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SHORT COMMUNICATIONS

DESCRIPTION OF HIRSTIONYSSUS PAVLOVSKYI SP. N. (ACARI: DERMANYSSIDAE) COLLECTED FROM DRYOMYS NITEDULA IN THE PIRIN MOUNTAINS, BULGARIA

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Abstract. A description is given of a new mite species *Hirstionyssus pavlovskyi*, collected from the forest dormouse *(Dryomys nitedula)* in the Banderica locality (1850 m a.s.l.) in the Pirin mountains (Bulgaria).

Between June 24 and July 3, 1971 I participated in the joint Czechoslovak–Bulgarian expedition in the Pirin mountains. Our studies were directed at the high altitude ectoparasite fauna of small mammals. The catches of these hosts also included 10 specimens of the forest dormouse *Dryomys nitedula* (Pallas, 1778) from the Banderica locality situated at the altitude of 1800–1850 m in the upper timber line and from the mountain Ovinatia (2350 m) from the zone of dwarfpine and scree-strewn mountain slopes.

Many studies have confirmed the fact that this host species is rarely parasitized not only by mites, but by other groups of ectoparasites as well. Our catches included two specimens of *D. nitedula*, from which we collected 3 mites (1 ♀, 2 deutonymphs). During identification it became evident that these mites belonged to a new species which is described below. In view of the fact that the occurrence of *D. nitedula* is relatively rare and the occurrence of mites on this host species is still rarer, it cannot be said as yet if this is a mite species specific for *D. nitedula*, or a type of parasite belonging to some other categories according to the classification of Mrciak and Rosický (1959). Not even the previous studies on gamasoid mites from the Pirin mountains (Mrciak 1959, Sosnina et al. 1969) are helpful in its correct classification. But despite these single findings we may presume that this mite is a specific parasite of the forest dormouse (*D. nitedula*) phylogenetically closely related to *H. pauli*, described from *Sciurus vulgaris* (Willmann 1952).

This species is named after Academician E. N. Pavlovsky, the eminent parasitologist, founder of the theory on natural focality of transmissive diseases who headed for many years the Zoological Institute of the USSR Academy of Sciences in Leningrad and to whom the credit for the elucidation of many epidemiological and epizootological processes and natural laws is due.

Female: Body of oval shape, pale yellow. Length 550 μm, width 357 μm. Dorsal part covered with single dorsal shield 541 μm long, 321 μm wide. On the shield 26 pairs of smooth needle-like setae. The longest setae F_3, V, ET_1 ET_2, T, Sc, M_{11}, the shortest F_1, D_2–D_7. The other setae are approximately alike. Dorsal shield widely rounded anteriorly the widest at the level of setae S_5, in the middle third somewhat narrowed.

