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TWO NEW SPECIES OF MITES OF THE GENUS *SCUTACARUS* (ACARI, HETEROSTIGMATA, SCUTACARIDAE) FROM UKRAINE

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Два новых вида клещей рода *Scutacarus* (Acari, Heterostigmata, Scutacaridae) из Украины. Хаустов А. А. − Описаны два новых вида клещей рода *Scutacarus* Gros, 1845 из группы *spengleri*: *S. yuliae* Khaustov, sp. n. и *S. livshitsi* Khaustov, sp. n. из Украины.

Ключевые слова: Acari, Scutacaridae, *Scutacarus*, новые виды, Украина.

Two New Species of Mites of the Genus *Scutacarus* (Acari, Heterostigmata, Scutacaridae) from Ukraine. Khaustov A. A. − Two new species of mites of the genus *Scutacarus* Gros, 1845 of *spengleri*-group: *S. yuliae* Khaustov, sp. n. and *S. livshitsi* Khaustov, sp. n. are described from Ukraine.

Key words: Acari, Scutacaridae, *Scutacarus*, new species, Ukraine.

S. Mahunka (1974) described a unique species of the genus *Scutacarus* Gros, 1845 (Acari, Heterostigmata, Scutacaridae): *S. spengleri* with unusual position of setae 3*b* which situated far posteriorly to setae 3*a* and close to apodemes 4. E. Ebermann (1986) found single specimen of *S.* cf. *spengleri* in Italian Islands, but noted that it differs from *S. spengleri* by the length of dorsal setae. During my study of scutacarid-fauna of Ukraine I found two more species with similar unique position of setae 3*b*. Based on this character I create in the genus Scutacarus a new *spengleri*-group which now includes 4 species: *S. spengleri* Mahunka, 1974 (type species), *S.* cf. *spengleri* Ebermann, 1986, *S. yuliae* Khaustov, sp. n., and *S. pseudospengleri* Khaustov, sp. n. The purpose of this paper is to give a detailed description of two new species of mites of the genus *Scutacarus* of *spengleri*-group from Ukraine.

The terminology follows that of E. E. Lindquist (1986). All measurements are given in micrometers (mkm) for holotype. Type material is deposited in the collection of the department of Acarology, Shmalgausen Institute of Zoology, Kyiv, Ukraine.

Scutacarus yuliae Khaustov, **sp. n.** (fig. 1)

Material. Holotype ♀, Ukraine, Kharkov distr., Lozovaya reg., settl. Novoivanovka, on ants *Myrmica* sp., 14.04.2001 (Khaustov).

Female. Idiosomal length 210, maximum width 210.

Gnathosoma. There are 2 pairs of dorsal setae ch_1 and ch_2, of which ch_1 is little longer and situated anteriorly to ch_2. There is 1 pair of setae *su*. Palps with two pairs of setae *d*Ge and *d*Fe, small ventral solenidion, and accessory setigenous structure. Dorsal medial apodeme well developed.

Idiosomal dorsum (fig. 1, *1*). Free margin of tergite C has distinct stripes. Setae c_2 with distinct alveolar canal. Cupuli *ia* and *ih* small, round, difficult to discern. Tergites smooth. All dorsal setae barbed. Setae c_1, c_2, *d*, and *f* blunt-ended, other dorsal setae pointed. Length of dorsal setae: c_1 33, c_2 32, *d* 41, *e* 23, *f* 58, h_1 54, h_2 52. Distances between dorsal setae: c_1–c_1 54, c_1–c_2 49, *d*–*d* 155, *e*–*f* 49, *f*–*f* 81, h_1–h_1 48, h_1–h_2 33. Trichobothrium with thin stem, distally spherical.

