A new species of Neophyllobius (Acari: Raphignathoidea, Camerobiidae) from southeast Iran

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Abstract

A new species, Neophyllobius bamiensis sp. nov. is described herein. The new species was collected from the bark of date trees (Phoenix dactylifera L.) (Arecaceae) in the vicinity of Bam city, Kerman province, southeast Iran. A key to the Iranian species is provided.

Key words: Acari, Neophyllobius bamiensis, predatory mite, Bam, southeast Iran

Introduction

Members of the genus Neophyllobius are usually predators on spider mites, false spider mites, eriophyid mites, unarmored scale insects and the first nymphal stages of some Hemiptera (Meyer (Smith), 1962; Richards, 1962; Bolland, 1986, 1991; Bolland & Mehrnejad, 2001; Gerson & Smiley, 1990; Khanjani & Ueckermann, 2002, 2006; Khanjani et al., 2010). Neophyllobius is widely distributed and found in different habitats, such as the aerial parts of plants, soil, grasses, straw, moss, leaf litter and bark (Gerson, 1973; Chaudhri et al., 1974; Gerson & Smiley, 1990; Du Toit et al., 1998). Up to now seven species were collected and described from Iran, namely: Neophyllobius persiaensis Khanjani & Ueckermann from litter under Sophora pachycarpa Schrenk (Fabaceae); N. camelli Khanjani & Ueckermann from litter under tea bushes; N. astragalusi Khanjani & Ueckermann from soil under Astragalus sp. bushes; N. pistaciae Bolland & Mehrnejad from bark, leaves and twigs of pistachio trees; N. asalii Khanjani & Ueckermann, from grass litter; Neophyllobius zolfigolii Khanjani et al. from soil under wild rose bushes and Neophyllobius kamalii Khanjani et al. from pomegranate leaves infested with Cenopalpus irani Dosse (Acari: Tenuipalpidae). In this paper the eighth species was collected from the bark of date trees (Phoenix dactylifera L.) (Arecaceae) infested with Phoenicoccus marlatti Cookerell (Homoptera: Phoenicoccidae) in the vicinity of Bam city, Kerman province, southeast Iran.

Materials and methods

The collected mites were picked up under the stereomicroscope and mounted directly in Hoyer’s medium. An Olympus BX51 compound microscope with a drawing tube was used for initial pencil drawings at a magnification of 400-1000X. These drawings were scanned and imported as templates for final illustrations in Adobe Illustrator (Adobe System incorporated, San Jose, California, USA). Specimens were measured with an ocular micrometer. Measurements are presented in micrometers.