

A review of the blow flies of the genus *Pollenia* ROBINEAU-DESVOIDY (Diptera: Calliphoridae: Polleniinae) of Iran

[Eine Übersicht zu den Schmeißfliegen der Gattung
Pollenia ROBINEAU-DESVOIDY (Diptera: Calliphoridae: Polleniinae) im Iran]

by

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Abstract

A review of the eight Iranian species of *Pollenia* ROBINEAU-DESVOIDY is provided, including an identification key, distribution maps and images of the male genitalia. A total of 214 specimens was identified. Three species are newly recorded from Iran: *P. amentaria* (SCOPOLI), *P. bulgarica* JACENTKOVSKÝ and *P. venturii* ZUMPT.

Key words

Calliphoridae, Polleniinae, *Pollenia*, blow flies, Palaearctic Region, Iran, faunistics, new records, key

Zusammenfassung

Eine Übersicht zu den acht iranischen Arten von *Pollenia* ROBINEAU-DESVOIDY wird gegeben, einschließlich eines Bestimmungsschlüssels, Verbreitungskarten und Abbildungen der männlichen Genitalien. Insgesamt wurden 214 Exemplare untersucht. Drei Arten sind neu für die Fauna des Iran: *P. amentaria* (SCOPOLI), *P. bulgarica* JACENTKOVSKÝ und *P. venturii* ZUMPT.

Stichwörter

Calliphoridae, Polleniinae, *Pollenia*, Schmeißfliegen, paläarktische Region, Iran, Faunistik, neue Nachweise, Bestimmungsschlüssel

Introduction

The blow fly species of the genus *Pollenia* ROBINEAU-DESVOIDY, 1830 are members of the family Calliphoridae notable for their larval parasitic or predatory behaviour toward earthworms. Although the genus *Pollenia* is distinguishable from other calyptrate genera by the long wavy golden hairs on the thorax and dull appearance, their identification at species level remains challenging and the close similarity of the species often necessitates the examination of male or female genitalia. The fauna of cluster flies in the New World consists only of six Holarctic species (WHITWORTH 2006, JEWISS-GAINES et al. 2012), while the Old World fauna shows a considerable amount of diversity with more than 50 species (ROGNES 1987, 1988, 1991a, 1991b, 1992, 2002). Although the biology and hosts of *P. rudis* (FABRICIUS, 1794) in North America (THOMSON & DAVIES 1973a, 1973b; YAHNKE & GEORGE 1972) and France (KEILIN 1909, 1915) have been studied, the identities of the species remain questionable. The likelihood is high that records of *P. rudis* were the result of misidentifications of the species *P. pediculata* MACQUART, 1834 in North America (ROGNES 1987), and *P. viatica* ROBINEAU-DESVOIDY, 1830 in France (ROGNES 1991b). The immature stages of nine species of *Pollenia* have been described and a key to the first instar larvae has been written by SZPILA (2003). The genus *Pollenia* has been divided into 10 species-groups of which five species-groups occur in Iran.

Material and methods

The *Pollenia* specimens at the Hayk Mirzayans Insect Museum (HMIM), located at the Iranian Research Institute of Plant Protection (IRIPP) were examined in the course of this study. Using insect nets, we made further collections in different parts of Iran over the past years. For recovering specimens from alcohol,