

Eriophyoid mites from Hainan Province, China VII: Descriptions of four new species (Acari: Diptilomiopidae)

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Abstract

Four new eriophyoid mite species (Acari: Eriophyoidea: Diptilomiopidae) from Hainan Province, China are described and illustrated. They are *Diptilomiopus diaoluicus* sp. nov. on *Eurya hainanensis* (Kobuski) H. T. Chang (Theaceae), *Diptilomiopus engelhardter* sp. nov. on *Engelhardtia roxburghiana* Wall. (Juglandaceae), *Neorhynacus altingus* sp. nov. on *Altingia obovata* Merr. et Chun (Hamamelidaceae); *Konola pingis* sp. nov. on *Machilus pingii* Cheng (Lauraceae). All the new species described herein are vagrants on the host plant.

Key words: Acari; Eriophyoidea; taxonomy; new species; Diaoluo Mountain

Introduction

The family Diptilomiopidae was established by Keifer (1944) based on the type genus *Diptilomiopus* Nalepa, 1916 and characterized as gnathosoma large in comparison to the body, gnathosoma abruptly curved and bent down near base. The family Diptilomiopidae includes two subfamilies, Diptilomiopinae and Rhyncaphyoptinae, and the former subfamily can be differentiated from the latter by empodium divided, empodium entire in the Rhyncaphyoptinae. The family Diptilomiopidae contains 63 genera and 450 species (Zhang *et al.* 2011). Two subfamilies, 34 genera and 186 species in the Diptilomiopidae have been known to occur in China (Hong *et al.* 2010).

During 2008, field surveys were conducted by Xiao-Feng Xue, Li-Sheng Cheng and Zi-Wei Song in Hainan Province, China. Four new species were found. All the new species described herein are vagrants on the respective host plant. Information about Hainan Province and its eriophyoid mite fauna can be found in our previous papers (Cheng *et al.* 2009, 2012; Xue *et al.* 2009, 2011, 2012).

Materials and methods

The morphological terminology used here follows Lindquist (1996) and the generic classification is made according to Amrine *et al.* (2003). Specimens were mounted on microscope slides and measured following de Lillo *et al.* (2010). Specimens were examined with a Zeiss A2 (Germany) research microscope with phase contrast and semi-schematic drawings were made. It was not possible to provide illustrations of the lateral view for some of the species described herein because of the mounting position on microscope slides. The female genital apodemes were not visible in *Diptilomiopus diaoluicus* sp. nov. and *Konola pingis* sp. nov. For each species, the holotype female measurement precedes the corresponding range for paratypes (given in parentheses). For male