

***Caucaseremaeus* Subias et Stanchaeva gen. n. (Acariformes, Oribatida, Eremaetidae) from Armenia**

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A new species of oribatid mites of a new genus was identified in a small collection of Oribatida from Armenia, made by M.B Potapov and N.A Kuznetsova and kindly offered to the authors by S.N. Iordansky. The description is given below, all sizes are in micrometers.

***Caucaseremaeus* Subias et Stanchaeva gen. n.**

Type species *Caucaseremaeus krivolutski* Shtanchaeva et Subias sp. n.

Diagnosis. The genus *Caucaseremaeus* gen. n. is attributed to the family Eremaeidae Oudemans 1900 on the basis of family diagnosis (Behan-Pelletier, 1993). It is characterized by the following features: 3–4 pairs of longitudinal ridges on the prodorsum; the absence of true lamellae and tutorium; reticulate sculpture on the notogaster, with small granules of ceratogument on the surface; 9 pairs of notochaetae; the absence of the postanal protrusion; epimeral formula 3–1–3–3; 6 pairs of genital setae, one pair of aggenital setae, 3 pairs of adanal setae; three-clawed legs; ridges and distal teeth on the trochanters and femora of all legs.

Description. Medium-sized oribatid mites, body color light brown. Prodorsum with 3–4 pairs of longitudinal ridges, without true lamellae and tutorium. Bases of lamellar setae on the ends of medial longitudinal ridges. Trichobothria lanceolate, smooth, with long pedicles. Notogaster oval, with sculpture forming polygonal pattern and surface covered with very small granules of ceratogument; humeral protrusions barely visible, 9 pairs of notogastral setae. Pedotecta I and II well developed, discidium is present. Epimeral formula 3–1–3–3. Ventral body side with reticulate pattern in anogenital area; 6 pairs of genital, 1 pair of aggenital, 3 pairs of anal, and 3 pairs of adanal setae. Postanal protrusion on ventral plate absent. Legs three-clawed, with pretarsus. Trochanters and femora of all the legs with more or less developed ridges and sharp teeth on distal ends, areae porosae, and three setae.

Taxonomic notes. The new genus is attributed to the Eremaeioidea superfamily, because it corresponds to its description, including combination of the following features: the presence of prodorsal costulae and ridges, the number of notochaetae ranging from 9 to 20 pairs, nonuniform sculpture of the notogaster, and neotrichy of the anal area (Perez-Inigo, 1997). However, the new genus cannot be reliably attributed to any family of the Eremaeioidea.

Attribution of *Caucaseremaeus* gen. n. to Eremaeidae Oudemans 1900 is conventional, because this family, according to its diagnosis, is characterized by the number of notochaetae ranging from 10 to 20 (Balogh J. and Balogh P., 1992a, 1992b; Bahan-Pelletier, 1993) and the presence of 3–4 pairs of prodorsal ridges has not been reported for its representatives, although other features of the genus conform to the description of the Eremaeidae (sculpture on the notogaster, the absence of the tutorium and the postanal protrusion, chaetotaxy of the ventral side, ridges on trochanters and femora, the presence of pretibia, the number of claws, etc.). The family Caleremaeidae Granjean 1965 includes species with two pairs of well-developed prodorsal costulae (lamellar and tutorial), but representatives of this family are characterized by monodactyle tarsi and the absence of ventral neotrichy (Balogh, 1972; Balogh J. and Balogh P., 1992a, 1992b). Species of the family Megeremaeidae also have prodorsal ridges and the same number of setae in the anogenital area, but the main distinctive feature of this family is the presence of tuberculae and cristae at the anterior edge of the notogaster (Higgins and Wooley, 1965; Wooley and Higgins, 1968), which are absent in individuals of the newly described genus; the tutorium, characteristic of Megeremaeidae (Behan-Pelletier, 1990, 1993), is also absent.

Differential diagnosis. The nearest genus in the Eremaeidae is *Asperemaeus* Behan-Pelletier 1982 (Behan-Pelletier, 1982). Representatives of the only species of

