Systematics of the Euro-Mediterranean Empis (Kritempis) (Diptera: Empididae: Empidinae)*

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Abstract

The Euro-Mediterranean subgenus Kritempis Collin of Empis Linnaeus is here redefined on the basis of three synapomorphies, namely (1) hypandrium reduced to its lateral arms, (2) presence of a posteroventral group of spine-like setae on the female mid tibia at base, (3) anal vein faint, incomplete. This subgenus includes eight species: Empis (K.) algira Macquart, E. (K.) livida Linnaeus, E. (K.) macquarti Becker, E. (K.) macropalpa Egger, E. (K.) nigrimana Becker, E. (K.) sardoa sp. nov., E. (K.) sibillina Bezzi and E. (K.) taffertensis sp. nov. A detailed diagnosis of the group as well as a key to all known species is provided. All species are described or redescribed, exclusive of the well-known E. (K.) livida. The holotype of E. (K.) algira is identified and a lectotype designated for E. (K.) macquarti, E. (K.) macropalpa and E. (K.) sibillina. Empis hoffmannseggii Loew is moved from the subgenus Kritempis to the subgenus Coptophlebia Bezzi. The subgenus is restricted to the Mediterranean basin exclusive of E. (K.) livida which is widely distributed in Europe and Algeria where the species is newly recorded.

Key words: Systematics, Diptera, Empididae, Empidinae, Empis, Kritempis, new species, monophyly, Euro-Mediterranean distribution, Sardinia, Morocco

Introduction

The Empidinae (Diptera: Empididae) are well adapted to temperate areas of the Palaeartic region, where three huge genera, Empis Linnaeus, Rhamphomyia Meigen and Hilara Meigen that include hundreds of species, are known (Chvála & Wagner 1989). The first two genera were divided into several subgenera (e.g. see Bezzi 1909; Frey 1909; Collin 1926), and the subgenus Kritempis Collin of Empis was created for five species with a Mediterranean distribution, including E. algira Macquart as type species, as well as E. livida Linnaeus which has a large west Palaeartic distribution (Collin 1926). However the status of a number of these Mediterranean species was questioned by Chvála and Wagner (1989) and Chvála (1994), who finally restricted the subgenus to three species. In this paper the monophyly of Kritempis is assessed on the basis of three morphological characters; the species originally recognized as belonging to Kritempis are kept in this group, all known species, exclusive of E. livida, as well as two new species from Sardinia and Morocco, are described. Kritempis is considered a typical Mediterranean group of Empidinae as confirmed by the discovery of E. livida in North Africa, and E. hoffmannseggii Loew is moved to the subgenus Coptophlebia Bezzi.

Material and methods

This work is primarily based on the study of type material except for Empis livida, that is a well-known,