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***Loewia erecta* BERGSTRÖM (Diptera: Tachinidae) new to Germany**

[*Loewia erecta* BERGSTRÖM (Diptera: Tachinidae) neu für Deutschland]

by

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Introduction

The current count for tachinid species recorded from Germany is around 510, with the status of some species not yet being entirely clear (Dr H.-P. TSCHORSNIG personal communication, TSCHORSNIG & ZIEGLER (1998); 494 species). Although the German fauna is well known compared to other geographical regions, it is likely that many tachinid species are yet to be found as they are often difficult to detect. Besides a number of southern species extending their range due to climate change, there might be several under-recorded indigenous species awaiting discovery. As an example of the latter, we report here the first discovery of *Loewia erecta* BERGSTRÖM, 2007 from Germany. A total of 10 specimens were retrieved from pan traps, which were part of a faunistic study conducted in the Kinzigaue district forest reserve in summer 2000.

Study area

The forest reserve (18.1 ha) is situated in the lowland area of southern Hesse, in the lowlands of the Upper Rhine and Rhine-Main area about 12 km east of the town Hanau at 105–110 m a. s. l.

(coordinates of the centre (WGS84): 50.142728°N 8.982432°E). The mean annual temperature is 9.6 °C. It was declared as a Strict Forest Reserve in 1993 and has also the status as a nature reserve. Soil: silty loam on a Holocene floodplain ground. The potential natural plant cover is an alder-elm floodplain forest. The forest is dominated by common oak (*Quercus robur*); other frequent trees are lime (*Tilia spec.*), hornbeam (*Carpinus betulus*), ash (*Fraxinus excelsior*) and maple (*Acer spec.*). During the investigations the dominating old oak stands had an age of 161 to 206 years. The shrub layer consists principally of *Crataegus*, *Prunus spinosa* and *Cornus*. The reserve is mostly embedded in surrounding floodplain forest fragments, except for its southern flank where it adjoins a wet meadow and a pond (BLICK & DOROW 2012, DOROW & SCHMOLKE 2011).

Loewia erecta BERGSTRÖM, 2007

Material studied. GERMANY: A total of 10 *Loewia erecta* specimens were recovered from pan trap material stored in ethanol vials at the Senckenberg Naturmuseum Frankfurt am Main, Germany. 6 ♂♂ were obtained from white pan trap labelled “KI 110”, 1 ♀ from a yellow pan trap “KI 100” and 3 ♂♂ from a blue pan trap “KI 90”. Collection period in all cases was May 25 – June 21, 2000. All specimens were determined by the first author and later confirmed by Dr H.-P. TSCHORSNIG, Staatliches Museum für Naturkunde, Stuttgart (SMNS). All the specimens are stored as pinned dry specimens in the collections of the Senckenberg museum apart from 2 ♂♂ 1 ♀ deposited in the SMNS.

Distribution. *Loewia erecta* has been previously known only from Sweden, Finland, Norway and Poland but is likely to have a wider distribution pattern in Europe. The species is common and widespread in Sweden and Finland, reaching southern Lapland (BERGSTRÖM 2007, HYÖNTEISTIETOKANTA 2013).

Biology. *Loewia erecta* has been long confused with *L. phaeoptera* (MEIGEN, 1824) in the Nordic countries, although the two species differ by several obvious characters (BERGSTRÖM 2007). The host for *L. erecta* is unknown but the closely related *L. foeda* (MEIGEN, 1824) has been reported to parasitize *Lithobius* centipedes (Chilopoda) (WOOD & WHEELER 1972). In Finland *L. erecta* specimens are often seen sitting on sunlit foliage or leaf litter alongside forest paths and seem to occasionally also visit flowers, especially various Apiaceae and Rosaceae (personal observations of the first author). Specimens are also frequently obtained from Malaise traps and sometimes from window traps (HYÖNTEISTIETOKANTA 2013).

Remarks. Our findings indicate that it might be productive to look for *L. erecta* elsewhere in Central Europe. Other tachinid species that occurred in the same trap material, and might help in the identification of suitable locations, were *Panzeria rudis* (FALLÉN, 1810) (1 ♂ in white pan trap), *Billaea triangulifera* (ZETTERSTEDT, 1844) (2 ♂♂ 3 ♀♀ in white pan trap, 4 ♂♂ in yellow and 2 ♂♂ in blue pan trap), *Dinera ferina* (FALLÉN, 1817) (3 ♂♂ in white pan trap, 1 ♂ in blue pan trap) and *Winthemia speciosa* (EGGER, 1861) (1 ♂ 1 ♀ in yellow pan trap).

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Literature

BLICK, T. & DOROW, W. H. O. (2012): Untersuchungsgebiet und Methoden. Naturwaldreservat Kinzigau (Hessen). Untersuchungszeitraum 1999–2001. – In: BLICK, T.; DOROW, W. H. O. & KOPELKE, J.-P. (eds): Kinzigau. Zoologische Untersuchungen 1999–2001, Teil 1. – Naturwaldreservate in Hessen 12: 5–21.

- BERGSTRÖM, C. (2007): *Loewia erecta* n. sp. (Diptera: Tachinidae) – a new parasitic fly from Fennoscandia and Poland. – Stuttgarter Beiträge zur Naturkunde, Serie A (Biologie) **708**: 1–16.
- DOROW, W. H. O. & SCHMOLKE, F. (2011): *Xyloecocoris ovatulus* (Heteroptera: Anthocoridae) – first record after 50 years and fourth record worldwide. – Mitteilungen des Internationalen Entomologischen Vereins **36**: 111–119.
- HYÖNTEISTIETOKANTA (2013): Finnish Entomological database Hyönteistietokanta, <http://hyonteiset.luomus.fi/insects/main/EntDatabase.html> [downloaded 1.2.2013].
- TSCHORSNIG, H. P. & ZIEGLER, J. (1998): Tachinidae. – In: SCHUMANN, H.; BÄHRMANN, R. & STARK, A. (eds): Checkliste der Dipteren Deutschlands. – Studia dipterologica Supplement **2**: 204–214; Halle an der Saale: Ampyx-Verlag.
- WOOD, D. M. & WHEELER, A. G. (1972): First record in North America of the centipede parasite *Loewia foeda* (Diptera: Tachinidae). – Canadian Entomologist **104**: 1363–1367.

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