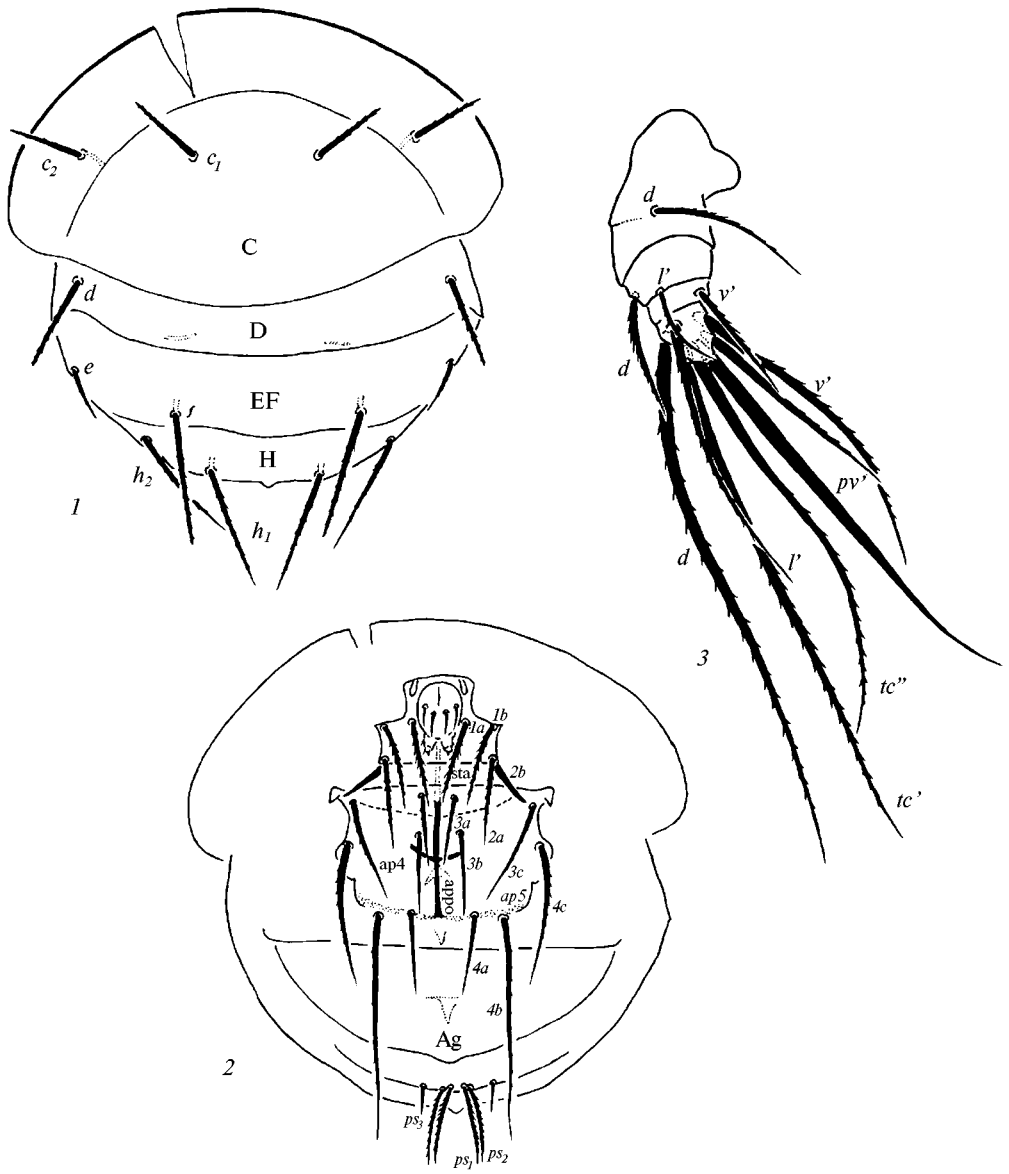

Fig. 1. *Scutacarus yuliae*, ♀: *1* – dorsum; *2* – venter; *3* – leg IV.

Рис. 1. *Scutacarus yuliae*, ♀: *1* – дорсальная сторона тела; *2* – вентральная сторона тела; *3* – нога IV.

Idiosomal venter (fig. 1, *2*). Apodemes 1 (ap1) and sejugal apodeme (apsej) well developed and joined with presternal apodeme (appr). Apodemes 2 reduced. Sejugal apodeme arch-shaped. Secondary transverse apodeme (sta) well developed. Setae 2*b* smooth, saber-like. Other setae of anterior and posterior sternal plates filiform, barbed, except smooth 3*b* and 4*a*. Setae 3b situated far behind setae 3*a*. Posterior margin of posterior sternal plate slightly convex at middle part. Setae ps_1 and ps_2 strongly barbed, setae ps_3 smooth. Apodemes 3 (ap3) weakly developed, apodemes 4 (ap4) rather short and joined with poststernal apodeme (appo), apodemes 5 (ap5) well developed and joined with appo. Setae 4*b* distinctly longer than 4*a* and situated slightly posteriorly to 4*a*. Posterior margin of aggenital plate with short tongue-like process. Length of ventral setae: *1a* 40, 1*b* 36, 2*a* 38, 2*b* 24, 3*a* 33, 3*b* 37, 3*c* 47, 4*a* 37, 4*b* 98, 4*c* 62, ps_1 36, ps_2 36, ps_3 12.

