

Diasemiopsis ramburialis (Duponchel, [1834]),
a new micromoth species in Hungary (Lepidoptera: Crambidae)

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Abstract – The first records of *Diasemiopsis ramburialis* (Duponchel, [1834]) (Lepidoptera: Crambidae: Spilomelinae) from Hungary are presented. Habitus photo of the species is presented along with that of a similar species, *Diasemia reticularis* (Linnaeus, 1761).

Key words – Microlepidoptera, faunistics, new record, vagrant species

INTRODUCTION

168 species of the family Crambidae (Lepidoptera) have been found in Hungary so far, 23 of them belonging to the subfamily Spilomelinae (PASTORÁLIS & BUSCHAMN 2018). Species of the latter subfamily feed on plants from several families such as Asteraceae, Fabaceae, Lamiaceae, Rosaceae, Caryophyllaceae, Rhamnaceae, Buxaceae, Cistaceae, and Azollaceae; however, the host plants of many species are still unknown. The subfamily includes invasive pests such as *Cydalima perspectalis* (Walker, 1859) (SÁFIÁN & HORVÁTH 2011) or vagrant species with subtropical origin, e.g., *Palpita vitrealis* (Rossi, 1794). *Diasemiopsis ramburialis* (Duponchel, [1834]) is also a subtropical vagrant, so far recorded from the following European countries and islands: Albania, Bulgaria, Croatia, Bosnia and Herzegovina, France (Corsica), Greece (mainland and islands), Malta, Spain (mainland, Balearic Islands and Canary Islands), Montenegro, North Macedonia, Portugal (mainland, Azores and Madeira, including Ilhas Selvagens), Italy (mainland, Sardinia, Sicily and small islands), Romania, Serbia and Slovenia. Outside Europe the species has been found in Africa, Asia, Australia and Oceania (RENNWALD & RODELAND 2023).

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MATERIAL AND METHODS

Two new agricultural light traps were installed in Fejér County in 2023. The construction of this widely used type was detailed by JERMY (1961). One trap is in an orchard on a loess hill in Lovasberény, the other is at the foot of Bence hill in Velence; they have been operating continuously since 1.V.2023.

The material collected on 24.X.2023 in Lovasberény contained a micromoth species unknown to the authors. The trap in Velence provided additional specimens of this species on 26.X.2023, on 30.X.2023, and on 8.XI.2023. They were identified, based on SLAMKA (2022), as *Diasemiopsis ramburialis*.

Photos of adults were taken with a Canon 450 D camera attached to a Carl Zeiss Stemi-2000 stereomicroscope and with an Olympus Camedia C 7070 camera.

RESULTS

Diasemiopsis ramburialis (Duponchel, [1834])
(Fig. 1)

Material examined – Hungary: Fejér County, Lovasberény, loess hill, 47.290°N 18.576°E, 24.X.2023, agricultural light trap, leg. A. Takács, 1 male; Fejér County, Velence, Bence hill, 47.2511°N 18.629°E, 26.X.2023, 30.X.2023, 4.XI.2023, leg. A. Takács, 1 female and 2 males. Two males are deposited in the private collection of Attila Takács, one male and one female in the Hungarian Natural History Museum (HNHM), Budapest.

Remarks – First records for Hungary. Previously there was no specimen of this species in the HNHM from the Carpathian Basin. Proposed Hungarian name: moszatpáfrány-tűzmoly.

Habitat – The light trap in Velence is situated ca. 100 m from the main road of the settlement, on the eastern slope of the Bence hill, in a dry woodland of sub-mediterranean character, dominated by *Fraxinus ornus* L. (Oleaceae) and *Quercus pubescens* Willd. (Fagaceae), one of the collecting sites of Károly Petrich, explorer of the Lepidoptera fauna of the Velence Mountains (PETRICH 2001). The light trap in Lovasberény is situated on a loess hill with degraded grassland close to Kazal hill, also of sub-mediterranean character.

Bionomy – The life history of *Diasemiopsis ramburialis* is detailed by FARAHPOUR-HAGHANI *et al.* (2016). It feeds on the water fern *Azolla filiculoides* Lam. (Azollaceae), an invasive species in Europe. This plant has been known in Hungary since 1885 in the pond of the Botanical Garden of the Eötvös Loránd University, Budapest (CSISZÁR 2012). The moth has two generations, one in June and another one from August to September (SLAMKA 2022); this author considers it a rare species in Central Europe.

Identification – *Diasemiopsis ramburialis* is superficially similar to *Diasemia reticularis* (Linnaeus, 1761) (Fig. 2), a species common in Hungary. The following differences allow an easy separation of the two species. In *Diasemiopsis ramburialis* the flagellum is ringed; the ground colour of the wings is brown; the S-shaped pattern elements on all wings, as well as all patterns on hindwing are snowy white; the rings of the abdominal segments are white. In *Diasemia reticularis* the flagellum is brown; the ground colour of the wings is reddish brown, the pattern elements on the forewing are yellowish white; the crosslines on the wings are broken, but do not form an S-shaped pattern; the rings of the abdominal segments are greyish white.



Fig 1. *Diasemiopsis ramburialis* (Duponchel, [1834]), voucher specimen from Velence.
Scale bar = 10 mm (photo by Attila Takács)



Fig. 2. *Diasemia reticularis* (Linnaeus, 1761), specimen from the collection of the HHNM.
Scale bar = 10 mm (photo by Balázs Tóth)

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