



## First record of the genus *Empidideicus* (Diptera: Bombylioidea: Mythicomyiidae) from Iran, with description of six new species

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### Abstract

Six new species of the genus *Empidideicus*, *E. amicus* Gharali & Evenhuis, **sp. nov.**, *E. ebellicus* Gharali & Evenhuis, **sp. nov.**, *E. greatheadi* Gharali & Evenhuis, **sp. nov.**, *E. legulicoxa* Gharali & Evenhuis, **sp. nov.**, *E. matricarius* Gharali & Evenhuis, **sp. nov.**, and *E. persicus* Gharali & Evenhuis, **sp. nov.** are described from the northern parts of Iran. A diagnostic key to Iranian species are presented. The subfamily Empidideicinae is recorded from Iran for the first time.

**Key words:** Diptera, Bombylioidea, Mythicomyiidae, *Empidideicus*, taxonomy

### Introduction

The genus *Empidideicus* was originally described by Becker (1907) to include his new species *E. carthaginensis* from Tunisia. Since that time many new species have been described from different parts of the world (e.g., Efflatoun, 1945; Evenhuis, 2007, 2009; Greathead, 1986; Greathead & Evenhuis, 2001a, and Zaitzev, 1971). In the most recent catalogue of family, Evenhuis (2002) listed 20 species. As currently known, the genus is distributed primarily in the Afrotropical and Palaearctic regions. In the first review of the genus in the Palaearctic region, Engel (1933) described *E. efflatouni* in a new subgenus *Cyrtoides* Engel, based on the position of ocelli in a straight line (not a triangle) and provided a diagnostic key for three known species. In his work on the bee flies of the world Hull (1973) placed *Empidideicus* (and three other genera) in his new tribe Empidideicini and characterized it by the absence of the second longitudinal vein ( $R_{2+3}$ ). Greathead & Evenhuis (2001b) reviewed the African Bombylioidea and raised Hull's tribe to subfamily rank. They also synonymized *Cyrtoides* and *Aetheoptilus* Hesse with *Empidideicus* and redefined the subfamily to include only *Empidideicus*. They considered the following as diagnostic characters of the subfamily: absence of vein  $R_{2+3}$ , long second antennal flagellomere, and spermathecae with an apical invagination.

Evenhuis (2009) described and keyed eight new species of *Empidideicus* from the United Arab Emirates (UAE) in two subgenera: *Anomaloptilus* Hesse with one species and the remainder in the nominate subgenus *Empidideicus*. The Mythicomyiidae of Iran are little-known with only six species listed in Evenhuis (2002). No *Empidideicus* are listed from Iran. Surveys in 2008 and 2009 using a Malaise trap and yellow pan traps in the northern regions of Iran resulted in discovery of six new species. This study marks the first record of the subfamily Empidideicinae from Iran.