

NATALIA KASZYCA-TASZAKOWSKA^{1*} , ŁUKASZ DEPA¹ 

Macrosiphoniella pulvera (WALKER, 1848) an aphid species (Hemiptera: Aphididae) new to the Polish fauna

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¹ Institute of Biology, Biotechnology and Environmental Protection, Faculty of Natural Sciences, University of Silesia in Katowice, Bankowa 9, 40-007 Katowice, Poland

* e-mail: nkaszyca@us.edu.pl

Abstract: The paper presents data on the occurrence of aphid species *Macrosiphoniella pulvera* in Poland.

Key words: Sternorrhyncha, new record, biodiversity, Poland.

INTRODUCTION

Aphids, according to most of other insects, are a group reaching its highest species diversity in the zone of moderate climates. Poland is among the best studied European countries in terms of aphid fauna, with 768 recorded aphid taxa (WOJCIECHOWSKI *et al.* 2015, KANTURSKI *et al.* 2017, KANTURSKI *et al.* 2018, MIŚKOWIEC *et al.* 2019). There are about 110 species of *Macrosiphoniella* worldwide, and only 21 species in Poland (OSIADACZ & HALAJ 2009). There is no host alternation and all species feed on daisies (Asteraceae), most on species of the division Anthemideae. Many *Macrosiphoniella* species feed on just one genus of this group, some on just one species. *Macrosiphoniella pulvera* it feeds on several species of *Artemisia* plants: *Artemisia abrotanum*, *A. absinthium*, *A. adamsii*, *A. annua*, *A. austriaca*, *A. caerulea*, *A. herba-alba*, *A. mongolica*, *A. pontica*, *A. santonicum*, *A. serotina*, *A. sieversiana*, *A. szowitziana*, *A. terrae-albae*, *A. vulgaris* (BLACKMAN & EASTOP 2019). Here we present a record of aphid species of the genus *Macrosiphoniella* feeding on *Artemisia* new in Polish fauna.

MATERIAL AND METHODS

The species was collected during aphidological research conducted in the Silesian agglomeration. The specimens were found in the Kościuszko Park in Katowice (Upper Silesian Upland) (Fig. 1.) (KONDRACKI 2013), on *Artemisia vulgaris*, on 20th June 2018. Aphid specimens were collected during the detailed searching of their host plants in field, preserved in 70% ethanol and mounted on microscopic slide for determination. After mounting on microscopic slide with method described by KANTURSKI & WIECZOREK (2012) the specimens were identified using online key by BLACKMAN & EASTOP (2019). The slides are collected in the entomological collection of the University of Silesia (DZUS).

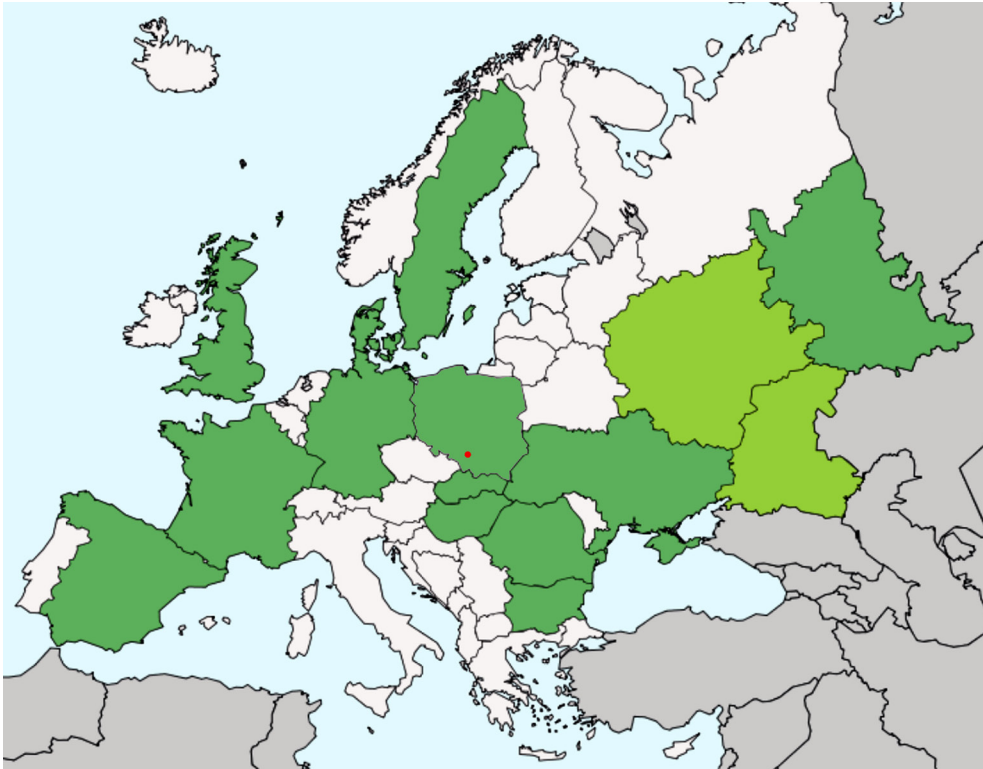


Fig. 1. Map of species occurrence in Europe. The light green color indicates the countries in which *M. pulvera* occurs, dark green – the states in which its occurrence requires confirmation. The place where the aphid was found in Poland was marked with a red dot.

RESULTS AND DISCUSSION

Collection site: Katowice (UTM: CA56), roadside: 50°14'44.8"N 19°00'16.8"E, leg. Natalia Kaszyca-Taszakowska, det. Łukasz Depa; a single alate and aptera female (Fig. 2) and a few larvae were collected from *Artemisia vulgaris*. Greyish green wax-powdered with antennae pale with dark apices or dark from the middle of seg. III; legs brownish with darker tips of femora and tibiae. Siphunculi and cauda somewhat darker. Ant. seg. III with 11-23 rhinaria. The relatively low number of secondary rhinaria on antennal segment III and setae on this segment at most as long as its basal diameter are diagnostic features of this species, distinguishing it from very similar *M. abrotani*.

Widely distributed mostly in coastal regions of Europe and eastward across Asia to Mongolia; the Mongolian aphids, collected on *A. adamsi*, differed in some respects from European populations (HOLMAN & SZELEGIEWICZ 1978). This species is an ideal example of cryptic coloration due to their green color. The white wax powder on the *Macrosiphoniella pulvera* has the appearance of the cuticle surface of the *Artemisia* plants. This record establishes the total number of aphid taxa of specific and subspecific level in Poland to 769.

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Fig. 2. Alate female of *Macrosiphonella pulvera* – body ventral view and third antenna segment.

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