

SHORT  
COMMUNICATIONS

**A New Genus and Species of Oribatid Mites *Scarabacarus longisensillus* gen. et sp. n. (Acariformes, Liacaridae) from the Caucasus**

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**Abstract**—A new genus and species, *Scarabacarus longisensillus* gen. et sp. n., of the family Liacaridae are described from the Caucasus (Azerbaijan and Abkhazia): The new genus *Scarabacarus* is characterized by the highly convex body, straight anterior margin of the notogaster, narrow fusiform sensilla, the lamellae situated on the lateral margins of the prodorsum, the absence of interlamellar and notogastral setae (besides one posterior pair), presence of four pairs of genital setae, and tridactylous leg tarsi.

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Representatives of a new genus and species, *Scarabacarus longisensillus* gen. et sp. n., were found in the material from the Caucasus (Azerbaijan and Abkhazia); the new taxa are described below.<sup>1</sup> Measurements (means,  $m\mu$ ) are given for all the specimens of the type series.

**SCARABACARUS** Shtanchaeva et Subías, gen. n.

Type species *Scarabacarus longisensillus* Shtanchaeva et Subías, gen. et sp. n.

**Diagnosis.** Trichobothria long, narrow, fusiform; lamellae without cuspes and crosspiece, shifted toward lateral margins of prodorsum; anterior margin of notogaster straight; interlamellar and notogastral setae absent, except for 1 pair of posteromarginal setae; genital setae forming 4 pairs; anal setae approximate to margins of anal valves; body convex; legs with 3 claws, relatively small, typically appressed to abdominal shield in slides.

**Description.** Body large, brown. Body length 968, width 656. In lateral view, body strongly convex dorsally, plain ventrally. Lamellae long, without cuspes and crosspiece, situated along margins of prodorsum.

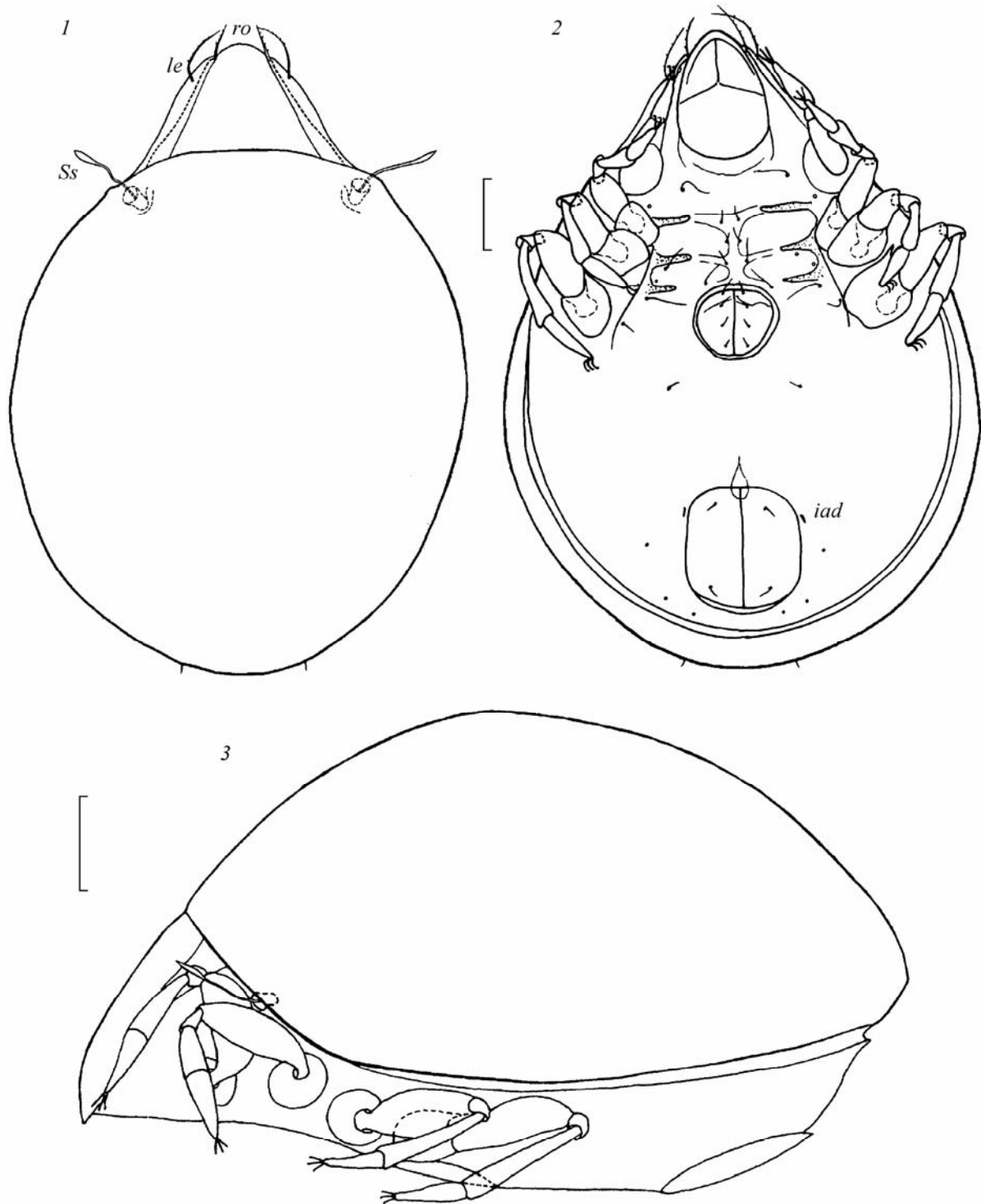
Lamellar setae attached near anterior end of lamellae; bases of rostral setae situated on projections of lateral parts of rostrum; interlamellar setae and their alveoli absent. Rostral and lamellar setae insignificantly serrate. Bothridia entirely concealed by anterior margin of notogaster. Trichobothria fusiform, narrow, smooth, with long stalk which nearly 3 times as long as club.

