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Some new records of Uropodina mites (Acari: Mesostigmata) from Croatia, Serbia and Montenegro with descriptions of two new species

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Abstract – Sixteen Uropodina species are listed from Croatia, Serbia and Montenegro. Five species has the first record from Croatia, five species from Montenegro and one species from Serbia. Descriptions of two new species from Croatia are given. With 19 figures.

Key words – Uropodina, first record, new species, Croatia, Serbia, Montenegro.

INTRODUCTION

The Uropodina fauna of former Yugoslavia is poorly-investigated. WISNIEWSKI (1993) summarized the Uropodina species of the countries of the world and gave the occurrences of some species from these counties. KONTSCHÁN (2005) published several species from Slovenia, Croatia, Serbia-Montenegro and Macedonia. Ten species are listed in that paper from the northern part of Croatia (Mts Papuk and Mts Psunj), and one species from beside Zadar (Dalmatia). In that paper only the Fruska Gora Mountains were investigated from Serbia, where six species were listed from (KONTSCHÁN 2005).

The present paper gives several new occurrences of the Uropodina mites and description of two new species.

MATERIALS AND METHODS

The specimens were studied with traditional methods. Lactic acid was used to clear the specimens. The drawings were made with camera lucida.

The identified specimens are stored in alcohol and deposited in the Collections of Soil Zoology of the Hungarian Natural History Museum. Measurements are given in micrometers (μm).

LIST OF LOCALITIES
(Fig. 1)

Croatia

1. Croatia, Medvednica, Zagrab, Sljeme, from beech forest, from leaf litter, 1. IV. 2006. leg Á. GARAI, J. KONTSCHÁN & D. MURÁNYI.
2. Croatia, Medvednica, Zagrab, Sljeme, from beech forest, from soil, 1. IV. 2006. leg Á. GARAI, J. KONTSCHÁN & D. MURÁNYI.
3. Croatia, Mts Ivansica, Prigorec, from beech forest, 1. IV. 2006. leg Á. GARAI, J. KONTSCHÁN & D. MURÁNYI
4. Croatia, Ivansica, Lobor, from oak-beech mixed forest, 1. IV. 2006. leg Á. GARAI, J. KONTSCHÁN & D. MURÁNYI.
5. Croatia, Vetermicka, from oak forest, from soil, 1. IV. 2006. leg. Á. GARAI, J. KONTSCHÁN & D. MURÁNYI.
6. Croatia, Mala Kapella, Plitvička jezera, from leaf litter, 26. VII. 2005. leg. J. KONTSCHÁN.
7. Croatia, Mala Kapella, Plitvička jezera, beech forest, from leaf litter, 26. VII. 2005. leg. J. KONTSCHÁN.
8. Croatia, Mala Kapella, Plitvička jezera, near lake Kozjak, from beech forest, from leaf litter, 3. VII. 2006. leg. L. DÁNYI.
9. Croatia, Mala Kapella, Plitvička jezera, from soil, 26. VII. 2005. leg. J. KONTSCHÁN.
10. Croatia, Mala Kapella, Plitvička jezera, Stubica, from dry oak forest, from leaf litter, 3. VII. 2006. leg. L. DÁNYI.
11. Croatia, Mala Kapella, Plitvička jezera, Stubica, from dry oak forest, from leaf litter, 3. VII. 2006. leg. L. DÁNYI.
12. Croatia, Island Krk, Valbiska, from oak forest, 29. IV. 2006. leg. L. DÁNYI.
13. Croatia, Nin, seaside, from decayed sea-grass, 2. VII. 2006. leg. L. DÁNYI.
14. Croatia, Sibenik, near river Krka, from soil, 25. VII. 2006. leg. J. KONTSCHÁN.
15. Croatia, Paklenica NP, Klimenta, from beech forest, from decayed tree, 5. VII. 2006. leg. L. DÁNYI.
16. Croatia, Grebastica, from decayed sea-grass, 22. VII. 2005. leg. J. KONTSCHÁN.

