

## NEW DATA ON *STRUMIGENYS ARGIOLA* (EMERY, 1869) (HYMENOPTERA, FORMICIDAE) FROM URBAN GREENERY OF BRATISLAVA, SLOVAKIA

Mária Klesniaková

Department of Zoology, Faculty of Natural Sciences, Comenius University, Ilkovičova 6, SK-842 15 Bratislava 4, Slovakia  
[klesniakova@fns.uniba.sk]

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*Strumigenys argiola*  
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### ABSTRACT

A new record of *Strumigenys argiola* (Emery, 1869) from the urban greenery of Bratislava (Slovakia) is presented. Three workers were found in litter sample during the survey in Andrej Hlinka park in Bratislava in August 2016.

### INTRODUCTION

The tribe Dacetini includes tiny predatory ants living in leaf litter, topsoil and rotten wood, hunting mainly Collembola and other small insects. This group is very diversified – it contains nearly 900 species (BOLTON 1999). Seven species occur in West Palearctic (BOLTON 2000). One of them, *Strumigenys argiola* is rarely occurred in Slovakia, mostly in the urban greenery (urban gardens, cemeteries). The urban environment is specific because it is permanently altered by human activity, notably by unrestrained construction and by constant disruption of ecosystems. However, the cities retain some greenery in the form of parks, alleys or cemeteries. These green islands are important refuges to biodiversity in the urban environment (MCINTYRE 2000).

### MATERIAL AND METHODS

Three workers of *Strumigenys argiola* were found by collecting the litter samples (extracted in a Tullgren funnels). The specimens were identified using Bolton's Dacetine ants key and examined using Stereomicroscope Leica EZ4.

### RESULTS AND DISCUSSION

First records of *Strumigenys argiola* (Emery, 1869) from Bratislava (Slovakia) were published from cemeteries – Kozia brána cemetery (48°08'35"N, 17°11'26"E) from formaldehyde pitfall trap and Vrakuňa cemetery (48°08'54"N, 17°05'57"E) from litter sample (HOLECOVÁ et al. 2015). The last record was obtained in the Andrej Hlinka park in Bratislava, Podunajská rovina flatland (48°9'24"N, 17°9'29"E) in August 2016 (Figs 1, 2). Three workers were obtained from the litter sample. It is the third record of *S. argiola* from the urban greenery of Bratislava (Fig. 1).

The current records of *Strumigenys argiola* from the urban greenery were proven from a rock garden in a private area in Austria (FELLNER et al. 2009), from a common hazel orchard in Giresun, Turkey (KARAMAN et al. 2014), from a ruderal environment of the urban garden in Romania (TĂUȘAN & PINTILIOAIE 2016).

However, there are more species of ants known from the urban environment of Bratislava, which are known as rare, e.g. *Hypoponera ergatandria* (Forel, 1893) from the Botanical garden, *Prenolepis nitens* (Mayr, 1853), *Proceratium melinum* (Roger, 1860), both known from cemeteries (KLESNIAKOVÁ



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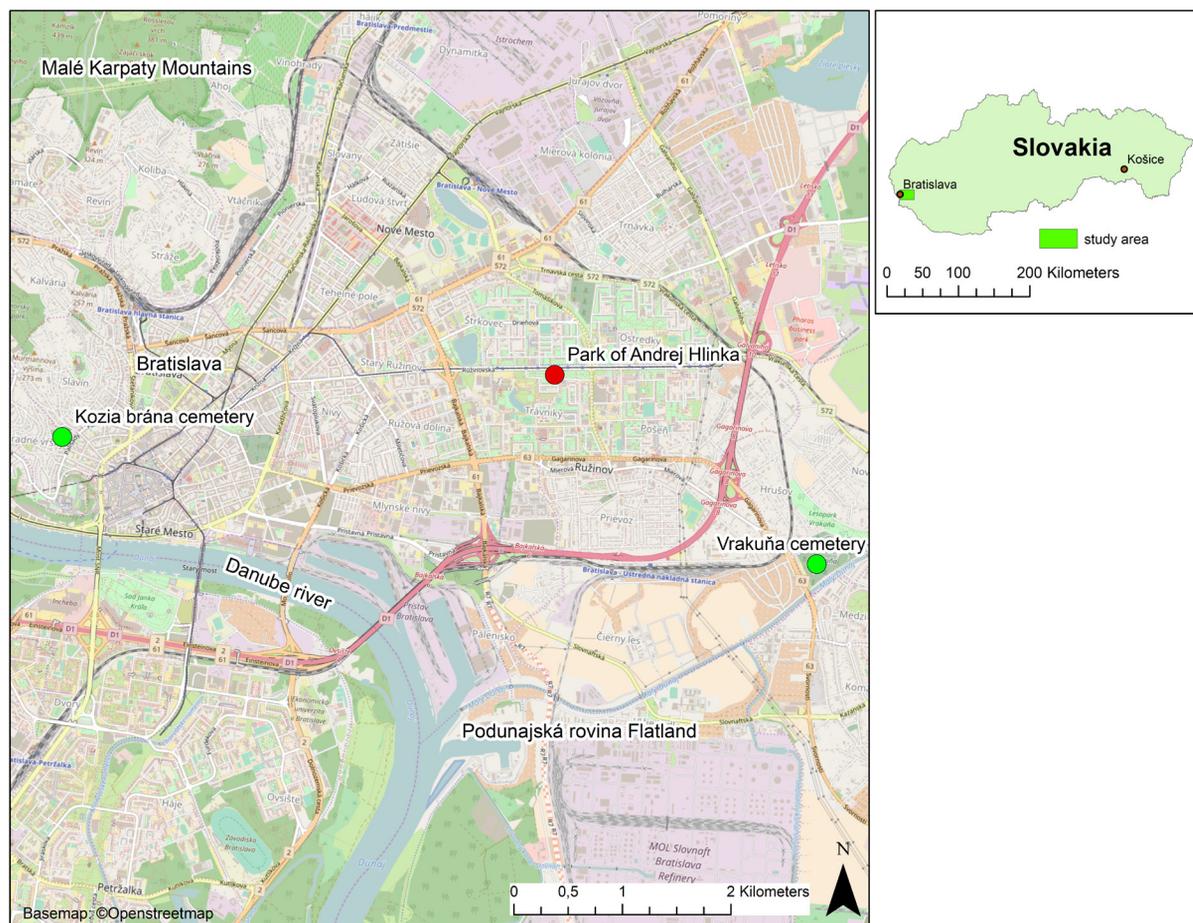
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**Figure 1.** Known distribution of *Strumigenys argiola* in urban the greenery of Bratislava (map design: J. Holec).

green circles – known distribution in 2015, red circle – new record in 2016

et al. 2016). On the basis of our intensive sampling effort, we can also conclude that *S. argiola* represents an extremely rare species leading a hidden way of life. Our study also suggests importance of urban greenery, which plays an important role as a refuge for rarely occurring species.

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**Figure 2.** The Andrej Hlinka park – habitat of *S. argiola* in the urban greenery of Bratislava (photo: M. Klesniaková).

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