

Taxonomic studies on the genus *Halictus* Latreille, 1804 in Turkey

(Hymenoptera: Halictidae)

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Abstract. Short descriptions of the females and males of all the species of the bee genus *Halictus* Latreille, 1804 (Halictidae) known from Turkey are given. Dorsal and lateral views of the male genitalia of 18 species were photographed by scanning electron microscope and 12 species by digital camera systems. The morphological differences in the male genitalia are discussed. The female of *Halictus* (*Monilapis*) *pentheri* Blüthgen, 1923 is described for the first time. The West Palaearctic distributions of *Halictus* species were evaluated. A comparison of regional richness and diversities of the fauna revealed that the *Halictus* fauna of Turkey constitutes 47% of West Palaearctic elements with 35 species. The Mediterranean region, Middle East and Turkey were established as high diversity regions for *Halictus*.

Key words. Halictidae, *Halictus*, systematics, genitalia, SEM, Turkey, Middle East.

Introduction

The Halictidae (Apoidea: Hymenoptera) is one of the most diverse families of all bees (MICHENER 2007, PESENKO et al. 2000). It includes 72 genera and nearly 3500 species worldwide (PESENKO 2007a). Among these genera, *Halictus* Latreille, 1804 is one of the largest and contains approximately 90 species in the Palaearctic Region (PESENKO 2005a). According to PESENKO (1984, 2004), the species of *Halictus* can be divided into 12 different subgenera. In addition to these subgenera, MICHENER (2007) has included four more subgenera, *Pachyceble* Moure, 1940, *Paraseladonia* Pauly, 1997, *Seladonia* s.str. and *Vestitohalictus* Blüthgen, 1961. However, PESENKO (2004) considers all these additional subgenera as a part of the genus *Seladonia* Robertson. Of the others, *Acalcaripes* Pesenko, 1984, *Argalictus* Pesenko, 1984, *Halictus*, *Hexataenites* Pesenko, 1984, *Monilapis* Cockerell, 1931, *Platyhalictus* Pesenko, 1984, *Protohalictus* Pesenko, 1985 and *Tytthalictus* Pesenko, 1984 have been found in Turkey (DIKMEN & AYTEKIN 2011).

This study aims to revise the *Halictus* species of Turkey. Scanning Electron Microscopy (SEM) is used to describe the male genitalia. Moreover, the subgeneric classification of MICHENER (1978) and PESENKO (1984, 2004) is discussed in the light of these findings. The female of *Halictus* (*Monilapis*) *pentheri* Blüthgen, 1923 is described for the first time. On the other hand, the West Palaearctic distributions of *Halictus* species were evaluated and the regional richness and diversities of *Halictus* species were compared.

Material and methods

Taxonomic methodology. The material examined in this study belongs to the following collections: Natural History Museum of Vienna (NHMW, Vienna, Austria; D. ZIMMERMANN),