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Two new larval species of the genus *Erythraeus* (*Erythraeus*) (Acari: Erythraeidae) from Iran

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Abstract

Two new species of the subgenus *Erythraeus* are described from western Iran: *Erythraeus* (*Erythraeus*) *populi* **sp. nov.** from pear lace bug, *Stephanitis pyri* F. (Heteroptera: Tingidae), and *E. (E.) chrysoperlae* **sp. nov.** from a green lacewing, *Chrysoperla kolthoffi* (Navas) (Neuroptera: Chrysopidae). A key to the Iranian larval species of the subgenus *Erythraeus* (*Erythraeus*) is given, as is data on leg setae and measurements for all 44 species of the subgenus.

Key words: mite, ectoparasite, *Erythraeus*, new species, new host

Introduction

The larvae of the subgenus *Erythraeus* are usually ectoparasites of aphids, citrus scales and soft bodied insects (Haitlinger, 1987, 1994, 1997, 2000, 2003, 2004; Haitlinger & Saboori, 1996; Goldarazena & Zhang, 1998; Fain & Ripka, 1998; Saboori, 2000; Saboori & Babolmorad, 2000; Saboori & Akrami, 2001; Saboori & Nowzari, 2001; Saboori *et al.*, 2004a; Khanjani *et al.*, 2007; Saboori & Cobanoglu, 2010; Table 1). The genus is distributed worldwide, and of its 42 species six were described from Iran, namely: *Erythraeus* (*Erythraeus*) *akbariani* Haitlinger & Saboori, *E. (E.) garmsaricus* Saboori, Goldarazena & Khajeali and *E. (E.) sabrinae* Haitlinger & Saboori, all from unidentified aphids; *E. (E.) shojaii* Saboori & Babolmorad, 2000 from a tingid bug, *Monstesria unicostata* Mulsant & Rey; *E. (E.) hypertrichotus* Saboori, Goldarazena & Khajeali from *Tinocallis nevskyi* Remaudiere, Quendnau & Heie; and *E. (E.) mirabi* Khanjani, Ueckermann & Ul-Hassan from spotted walnut aphid, *Chromaphis juglandicola* Kalt (Table 1). In this paper, two more species are added to this subgenus: *E. (E.) populi* **n. sp.** from the pear lace bug, *Stephanitis pyri* F. (Hemiptera: Tingidae), and *Erythraeus* (*E.*) *chrysoperlae* **n. sp.**, from the green lacewing, *Chrysoperla kolthoffi* (Navas) (Neuroptera: Chrysopidae).

Materials and methods

Poplar leaves infested by lace bugs were examined with an Olympus stereomicroscope and infested lace bugs removed. The green lacewing was caught at a light trap. Mites were preserved in 70 % ethanol then mounted directly on slides in Hoyer's medium (Walter & Krantz, 2009). Both specimens were examined and illustrated at 1000X magnification on an Olympus BX51 compound microscope equipped with a Camera Lucida. All measurements are given in micrometers (µm) as a range followed by the measurement for the holotype in parentheses. The terminology follows Haitlinger & Saboori (1996) and Saboori & Cobanoglu (2010). Distribution and host of all known species are given in Table 1.

The holotypes for each of the two new species are deposited in the Acari Collection of the Department of Plant Protection, Faculty of Agriculture, Bu-Ali Sina University, Hamedan, Iran and one paratype of *E. (E.) populi* will be deposited in the National Collection of Arachnida, Plant Protection Research Institute, Pretoria, South Africa.