

## **KEPKATROMBICULA NOM. N., A NEW NAME FOR THE CHIGGER MITE GENUS EUTONELLA KUDRYASHOVA, 1988 (ACARI: TROMBICULIDAE), WITH NOTES ON ITS SYSTEMATICS**

**N. I. Kudryashova<sup>1</sup> and A. A. Stekolnikov<sup>2</sup>**

<sup>1</sup> Zoological Museum of Moscow State University, Bolshaya Nikitskaya str. 6, Moscow 125009, Russia

<sup>2</sup> Zoological Institute, Russian Academy of Sciences, Universitetskaya quay 1, St. Petersburg 199034, Russia; e-mail: acari@zin.ru

**ABSTRACT:** A new substitute name, *Kepkatrombicula* nom. n., is proposed for the chigger mite genus *Eutonella* Kudryashova, 1988 (preoccupied by Müller, 1921 for caddis flies); list of included species is given. Validity of the genus and taxonomic status of a human-infesting chigger *Trombicula desaleri* Methlagl, 1928 are discussed.

**KEY WORDS:** chiggers, taxonomy, *Eutonella*, new name, *Trombicula desaleri*

The chigger mite genus *Eutonella* was established by Kudryashova (1988) for two new species and 11 species formerly included to the genera *Neotrombicula* Hirst, 1925 and *Eltonella* Audy, 1956 (Acari: Trombiculidae). The content of this work was included in the monograph of the same author (Kudryashova 1998). Later this genus was revised by Stekolnikov (2001) who considered 19 species including two newly described and four transferred from *Neotrombicula*. In this paper, the type species *E. tadjikistanica* (Kudryashova et Abou-Taka, 1987) was erroneously numbered among species transferred from *Neotrombicula* for the first time. *Eutonella* is a distinct genus characterized by stable complex of morphological traits (two genualae on leg I, double rows of dorsal idiosomal setae, and greatly convex rounded posterior margin of scutum). Moreover, presence of anterolateral shoulders of scutum in the majority of species and not rare occurrence of humeroventral idiosomal setae (in a quarter of species) are the characters of *Eutonella*, which were never observed in *Neotrombicula*. Therefore, we are not agreeing with the opinion of Fernandes and Kulkarni (2003) who considered *Eutonella* to be a synonym of *Neotrombicula*. Probably, this judgement was caused by a lack of understanding the original description of *Eutonella* in Russian, since the set of its characters cited by the authors (palpal tarsal setation 7BS, galeala N, and 2 genualae I) is incomplete.

Here we include *Trombicula desaleri* Methlagl, 1928 to this genus, on the base of its redescription made by Kepka (1964). Obviously, the author of the original description figured three genualae I in this species by mistake (Methlagl 1928). Moreover, we prepared and examined 30 specimens of this species collected on a chamois in Alps (Bruck am Ziller, Zillertal, Tyrol, Austria, 8.12.2009, ex *Rupicapra r. rupicapra* (L.), No.

83101, collector Steffen Rehbein) and deposited in the collection of Trombiculidae at the Zoological Institute RAS, St. Petersburg (Nos. 7936–7964). Basing on these data, we confirm presence of mastitibiala in *T. desaleri* (the seta on leg III, which is characteristic for the subgenera *Digenualea* Ver-cammen-Grandjean, 1960 and *Polymasticula* Ver-cammen-Grandjean et Kolebinova, 1985 in the genus *Neotrombicula*) and variability in its ciliation — mastitibiala can be nude or having few cilia (Kepka 1964). Since this species was originally recorded as an agent of trombidiosis in man, we can presume that other species of the genus under consideration can also be of a medical or veterinary importance.

The name *Eutonella* had been already used by Müller (1921) for a monotypic genus of caddis flies (Trichoptera). Therefore, we propose a new replacement name, *Kepkatrombicula* nom. n., for *Eutonella* Kudryashova, 1988. The new name is derived from the name of Prof. Otto Kepka (the University of Graz, Austria), who made a valuable contribution to the study of chigger mites in Europe.

