



Six new species of *Aculus* Keifer from Tibet Autonomous Region, China (Acari: Eriophyoidea: Eriophyidae: Phyllocoptinae)

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Abstract

Six new species of *Aculus* Keifer from China are described and illustrated. They are *Aculus vignaus* **sp. nov.** on *Vigna vexillata* (L.) Rich. (Fabaceae); *Aculus jasmini* **sp. nov.** on *Jasminum humile* L. (Oleaceae); *Aculus sorbariae* **sp. nov.** on *Sorbaria sorbifolia* (L.) A. Br. (Rosaceae); *Aculus tibetsalicinus* **sp. nov.** on *Salix* sp. (Salicaceae); *Aculus lhasasorbariae* **sp. nov.** on *Sorbaria* sp. (Rosaceae) and *Aculus cheilophilanus* **sp. nov.** on *Salix cheilophila* Schneid (Salicaceae). All the eriophyoid mite species described here are vagrants on the undersurface of host leaves. A key to the Chinese *Aculus* species is also provided.

Key words: eriophyoid mites, plant feeding, taxonomy, Anthocoptini, host relationship, key

Introduction

The genus *Aculus* Keifer was established by Keifer based on the type species *Phyllocoptes ligustri* Keifer (Keifer 1938). It included 248 species world-wide up to 2003 (Amrine *et al.* 2003). To date, there are 39 *Aculus* eriophyoid mite species from China (Xue *et al.* 2008; Song *et al.* 2008). During August 2007, field surveys were conducted in Tibet Autonomous Region, western China, and six new species of *Aculus* were found. A key to the Chinese *Aculus* species is provided herein.

Material and methods

The morphological terminology used here follows Lindquist (1996) and generic classification was done according to Amrine *et al.* (2003). Measurements of mites were done 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. Internal genitalia are not visible on any slides. 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 *Aculus* species in China

- 1 Coxal area smooth 2
- Coxal area with granules or short lines..... 12