Serbia

17. Kosovo, Novoselo, Beli Drim spring, karstic forest, 580 m a.s.l., moss and litter, 12. X. 2005. leg. T. DELI, Z. ERÖSS, Z. FEHÉR & D. MURÁNYI.

18. Kosovo, Bjeluhe W, gorge along the road to Cakor-pass, 1250 m a.s.l. from beech forest, from leaf litter, 5. X. 2005. leg. T. DELI, Z. ERŐSS, Z. FEHÉR & D. MURÁNYI.
19. Derdap Mts, Klokocevac, stream valley with oak forest, 156 m a.s.l. 12. X. 2006. leg. L. DÁNYI, J. KONTSCHÁN & D. MURÁNYI.

Montenegro

20. Montenegro, Velika E (Murino 18 km toward Cakor pass) 1235 m a.s.l. from mixed pine forest, subalpine grassland, from litter and dead wood, 5. X. 2005. leg. T. DELI, Z. ERŐSS, Z. FEHÉR & D. MURÁNYI.
21. Montenegro, 3 km SE of Grncar along the Gushinje-Shkoder road, beech forest, from litter and dead wood, 4. X. 2005. leg. T. DELI, Z. ERŐSS, Z. FEHÉR & D. MURÁNYI.
22. Montenegro, Velika E (Murino 18 km toward Cakor pass) 1235 m a.s.l.from beech forest, from moss and litter from streamshore, 5. X. 2005. leg. T. DELI, Z. ERŐSS, Z. FEHÉR & D. MURÁNYI.

Fig. 1. Collecting sites in Croatia, Serbia and Montenegro (for the explanation of numbers see in the list of localities) (remark: localities 20 and 22 are marked by number 20)

List of species

Uropodina KRAMER, 1881
Polyaspidoidea EVANS, 1972
Trachytes pauperior (BERLESE, 1914)

Previous data: –.
New data: 1.
Distribution: Europe.

Remark: This is the first record from Croatia.

Trachytes mystacinus BERLESE, 1910

Previous data: –.
New data: 2, 7, 8, 15.
Distribution: Slovakia, Austria, Switzerland and Italy.

Remark: This is the first record from Croatia.

Trachytes aegrota (C. L. KOCH, 1841)

Previous data: –.
New data: 22.
Distribution: Europe.

Remark: This is the first record from Montenegro.

Trachytes szonjaae sp. n.
(Figs 2–8)

Diagnosis – Dorsal shield with two large X-form well-sclerotised dorsal-lines. Dorsal and marginal shield with alveolar pattern. Vertex with broad lateral margins. Genital shield axe-form.

Description – Female. Idiosoma pear-like with vertex, 750 μm long, 475 μm wide (n=1). Deuteronymph and protonymph unknown.

Dorsal side (Fig. 2): Vertex with 3 pairs of smooth, setiform setae and maculate pattern and with broad lateral margins. Marginal and dorsal shields fused on anterior part of dorsal side. Surface of dorsal shield with alveolate ornamentation on lateral part and central part of

dorsal shield. Two large X-form well-sclerotised dorsal-lines can be found on central region of dorsal shield. All dorsal setae smooth, setiform. Marginal shields without ornamentation. All marginal setae as long as dorsal setae. Setae and surface of postmarginal shield similar to the dorsal setae (Fig. 3).

Ventral side (Fig. 4): Alveolar ornamentation and on apical part of sternal shield. Sternal setae short, smooth and setiform. Inguinal shield with alveolar pattern, x2 smooth and setiform and near margin of inguinal shields. Ventrianal shield bear alveolar ornamentation and smooth setiform setae (similar to x2), postanal setae shorter than the other setae on ventrianal shield. Soft membranous cuticule bear smooth and setiform x4 and x5 setae, x2 setae are placed on soft membranous cuticle, but they are longer then x4 and x5 (Fig. 5).

Genital shield large, axe-form with distinctly curved margin, without ornamentation on lateral part and without process, adgenital platelets with st5 setae.