### ***Kepkatrombicula* nom. n.**

*Eutonella* Kudryashova, 1988: 54 (preoccupied by Müller, 1921); Kharadov, 1996: 47 (description of a new species); Kudryashova, 1998: 149; Stekolnikov, 2001: 97; Fernandes and Kulkarni, 2003: 266 (synonymized with *Neotrombicula* Hirst, 1925).

**Type species.** *Neotrombicula tadjikistanica* Kudryashova et Abou-Taka, 1987, by original designation.

**Included species.** *Kepkatrombicula tadjikistanica* (Kudryashova et Abou-Taka, 1987) comb. n.; *K. armeniensis* (Schluger, 1966) comb. n.; *K. blanfordi* (Kudryashova, 1977) comb. n.; *K. brevis* (Schluger et Amanguliev, 1975) comb. n.; *K. brevisetigera* (Schluger, 1957) comb. n.; *K. boomium* (Kharadov, 1996) comb. n.; *K. crinita*

(Schluger, 1966) comb. n.; *K. darskayae* (Kudryashova, 1988) comb. n.; *K. desaleri* (Methlagl, 1928) comb. n.; *K. horti* (Kudryashova, 1977) comb. n.; *K. iolderiensis* (Amanguliev, 1973) comb. n.; *K. kudryashovae* (Stekolnikov, 2001) comb. n.; *K. kugitangica* (Amanguliev, 1984) comb. n.; *K. magnus* (Amanguliev, 1973) comb. n.; *K. muljarskajae* Kudryashova, 1988 comb. n.; *K. odessana* (Simonovich, 1958) comb. n.; *K. sciuricola* (Kolebinova, 1970) comb. n.; *K. serbovae* (Kolebinova, 1972) comb. n.; *K. storkani* (Daniel, 1956) comb. n.; *K. tumida* (Schluger, 1957) comb. n.

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#### REFERENCES

Fernandes, S. and Kulkarni, S.M. 2003. *Studies on the trombiculid mite fauna of India*. (Records of the Zoological Survey of India, Occasional Paper No.

212). Publisher: Zoological Survey of India, Kolkata, 539 pp.

Kepka, O. 1964. Die Trombiculinae (Acari, Trombiculidae) in Österreich. *Zeitschrift für Parasitenkunde*, 23: 548–642.

Kharadov, A.V. 1996. [Three new species of chigger mites (Acariformes, Trombiculidae) from Kyrgyzstan]. *Ekho nauki. Izvestija NAN Kyrgyzstana*, 1: 47–49. [In Russian]

Kudryashova, N.I. 1988. [To the revision of the genus *Neotrombicula* (Trombiculidae) from the fauna of the USSR. Separation of *Eutonella* gen. n.]. *Bulleten' Moskovskogo Obshchestva ispytateley prirody. Otd. Biol.*, 93 (3): 54–66. [In Russian]

Kudryashova, N.I. 1998. Kleshchi krasnotelki (Acariformes, Trombiculidae) Vostochnoy Palearktiki [*Chigger mites (Acariformes, Trombiculidae) of East Palearctica*]. Publisher: KMK Scientific Press, Moscow, 342 pp. [In Russian]

Methlagl, A. 1928. Über die Trombidiose in den Österreichischen Alpenländern. *Denkschriften Österreichischen Akademie der Wissenschaften (Wien). Mathematisch-naturwissenschaftliche Klasse*, 101: 213–250.

Müller, F. 1921. Briefe und noch nicht veröffentlichte Abhandlungen aus dem Nachlass 1854–1897. In: A. Möller (ed.). *Fritz Müller — Werke, Briefe und Leben*, 2. Verlag Gustav Fischer, Jena, pp. 383–642.

Stekolnikov, A.A. 2001. On the systematics of the genus *Eutonella* Kudryashova, 1988 (Acari: Trombiculidae). *Acarina. Russian Journal of Acarology*, 9: 97–104.