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Trichoecius calomysci sp. n. (Acari: Myocoptidae), a new mite species from Iran

Andre Bochkov[1], **Vladimir Malikov**[1] and **Masoud Arbobi**[2]

[1]Zoological Institute, Russian Academy of Sciences, Universitetskaya Emb. 1, 199034 Saint-Petersburg, Russia;

[2]Department of Agricultural Zoology, Plant Pests and Diseases Research Institute, Ministry of Agriculture, Evin, Tabnak Av., Tehran, Iran

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Abstract. A new species of myocoptid mite, *Trichoecius calomysci* sp. n. (Acari: Myocoptidae), from *Calomyscus* sp. (Rodentia: Cricetidae) from Iran is described.

Myocoptid mites (Acari: Myocoptidae) are obligatory ectoparasites of small mammals (Fain et al. 1970). In Iran these mites are poorly known. We describe herein a new myocoptid mite from a mouselike hamster *Calomyscus* sp. (Cricetidae: Cricetinae) from that country. The new species belongs to the genus *Trichoecius*. This genus includes 18-19 species which parasitise rodents belonging to six families, including the Cricetidae. Within the Cricetidae, these mites have previously been found on the rodents of the subfamilies Cricetinae and Arvicolinae. However, the myocoptid mites from hamsters of the tribe Calomyscini have not previously been known. This is not only the first myocoptid but also the first acariform mite which has been discovered on that host group.

MATERIALS AND METHODS

All the mites were collected on a single host specimen preserved in alcohol. This host specimen was examined for mites under a dissection microscope and the mites were removed with a sharp pincette.

Description of setal nomenclature follows the system of Fain et al. (1970); measurements are given in micrometres with ranges in parentheses.

RESULTS

Genus ***Trichoecius*** Canestrini, 1899

Trichoecius calomysci sp. n. Figs. 1, 2

Male (holotype). Body length, including gnathosoma, 186 (180-202 in 5 paratypes), maximum width 122 (99-137). Dorsum (Fig. 1A). Propodosomal shield 33 (31-35) long, its posterior border with 2 scales; distance between these scales 7 (6-7). Cuticle soft, with striations, without punctate hysterosomal shield; striated transversally between posterior border of propodosomal shield and level of bases of setae *d3,* and striated longitudinally behind level of setae *d3*. Venter (Fig. 1B). Epimeres I and II free, normally developed, distance between posterior apices of epimeres I about 6; epimeres III and IV free. Cuticle striated transversally between coxal areas II and III. One pair of small pocket-like sclerites in medial part of idiosoma (= cuticular coxal II scales - see Fain et al. 1984: p. 128, fig 9); size of these sclerites, approximately 11 × 4. Distance between legs II and III about 58 (51-60). Genital organ as in Fig. 1C, thick, strongly sclerotised; distance between posterior border of genital organ (at level of pair of small scales – see Fig. 1B) and posterior end of idiosoma 29 (27-31). Legs III very thick, legs IV very small, 27 (24-29) long, twice shorter than legs I. Length of setae: *vi* 22 (15-24), *sce* 58 (58-60), *d1-d3*, *l2* about 13 (12-14), *d4* 14 (13-16), *d5* 135 (130-138), *l4* 10 (10-14), *l5* 51 (47-60), *h* 49 (45-54), *sh* 25 (24-28), *ic1* 18 (16-20), *ga* 10 (9-11), *gm* 20 (18-23), *gp* 58 (51-60), *a* 24 (22-27). Distance between levels of base of setae: *d1-d2* 11 (8-12), *d2-l2* 38 (36-40), *l2-d3* 24 (24-29). Setae *l3* absent and only one seta *ga* present. Length of solenidions of leg I: ϖ 15 (15-18), φ 11 (11-12).

Female. Body length, including gnathosoma, 279-310 in 5 paratypes, width, at level of bases of setae *l1*, 85-94, width, at level of bases of setae *d2*, 110-119. Distance between level of setae *gp* and posterior end of idiosoma 132-179. Dorsum (Fig. 2A). Propodosomal shield as in male, 36-40 long. Cuticle soft, striated transversally, without punctate hysterosomal shield. Copulatory orifice situated dorsally, 6-9 from posterior end of idiosoma, pocket-like. Venter (Fig. 2B). Epimeres I and II as in male, epimeres III very thick and crescentic, epimeres IV very short and free. Cuticle between epimeres II and III slightly striated transversally; one pair of small sclerotised scales; opisthogaster well striated transversally. Bursa as in Fig. 2C, very thin and long, distally sclerotised and dilated. Length of setae: *vi* 22-24, *sce* 67-74, *d1, d2* 16-21, *l1*