Gnathosoma (Fig. 6): Corniculi horn-like, laciniae smooth and longer than corniculi. Visible hypostomal setae are the following: h1 long, smooth and setiform, h2 very short, smooth and setiform, h3 longer than h2, but shorter than h1, smooth and setiform.Tritosternum with wide basis, laciniae with four branches. Epistome and chelicerae not clearly visible.

Male: Idiosoma pear-like with vertex, 760 μm long, 500 μm wide (n=1). Male similar to female, dorsal shield with two X-form well sclerotised lines. Postmarginal shield is shown in Fig. 7. Sternal shield with alveolar ornamentation on its anterior part and near coxae 4. Genital shield of male localised between coxae 4 and its shape circle (Fig. 8).

Materials examined – Holotype: female, "Croatia, Vetermicka, from oak forest, from soil, 1.IV.2006. leg. Á. GARAI, J. KONTSCHÁN & D. MURÁNYI". Paratype: male, locality and date same as holotype.

Etymology – The new species is dedicated to Ms. ÁGNES SZONJA GARAI (author's girl-friend), who helped the author collecting the mites.

Remarks –The two large X-form, well-sclerotised dorsal-lines on the dorsal shield is the unique characteristic in the genus *Trachytes*, there is not any species similar to the new one.

Uropodoidea EVANS, 1957
Dinychus perforatus KRAMER, 1882

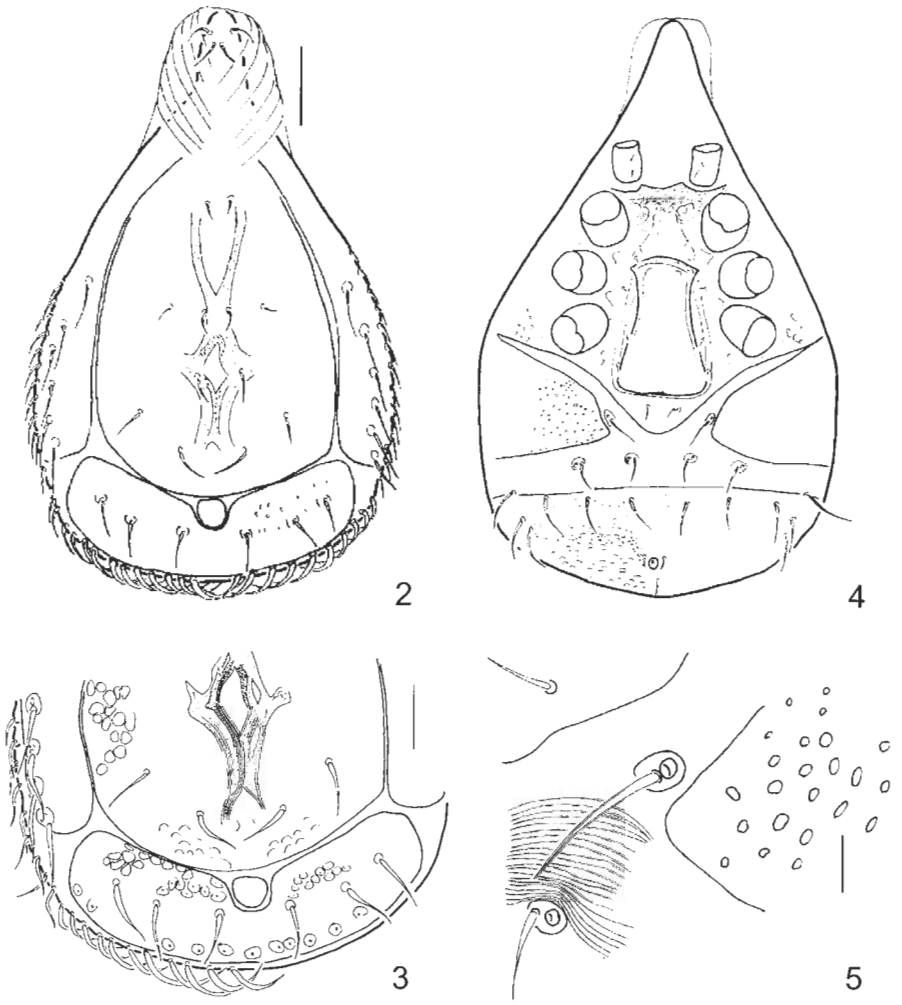
Previous data: –.
New data: 3.
Distribution: Europe.