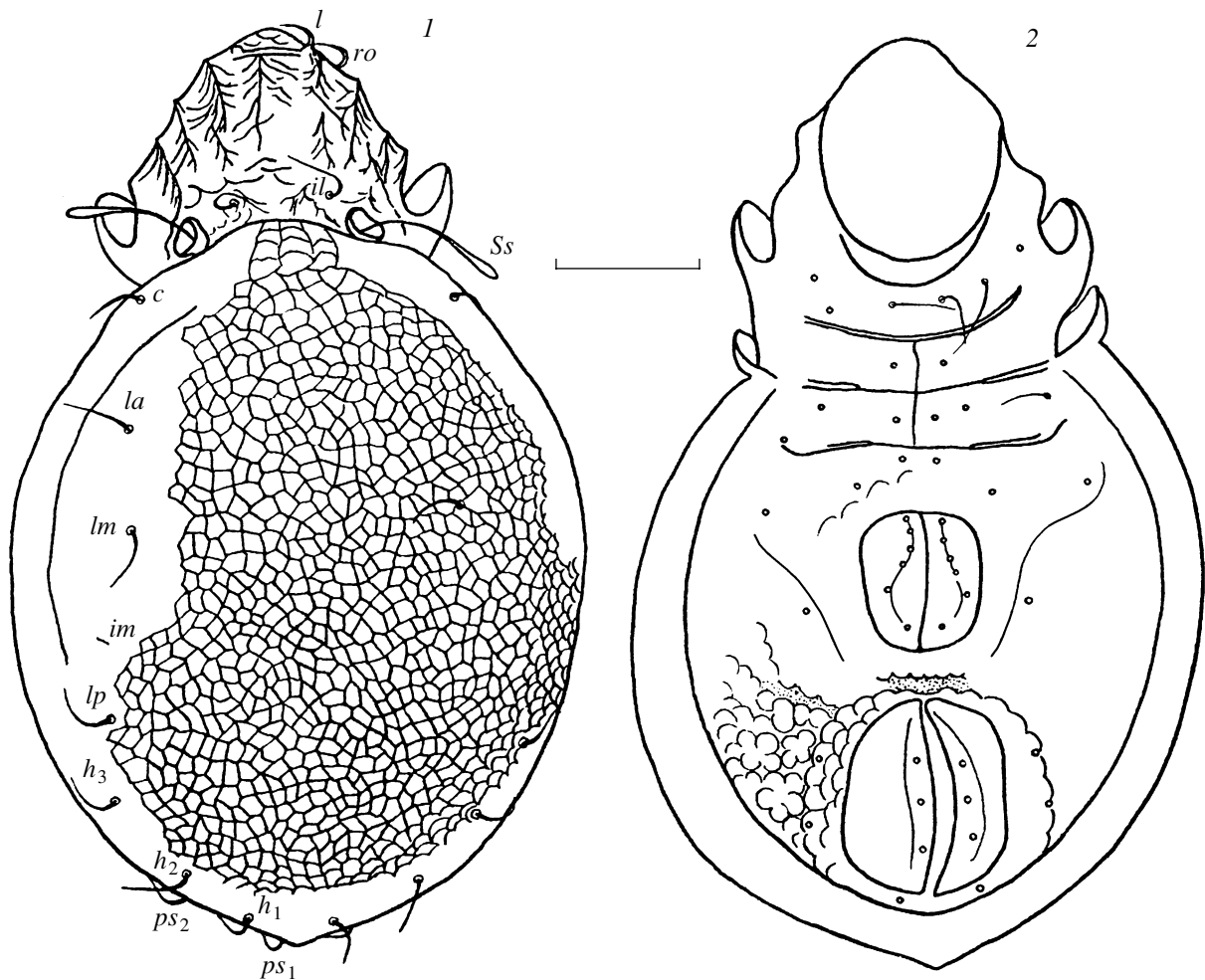


Fig. 1. *Caucaseremaeus krivolutski* Shtanchaeva et Subias sp. n.: (a) dorsal side with (*ro*) rostral, (*l*) lamellar, (*il*) interlamellar setae, (*Ss*) trichobothria, (*c*, *la*, *lm*, *lp*, *h*₁–*h*₃, *ps*₁, *ps*₂) notogastral setae, and (*im*) lyrifissure; (b) ventral side (for the description of setae, see the text). Scale bar 110 μ m.

this genus have prodorsal ridges, similar sculpture on the notogaster, and the same number of anal and adanal setae (three pairs each). Unlike *Asperemaeus*, the new genus has no lamellae and translamellae. It also differs from this and other genera of the family in the number of notochaetae (9 pairs) and prodorsal ridges (3–4 pairs).

Caucaseremaeus krivolutski

Shtanchaeva et Subias sp. n. (Figs. 1–3)

Material. Six individuals from the soil under oak forest at an elevation of 1900 m a.s.l. in the vicinity of Dilijan (Jukhtikhvang), Armenia, October 26, 1987 (Potapov and Kuznetsova). Holotype and paratypes are stored in the Caspian Institute of Biological Resources, Dagestan Scientific Center of the RAS, Makhachkala.

Description. Body length 720–780, width 440–480 (in holotype, 720 and 440, respectively). Integuments light brown.

