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Four new eriophyoid mite species (Acari: Eriophyoidea: Eriophyidae) from Iran

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Abstract

Four new mite species of the superfamily Eriophyoidea from Iran are described and illustrated. They are: *Aceria tragopogonis* **sp. nov.** on *Tragopogon coelesyriacus* Boiss. (Compositae); *Aculodes alhagis* **sp. nov.** on *Alhagi maurorum* Medik. (Leguminosae); *Aculops haloxylonum* **sp. nov.** on *Haloxylon persicum* Bunge ex Boiss. et Buhse (Chenopodiaceae) and *Colomerus robaticus* **sp. nov.** on *Prunus dulcis* (Mill.) (Rosaceae). Except for *Aculops haloxylonum* making galls, the other new species described herein are vagrants on their respective host plants.

Key words: Prostigmata, taxonomy, *Aceria*, *Aculodes*, *Aculops*, *Colomerus*, new species

Introduction

During the last 20 years, a number of papers have been published on the eriophyoid mite fauna of Iran. In reviewing the literature, Xue *et al*. (2009) found 88 species to occur there. Field surveys were conducted by the second author and his students in the north eastern provinces of Iran in 2009 and 2010. Different plant parts such as buds, flower clusters, shoots, leaves and fruits of a variety of plant species were carefully observed and sampled for the potential presence of eriophyoid mites. Slide mounted specimens were later sent to China for specialist identification. Among the eriophyoid mites that were identified, four species were found to be new to science.

Material and methods

Eriophyoid specimens collected from plant materials were prepared and slide mounted according to the methods of Keifer (1975). The morphological terminology used herein follows Lindquist (1996) and the generic classification is made according to Amrine *et al*. (2003). Specimens were measured following de Lillo *et al*. (2010). Specimens were examined with the aid of 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. In addition, the female genital apodemes were not visible. For each species, the holotype female measurement precedes the corresponding range for paratypes (given in parentheses). For male specimens, only the ranges are provided except for *Aceria tragopogonis* **sp. nov.**, where the measurement of a single male is given. All measurements are in micrometres (μm) and are lengths when not otherwise specified. The holotypes and 11 paratypes are deposited in the Arthropod/Mite Collection of the Department of Entomology, Nanjing Agricultural University (NJAU), Jiangsu Province, China. In addition, 41 paratypes are deposited in the Department of Plant Protection, Ferdowsi University of Mashhad (FUM), Iran.

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