



Two new species of the genus *Apolysis* (Apolysini, Bombyliidae, Diptera) from the north of Iran

BABAK GHARALI¹, KARIM KAMALI^{2,5}, NEAL EVENHUIS³ & ALI ASGHAR TALEBI⁴

¹Dept. of Entomology, Faculty of Agriculture, P O. Box: 14115-336, Tarbiat Modares University, Tehran, Iran.

E-mail: bgharaei@mail.com

²Dept. of Entomology, Faculty of Agriculture, P O. Box: 14115-336, Tarbiat Modares University, Tehran, Iran.

E-mail: kamali_k@modares.ac.ir

³Dept. of Natural Sciences, Bishop Museum, 1525 Bernice Street, Honolulu, Hawaii, 96817-2704, USA.

E-mail: neale@bishopmuseum.org

⁴Dept. of Entomology, Faculty of Agriculture, P O. Box: 14115-336, Tarbiat Modares University, Tehran, Iran.

E-mail: talebia@modares.ac.ir

⁵Corresponding Author

Abstract

Two new species of the genus *Apolysis*, *A. glabrifrons* **sp. nov.** and *A. pusilloides* **sp. nov.** are described from the north of Iran. These species belong to a group of eleven Palaearctic species with a closed discal cell. A key for identifying species of *Apolysis* in Iran is provided. Species of the genus *Apolysis* with a closed discal cell in Palaearctic region and the presence of a complex of species within it are briefly discussed.

Key words: *Apolysis*, Apolysini, Usiinae, Bombyliidae, taxonomy, Iran

Introduction

Members of the genus *Apolysis*, with fifteen described species from the Palaearctic region (Evenhuis & Greathead, 1999; Papp, 2005), are generally very small to tiny creatures (usually under 3 mm in length) with unique and specialized antennae. Species in this genus are united by a synapomorphic character state in the antenna: a subapical excavation with two styles (Evenhuis, 1990; Greathead & Evenhuis, 2001). Originally, Loew (1860) described this genus and used characters such as the open discal cell and the two-segmented maxillary palp (misinterpreted one-segmented palp as two) as its diagnostic features. This definition was followed by Engel (1933) in his key to Palaearctic genera of Bombyliidae where he used the open discal cell as a character to separate *Apolysis* from *Usia* Latreille, 1802 and *Oligodranes* Loew, 1844. Engel prepared a key to three species of *Apolysis* and at the same time described *Oligodranes superbus* and *Usia ornatus*. François (1969), in his review on Bombyliidae of southern Spain, described *A. montivaga* and illustrated its male genitalia along with *A. eremophila* Loew, 1873, a closely related species, and also described *Oligodranes langemarki* based on two females without illustrating the genitalia. Hull (1973) and Theodor (1983) also illustrated the male and female genitalia of some species of *Apolysis*, but all of them from species with open discal cell. In a series of papers, Zaitzev (1972a, 1972b, 1975) described four new species of *Apolysis* from Mongolia and Middle Asia, but he illustrated only male genitalia of his new species. The common features of all studies after Loew were the paucity of specimens and no knowledge of female genitalia. The availability of so few species collected from just a few areas did not allow proper study on the variable nature of the discal cell and great variation of features in this genus worldwide. Most workers emphasized the status of discal cell in separating *Apolysis* (open discal cell) from *Oligodranes* (closed discal cell). Evenhuis (1990) was the first author that showed the variable nature of discal cell based on his