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A new *Uroobovella* BERLESE, 1903 species from Vietnam (Acari: Uropodina)

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ABSTRACT. *Uroobovella vietnamica* n. sp. of the *elegans* species-group is described from Vietnam. The new species differs from the already known species in the following characters: shape of the well sclerotised dorsal lines are C-like, five pairs of smooth caudal setae present on dorsal shield and the ornamentation on genital shield of female is finely alveolate. These characters are unique in the *elegans*-group. The new species is illustrated with six figures.

Key words: acarology, taxonomy, Uropodina, *Uroobovella*, new species, Vietnam.

INTRODUCTION

The genus *Uroobovella* BERLESE, 1903 is one of the largest uropodine genera, comprising more than 250 species world-wide (WIŚNIEWSKI & HIRSCHMANN 1993). Presently morphologically very different species are classified in this genus which needs an urgent revision.

Our knowledge on the *Uroobovella* species of East and South-East Asia is poor. At present 29 species are known from this region, namely 14 species from Indonesia, one from Malaysia, three from Philippines, eight from Vietnam, one from Laos, Nepal and Taiwan (WIŚNIEWSKI 1993).

HIRSCHMANN and ZIRNGIEBL-NICOL (1962) subdivided this large “catch-all genus” into several species groups which later were raised to generic level (HIRSCHMANN 1979). Unfortunately, later neither HIRSCHMANN nor his co-workers (e.g. HIRSCHMANN 1989, 1993, WIŚNIEWSKI 1993, WIŚNIEWSKI & HIRSCHMANN 1993) ever used this system again. The revision of the genus *Uroobovella* (HIRSCHMANN 1989) treated these taxa as species-groups.

One of the species groups is characterized by wide pilose marginal setae placed on small protuberances. These species are classified in the *elegans*-group and currently we know eleven species from this group. Ten species occur in South-East Asia and New Guinea and one species is distributed in South America, in Ecuador and Costa Rica (WIŚNIEWSKI & HIRSCHMANN 1993, KONTSCHÁN 2009). The present paper contains the description of a new species from Vietnam where the members of this species group have not been detected before.

MATERIALS AND METHODS

Newly collected specimens were found in the collection of the Soil Zoology of Hungarian Natural History Museum. The specimens were cleared in lactic acid and observed in the deep and half covered slides in scientific microscope. Illustrations were made with the aid of a drawing attachment. The specimens are stored in alcohol and deposited in the Soil Zoology Collections of the Hungarian Natural History Museum, Budapest. All measurements are given in micrometers (μm).

DESCRIPTION

***Uroobovella vietnamica* n. sp.**

(Figs 1-6)

DIAGNOSIS

Dorsal and marginal shields fused anteriorly. All setae of dorsal shield smooth and needle-like, setae on caudal region longer than other on dorsal shield. Setae on marginal shield small, smooth and needle-like, and placed on well sclerotized small platelets. Marginal setae wide and with pilose margins. Ornamentation of dorsal and marginal shields alveolar. Two well sclerotised, C-shaped lines can be observed on the anterior region of dorsal shield. Sternal shield smooth, ventral shield bear alveolar ornamentation. Genital shield with fine alveolar sculptural pattern.

MATERIALS EXAMINED

Holotype: female. As-673. Vietnam: Da Lat, Thac Datanla waterfall, 1200m, 07.12.1994. Coll. S. Mahunka. Paratypes: three females and four males. Locality and date same as holotype.

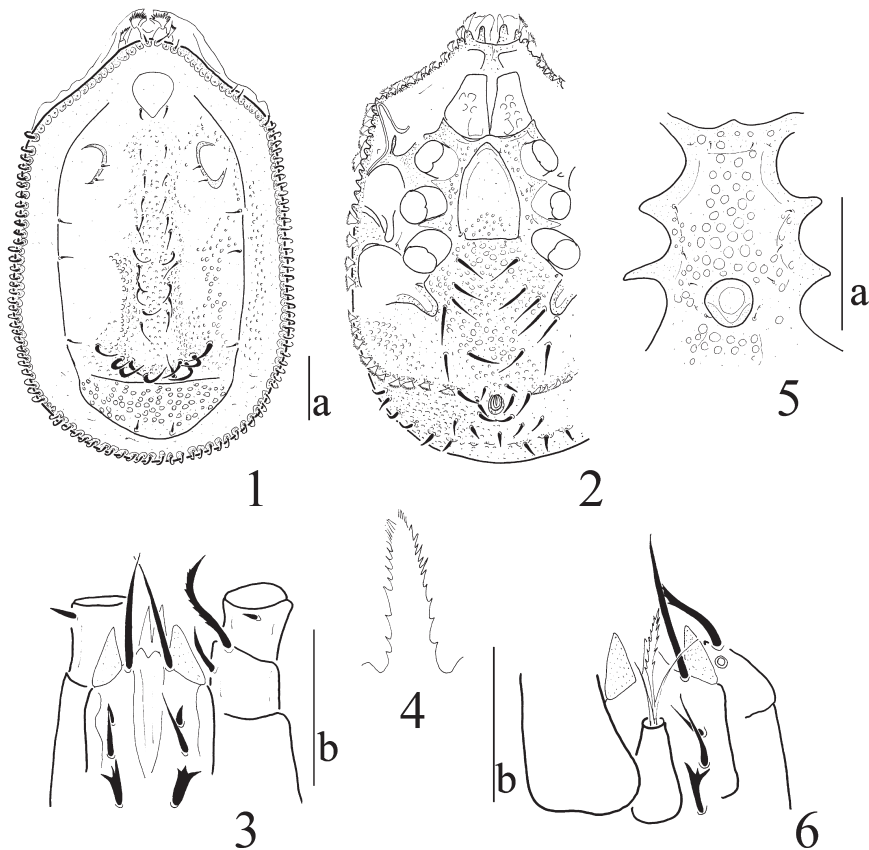
DESCRIPTION

Female. Length of idiosoma 660-670 μm , width 430-460 μm (n=4). Shape oval, posterior margin rounded.

