



Four new species and a new name in the genus *Rhyncaphytoptus* Keifer (Acari: Eriophyoidea: Diptilomiopidae) from China

ZI-WEI SONG, XIAO-FENG XUE & XIAO-YUE HONG¹

Department of Entomology, Nanjing Agricultural University, Nanjing, Jiangsu 210095, China

¹Correspondent author: E-mail: xyhong@njau.edu.cn

Abstract

Four new species in the genus *Rhyncaphytoptus* Keifer from China are described and illustrated, namely *R. longyuwanis* sp. nov. on *Toxicodendron* sp. (Anacardiaceae); *R. tiliarium* sp. nov. on *Tilia* sp. (Tiliaceae); *R. guanegounis* sp. nov. on *Lonicera* sp. (Caprifoliaceae); and *R. yilisis* sp. nov. on *Betula platyphylla* Suk. (Betulaceae). A new replacement name, *Rhyncaphytoptus ulmiss* is provided for the junior homonym *R. ulmi* (Lin & Kuang) on *Ulmus* sp. (Ulmaceae). All species described here are vagrant on the undersurface of host leaves. A key to the species of *Rhyncaphytoptus* in China is provided.

Key words: Rhyncaphytoptinae, key, host association, taxonomy

Introduction

The genus *Rhyncaphytoptus* was established by Keifer based on the type species *Rhyncaphytoptus ficifoliae* Keifer (Keifer 1939a). It can be differentiated from other genera in the Rhyncaphytoptinae (Acari: Eriophyoidea: Diptilomiopidae) by coxal setae *Ib* present; femoral setae present on both legs; dorsal annuli uniformly even and not serrate in lateral view; dorsal annuli broader than ventral; empodium entire. Prior to this study, *Rhyncaphytoptus* included 80 species worldwide (Amrine *et al.* 2003), and 27 species and 2 subspecies in China (Chen *et al.* 2004; Kuang 1995; Kuang *et al.* 2005; Wei & Feng 1999; Xin & Dong 1981; Xue & Hong 2005; Xue *et al.* 2006). During field surveys conducted during 2004, 2005 and 2006 in Henan Province, Gansu Province and Xinjiang Uygur Autonomous Region of China, four new *Rhyncaphytoptus* species were found. In the mean time, a new name *R. ulmiss* (Lin & Kuang) was erected. They are here described and a key to the Chinese *Rhyncaphytoptus* species is provided.

The morphological terminology used follows Lindquist (1996) and the generic classification is made according to Amrine *et al.* (2003). All specimens were examined with a Leica DMR (Germany) microscope using phase contrast (PH) and semi-schematic drawings were made. Measurements are given as a mean followed by the range in brackets, all are in micrometers (µm), and are lengths when not specified. All type specimens are deposited as slide mounted specimens in the Arthropod/Mite Collection of the Department of Entomology, Nanjing Agricultural University, Jiangsu Province, China.

Key to *Rhyncaphytoptus* species in China

- 1 Coxal area smooth2
- Coxal area with granules or short lines.....21
- 2 Female genital coverflap with either longitudinal ridges or granules3