

# Revision of the European *Empis* (s. str.) *simulium*-group of species (Diptera: Empididae), with descriptions of four new species from the European mountains

[Revision der europäischen Arten der *Empis* (s. str.) *simulium*-Artengruppe  
(Diptera: Empididae), mit der Beschreibung von vier neuen Arten  
aus europäischen Gebirgen]

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## Abstract

The *Empis simulium*-group of species is clearly defined, and is represented by rather medium-sized species of *Empis* s. str. distinguished in the males by the very long, slender, and very characteristically distinctly undulating aedeagus. The species are known mostly from the Central European mountains. Altogether 14 European species are included here, four of which were originally classified in *Rhamphomyia* subgenus *Aclonempis* COLLIN, 1926 which was very recently synonymized with the genus *Empis* LINNAEUS, 1758. Three new species from the Alps – *Empis brunohubli* spec. nov., *Empis hubli* spec. nov., *Empis atosimulium* spec. nov. – and one new species from the Romanian Carpathians – *Empis carpathica* spec. nov. – are described here.

## Key words

Empididae, dance flies, *Empis*, *simulium*-group, Palaearctic Region, Europe, new species, new combinations

## Zusammenfassung

Die *Empis simulium*-Artengruppe ist klar definiert und umfasst mittelgroße *Empis* s. str.-Arten, deren Männchen sich durch einen sehr langen, schlanken und charakteristisch wellenförmig gebogenen Aedeagus auszeichnen. Die Arten sind meist aus den mitteleuropäischen Gebirgen bekannt. Insgesamt sind hier 14 gut definierte europäische Arten eingeschlossen, wovon 4 Spezies ursprünglich in der *Rhamphomyia*-Untergattung *Aclonempis* COLLIN, 1926 eingeordnet waren, die kürzlich mit der Gattung *Empis* LINNAEUS, 1758 synonymisiert wurde. Drei neue Arten aus den Alpen – *Empis brunohubli* spec. nov., *Empis hubli* spec. nov., *Empis atosimulium* spec. nov. – und eine neue Art aus den rumänischen Karpaten – *Empis carpathica* spec. nov. – werden hier beschrieben.

## Stichwörter

Empididae, Tanzfliegen, *Empis*, *simulium*-Gruppe, paläarktische Region, Europa, neue Arten, Neukombinationen

## 1 Introduction

The subgenus *Empis* s. str. (with the synonym *Pterempis* BEZZI, 1909) of the genus *Empis* LINNAEUS, 1758 (type *Empis pennipes* LINNAEUS, 1758) (Diptera, Empididae) is very rich in species in Europe, represented here by more than 150 species. This large “group” of rather small-sized *Empis* species was first partly separated, especially in differential keys, into species with a pale or black haltere and with pale or black abdominal pubescence.

The attempt to differentiate the *Empis* s. str. species into “natural groups of species”, based on the structure of male genitalia, was first proposed by SYROVÁTKA (1980) in his revision of some 49 species found and recognized by him within the territory of the former Czechoslovakia, though only 21 of those species were already described (named) at that time. In his first attempt to distinguish really natural groups of species based on the structure of male genitalia, SYROVÁTKA (1980) correctly interpreted this as a real natural division. At that time he recognized four “natural groups of evolutionary related species”, based on the structure of the male genitalia. These four