Notogaster oval, with straight anterior margin. Notogastral setae and their alveoli absent, except for 1 pair of short and fine posteromarginal setae. Lyrifissurae *im* absent.

Epimera parallel to each other, sternal apodeme inconspicuous, epimeral formula 3 : 1 : 3 : 3. Number of genital, aggenital, anal, and adanal setae constituting 4, 1, 2, and 3 pairs, respectively. Lyrifissurae *iad* small, parallel to lateral margin of anal valves. Rather short anal setae shifted toward anterior and posterior margins of valves. Legs with 3 claws, relatively small, usually densely appressed to ventral side of body in slides. Legs III and IV characterized by narrower tarsi and longer and narrower tibiae, as compared to those in legs I and II. Distal margin of coxa IV with large spur.

**Differential diagnosis.** The new genus is most similar to the genera *Adoristes* Hull, 1916 and *Planoristes* Iturrondobeitia et Subías, 1978 in the

<sup>1</sup> In the *Catalog of the Oribatid Mites of the Caucasus* (Shtanchaeva and Subías, 2010), this taxon is mentioned as *Adoristes* sp. 1.



*Scarabacarus longisensillus* gen. et sp. n.: (1) dorsal side [(*le*, lamellar seta; *ro*, rostral seta; *Ss*, trichobothrium); (2) ventral side [(*iad*, lyrifissurae); (3) lateral view. Scale: 100  $\mu$ m.

structure of the lamellae. It differs from *Adoristes* in the following characters: trichobothria long, narrowly fusiform; lamellae without cuspes, shifted to margin of prodorsum; anterior margin of notogaster straight; interlamellar and notogastral setae (except for 1 pair of

posteromarginal setae) absent; genital setae forming 4 pairs; anal setae situated along margins of anal valves; body convex, with legs typically appressed to abdominal shield. Representatives of the genus *Planoristes*, similarly to the new taxon, possess four pairs of geni-

tal setae and the lamella without cuspes and cross-piece; however, their lamellae are shifted to the center of the prodorsum, body is plain (which is reflected in the genus name), trichobothria are short and clavate, body is half as large, and legs are monodactylous (Iturondobeitia and Subías, 1978).

The genus is monotypical.

**Etymology.** The name of the tick originates from the shape of its body strongly convex dorsally (figure, 3), as it is typical of many scarab beetles (Scarabaeidae).