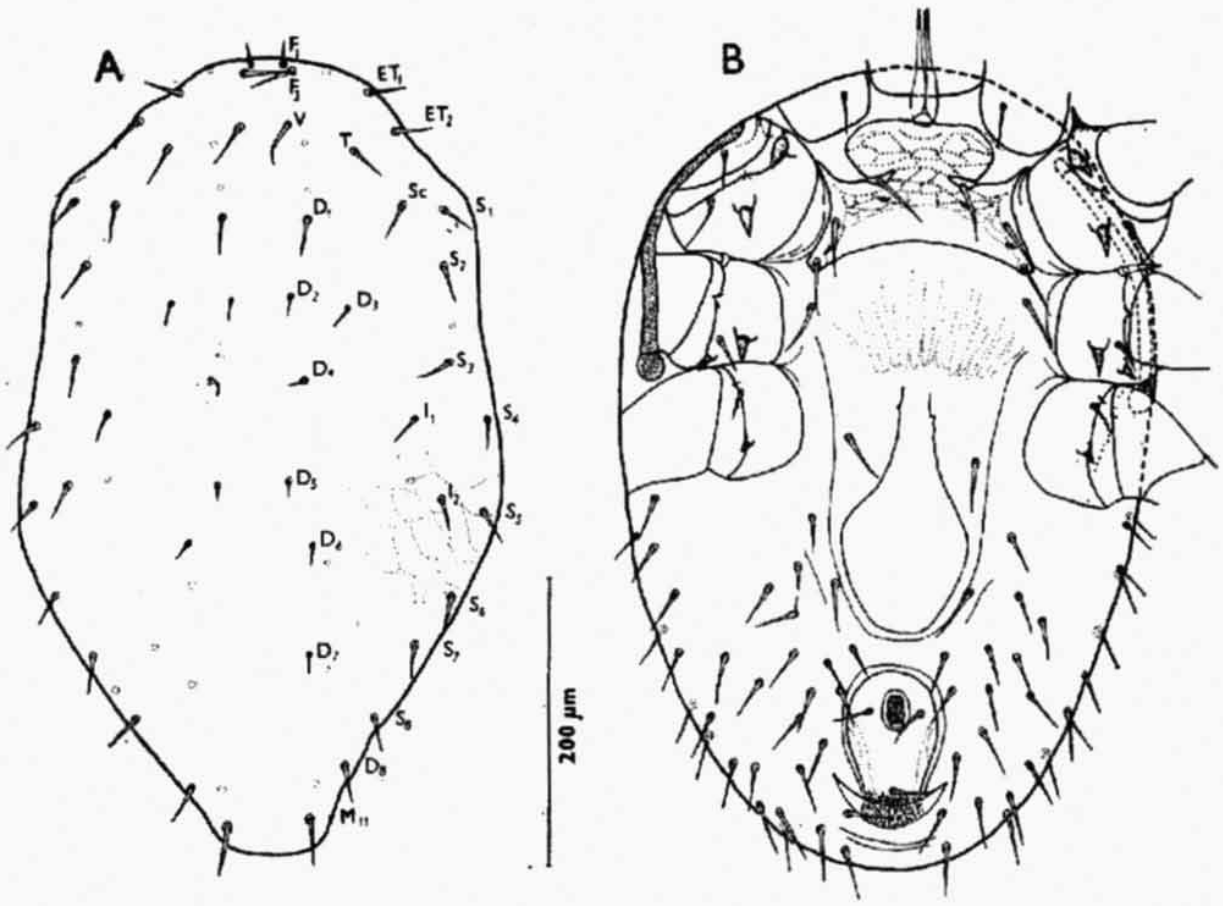

Fig. 1. *Hirstionyssus pavlovskyi* sp. n. ♀: A — dorsal shield, B — ventral side

The last third from the level of setae S_5 distinctly narrowed up to setae M_{11}. A fine ornamentation on the shield (Fig. 1 A). Sternal shield with three pairs of smooth, needle-like setae and with two pairs of slit-like organs. St_1 do not extend beyond posterior margin of shield which is slightly concave. Anterior margin of shield at the level of setae St_1 connected in the middle with presternale expanded to sides before setae St_1 and reaching the base of tritosternum. A distinct ornamentation on the shield except its posterior part (Fig. 1B). Genitoventral shield with one pair of setae, widely rounded posteriorly. Anal shield of pear-like shape with two adanal and one postanal seta of equal length. Peritremes well developed. Anterior margin not reaching coxae I. Stigma placed between coxae III and IV. Coxa I without spur-like projections, coxa II with two lateral and one anterior marginal spur. The first ventral spur bent laterocaudally. Coxa III with two ventral spurs. Coxa IV with one ventral spur-like projection which is distinctly smaller than the other spurs on coxae II and III and reaches up to one third—one fourth of their length. Coxal spur formula: 0—3—2—1 Tritosternum finely barbed. Chelicerae smooth. Digitus mobilis 52 μm long.

Deutonymph: Body 407 μm long, 264 μm wide. On dorsal side a single shield 349 μm long, 161 μm wide, widely rounded anteriorly, the widest at the level of setae S_2, gradually narrowing posteriorly. It does not cover the whole body surface. On the shield 26 pairs of smooth setae. The longest of them F_3 and M_{11}, the shortest D_2—D_7 (Fig. 2A).

Sternal shield 161 μm long, 87 μm wide with four pairs of smooth setae. Posterior part reaching the level of coxae IV. Anal shield subtriangular with three circumanal setae of equal length. Peritremes reaching up to the middle of coxae II. Stigma placed between coxae III and IV. Coxa II with one ventral and one anterior marginal spur-like projection. On coxa III one ventral projection. Coxa I and IV without spur-like projections.

