

**First record of *Neodryinus typhlocybae* in Hungary
(Hymenoptera: Dryinidae)**

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Abstract – *Neodryinus typhlocybae* (Ashmead, 1893), a Nearctic dryinid wasp species introduced to Europe as a natural enemy of *Metcalfa pruinosa* (Say, 1830), is first reported here from Hungary. With 3 figures.

Key words – dryinid wasp, introduced species, invasive species, *Metcalfa pruinosa*, parasitoid

INTRODUCTION

Neodryinus typhlocybae (Ashmead, 1893) (Hymenoptera: Dryinidae) is a Nearctic species, and a natural enemy of the Nearctic *Metcalfa pruinosa* (Say, 1830) (Hemiptera: Flatidae). *Metcalfa pruinosa* was accidentally introduced to Italy in 1979 (ZANGHERI & DONADINI 1980), where it established. It has reached in many southern and Central European countries, including Hungary (see e.g. PÉNZES *et al.* 2005, STRAUSS 2010). Since it is considered an invasive species and a major pest in horticulture in Europe, its North American natural enemy, *N. typhlocybae*, was introduced to Italy in 1987 (GIROLAMI & CAMPORESE 1994). Since then, several other European countries successfully introduced *N. typhlocybae* for biological control of *M. pruinosa* (see e.g. STRAUSS 2012). However, this dryinid species has never been introduced intentionally to Hungary.

The Hungarian Dryinidae fauna was overviewed and revised by SZÖLLŐSI-TÓTH & GYÖRGY (2009). In that paper the authors reported 42 species known from present-day Hungary. Since then the ongoing identification process of the

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Dryinidae material in the Hungarian Natural History Museum (HNHM) has not revealed new records for the Hungarian fauna. Hence, *N. typhlocybae* reported here represents the 43rd dryinid wasp species known from Hungary.

The Dryinidae taxonomy and nomenclature follow SZÖLLÖSI-TÓTH & GYÖRGY (2009). The specimens were identified by the specialists indicated in the Results. The drawings were made by the first author using an Olympus SZX9 stereoscopic microscope. Photos were taken with Nikon D5200 and Nikon AF Micro Nikkor 60 mm lens and MitutoyoM Plan Apo 5X microscope lens. Exposures were stacked in ZereneStacker, post image work was done with Photoshop CS5. Voucher specimens are deposited in the Hymenoptera Collection of the HNHM.