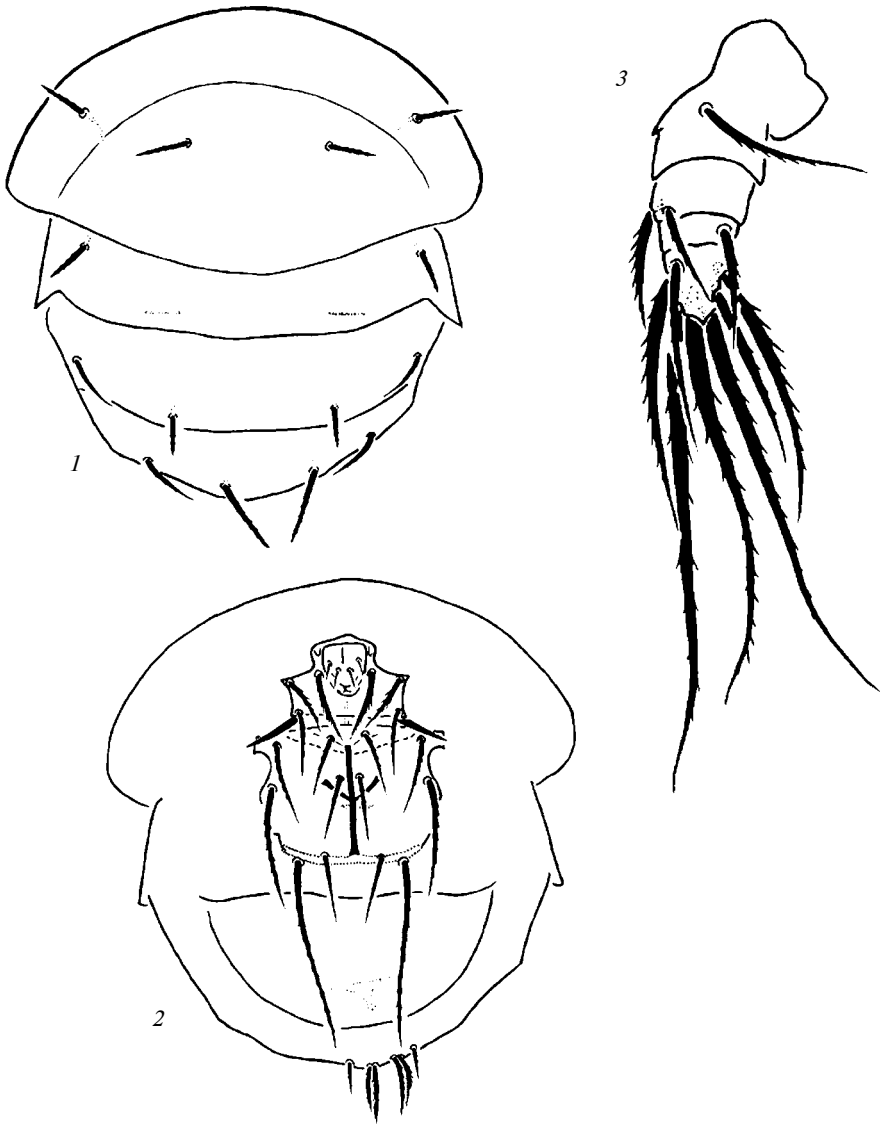

Fig. 2. *Scutacarus livshitsi*, ♀: *1* – dorsum; *2* – venter; *3* – leg IV.

Рис. 2. *Scutacarus livshitsi,* ♀: *1* – дорсальная сторона тела; *2* – вентральная сторона тела; *3* – нога IV.

Legs (fig. 1, *3*). Leg I: setal formula: Tr1–Fe3–Ge4–TiTa16(4) (number of solenidia in parenthesis). Tibiotarsus with well developed claw. Solenidia ω_1 14 < ω_2 15 > φ_1 8 = = φ_2 8. Solenidion ω_1 finger-shaped. Solenidion φ_1 baculiform. Solenidia ω_2 and φ_2 uniformly thin. Seta *d* of femur I spine-like. Leg II: Tr1–Fe3–Ge3–Ti4(1)–Ta6(1). Tarsus with sickle-like padded claws. Solenidion ω 12 finger shaped. Leg III: Tr1–Fe2–Ge2–Ti4(1)–Ta6. Claws of same shape as on tarsus II. Leg IV (fig. 3): Tr1–Fe2–Ge1–TiTa7. Tibiotarsus slightly longer than its width.

