

Short communication

***Sympetrum flaveolum* (Odonata: Libellulidae) a new species record for Iran**

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چکیده

راسته Odonata شامل آسیابک‌ها و سنجاقک‌های آبی و شکارگر است که گاهی به‌عنوان عوامل کنترل بیولوژیک و همچنین شاخص اکولوژیکی کیفیت اکوسیستم‌های آبی مطرح می‌شوند. در این تحقیق طی نمونه‌برداری از منطقه شمال غربی استان اصفهان، گونه *Sympetrum flaveolum* (Linnaeus) از شهر چادگان، جمع‌آوری و شناسایی شد و سپس به تأیید نگارنده سوم رسید. گونه فوق برای اولین بار از ایران گزارش می‌شود.

The order Odonata, (dragonflies and damselflies) comprises over 5800 known species (Schorr *et al.*, 2012). All species are predators as adult. The larvae or naiads are sometimes considered as biological control agents and important predators on various macro invertebrates, including mosquitoes (Saha *et al.*, 2012). The Odonata are a group of freshwater insects closely linked to specific habitat conditions and are widely used as ecological indicators for the quality and integrity of freshwater ecosystems (Hardersen, 2000; Sahlen & Ekestubbe, 2001; Smith *et al.*, 2007; Silva *et al.*, 2010; Arimoro *et al.*, 2011; Simaika & Samways, 2011; Dolny & Harabis, 2012).

The genus *Sympetrum* Newman (Libellulidae) contains over 60 species and occurs on all continents

except Australia (Needham *et al.*, 2000), with predominantly red and relatively small species. The yellow-winged Darter, *Sympetrum flaveolum* (Linnaeus), is a Palearctic species (Steinmann, 1997), spreading in Europe and West Siberia as well as central Asian areas such as Kazakhstan (Schoorl, 2000) and Mongolia (Kosterin & Valentin, 2010). It has also been reported from Armenia, Azarbaijan, Turkey, Georgia (Kalkman, 2006), and from East Asia as far as Japan (Kadoya *et al.*, 2009). According to the latest checklist of Odonata of Iran (Heidari & Dumont, 2002), *S. flaveolum* has not already been reported from the country and thereby it is recorded here for the first time from Iran. We used the keys by Schmidt (1929) and Dumont (1991) for the identification of the species.

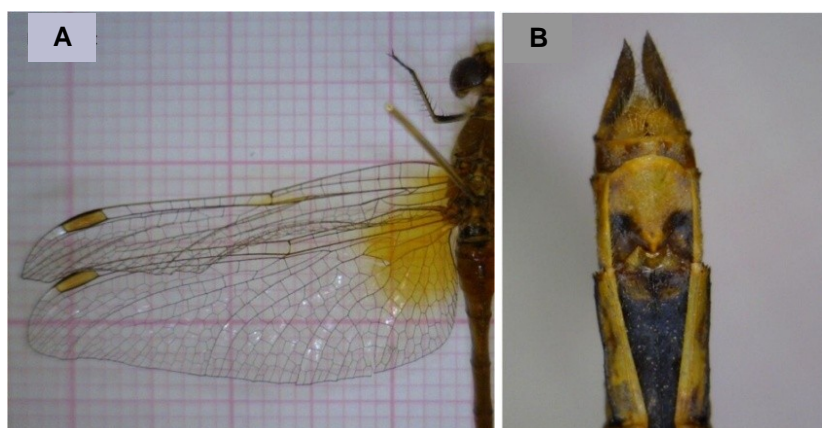


Fig. 1. *Sympetrum flaveolum*: (A) dorsal view of wings, (B) tip of female abdomen. (Original).

Material examined – 1 ♀, Iran: Isfahan province, Chadegan suburb, 18.vii.2012, N 50°30' E 32°53', irrigation reservoir with poor vegetation.

Diagnosis – A golden-yellow area on the hind wing exceeding cubito-anal vein, often reaching to posterior margin of wing in females; yellow spot near the nodus (Bei-Bienko, 1967); the amber spot on the hind wing extends to the level of discoidal cell, not strongly

extended, remains short of posterior margin of the wing (fig. 1, A); female with typical black legs, bright yellow stripe, and vulvar lips with close pointed tips (fig. 1, B); abdomen 23 mm and the hindwing 27 mm in length.

According to Kalkman *et al.* (2003), the size of yellow area on the wing is highly variable to be used as a character at sub-species level.

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