Remark: This is the first record from Croatia.

Urodiaspis tecta (KRAMER, 1876)

Previous data: –.
New data: 18.
Distribution: Europe.

Remark: This is the first record from Serbia.



Figs 2–5. *Trachytes szonjaae* sp. n. 2 = dorsal view, 3 = postmarginal shield, 4 = ventral view, 5 = ventral setae. Scale = 100 μm for Fig. 2, 10 μm for Figs 3, 5

Urodiaspis pannonica WILLMANN, 1951

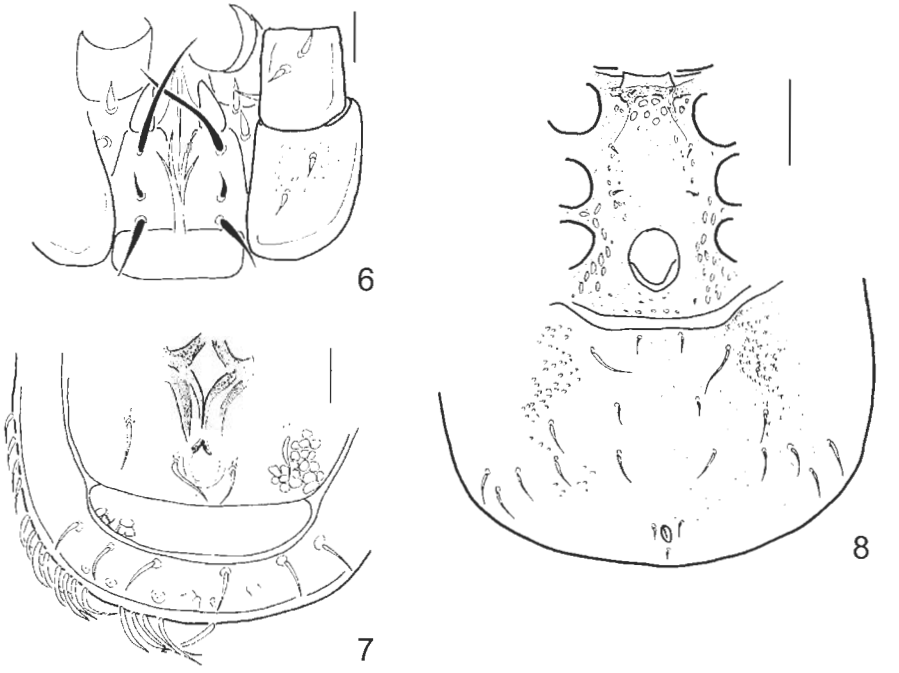
Previous data: –.
New data: 20, 22.
Distribution: Central and South-Europe.

Remark: This is the first record from Montenegro.

Trichouropoda ovalis (C. L. KOCH, 1839)

Trichouropoda ovalis: KONTSCHÁN 2005.
Previous data: Fruska Gora (KONTSCHÁN 2005).
New data: 21.
Distribution: Europe.

Remark: This is the first record from Montenegro.



Figs 6–8. *Trachytes szonjaae* sp. n. 6 = ventral view of gnathosoma, 7 = postmarginal shield of male, 8 = ventral and sternal region of male. Scale = 10 μm for Fig. 6, 20 μm for Fig. 7, 100 μm for Fig. 8

Uropoda splendida KRAMER, 1882

Uropoda splendida: KONTSCHÁN 2005.
Previous data: Fruska Gora, Papuk and Psunj Mts (KONTSCHÁN 2005).
New data: 6, 10, 19, 22.
Distribution: Europe.

Remark: This is the first record from Montenegro.

Uropoda pulcherrima (BERLESE, 1903)

Uropoda pulcherrima: KONTSCHÁN 2005.
Previous data: Papuk Mts (KONTSCHÁN 2005).
New data: 4, 8, 7, 10.
Distribution: Europe.

