

## FIRST RECORD OF ALIEN MUD DAUBER WASP *SCELIPHRON CURVATUM* IN LITHUANIA (HYMENOPTERA: SPHECIDAE)

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### Introduction

European fauna includes 5 native species of mud dauber wasp *Sceliphron* Klug, 1801 (Mitroiu *et al.*, 2013). Recently two alien species originating from central and eastern Asia, *S. curvatum* (Smith, 1870) and *S. deforme* (Smith, 1856) have spread in southern and central Europe (Ćetković *et al.*, 2011). The former species was expanding its distribution range particularly fast (see map in Tymkiv *et al.*, 2015), reaching the latitude of 51°N in Poland (Wiśniowski *et al.*, 2013; Bilański *et al.*, 2014) and nearly 54°N in Belarus (Khvir, 2014).

In this publication, we present the first record of *S. curvatum* in Lithuania.

### Material and Methods

The specimen of *S. curvatum* was observed and captured by E. Budrys using entomological net on a wall of building in a garden, in central part of the city Kaunas. It was fixed in ethanol and deposited in the collection of Nature Research Centre (Vilnius).

The DNA was extracted from thoracic muscles using the Tris-borate-EDTA (TBE 1X) buffer (Stunžėnas *et al.*, 2011). The 675 bp long "barcoding" partial sequence of the mitochondrial cytochrome c oxidase, subunit I (COI-5'), was amplified using modified "tailed" primers T7LEP-F (5'-aatagcactcactatagwtchachaatacayaaaratattg-3') and T3NANCY-R (5'-attaaccctcactaaagdaraatwaraatataaacttcwg-3'). The sequencing was proceeded in Macrogen Inc. (South Korea, Seoul).

### List of species

#### SPHECIDAE

##### *Sceliphron curvatum* (Smith, 1870)

Kaunas city, Žaliakalnis, 54°54'N 23°54'E (N54.90 E23.90), 25 06 2016, 1♀.

### Discussion

The record of *Sceliphron curvatum* from Kaunas demonstrates that the northern distribution range of this rather large (female 17–20 mm, male 13–16 mm) and peculiar (Fig. 1) alien synanthropic wasp in Europe has nearly reached the latitude of 55°.

The specimen found in Kaunas belongs to the COI-5' haplotype with T in the variable (C/T) position 508 of the "barcoding" sequence. The latter in the studied specimen is identical to that of the specimens of *S. curvatum* from Cote d'Azur (France) with sample IDs BC ZSM HYM 05495 and BC ZSM HYM 05497 (FBACA840-10 and FBACA842-

10) available in the BOLD barcoding index number (BIN) database ([http://www.barcodinglife.org/index.php/Public\\_BarcodeIndexNumber\\_Home](http://www.barcodinglife.org/index.php/Public_BarcodeIndexNumber_Home)).

The species builds mud cells in cavities of human constructions, filling them with paralysed spiders from families Araneidae, Philodromiidae, Thomisidae and Salticidae (Szinetár & Fazekas, 2015).

The wings of the recorded specimen (Fig. 1) are very little worn off, thus most probably it is not a migrant and it has hatched from a nest locally.



Figure 1. Female of *Sceliphron curvatum* (photo E. Budrys).

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**Pirmasis azijinės smiltvapsvės *Sceliphron curvatum* stebėjimas Lietuvoje (Hymenoptera: Sphecidae)**

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**Santrauka**

Pateikiami duomenys apie pirmą kartą Lietuvoje (Kaune) stebėtą azijinę smiltvapsvę (*Sceliphron curvatum*). Ši svetimžemė, iš centrinės Azijos kilusi vapsva Europoje plinta gyvenvietėse. Gyvena pavieniui, nėra agresyvi. Molio lizdus daro pastatų plyšiuose, medžioja vorus. Neseniai ši rūšis buvo aptikta ir kaimyninėse šalyse: Lenkijoje ir Baltarusijoje.

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