



Four new species of *Rhyncaphytoptus* from Tibet Autonomous Region, China (Acari: Eriophyoidea: Diptilomiopidae)

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Abstract

In this paper, four new eriophyoid mite species in the genus *Rhyncaphytoptus* from China are described and illustrated. They are *Rhyncaphytoptus tibetirosae* **sp. nov.** on *Rosa* sp. (Rosaceae), *Rhyncaphytoptus acutifoliae* **sp. nov.** on *Cotoneaster acutifolius* Turcz. (Rosaceae), *Rhyncaphytoptus tibetisalicise* **sp. nov.** on *Salix* sp. (Salicaceae) and *Rhyncaphytoptus buxifoliae* **sp. nov.** on *Cotoneaster buxifolius* Lindl. (Rosaceae). All eriophyoid mites described herein are vagrants on the undersurface of host leaves. A key to the species of Chinese *Rhyncaphytoptus* is provided.

Key words: eriophyoid mites, plant feeding, taxonomy, Rhyncaphytoptinae, key

Introduction

The genus *Rhyncaphytoptus* was established by Keifer based on the type species *Rhyncaphytoptus ficifoliae* Keifer (Keifer 1939a). To date, there are 36 eriophyoid mite species and 2 subspecies in the genus *Rhyncaphytoptus* in China (Kuang *et al.* 1991; Wei *et al.* 2009; Xue *et al.* 2009). In August 2007, field surveys were conducted in Tibet Autonomous Region, southwestern China and four new species in *Rhyncaphytoptus* were found. Due to the poor transportation systems and harsh climate in Tibet, no systematic survey of mites including eriophyoid mites has been conducted before in the region. This is the first systematic survey of eriophyoid mites in Tibet, which will provide useful data on the diversity of the eriophyoid mites in the region. The complete investigative results will be reported in a series of publications. A key to the species of Chinese *Rhyncaphytoptus* is provided herein.

Material and methods

The morphological terminology follows Lindquist (1996) and the generic classification is made according to Amrine *et al.* (2003). Measurements were made according to Amrine and Manson (1996). Specimens were examined with a Leica DMR (Germany) research microscope with phase contrast and semi-schematic drawings were made. For each species, the holotype female measurement precedes the corresponding range for paratypes (given in parentheses). All measurements are in micrometers (μm), and are lengths when not otherwise 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.