Dorsal side (Fig. 1a). Prodorsum with 3–4 pairs of ridges, rostrum rounded, the tutorium is absent. Bases of lamellar setae on ends of medial ridges. Small transverse fold of prodorsum at the level of lamellar setae resembles tectum when observed from above (Fig. 2a). Lamellar chaetae attached slightly closer to rostrum tip, compared to rostral chaetae located on rostrum sides. Area at prodorsum base, where interlamellar setae are located, is separated by small transverse wrinkled ridges, which form a kind of arc between bothridia. All setae on proterosoma are smooth; lengths of *ro*, *l*, *il* and *exa* are 30–40, 30–35, 20–25, and 11–13, respectively. Trichobothria *Ss* (Fig. 2c) lanceolate, smooth, with long and thin stalks, length 45–50; capitulum length 15–20.

Notogaster oval and concave, shoulder protrusions very small and almost invisible. Sculpture of notogaster has polygonal pattern, its cells have fine punctation of small ceratogument granules (Fig. 2d). Length of lyrifissures *im* about 5. Nine pairs of notochaetae, all of

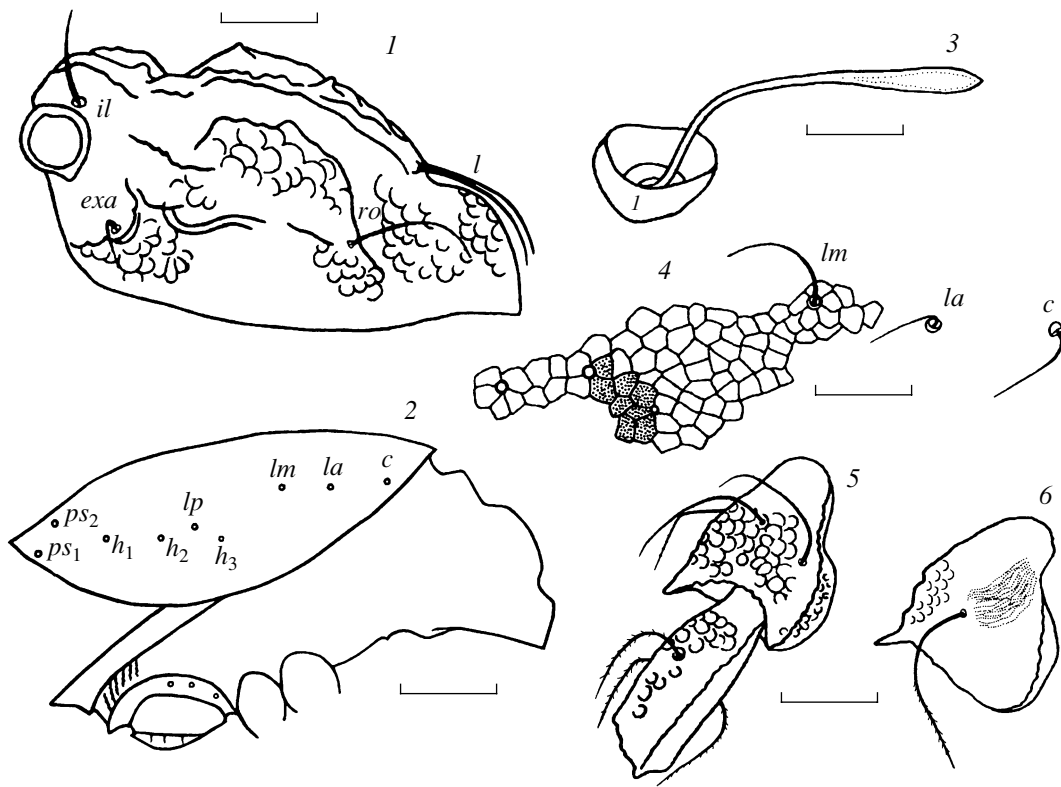


Fig. 2. *Caucaseremaeus krivolutski* Shtanchaeva et Subias sp. n.: (a) prodorsum, lateral view (*exa*, exothoridial seta); (b) idiosoma, lateral view; (c) trichobothria; (d) notogaster, sculpture and setae *c*, *la*, *lm*; (e) trochanter and femur IV; and (f) trochanter IV. Scale bars: (a) 30 μ m, (b) 130 μ m, (c) 15 μ m, (d) 60 μ m, (e, f) 20 μ m.

