Two new chiggers of the genus Xinjiangsha (Acari: Trombiculidae) and a key to species of the genus

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Abstract

Two new chigger mites Xinjiangsha rychliki sp. nov. and Xinjiangsha stekolnikovi sp. nov. (Acari: Trombiculidae) are described on the basis of single specimens. The larva of Xinjiangsha rychliki sp. nov. was captured by pitfall trap in Turkey (host unknown) and Xinjiangsha stekolnikovi sp. nov. was collected from the ears of Chionomys gud (Satunin) in Caucasus. The key to the known Xinjiangsha species is also presented.

Key words: chigger mites, key, larvae, new species

Introduction

Systematic revisions of the similar genera Heaslipia Ewing and Hoffmannina Brennan and Jones by Kudryashova (1993) resulted in the erection of the genus Aboriginesia Kudryashova. This new genus included all the Palearctic chiggers formerly placed into Heaslipia and Hoffmannina. All these species parasitize small mammals. About twenty species were included, although some have an unclear taxonomic status (Kudryashova 1998; Stekolnikov 2001; Kováčik & Kalúz 2010).

However, prior to Kudryashova (1993), Wen et al. (1984) erected the similar genus Xinjiangsha with the type species Xinjiangsha scutocularis Wen, Shao & Ma. Later, Wen (2003) reviewed the genus Xinjiangsha and remarked on the similarity of this genus to Aboriginesia. The complex array of different morphological features presented by species in these similar genera evoked a need of a new taxonomic comparative study. Therefore, Stekolnikov & Daniel (2012) expanded the taxonomic diagnosis of the genus Xinjiangsha, separating it from the related genera Neotrombicula and Miyatrombicula on the basis of the presence of scuto-ocular or post-posterolateral setae. However, Aboriginesia was found to be a junior synonym of Xinjiangsha, because they fulfilled the new expanded taxonomic diagnosis.

The distribution of the genus Xinjiangsha includes the territories from North Africa (Vercammen-Grandjean 1956; Brown 2008), Spain to Central Asia (Kolebinova 1970; Kudryashova 1998) and China (Wen et al. 1984; Wen 2003). The majority of known species come mostly from sub-mountain or mountain localities, occurring preponderantly in the territories surrounding the Black Sea. This paper brings the descriptions of another two Xinjiangsha chiggers from Turkey and Caucasus, respectively. The paper also presents a key to the known Xinjiangsha species.

Material and methods

The chigger from Turkey was captured using a plastic pitfall trap with a small amount of monoethylenglycol, which was then collected from the bottom of the trap, and preserved in 70% ethylalcohol. The chigger mite from Caucasus was collected from an ear of Chionomys gud (Satunin) caught using the linear snap trap method, and was