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First record of *Culiseta glaphyroptera* (SCHINER, 1864) (Diptera: Culicidae) from Rhineland-Palatinate, Germany

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Kurzfassung

Erstnachweis der Stechmückenart *Culiseta glaphyroptera* (SCHINER, 1864)
(Diptera: Culicidae) aus Rheinland-Pfalz

Culiseta glaphyroptera wurde erstmals für Rheinland-Pfalz nachgewiesen. Ein Weibchen wurde in einem Wassertransporttunnel der Südpfalz gefunden.

Abstract

Culiseta glaphyroptera was found for the first time in Rhineland-Palatinate. One female was reported from a water transport tunnel in the Southern Palatinate.

Key words

Culicidae, *Culiseta glaphyroptera*, hibernation, underground shelters, Germany, Rhineland-Palatinate

1. Introduction

For 35 years, the cave fauna in Rhineland-Palatinate has been investigated (WEBER 1988, 1989a, b, 1995, 2001, 2012). Although, the greater part of the Culicidae has not been determined, it is most probably *Culex pipiens*. Only 94 hibernating specimens of *Culiseta* have been determined so far (by I. IGLISCH and L. DVOŘÁK), collected in winter time between October and February.

2. Material and results

One female of *Culiseta glaphyoptera* was found during the exploration of locality “Amtmannsloch” in Rhineland-Palatinate, close to Schönau (Palatinate), 49.09°N, 7.73°E, 217 m a. s. l. on January 5th, 2014 by the second author and identified by the first author (Fig. 1). The “Amtmannsloch” is a 47 m long underground water transport tunnel in the Early

Triassic (Fig. 2). No other *Culiseta* spp. was found at this locality. The determination is confirmed by CO1 barcoding. The voucher specimen is deposited in the collection of the GBOL German Barcoding of Life, Zoologisches Forschungsmuseum Alexander Koenig (<https://www.bolgermany.de/>) under the inventory number GBOL 2534825.

3. Discussion

Based on the published data, *Culiseta glaphyoptera* is a really rare mosquito species in Germany known from five federal states only: Bavaria, Baden-Württemberg, Saxony, Saxony-Anhalt, and Thuringia (KAMPEN et al. 2013). In Rhineland-Palatinate it was unknown (Norbert BECKER, Dorian DÖRGE, Marco MARKLEWITZ, in lit.). The record from the state of Rhineland-Palatinate is one of the westernmost records of this species within the species’ distributional area (Fig. 3; see DVOŘÁK 2014 for overview).



Fig. 1: Female voucher specimen of *Culiseta glaphyoptera* from the “Amtmannsloch” near Schönau (Palatinate), January 5th, 2014. Zoologisches Forschungsmuseum Alexander Koenig (<https://www.bolgermany.de/>; CC BY-SA 4.0).

Although, *Culiseta glaphyoptera* is known as hibernating in caves, in Germany it was only found in caves of the Franconian Alb where it seems to be not rare (DOBAT 1978). It is still unknown if the species also hibernates in caves in other regions (WEBER 1991, ZAENKER 2001 and correspondence).

4. Acknowledgements

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Fig. 2: The locality “Amtmannsloch” near Schönau (Palatinate) where *Culiseta glaphyoptera* was found.

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Fig. 3: The known distribution of *Culiseta glaphyoptera* in Germany and surrounding countries. The new record from Rhineland-Palatinate is marked in red.

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