Uropoda erlagensis HIRSCHMANN & ZIRNGIEBL-NICOL, 1969

Uropoda erlangensis: KONTSCHÁN 2005.
Previous data: Fruska Gora (KONTSCHÁN 2005).
New data: 6, 15, 17.
Distribution: Central-Europe.

Remark: This is the first record from Croatia.

Uropoda cassidea (HERMANN, 1804)

Uropoda cassidea: KONTSCHÁN 2005.
Previous data: Psunj Mts and Fruska Gora (KONTSCHÁN 2005).
New data: 1, 3, 6, 9, 11, 18, 22.
Distribution: Europe.

Remark: This is the first record from Montenegro.

Uropoda hungarica KONTSCHÁN, 2004

Uropoda hungarica: KONTSCHÁN 2005.
Previous data: Papuk Mts (Kontschán 2005).
New data: 1.
Distribution: Croatia, Hungary.

Uropoda mazsalakiae KONTSCHÁN, 2005

Uropoda mazsalakiae: KONTSCHÁN 2005.
Previous data: Dalmatia (KONTSCHÁN 2005).
New data: 13, 14, 16.
Distribution: Croatia.

Discourella modesta (LEONARDI, 1899)

Previous data: –.
New data: 12.
Distribution: Europe.

Remark: This is the first record from Croatia.

Uroobovella danyii sp. n.
(Figs 9–19)

Diagnosis – The dorsal setae long, smooth and with short hairs on its apical part. Ventral shield with tree-form setae. Genital shield of female oval, without process and pattern.

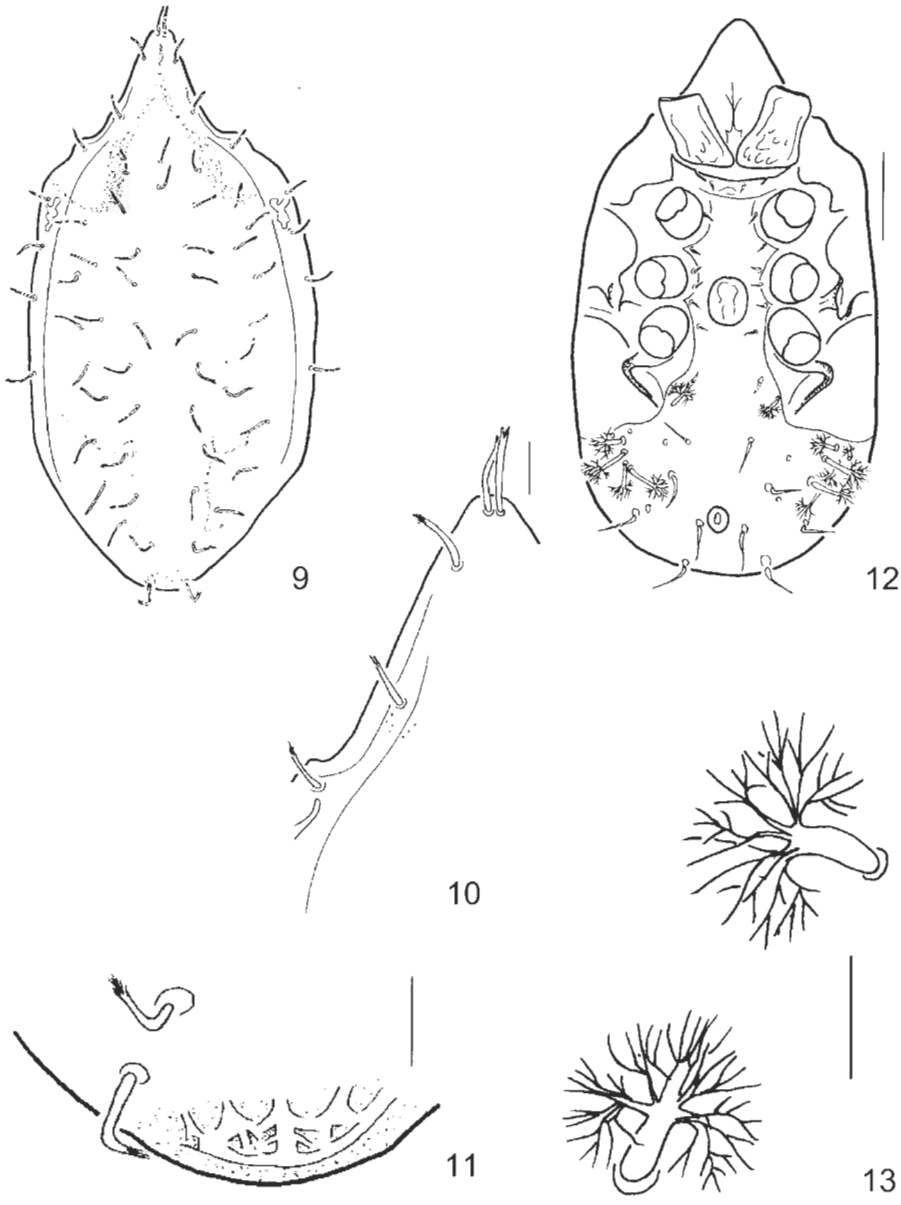
Description – Male. Length of idiosoma 640 μm, width (in the middle of idiosoma) 350 μm. Shape oblong. Deuteronymph, protonymph and larva unknown.

