Zootaxa 4020 (2): 335–356
www.mapress.com/zootaxa/

Article

ISSN 1175-5326 (print edition)
ZOOTAXA
ISSN 1175-5334 (online edition)

http://dx.doi.org/10.11646/zootaxa.4020.2.6
http://zoobank.org/urn:lsid:zoobank.org:pub:A35C692D-2830-409D-8C6A-D8D7E5CDA018

Descriptions of five new eriophyoid mite species of the Diptilomiopidae (Acari: Trombidiformes: Eriophyoidea) from Zhejiang Province, China

SHAHJAHAN RAJPUT, HAO-SEN LI, XIAO-FENG XUE & XIAO-YUE HONG[1]
Department of Entomology, Nanjing Agricultural University, Nanjing, Jiangsu 210095, China
[1]*Corresponding author. E-mail: xyhong@njau.edu.cn*

Abstract

Five new eriophyoid mite species from Zhejiang Province, China are described and illustrated: *Diptacus coreanus* **sp. nov.** from *Litsea coreana* H. Lév. (Lauraceae), *Neorhynacus camphoratus* **sp. nov.** from *Cinnamomum camphora* (L.) J. Presl (Lauraceae), *Rhinotergum boehmerius* **sp. nov.** from *Boehmeria gracilis* C.H. Wright (Urticaceae), *Rhyncaphytoptus cathayensis* **sp. nov** from *Carya cathayensis* Sarg. (Juglandaceae) and *Rhyncaphytoptus lanceolatus* **sp. nov.** from *Cunninghamia lanceolata* (Lamb.) Hook (Cupressaceae). All species were vagrant on their host plants with no visible damage observed.

Key words: Prostigmata, taxonomy, Tianmu Mountain, Qingliang Mountain

Introduction

The family Diptilomiopidae was established by Keifer (1944) based on the type genus *Diptilomiopus* Nalepa, 1916. The following characters distinguish it from other families: a large gnathosoma; chelicerae abruptly curved and bent down near the base; long oral stylet and attenuate pedipalps. The Diptilomiopidae consists of two subfamilies, namely the Diptilomiopinae Keifer, 1944 and the Rhyncaphytoptinae Roivainen, 1953. Those two subfamilies can easily be differentiated by the tarsal empodium being divided in the Diptilomiopinae and entire in the Rhyncaphytoptinae (Amrine *et al*. 2003). In 2011, the family Diptilomiopidae included 63 genera and 450 species worldwide (Zhang *et al.* 2011), of which both subfamilies, 34 genera and 186 species, had been reported from China (Hong *et al.* 2010).

During 2011 and 2012, the vegetation of the Tianmu and Qingliang mountains in Zhejiang Province, China, was surveyed for Eriophyoidea. Five new eriophyoid mite species belonging to the family Diptilomiopidae were found and are described and illustrated in this paper.

Material and methods

Mites were collected from different host plants in the field with the aid of hand-lens (30×). Specimens were preserved along with their host plant parts in vials containing 75% ethanol and brought to the laboratory for identification. Additional host plant parts were retained separately in plant specimen folders and later sent to a botanist at the Department of Botany, Nanjing Agricultural University, China, for further identification. Vials were labelled with the collection details, including the relation of the mites to the host plant. Mite specimens were first cleared using Keifer's Booster and later mounted on slides in Modified Berlese Medium (Amrine & Manson 1996). Specimens were observed using a Zeiss A2 research microscope fitted with phase contrast and semi-schematic drawings were made with the aid of a drawing tube. Micrographs were taken with a Microphoto camera AxioCam MRc mounted on the microscope and connected to a computer using Axiovision image analysis software. The magnification used for observation was 10× eyepieces with 100× oil objective.

Accepted by D. Knihinicki: 31 Aug. 2015; published: 22 Sept. 2015