Address for correspondence: A.V. Bochkov, Zoological Institute, Russian Academy of Sciences, Universitetskaya Emb. 1, 199034 Saint-Petersburg, Russia. Phone: ++7 812 3280611; Fax: ++7 812 1140444; E-mail: boc@zisp.spb.su

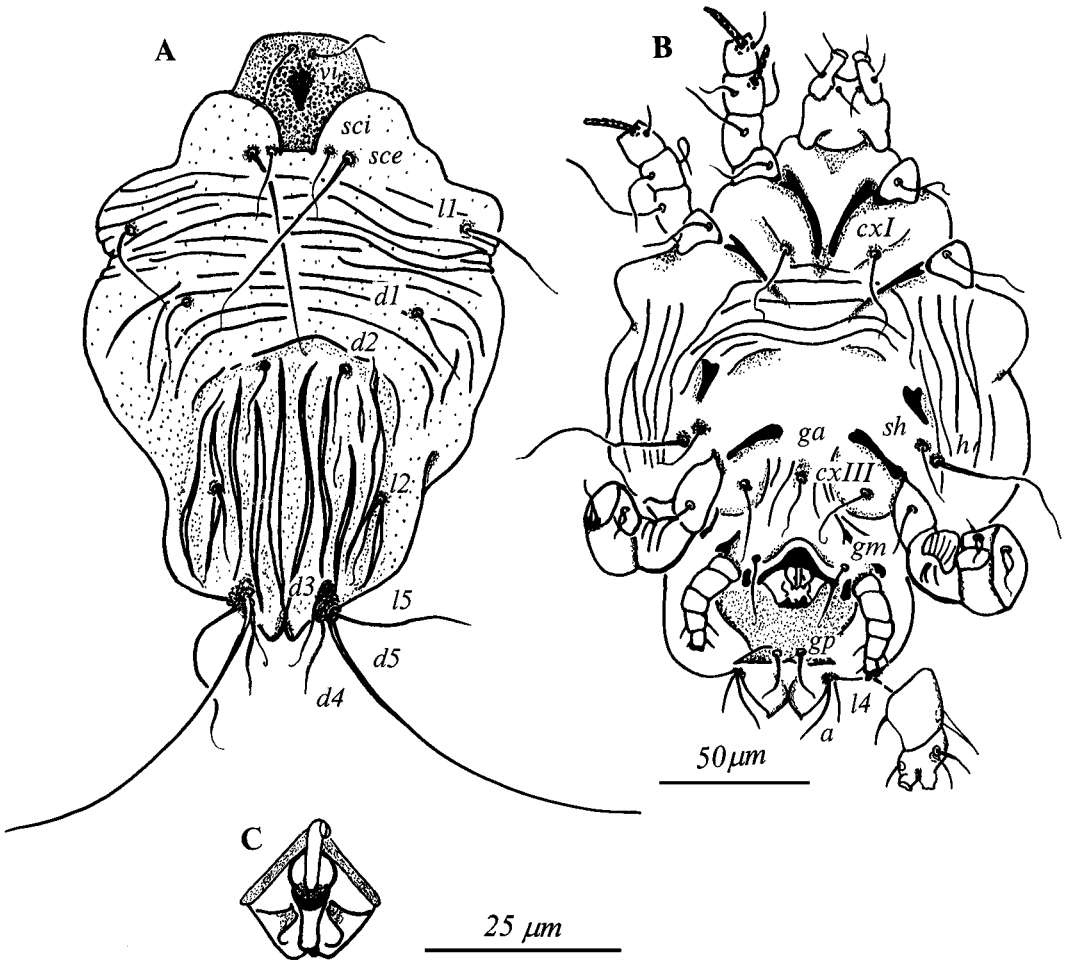

Fig. 1. *Trichoecius calomysci* sp. n., male. **A** – dorsal view; **B** – ventral view; **C** – genital organ.

29-38, *l2* 27-33, *l3* 22-29, *l4* 13-15, *l5* 121-129, *h* 60-78, *sh* 22-29, *cx*III 20-22, *ga* and *gp* 13-15, *a* 11-15. Distance between bases of setae *l3-l3* 67-74. Setae *d3-d5* absent.

Differential diagnosis. The new species differs distinctly from the other species of the genus *Trichoecius*, except *Trichoecius tibetanus* Fain, 1970, which also has free epimeres I in the female. The description of the latter species was based only on females ex *Cricetulus lama* Bonhote (Cricetidae: Cricetinae) from Tibet (Fain 1970). The female of *Trichoecius calomysci* sp. n. is easily distinguished from *T. tibetanus* by the presence of the setae *l3* and absence of the setae *d3*. In female T. *tibetanus* the setae *l3* are absent and the setae *d3* are present.

