



The genus *Paragus* Latreille (Diptera: Syrphidae) in Iran, with the description of a new species

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Abstract

A new species of the genus *Paragus* Latreille is described, *Paragus (Paragus) radjabii* sp. nov. It is similar to *P. compeditus* Wiedemann and *P. hyalopteri* Marcos-García & Rojo. The head, abdomen and male genitalia of the new species are figured. A list of the species of *Paragus* known from Iran is provided, along with a distributional map of the species in Iran.

Key words: *Paragus*, Syrphidae, taxonomy, faunistics, key, hoverflies, *Paragus (Paragus) radjabii*, new species, distributional map, Iran

Introduction

Hoverflies of the genus *Paragus* are widely distributed in the Nearctic Region, but mostly occur in the Old World. The adults of *Paragus* species are small in size (2.5–6.5 mm), with different patterns of coloration and pubescence on the abdomen. The larvae of all species of this genus are known as predators of aphids and can be considered one of the significant factors in the biological control of aphids (Chambers 1986, 1988; Thompson & Ghorpadé 1988; Carver 1989; Marcos-García & Rojo 1994; Gavrilyuk *et al.* 2008).

To date 53 species of the genus *Paragus* have been recorded from the Palaearctic region in the recent literatures (e.g. Peck 1988; Claußen & Weipert 2004; Sorokina 2009; Van de Weyer 2010). Although the Asian species of this genus have not been revised, Mutin & Barkalov (1999), Sorokina & Cheng (2007) and Sorokina (2002, 2009) investigated the fauna of this genus in various parts of the region. These investigations included the descriptions of several new species and the keys to the species of *Paragus* from Russia and adjacent countries (China, Mongolia, Kirghizia, Uzbekistan, Turkmenistan and Iran). The five following species were recorded from Iran by Sorokina (2009): *P. bicolor* (Fabricius), *P. haemorrhous* Meigen, *P. tibialis* (Fallén), *P. quadrifasciatus* Meigen and *P. compeditus* Wiedemann.

Additionally, a list of 11 Iranian species of the genus *Paragus* was presented by Dousti & Hayat (2006). During recent years, further studies on the Iranian fauna of hoverflies improved our knowledge about the distribution of this genus and also led to the discovery of one more species from Iran (Mehrabi & Ssymank 2008; Khaghaninia *et al.* 2010).

The new species which was found in the private collection of Dr. Gholamreza Radjabi is very similar to *P. compeditus* but it can be easily distinguished by the male genitalia. The description of new species and a list of Iranian *Paragus* are given.

Material and methods

Paragus materials used in this study are deposited at the Hayk Mirzayans Insect Museum, Insect Taxonomy Research Department, Iranian Research Institute of Plant Protection, Tehran, Iran (HMIM) and in the Siberian Zoo-