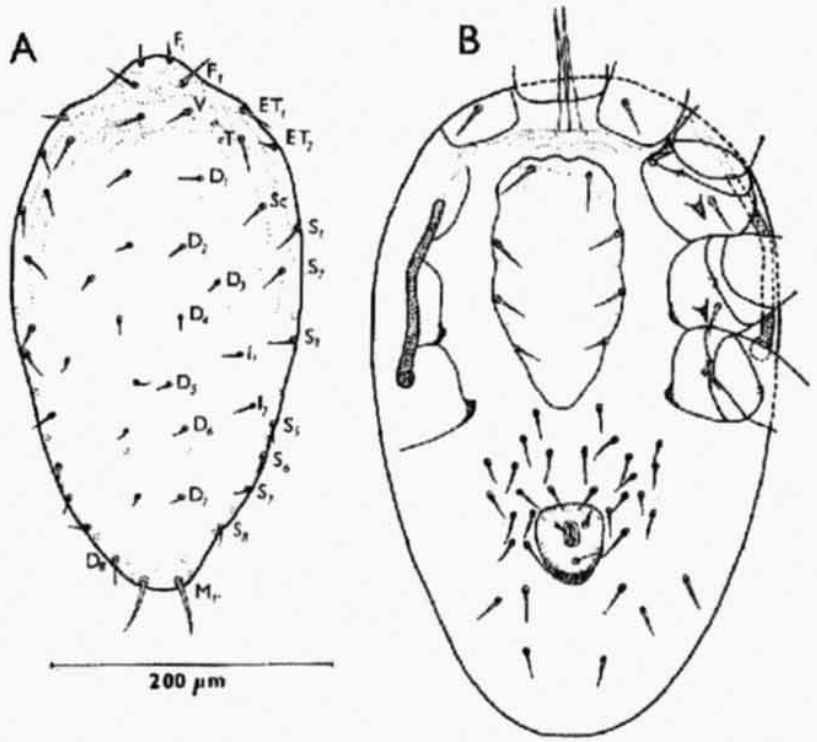

Fig. 2. *Hirstionyssus pavlovskyi* sp. n. deutonymph: A — dorsal shield, B — ventral side

Coxal spur formula: 0—2—1—0 (Fig. 2B). Tritosternum bifurcated, finely barbed. Chelicerae smooth. Digitus mobilis 37 μm long.

Differential diagnosis: This species most resembles the species *Hirstionyssus pauli* Willmann, 1952 and *Hirstionyssus sciurinus* (Hirst, 1921). The common character in the female is the presence of anterior ventral spur on coxae II but ventro caudally. But they differ in the body size. *H. pavlovskyi* is of smaller size. Sternal shield fuses with presternale, while in *H. pauli* and *H. sciurinus* it is clearly differentiated on anterior margin. Spur-like projection on coxae IV in *H. pauli* is larger than on coxae II and III. In *H. pavlovskyi* the spur-like projection on coxae IV reaches in length only up to one third—one fourth of spurs on coxae II and III. In *H. sciurinus* the projection on coxae IV is missing. There is a difference also in relationship to host: *H. pauli* and *H. sciurinus* were found on *Sciurus vulgaris*, while the species described was collected only from *Dryomys nitedula*. Type material: Holotype: ♀ (B 36—Y—71) Banderica 1850 m Pirin mts., June 27, 1971, from *Dryomys nitedula* (Pallas, 1778). ♂: Paratypes: 2 deutonymphs, (B 36—2 71), same data. Type material is deposited in acarological collections of the Systematic and Ecologic Zoology Department, Natural History Faculty, Comenius University in Bratislava (Head: Prof. Dr. Milan Mrciak).

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ОПИСАНИЕ *HIRSTIONYSSUS PAVLOVSKYI* SP. N. (ACARI: DERMANYSSIDAE), СОБРАННОГО С *DRYOMYS NITEDULA* В ГОРНОМ МАССИВЕ ПИРИН (БОЛГАРИЯ)

М. Мрциак

Резюме. В работе дано описание нового вида клеща *Hirstionyssus pavlovskyi* собранного с *Dryomys nitedula* в местности Бандерица (1850 м н. у. м.) в горном массиве Пирин (Болгария).

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