Dorsal side (Fig. 9.): Marginal and postmarginal shields with several smooth and long setiform setae with short hairs on its apical part (Figs 10 and 11). Ornamentation lacking in the dorsal and marginal shields.

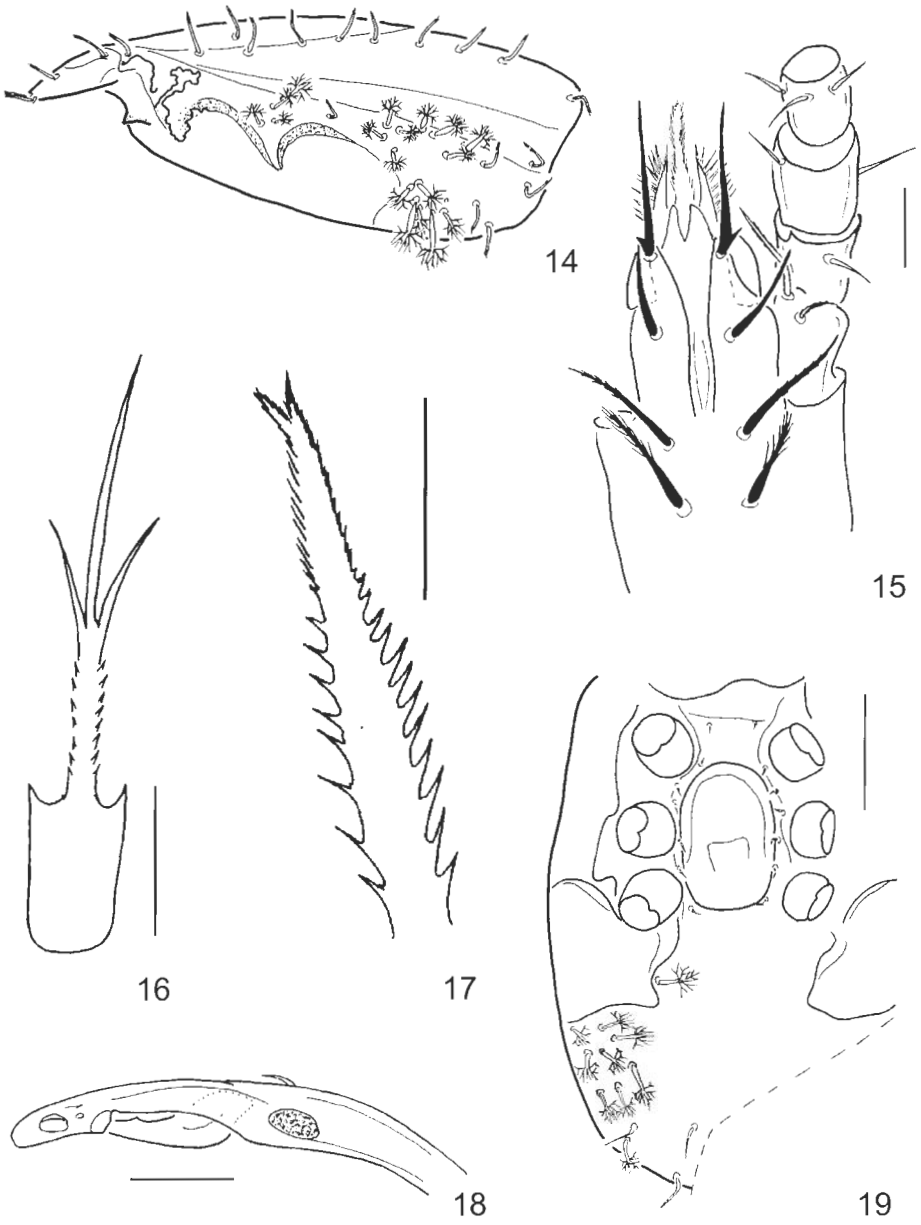
Ventral side (Fig. 12.): All sternal setae short, smooth and needle-like. Sternal and ventral shields without ornamentation. One part of ventral setae tree-form (Fig. 13), and are located near the metapodal line. Tree-form setae are located near the marginal part of ventral shield and between coxae 3 and 4 (Fig. 14). Other part of ventral setae longer than sternal setae, smooth and needle-like and place in the central- and caudal part of ventral shield.