Male and larva. Unknown.

Differential diagnosys. The new species is most similar to *S. spengleri]*, but differs by setae *e* more than twice shorter than h_2 (*e* as long as h_2 in *S. spengleri*), by setae c_1 much shorter than *f* and h_1 (c_1 about as long as *f* and h_1 in *S. spengleri*), and by position of setae 3*b* which situated distinctly anteriorly to ap4 (bases of 3*b* joined with anterior margin of ap4 in *S. spengleri*).

Etymology. The new species named for my wife Yulia for her constant help in my work.

Scutacarus livshitsi Khaustov, **sp. n.** (fig. 2)

Material. Holotype ♀, Crimea, plateau of Northern Demerdji Mountain, in soil, 02.02.2002 (Sergeenko); paratypes: 2 ♀ with same data as holotype.

Female. Idiosomal length 203, maximum width 202.

Gnathosoma. There are 2 pairs of dorsal setae ch_1 and ch_2, of which ch_1 is little longer and situated anteriorly to ch_2. There is 1 pair of setae *su*. Palps with two pairs of setae *d*Ge and *d*Fe, small ventral solenidion, and accessory setigenous structure. Dorsal medial apodeme well developed.

Idiosomal dorsum (fig. 2, *1*). Free margin of tergite C has distinct stripes. Setae c_2 with distinct alveolar canal. Cupuli *ia* and *ih* small, round, difficult to discern. Tergites smooth. All dorsal setae barbed, except smooth *e*. Setae c_1, c_2, *d*, *f*, and h_1 blunt-ended, other dorsal setae pointed. Length of dorsal setae: c_1 22, c_2 20, *d* 20, *e* 21, *f* 17, h_1 30, h_2 28. Distances between dorsal setae: c_1–c_1 52, c_1–c_2 44, *d*–*d* 134, *e*–*f* 43, *f*–*f* 63, h_1–h_1 38, h_1–h_2 33. Trichobothrium with thin stem, distally spherical.

Idiosomal venter (fig. 2, *2*). Ap1 and apsej well developed and joined with appr. Sejugal apodeme arch-shaped. Sta well developed. Setae 2*b* smooth saber-like. Other setae of anterior and posterior sternal plates filiform, strongly barbed, except smooth 3*b* and 4*a*. Posterior margin of posterior sternal plate slightly convex at middle part. Setae ps_1 and ps_2 strongly barbed, setae ps_3 smooth. Ap3 weakly developed, ap4 rather short and joined with appo, ap5 well developed and joined with appo. Setae 4*b* much longer than 4*a* and situated slightly posteriorly to 4*a*. Posterior margin of aggenital plate rounded. Posterior sternal and aggenital plates smooth. Length of ventral setae: *1a* 30, 1*b* 22, 2*a* 28, 2*b* 19, 3*a* 26, 3*b* 23, 3*c* 37, 4*a* 25, 4*b* 74, 4*c* 43, ps_1 22, ps_2 18, ps_3 11.

Legs (fig. 2, *3*). Leg I: Tr1–Fe3–Ge4–TiTa16(4). Tibiotarsus with well developed claw. All 3 available specimens have bent leg I and studying of length and shape of solenidia is impossible. Seta *d* of femur I spine-like. Leg II: Tr1–Fe3–Ge3–Ti4(1)–Ta6(1). Tarsus with sickle-like padded claws. Leg III: Tr1–Fe2–Ge2–Ti4(1)–Ta6. Claws of same shape as on tarsus II. Leg IV (fig. 2, *3*): Tr1–Fe2–Ge1–TiTa7. Tibiotarsus slightly longer than its width.

Male and larva. Unknown.

Differential diagnosys. The new species is most similar to *S. spengleri*, but differs by setae c_1 and *f* distinctly shorter than h_1 (c_1, $f = h_1$ in *S. spengleri*), and by position of setae 3*b* which situated distinctly anteriorly to ap4 (bases of 3*b* joined with anterior margin of ap4 in *S. spengleri*).

Etymology. The new species named after outstanding acarologist I. Z. Livshits for his great contribution in studying of Crimean acarofauna.

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