



Two new species of eriophyoid mites (Acari: Eriophyoidea) on persimmon, *Diospyros kaki* Linn. (Ebenaceae), from Shaanxi Province, China

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Abstract

Two new species, *Dichopelmus lotus* n. sp. (Eriophyidae) and *Trimeroptes kakius* n. sp. (Diptilomiopidae) infesting persimmon, *Diospyros kaki* Linn. (Ebenaceae), are described and illustrated. We provide keys to the eriophyoid mites associated with *Diospyros* spp. in China, and to all species of *Dichopelmus* and *Trimeroptes*.

Key words: eriophyid mites, Phyllocoptinae, Acaricalini, Diptilomiopinae, taxonomy, identification keys

Introduction

Persimmon tree, *Diospyros kaki* L. is cultivated in several subtropical and tropical regions of the world, including China. Thirteen species of eriophyoid mites worldwide were reported from *Diospyros* spp. (Amrine & Stasny 1994), of which only one species occurred in China (Kuang & Hong 1989). Since then, three species of eriophyoid mites were found infesting *Diospyros* spp. in China: *Aceria reticularis* (Liu & Kuang 1997); *Caracarus diopyris* (Liu & Kuang 1998); and *Diptacus liangfengjiangensis* (Chen *et al.* 2004).

The Qinling-Dabashan region is located in the southern Shaanxi province, northwestern China, where the climate and flora is semitropical. A survey of eriophyid mites was conducted in the Qinling-Dabashan region from 2007 to 2009, and from this survey a new *Dichopelmus* Keifer, 1959 and new *Trimeroptes* Keifer, 1951 species associated with persimmon are here described and illustrated.

The genus *Dichopelmus* Keifer 1959 (Eriophyidae, Phyllocoptinae, Acaricalini) was established by Keifer (1959) based on the type species *Dichopelmus notus* Keifer, 1959. So far, six species are described: four species from China (Kuang & Feng 1989; Huang 2001; Kuang *et al.* 2002; Qin *et al.* 2008), one species from Argentina (Keifer 1959), and another from Russia (Sapozhnikova 1980).

The genus *Trimeroptes* Keifer 1951 (Diptilomiopidae, Diptilomiopinae) was established by Keifer (1951) based on the type species *Trimeroptes aleyrodiformis* (Keifer, 1940). Up to date, six species are known worldwide: three species from China (Wei *et al.* 2009; Xue & Hong 2005; Xue *et al.* 2006), two from the USA (Keifer 1940, 1964), and one from Armenia (Bagdasarian 1976).

Materials and methods

Specimens were collected with the aid of a 10x magnifying glass and preserved in sucrose-ethanol solution (75%). The mites were cleared in Nesbitt's solution and mounted in Heinze's medium on glass slides at room temperature (Kuang 1986, 1995). The type specimens were examined with an Olympus BX51 microscope. The morphological terminology and generic classification follow Amrine *et al.* (2003). Type specimens are deposited in the Museum of Hebei University, Baoding, Hebei province, China. All measurements are in