Genital shield of male rounded, it is localized between coxae 2 and 3.

Gnathosoma (Fig. 15): Corniculi horn-like, laciniae longer than corniculi and with several spines on its apical margins. Labrum with short hairs. Hypostomal setae: h1 long smooth and needle-like with one short spine on its basal part, h2 shorter than h1, smooth and needle-like, h3 as long as h1, needle-like and with serrated margins, h4 as long as h3, needle-like and with hairs on its apical part. Basal part of tritosternum narrow and with two spines on anterior margin, laciniae trifurcated, basal part with some short spines (Fig. 16). Epistome with spines on basal part and short hairs on its apical part (Fig. 17). Chelicerae with nodes, it is shown in Fig 18.



Figs 9–13. *Uroobovella danyii* sp. n. 9 = dorsal view, 10 = dorsal setae on apical region, 11 = dorsal setae on caudal region, 12 = ventral view, 13 = tree-form setae. Scale = 100 μm for Fig. 12, 20 μm for Figs 10–11, 13



Figs 14–19. *Uroobovella danyii* sp. n. 14 = lateral view, 15 =ventral view of gnathosoma, 16 = tritosternum, 17 = epistome, 18 = chelicera, 19 = sternal and ventral region of female. Scale = 20 μm for Figs 15–18, 100 μm for Fig. 19

Female: Length of idiosoma 540 μm, width (in the middle of idiosoma) 340 μm. Shape oblong. Dorsal, ventral and marginal setae and sculpture similar to the male. Genital shield of female oval, without pattern and process. The anterior part of the genital shield located between coxae 2, posterior margin between coxae 4 (Fig. 19).

Material examined – Holotype: male, "Croatia, Nin, seaside, from decayed sea-grass, 2. VII. 2006. leg. L. Dányi", paratype: female, locality and date same as the holotype. The material is stored in alcohol and deposited in the Collections of Soil Zoology of the Hungarian Natural History Museum.

Etymology – This species dedicated to my colleague and friend, Mr. LÁSZLÓ DÁNYI, who is collected these specimens in Croatia.

Differential diagnosis – The new species is similar to *Uroobovella peteti* (COINEAU & TRAVÉ, 1964). *U. peteti* bears process on the anterior margin of genital shield of female, but the new species does not have process on the anterior margin of the genital shield.

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