



Five new species and new records of biting midges of the genus *Dasyhelea* Kieffer from the Near East (Diptera: Ceratopogonidae)

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Abstract

As a result of the entomological surveys in the Near East, seventeen species of biting midges of the genus *Dasyhelea* Kieffer are reported. Five new species are described and illustrated from adult males: *D. (Dicryptoscena) antonii* **sp. nov.**, *D. (Pseudoculicoides) avia* **sp. nov.**, *D. (Ps.) libanensis* **sp. nov.**, *D. (Ps.) nauta* **sp. nov.** and *D. (Ps.) sandrageorgei* **sp. nov.** Among the remaining species, four are recorded for the first time from this region. Furthermore, new country records for Iran (1 sp.), Israel (2 spp.), Lebanon (9 spp.) and Yemen (1 sp.) are given. Four species described by Kieffer in 1918, namely *D. distalis*, *D. flaviscapula*, *D. scutellaris* and *D. trifasciata*, are treated as doubtful names (*nomina dubia*) and excluded from the Turkish fauna. In addition, an updated checklist of *Dasyhelea* of the Near East is presented. *Dasyhelea labinoda* Mazumdar & Chaudhuri, 2009 is proposed as a new junior synonym of *D. deemingi* Boorman & Harten, 2002. **New synonymy.**

Key words: Diptera, Ceratopogonidae, *Dasyhelea*, new species, new records, new synonym, Near East

Introduction

The biting midges of the genus *Dasyhelea* Kieffer, 1911 are worldwide distributed and common in various types of aquatic, semiaquatic and terrestrial habitats (Waugh & Wirth 1976). In the world fauna they are represented by ca. 600 extant species (Borkent 2013). However, our knowledge on their biology and taxonomy still remains incomplete and many species are expected to be discovered. The geographical conditions cause, that the Middle East is a region, where the specific richness of *Dasyhelea* is potentially high. So far, 34 species of the genus were reported from this area (Kieffer 1925b; Macfie 1943; Szadziewski 1985, 1986; Ghonaim *et al.* 2001; Boorman & van Harten 2002; Dominiak *et al.* 2007; Dominiak & Szadziewski 2010; Szadziewski *et al.* 2011). In this paper we present descriptions of five new species and further new records for Iran, Israel, Lebanon and Yemen.

Material and methods

Adults were collected using an entomological net, Malaise, light and yellow sticky traps, and preserved in ethanol. A pinned collection of biting midges from Israel was borrowed from the Tel Aviv University. All specimens examined were slide-mounted in the mixture of phenol and Canada balsam using the technique described by Wirth & Marston (1968). The materials from Iran, Lebanon, the United Arab Emirates and Yemen are housed in the collection of the Department of Invertebrate Zoology & Parasitology, University of Gdańsk (Gdańsk, Poland) (UG), the Natural History Museum (London, United Kingdom) (BMNH) and the Faculty of Sciences, Lebanese University (Fonar, Lebanon) (LU). Morphological special terms used in the descriptions follow Szadziewski (1986) and Dominiak (2012).