Type data. Holotype male (T-Mc-1), paratype 24 females and 5 males ex *Calomyscus* sp. from Iran, Kerman Province, Shah-Dad Tonnel, 3. 05. 1998, V. Malikov coll.

The holotype (Coll. No. T-Mc-1) and most paratypes are deposited in the Zoological Institute of the Russian Academy of Sciences, Saint-Petersburg; two paratypes, one female (Coll. No 1972) and one male (Coll. No 1971) are in the Institute of Parasitology, Academy of Sciences of the Czech Republic, České Budějovice; one female paratype is in Institut Royal des Sciences Naturelles de Belgique, Bruxelles.

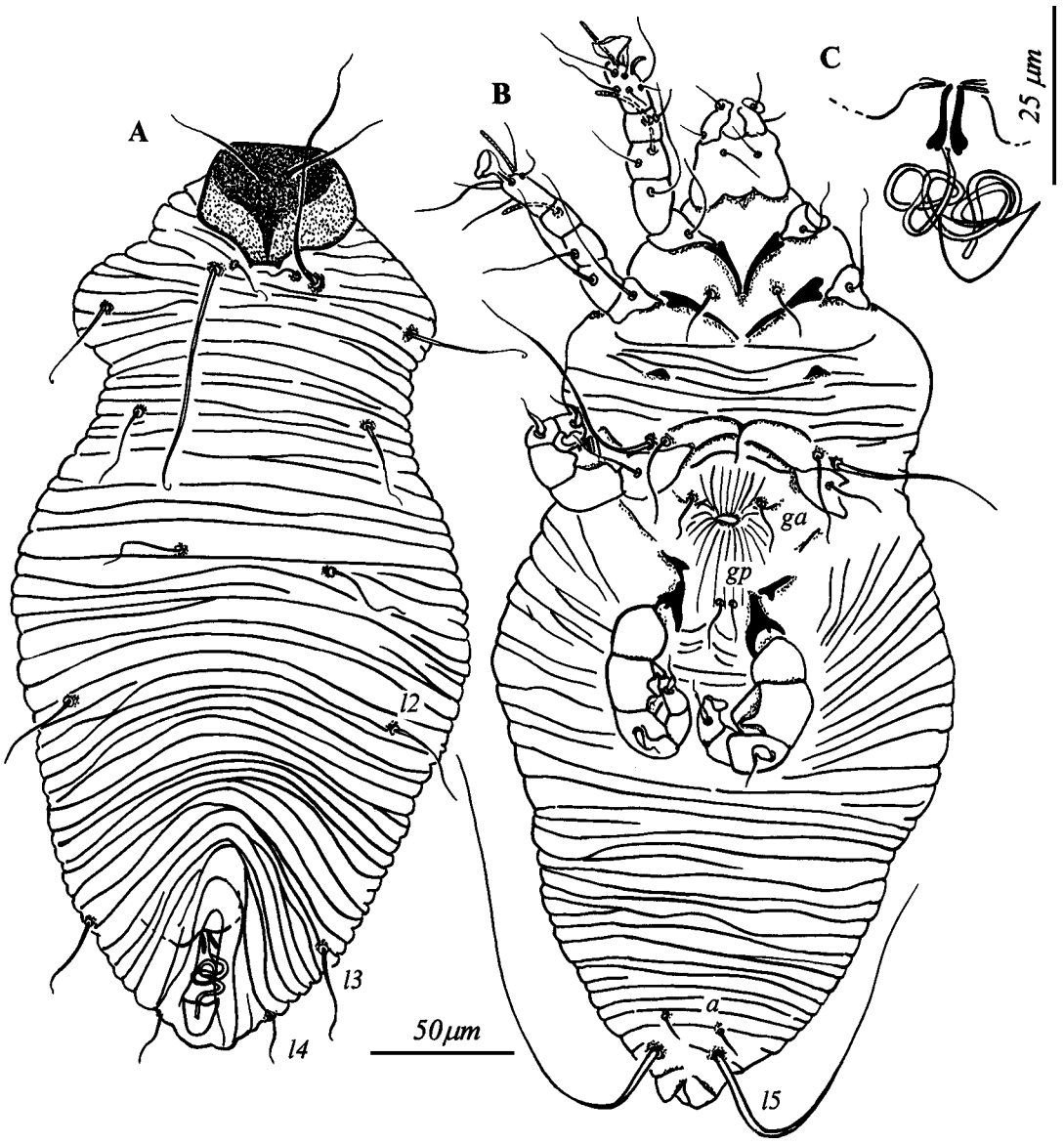

Fig. 2. *Trichoecius calomysci* sp. n., female. **A** – dorsal view; **B** – ventral view; **C** – bursa, dorsal view.

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