

The first record of the tangle-web spider *Sardinidion blackwalli* (O. P.-Cambridge, 1871) in Luxembourg (Arachnida, Theridiidae)

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Christian, S., 2014. The first record of the tangle-web spider *Sardinidion blackwalli* (O. P.-Cambridge, 1871) in Luxembourg (Arachnida, Theridiidae). *Bulletin de la Société des naturalistes luxembourgeois* 115 : 255-257.

Abstract. The first record of the tangle-web spider *Sardinidion blackwalli* (O. P.-Cambridge, 1871) from Luxembourg is presented.

1. Introduction

According to the World Spider Catalog (Platnick 2014), the family of Theridiidae (tangle-web spiders) contains 2421 species in 121 genera. Up to 2011, 36 species in 20 genera had been recorded in Luxembourg (unpubl. data collected by the present author).

Sardinidion blackwalli is a rather small theridiid species which was originally described and placed within the large genus *Theridion* by Octavius Pickard-Cambridge in 1871. It was later transferred into the genus *Sardinidion* (Wunderlich, 1995), the only European species of which it thus became. The spider is generally considered to live on or under the bark of trees, but does not appear to have a preference for deciduous or coniferous wood (Spider and Harvestman Recording Scheme and Roberts 1995).

S. blackwalli is quite widespread in the Palaearctic region, where it is currently known from eastern, southern and western Europe (including the British Isles, north-western Europe, parts of the Mediterranean area and North Africa (Heimer & Nentwig 1991).

Here, the first record of *S. blackwalli* from Luxembourg is presented.

2. Material and methods

The four individuals in question were chance discoveries. Specimens were sacrificed using

a solution of vinegar and water to which a few drops of household detergent had been added. Specimens were preserved in denatured ethanol (70%). The spiders were identified with the help of a stereomicroscope and the illustrated online key by Nentwig et al. (2014). Aloys Staudt (D-Essen) kindly confirmed the identification.

3. Results

The first of a total of four individuals was caught by hand on the 17th of May 2011 on the façade of a house in Echternach (Fig. 1). In 2012 and 2014 three other individuals were recorded under similar conditions in Luxembourg-Grund (26.07.2012; in Beaufort (04.08.2012) and in Wasserbillig (30.05.2014).

All four specimens were mature females possessing fully developed epigynes, making a safe identification of the species possible. Details of the different records are given in Table 1. The specimens are kept in the invertebrate collections of the National Natural History Museum of Luxembourg (MNHNL).

4. Discussion

The presence of *S. blackwalli* is reported for the first time for the fauna of Luxembourg. According to several authors (Daws 1999,



Fig. 1. Adult female of *Sardinidion blackwalli*, found at Wasserbillig, Luxembourg. Scale bar: 1 mm. Photo: S. Christian and G. Marson.

Nentwig et al. 2014), the species might actually be more common than implied by its meagre record (Heimer & Nentwig 1991)

In the light of an increase of sampling activity in Luxembourg during the last decade, it is, indeed, perhaps surprising that the species has not been found before. For example, a large-scale recording scheme run by the MNHNL in one of Luxembourg's old-growth forests (the "Schnellert" in the Mullerthal area) failed to produce any records of the species (Meyer et al. 2007). despite a multitude of sampling techniques, and bearing in mind that *S. blackwalli* was generally thought to be a tree-dwelling spider. The "Schnellert" forest lies within the presently known range of *S. blackwalli* in Luxembourg and yet the species was found in built-up areas rather than in what was expected to be its natural habitat.

While a few records exist for Germany, the species has not been found in regions close

to the Luxembourg border. (www.spiderling.de/arages/ and www.spiderling.de/Projekte/Biodiversitaet/).

In France, *S. blackwalli* has not yet been reported in Lorraine (pers. comm. by J. Dabry, Conservatoire d'espaces naturels de Lorraine) but is known from other regions in that country. The most numerous finds in the immediate vicinity of Luxembourg were reported from Belgium. Koen Van Keer obligingly provided the author with a list of all known sites of the species in Belgium. Out of a total of almost 50 records, the earliest are from 1927 to 1955 and the most recent find was reported in 2008. The majority of Belgian *S. blackwalli* records, however, are from the 1980s and 1990s. While some of the Belgian specimens were indeed found on tree barks or similar structures, the synanthropic finds on the façades of houses prevail. Some individuals were even found inside buildings.

The national recording schemes for spiders and harvestmen in Britain (srs.britishtspiders.org.uk) agree upon the fact that there is not much known about the ecology of the species. Only the English arachnologists (Roberts 1995, Daws 1999) report on a synanthropic life style for this species. According to the statistics of the British spider recording scheme (srs.britishtspiders.org.uk, 266 records from 1896 to 2013), about 40% of the finds (based on 166 records with habitat information) were indeed made on buildings or indoors. Furthermore, considering that all the records from Luxembourg and most of those from Belgium were made in an urbanized setting, it appears plausible that *S. blackwalli* changed its habitat preferences and now favours anthropogenic environments. However, given the pau-

Table 1. Records of *Sardinidion blackwalli* in Luxembourg. All data by the author.

Location	Biotope	Finding site	Sample method	Latitude	Longitude	Date	Sexe	Count
Echternach	town	house wall	caught by hand	49.810359	6.423346	17.05.2011	female	1
Grund	town	house wall	caught by hand	49.609996	6.135933	26.07.2012	female	1
Beaufort	suburb	house wall	caught by hand	49.843954	6.272179	04.08.2012	female	1
Wasserbillig	town	house wall	caught by hand	49.714735	6.502015	30.05.2012	female	1

city of the species' record in Luxembourg and the neighbouring areas, it would be premature to draw conclusions about the spider's habitat preferences. With the current level of information, it is difficult to tell whether *S. blackwalli* is genuinely rare in Luxembourg or has merely been overlooked in the past.

Acknowledgments

I thank Julien Dabry and Alain Pasquet (both from Conservatoire d'espaces naturels de Lorraine), Koen Van Keer (Société arachnologique de Belgique, Arabel asbl) and to Aloys Staudt (D-Essen, member of the Arachnologische Gesellschaft e.V. Arages) for the data about the distribution of *Sardinidion blackwalli* in their respective countries. In particular, I am much indebted to Aloys Staudt for his kind help in arachnology during the last few years. Furthermore I want to express my thanks to Marcel Hellers, Raoul Gerend and Alain Frantz for their support in formal and linguistic questions.

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