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Revision of the *Tephritis maccus* species group (Diptera: Tephritidae) with description of a new species from Iran

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Abstract

The *maccus* species group of the genus *Tephritis* Latreille 1804 is revised. The *maccus* group contains five species with a radiate wing pattern, cell r_1 without or with only one large hyaline spot or indentation on the anterior wing margin, and the aculeus moderately broad, sharply narrowing and pointed at the very apex. The included species are: *Tephritis azari* Mohamadzade Namin & Korneyev, *Tephritis gharalii* sp. nov., *Tephritis maccus* Hering, *Tephritis sophus* and *Tephritis urelliosomima* Korneyev & Dirlbek.

Key words: Tephritidae, *Tephritis gharalii* sp. nov., *Tephritis maccus* group, Iran

Introduction

The genus *Tephritis* Latreille 1804 includes more than 170 described species distributed mainly in the Palaearctic and Nearctic and to the lesser degree in the Oriental, Afrotropical and Australasian Regions (Norrbom *et al.* 1999, Merz 2000). Flies of this genus can be recognized by their reticulate, radiate or rarely banded (see Korneyev, 2013) wing pattern with hyaline spots on a brown pattern, with 2–3 large hyaline spots in cell r_1 and a large apical hyaline spot at the apex of cell r_{4+5} separating a pair of dark rays bifurcating towards the apices of veins R_{4+5} and M (Khaghaninia *et al.* 2011). However, in species of the *Tephritis maccus* group there is at most one large hyaline spot in cell r_1 . Other diagnostic characters include: posterior notopleural seta usually white (black in *T. arnicae* (Linnaeus 1758) and a few other species); proboscis capitate; 2 (pairs) frontal setae; 2 (pairs) scutellar setae; glans of the phallus poorly sclerotized or entirely membranous (without tubular structures of acrophallus or spinulose internal structures); and two moderately or greatly elongated spermathecae (Khaghaninia *et al.* 2011). In most species the aculeus gradually tapers to the apex, but in the *Tephritis maccus* species group it is moderately broad and sharply tapered subapically to a short narrow apex (Mohamadzade Namin & Korneyev, 2012).

The *Tephritis maccus* species group was established by Korneyev & Dirlbek (2001) who included *T. urelliosomima* Korneyev & Dirlbek from Iraq and Turkmenistan as well as *T. maccus* Hering. Gentilini *et al.* (2006) added *T. sophus* Gentilini & Korneyev from Italy, and Mohamadzade Namin & Korneyev (2012) added *Tephritis azari* to the group and provided a key to the species. During studies on the tephritid fauna of Iran by the authors, several male specimens of *T. urelliosomima* were discovered; in addition another previously undescribed species of the *T. maccus* species group was collected. In body and wing size and wing pattern this new species is surprisingly similar to *Euaestella iphionae* (Eflatoun), a species recorded from Iran by Dirlbek (1980) and Gilasian (2007), but it differs in having two pairs of scutellar setae, not just one pair as in *E. iphionae*. Recent studies showed that the records of *E. iphionae* from Iran were based on misidentification of this new species.