



## Two new species of *Empis* (Diptera: Empididae) from Turkey

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### Abstract

The Turkish fauna of the genus *Empis* is poorly known, with only 45 species listed in the literature. Two new species, *Empis* (*Polyblepharis*) *nabucco* Çiftçi **sp. nov.** and *Empis* (s.str.) *doronicola* Çiftçi **sp. nov.** are described from mountains of central Turkey. Both sexes are described and compared with related species. Male genitalia, and also mid leg of *Empis* (s.str.) *doronicola* Çiftçi **sp. nov.** are illustrated. Keys to Turkish species of *Empis* (s.str.) and *E.* (*Polyblepharis*) are given.

**Key words:** taxonomy, new species, dance fly, distribution

### Introduction

The genus *Empis* Linné is very common and one of the largest genera of Empididae in Palaearctic Region with over 300 species. The European fauna of *Empis* is rather well studied and over 200 species are listed (Chvála & Wagner 1989). Despite the climatic, topographic and habitat diversity in Turkey, only 45 species of *Empis* are known (Chvála 1999; Çiftçi & Hasbenli 2007a,b, 2008; Raffone 2007).

*Empis* has 13 subgenera in the Palaearctic Region. *Polyblepharis* was erected by Bezzi (1909) as a subgenus of *Empis*. In the recent revision of Palaearctic *E.* (*Polyblepharis*) by Chvála (1999), detailed descriptions and distributional data for 51 species were given. In the latter study *E.* (*Polyblepharis*) is divided into seven natural species-groups. Following Chvála's revision five species were added to the Palaearctic *E.* (*Polyblepharis*) fauna (Shamshev 2003; Shamshev & Grootaert 2005).

There were previously 11 species of *E.* (*Polyblepharis*) known from Turkey, among these species *Empis angorae* Collin, 1937, *Empis helichiphora* Collin, 1937 and *Empis pulchripes* Loew, 1869 are endemic (Chvála 1999; Çiftçi & Hasbenli 2007a). Also Raffone (2007) recorded *Empis ruficornis* (Loew, 1864) from Turkey, but in the revision of *E.* (*Polyblepharis*), Chvála (1999) assigned this species as an “unrecognized species due to loss of the female holotype and inadequate original description. For this reason we exclude this species from the number of *E.* (*Polyblepharis*) species in Turkey and also from the key.

*Empis* (s.str.) is the largest subgenus with over 100 representatives from the Palaearctic Region (Chvála & Wagner 1989). Because of the large number of species within subgenus *Empis* several researchers tried to separate this subgenus according to their coloration of abdominal hairs, halteres and metapleural fan (laterotergal bristles) into species-groups. This classification proved practical and was commonly used in the key to species; however, it has resulted in some unnatural species-groups (Chvála 1994). The most serious attempt to classify *Empis* (s.str.) into natural groups based on the male genitalia was made by Syrovátka (1991), where he revised the species described by Loew and Becker based on type material and arranged species of into three species-groups.

*Empis* (s.str.) is poorly known from Turkey. Although there are many species known within *Empis* (s.str.) from the Palaearctic Region, only 10 species are represented in Turkey (Çiftçi & Hasbenli 2008).

The aim of this study is to contribute to the biological diversity of Turkey and to determine the Turkish fauna of Empididae.