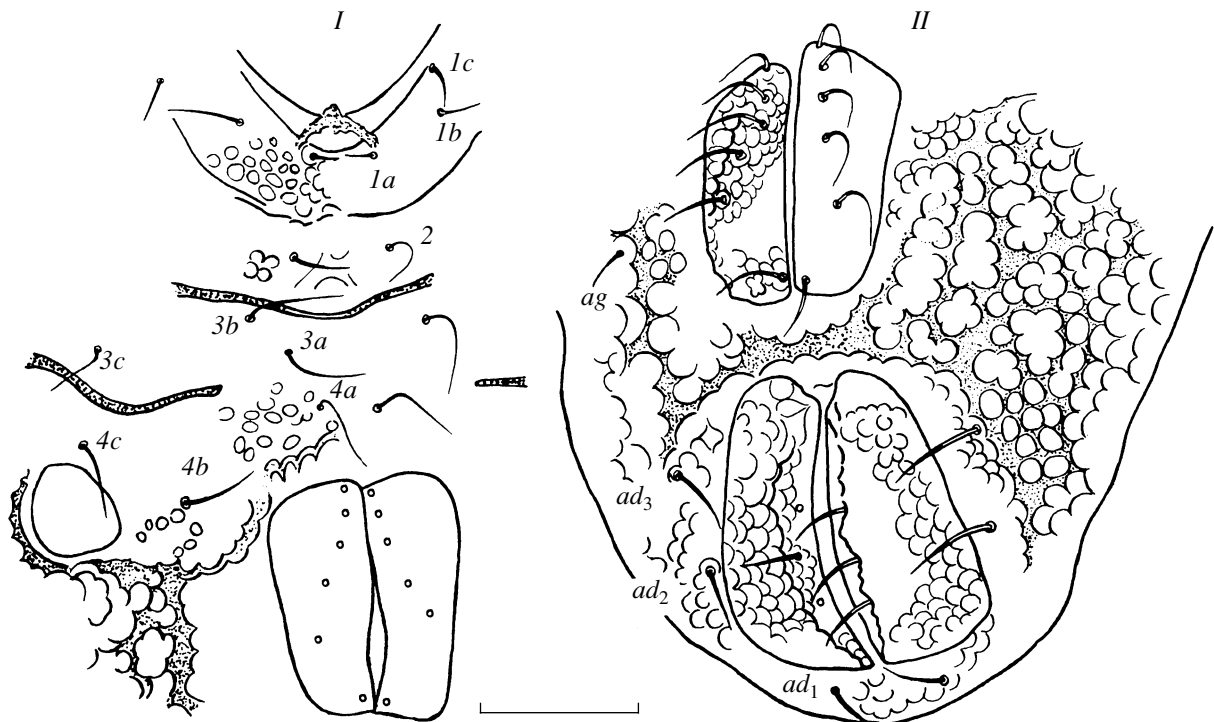


Fig. 3. *Caucaseremaeus krivolutski* Shtanchaeva et Subias sp. n.: (a) coxosternal area (*1a-4c*, epimeral setae), (b) anogenital area. Scale bar 80 μ m.

them smooth, bent downward, located almost in line along notogaster edge (Figs. 1a, 2b). Lengths of notogastral setae *c*, *la*, *lm*, *lp*, *h*_{1–3}, *ps*_{1–2} are 23–25, 26–32, 29–30, 28–33, 22–27, 17–25, respectively.

Ventral side (Figs. 1b, 3). Apodemas underdeveloped and thin. Sternite apodemas invisible, *apo* I fuse together, *apo* II absent. Ventral body side has pitted sculpture covered with small ceratogument granules; near coxal segments of legs IV, septa between pits form ridges bending around genital pore. Epimeral formula i3–1–3–3, epimeral setae *1a–4c* very thin and long, about 20 (Fig. 3a). Genital and anal pores (Fig. 3b) in depressions on ventral plate (Fig. 2b). Postanal projection of ventral plate is absent. Genital and anal folds elevated in the central part, rather than flat (Fig. 3b), setae are closer to the inner edge of folds. Numbers of setae: 6 pairs of genital, 1 pair of aggenital, 3 pairs of anal, and 3 pairs of adanal setae; their lengths 15–20, 23–24, 10–13, and 17–20, respectively. All setae on ventral body side smooth.

Legs three-clawed, with pretarsus. Segments with cellular sculpture covered with small ceratogument granules. In all legs, trochanters and femora each have more or less developed ridge and distal tooth (Figs. 2e, 2f), areae porosae on inner surface, and 3 setae with barely visible hairs.

Etymology. The species is named in memory of D.A. Krivolutskii, talented Russian acarologist and leading specialist in oribatid mites.

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SPELL: 1. *Diffirential*, 1. punctuation, 2. ACKNOWLEDGEMENTS