Dorsal idiosoma (Fig. 1). Dorsal and marginal shields fused anteriorly. All dorsal setae smooth and needle-like, five pairs of them 1.5 times longer than other dorsal setae. One drop-like cavity and one pair of C-shaped, well sclerotized line can be found on anterior region of dorsal shield. These C-shaped cavities bear two pairs of dorsal setae. Setae on marginal shield smooth and needle-like, and placed on small and well

sclerotized platelets. Ornamentation of dorsal and marginal shields alveolar. Marginal setae wide, subtriangular and marginally pilose.

Ventral idiosoma (Fig. 2). Tritosternum with narrow, vase-like basis and with trifurcated laciniae, central branch with serrated margins, other two smooth. Sternal shield with some oval pits. All sternal setae short, smooth and needle-like. The positions of sternal setae are as follows: St1 near the anterior margin of genital shield, St2 near central region of coxae II, St3 near the anterior margins of coxae III, St4 can be observed near the central region of coxae IV, St5 near basal line of genital shield. Ventral setae between genital shield and anal platelets long, smooth and needle-like, their positions can be seen on Fig. 2. Several subtriangular and pilose marginal setae can be found on ventral idiosoma near anal platelets and on the level of anal platelets, sitting on small protuberances. Ventral shield ornamented by alveolar sculptural pattern.



1-6. *Uroobovella vietnamica* n. sp., (female) 1 – dorsal view, 2 – ventral view, 3 – ventral view of gnathosoma, 4 – basal part of epistome, (male) 5 – intercoxal region, 6 – ventral view of gnathosoma and tritosternum (scale bar: a: 100 μ m, b: 50 μ m)

Genital shield scutiform, bearing fine alveolar ornamentation. Peritreme hook-shaped, stigmata placed between coxae II and III.

Gnathosoma (Fig. 3). Corniculi horn-like, internal malae long and smooth. Hypostomal setae are as follows: h1 long, smooth and needle-like, h2 six times shorter than h1, h3 similar to h1 in shape but two times shorter than h1, h4 two times shorter than h1 and antler-shaped. Basis of epistome with serrated margins, its apical part not clearly visible (Fig. 4). Chelicerae not clearly visible. Setae on palp trochanter illustrated on Fig. 3, other setae smooth, short and needle-like.

Male. Length of idiosoma 640-650 μm , width 420-430 μm (n=4). Shape oval, posterior margin rounded.

Dorsal idiosoma. Ornamentation and chaetotaxy of dorsal shield as for the female.

Ventral idiosoma (Fig. 5). Sternal shield covered by alveolar ornamentation. Sternal setae smooth, short and needle-like. Ventral setae and ventral ornamentation similar to that of the female. Genital shield circular, situated between coxae IV. Tritosternum as in Fig. 6.

Gnathosoma (Fig. 6). Corniculi horn-like, internal malae long and smooth. Hypostomal setae are the follows: h1 long, smooth and needle-like, h2 two times shorter than h1, h3 similar to h1 in shape and size, h4 two times shorter than h1 and antler-shaped. Epistome and chelicerae not clearly visible. Setae on palp trochanter illustrated on Fig. 6, other setae smooth, short and needle-like.

Nymphs and larvae are unknown.

ETYMOLOGY

The new species is named after the country of origin.

NOTES

This new species is the 9th *Uroobovella* species from Vietnam. Only the following eight species are listed from Vietnam (in alphabetic order): *U. matskasi* HIRSCHMANN, 1981; *U. micherdzinskii* HIRSCHMANN & ZIRNGIEBL-NICOL, 1972; *U. ornata* HIRSCHMANN, 1981; *U. pauxillaoides* HIRSCHMANN, 1981; *U. similitakensis* HIRSCHMANN, 1981; *U. topali* HIRSCHMANN, 1981; *U. vietnamensis* HIRSCHMANN, 1981 and *U. vietnamvarians* HIRSCHMANN, 1981 (HIRSCHMANN & ZIRNGIEBL-NICOL 1972, HIRAMATSU & HIRSCHMANN 1981, HIRSCHMANN 1981 a, b, c, d). One species (*U. ornata*) has phylliform dorsal setae and subdivided marginal shield on caudal region of dorsum, the other seven species bear only smooth and needle-like setae, the very characteristic wide pilose marginal setae placed on small protuberances are missing from this species hence it does not belong to the *elegans*-group.

The shape of the well sclerotised, C-like dorsal lines, the five pairs of smooth caudal setae on dorsal shield and the ornamentation on genital shield of female are unique characters in the species of the *elegans*-group.

DISCUSSION

With the addition of the new species we now know 12 species from South-East Asia, New Guinea and South America (WIŚNIEWSKI & HIRSCHMANN, 1993). But it is probable that similar hitherto undescribed species occur in parts of Asia, Oceania and South America, and although currently the members of this species group are not known from Afrotropical region, it seems to be certain that eventually the group will be found to occur there as well.

The species of the *elegans*-group are well characterized by the subtriangular marginal setae. This phenomenon is unique in the genus *Uroobovella* (HIRSCHMANN 1989) and hence I think these species belong to a new, presently undescribed genus (KONTSCHÁN 2009).

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