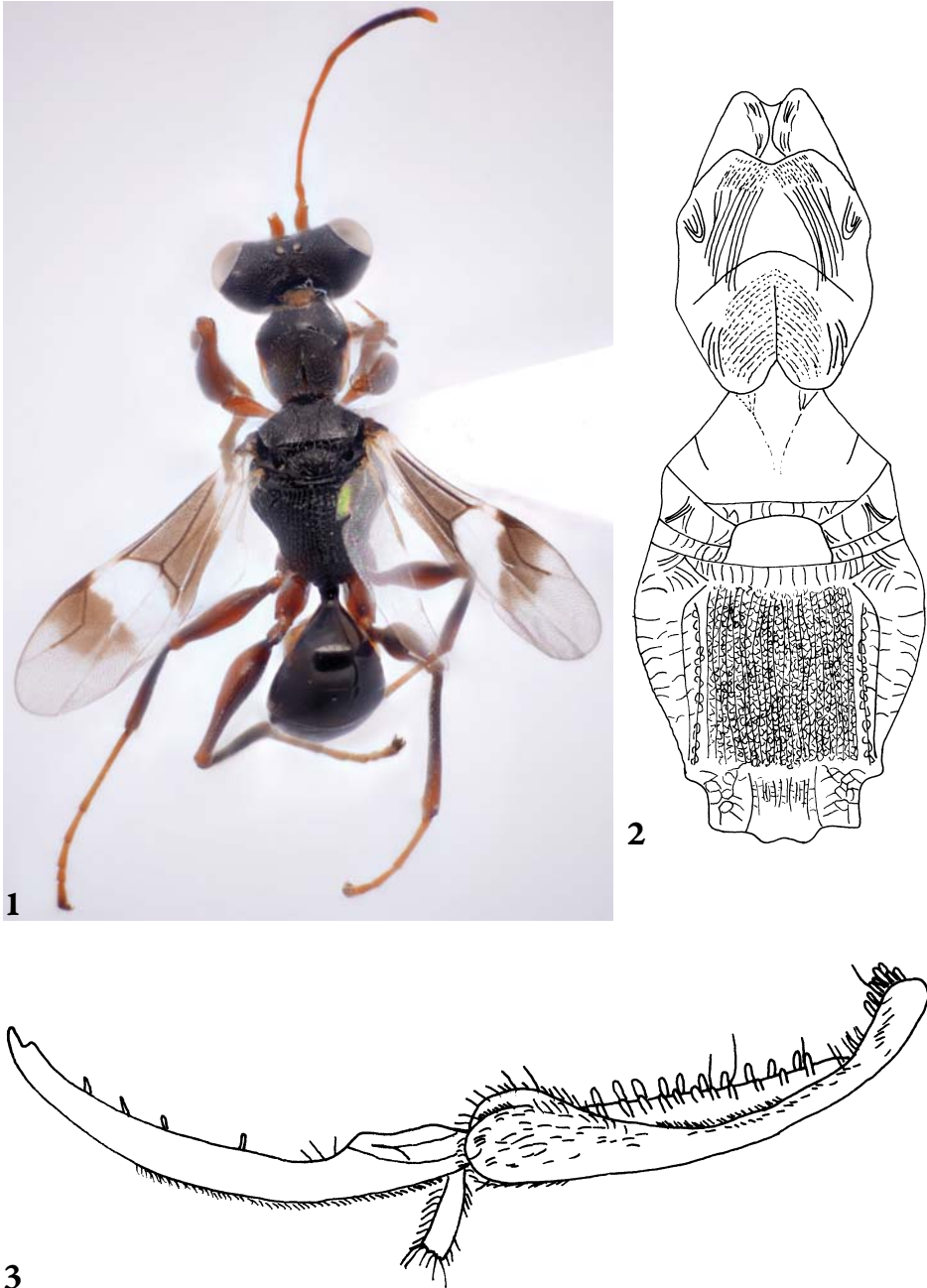
RESULTS

Neodryinus typhlocybae (Ashmead, 1893) (Figs 1–3)

Materials – Hungary, Budapest, District XI, Budai Arborétum [= Buda Arborétum], collected by beat-sampling from *Acer pseudoplatanus* L., 29.VI.2014, leg. D. Korányi, det. M. Olmi, 1 female (Id. No. HNHM-HYM 152874). This specimen represents the first Hungarian record. Some additional records are as follows: same locality, two cocoons collected by hand-picking from leaves of *Ligustrum lucidum* V. T. Aiton, 17.III.2015, leg. N. Mezösi, B. Péntes & G. Véték, det. M. Olmi, 1 female and 1 male (emerged under indoor conditions between 15–23.IV.2015 (Id. No. HNHM-HYM 152875, 152876, respectively). Same locality, sweep netting, 21.VII.2017, leg. V. Szöke & K. Zombor, det. P. Szöllösi-Tóth, 1 female (Id. No. HNHM-HYM 152865, Figs 1–3).

Morphology – The morphological characters of the species are summarised by OLMÍ (1984); hence, only supplementary details regarding the female voucher specimens are given here. Body lengths fit to the 4.00–5.12 mm size range given by OLMÍ (1984). Clypeus and mandible with yellowish brown patches (HNHM-HYM 152865, 152874), or completely yellow (HNHM-HYM 152875). Chela: enlarged claw of fore leg with subapical tooth and 4 bristles; tarsomere 5 of front tarsus either with 21 lamellae in a row, and apex with 8 lamellae in a group (HNHM-HYM 152865, Fig. 3), or with 19 lamellae in a row, and apex with 9 lamellae in a group (HNHM-HYM 152874, 152875).

Remarks – *Neodryinus typhlocybae*, originally a Nearctic species, has been introduced to several southern and Central European countries (STRAUSS 2012). However, it has not been intentionally introduced to Hungary, therefore its occurrence in Hungary remains unclear. Besides *M. pruinosa* its known hosts also



Figs 1–3. *Neodryinus typhlocybae* (Ashmead, 1893), female (Id. No. HNHM-HYM 152865): 1 = habitus, 2 = mesosoma, dorsal view, 3 = chela

belong to Flatidae, namely *Anormenis septentrionalis* (Spinola, 1839), *Flatormenis chloris* (Melichar, 1902), and *Metcalfa regularis* (Fowler, 1900) (GUGLIELMINO *et al.* 2013).

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