*Scarabacarus longisensillus* Shtanchaeva et Subías,  
gen. et sp. n. (figure)

**Material.** Holotype (♀) and 6 paratypes: Azerbaijan, Zakatalskii District, deciduous forest on the southeastern slopes of the Great Caucasian Mt. Range, in the soil under a hornbeam, 1400 m a.s.l. (coll. by U.Ya. Shtanchaeva, 05.VII.2003); 2 specimens: Abkhazia, Bzybiskoe Gorge, 600 m a.s.l., box-tree forest (coll. by U.Ya. Shtanchaeva, 25.IX.2005). The holotype and paratypes of the new species are deposited at Complutense University of Madrid.

**Description.** Body length 968 (805–1070), width 656 (565–760). Integument dark brown, smooth.

Dorsal side as in figure, 1. Rostrum rounded, without emarginations; rostral (40) and lamellar setae (80) weakly curved, insignificantly serrate, directed forward. Rostral setae situated on small projections of lateral margins of rostrum. Lamellae large (160), narrowed distally, without cuspes and crosspiece. Anterior margin of lamellae rounded, lamellar setae attached closely to this margin. Interlamellar setae and their alveoli absent. Bothridia goblet-shaped, concealed by anterior margin of notogaster; trichobothria (115) narrowly fusiform, slightly pointed at end; smooth club (32) nearly 0.33 times as long as stalk.

Hysterosoma oval; notogaster without humeral projections, smooth; anterior margin straight. Notogastral setae and their alveoli absent, except for 1 pair of short (12), smooth posteromarginal setae. Lyrifissurae *im* absent.

Ventral side as in figure, 2. Structure typical of the genus. Sternal apodeme usually inconspicuous, well visible only in some specimens. Epimeral formula

3 : 1 : 3 : 3. Epimeral setae *b* fine and long (40–53), more than twice as long as setae *a* and *c* (20). Size of genital and anal aperture 98 × 123 and 185 × 176, respectively. Number of genital, aggenital, anal, and adanal setae constituting 4, 1, 2, and 3 pairs, respectively. Length of setae: genital 15–24, aggenital 15, anal 16–25, and adanal setae 12–13. Lyrifissurae *iad* (14) small, parallel to anterolateral margin of anal valves. Anal setae shifted to anterior and posterior margins of anal valves.

Legs with 3 claws; in slides, appressed to abdominal shield in all the specimens. Legs III and IV characterized by narrower tarsi and longer and narrower tibiae, as compared to those in legs I and II (figure, 3). Coxa IV with large anterodistal spur.

**Distribution.** The species was found in forest biotopes on the southern slopes of the Great Caucasus Mt. Range in Azerbaijan and Abkhazia.

Taking into account the new genus, the family Liacaridae includes six genera (Subías, 2004, 2010), among which four have been recorded in the Caucasus. The subgenus *Adoristes* (*Gordeeviella*) Shtanchaeva, Subías et Arillo, 2010 and the new genus *Scarabacarus* gen. n. are known only from the Caucasus. The following six species of the family are tentative endemics to the Caucasus: *Scarabacarus longisensillus* sp. n., *Adoristes* (*Gordeeviella*) *krivolutskyi* Shtanchaeva, Subías et Arillo, 2010, *Liacarus* (*L.*) *longipilis* Shtanchaeva, Subías et Arillo, 2010, *Liacarus* (*Dorycranosus*) *musaevi* Shtanchaeva, 2008, *Liacarus* (*L.*) *subiasi* Shtanchaeva, 2008 (Shtanchaeva, 2008), and *Liacarus* (*D.*) *djaparidzae* Subías, 2010.<sup>2</sup> In addition, collections from the Caucasus also includes 3 species and 4 subspecies of the family Liacaridae (Shtanchaeva and Subías, 2010), the status of which needs to be specified.

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<sup>2</sup> The name *Liacarus* (*D.*) *djaparidzae* is given instead of the name *Dorycranosus ovatus* Djaparidze, 1973, which is a junior homonym of *Liacarus* (*L.*) *ovatus* Mihelčič, 1954 (Subías, 2010).

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