

**First record of *Lipoptena fortisetosa* Maa, 1965 from Hungary
(Diptera: Hippoboscidae)**

Petra SZÖLLÖSI-TÓTH

*Hungarian National Museum Public Collection Centre – Hungarian Natural History Museum,
Department of Zoology, Diptera Collection, H-1088 Budapest, Baross utca 13, Hungary. E-mail:
szollosi-toth.petra@nhmus.hu*

Abstract – *Lipoptena fortisetosa* Maa, 1965 (Diptera: Hippoboscidae) is reported for the first time from Hungary.

Key words – deer ked, deer fly, blood-sucking parasite, faunistics, distribution

INTRODUCTION

Hippoboscidae (Diptera) is a relatively small family of obligate parasitic flies of mammals and birds with somewhat more than 210 species known worldwide (DICK 2018). Species of the family known from Hungary were first listed by THALHAMMER (1900), reporting eight species from the territory of the former Hungarian Kingdom. SOÓS (1955) mentioned 15 species, also referring to the area of the former Hungarian Kingdom. The checklist of the hippoboscid fauna of the present-day Hungary was revised by PAPP (2001), listing eleven species from the country. Since then, KEVE *et al.* (2024) reported the occurrence of a single specimen of an additional species of Afrotropical distribution in Hungary, likely introduced by migratory birds. In this paper a further species of the family, *Lipoptena fortisetosa* Maa, 1965 (Diptera: Hippoboscidae), is reported for the first time from Hungary, raising the number of hippoboscid species known to occur in Hungary to 13. *Lipoptena* Nitzsch, 1818 species are blood-sucking obligate ectoparasites, attacking several species of Cervidae and Bovidae (Mammalia), however they occasionally bite humans as well. In extreme cases they may cause anaemia and skin lesions for the hosts, and may transmit pathogen bacteria such as *Bartonella*, *Coxiella*, and *Rickettsia*; thus, their importance in animal and human health care is a subject of increasing interest (KURINA *et al.* 2019).

The voucher specimens of the Hungarian occurrence of *Lipoptena fortisetosa* were collected during the Biodiversity Days of the Hungarian Biodiversity Research Society in Túrkeve (Jász-Nagykun-Szolnok County) in 2025 and were identified by the author using an Olympus SZ51 stereoscopic microscope. Identification was based on KOWAL *et al.* (2009), SALVETTI *et al.* (2020), OBOŇA *et al.* (2023), and YATSUK *et al.* (2024).

RESULTS

Lipoptena fortisetosa Maa, 1965 (Figs 1–2)

Material examined – Hungary: four males, Jász-Nagykun-Szolnok County, Túrkeve, floodplain of river Berettyó, 47°05'29"N, 20°46'26"E, 30.V.–1.VI.2025, leg. K. Amri, K. Surányi, V. Szőke & Z. Vas; all voucher specimens are deposited in the Diptera Collection of the Hungarian National Museum Public Collection Centre – Hungarian Natural History Museum (HNHM).

Remarks – First record from Hungary. The species was described from Japan, and is native to the Eastern Palearctic Region; it has been introduced to Europe several decades ago, along with the introduction of its host, the sika deer (*Cervus nippon* Temminck, 1838) (CHALUPSKÝ 1980, YATSUK *et al.* 2024). Now *Lipoptena fortisetosa* is quite widespread in Europe and, prior to this paper, was reported to occur in 13 European countries, namely in Austria, Belarus, Czech Republic, Estonia, Germany, Italy, Lithuania, Moldova, Poland, Romania, Russia, Slovakia, and Switzerland (KURINA *et al.* 2019, MIHALCA *et al.* 2019, SALVETTI *et al.* 2020, GALEŦKI *et al.* 2021). Proposed Hungarian name: “japán szarvas-kullancslégy”.

Based on the above results, an updated checklist of Hippoboscidae known to occur in Hungary is provided:

- Crataerina pallida* (Olivier in Latreille, 1811)
- Hippobosca equina* Linnaeus, 1758
- Hippobosca longipennis* Fabricius, 1805
- Icosta ardeae* (Macquart, 1835)
- Lipoptena cervi* (Linnaeus, 1758)
- Lipoptena fortisetosa* Maa, 1965
- Melophagus ovinus* (Linnaeus, 1758)
- Ornithoetona laticornis* (Macquart, 1835)
- Ornithoica turdi* (Olivier in Latreille, 1811)
- Ornithomyia avicularia* (Linnaeus, 1758)
- Ornithomyia biloba* (Dufour, 1927)
- Ornithomyia fringillina* (Curtis, 1836)
- Stenephteryx hirundinis* (Linnaeus, 1758)



Figs 1–2. Voucher specimen of *Lipoptena fortisetosa* Maa, 1965 from Túrkeve, Hungary,
1 = frontal view, 2 = dorsal view (photos by Aranka Grabant)

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