

Review of scuttle flies (Diptera: Phoridae) from Iran, with first records for Iran and Asia

[Überblick über die Buckelfliegen (Diptera: Phoridae) des Irans,
mit Erstnachweisen für den Iran und für Asien]

by

Mohammad M. RABIEH, Sabine PRESCHER, Mahmoud ALIKHANI and Touraj ARKANI

Ahvaz (Iran)

Braunschweig (Germany)

Arak (Iran)

Arak (Iran)

Abstract

The scuttle flies (Diptera: Phoridae) of Iran have been little studied so far. Here we report seven species as new for the fauna of Iran: *Diplonevra funebris* (MEIGEN, 1830); *Phora holosericea* SCHMITZ, 1920; *Megaselia albicaudata* (WOOD, 1910); *M. altifrons* (WOOD, 1909); *M. minor* (ZETTERSTEDT, 1848); *M. subfuscipes* SCHMITZ, 1935 and *M. xanthozona* (STROBL, 1892). Two of these species, *Megaselia altifrons* and *M. minor*, are new for the Asian fauna. A review of 13 Iranian species of scuttle flies belonging to three genera is given with notes on their bionomics and distribution.

Key Words

Phoridae, Palaearctic Region, Asia, Iran, faunistics, new records

Zusammenfassung

Die Buckelfliegen (Diptera: Phoridae) des Irans sind wenig bekannt. In dieser Arbeit berichten wir über sieben Arten, die erstmals im Iran nachgewiesen wurden: *Diplonevra funebris* (MEIGEN, 1830); *Phora holosericea* SCHMITZ, 1920; *Megaselia albicaudata* (WOOD, 1910); *M. altifrons* (WOOD, 1909); *M. minor* (ZETTERSTEDT, 1848); *M. subfuscipes* SCHMITZ, 1935 und *M. xanthozona* (STROBL, 1892). Von diesen sind *Megaselia altifrons* und *M. minor* Neufunde für Asien. Es wird ein Überblick über 13 iranische Buckelfliegen-Arten mit Anmerkungen zu ihrer Verbreitung und Biologie gegeben, die zu drei Gattungen gehören.

Stichwörter

Phoridae, paläarktische Region, Asien, Iran, Faunistik, neue Nachweise

Introduction

Phoridae, the scuttle flies, or humpbacked flies, are small, little-known flies found worldwide, represented by about 4000 described species, but their actual number is probably closer to ten times that figure (BROWN & SMITH 2010). The importance of scuttle flies (Phoridae) and their role in natural habitats has only recently been discovered. Among more than 150 Diptera families, the Phoridae is one which is rarely studied, although they are probably the most biologically diverse family of Diptera, and of the Insecta as a whole, comprising thousands of species in about 250 genera (MOSTOVSKI 2004). The phorids can be identified by their characteristic wing venation, hind legs adapted for jumping, and their uniquely structured antennae. The taxonomy of phorids is complicated and the majority of the species belong to the difficult-to-define paraphyletic genus *Megaselia* (RONDANI, 1856), making identification of the species difficult. For these reasons, this important and diverse dipteran family has restricted use in other scientific fields (e. g. ecology and forensics). Compared to other Palaearctic dipteran families, phorids are one of the most neglected. Up to now, about 900 phorid species are known in the Palaearctic, but this number could be well below the actual number (PAPE et al. 2009). The knowledge of Palaearctic phorids is based primarily on the work of two authors, Hermann SCHMITZ and R. Henry L. DISNEY. Unfortunately, a manual started by SCHMITZ was not completed before his death and DISNEY continued the research with differing taxonomic views, therefore there is only a partial consensus on their results. The Phoridae of Iran has been little studied so far and there is only scattered data