. 7). Palp with smooth and needle-like setae (Fig. 8).

Legs (Figs 9–12). All legs with paired ambulacral claws and bearing smooth setae on all seg-
Kontschán: Notes on the morphology and the Romanian distribution of Uroobovella hungarica


Remarks. Hirschmann & Zirngiebl-Nicol (1962) placed this species into the rackei species group which needs urgent revision. Currently 14 species are listed in this group, from which 13 species occur in the Palearctic region, and only one species is reported from Neotropical area (Chile). Uroobovella hungarica is easy to distinguish from other European species based on the following characters: shape of the apical process of genital shield, the absence of pygidial shield and the ornamentation and setation of dorsal and ventral parts of the idiosoma.

ECOLOGICAL AND ZOOGEOGRAPHICAL NOTES

Uroobovella hungarica is a rare species; it has previously been recorded only in Bosnia-Herzegovina (Kontschán 2013: Bjelašnica Mts and Grmeč Mts), Hungary (Hirschmann & Zirngiebl-Nicol 1962: without exact locality) and Romania. The species was collected in the mountainous regions of these countries, between 400 and 1100 m in Romania and between 500 and 1350 m in Bosnia-Herzegovina, but it can be found at lower altitude (205 m) as well, e.g. in the Oltenia region of Romania. The Romanian specimens live mostly in leaf litter (especially in beech forests), but they were found in moss and sphagnum bogs as well; specimens found in Bosnia-Herzegovina were from soil, moss and leaf litter.

The distribution of this species is very interesting. On the basis of the recent data Uroobovella hungarica can be found in the southern part of the Carpathian Basin and northern part of the Balkan Peninsula, except of the record from Maramures, which belongs to the Eastern Carpathians. Despite of the different origins of the Carpathians and the Apuseni Mountains, this species can be found in both regions (Fig. 13), therefore this species must have colonized this region after the formation of the Carpathians and the Apuseni Mountains.
Figure 13. Occurrences of *Uroobovella hungarica* Hirschmann & Zirngiebl-Nicol, 1962 in Romania.

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