

**Tracking disappeared species V. Occurrence of *Chesias legatella*
([Denis et Schiffermüller], 1775) in Hungary
(Lepidoptera: Geometridae)**

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Abstract – Eight specimens of *Chesias legatella* ([Denis et Schiffermüller], 1775) (Lepidoptera: Geometridae: Larentiinae) were recorded in 2023 and 2025 in Budapest, Fejér, Győr-Moson-Sopron, Pest, and Tolna Counties. Prior to this study, only one Hungarian specimen of this very rare species was deposited in the Hungarian National Museum Public Collections Centre – Hungarian Natural History Museum.

Key words – faunistics, new record, *Genista*, *Laburnum*

INTRODUCTION

Geometridae (Lepidoptera) is represented by roughly 400 species in Hungary, grouped into six subfamilies (RONKAY *et al.* 2024). Most species belong to the subfamily Larentiinae, including *Chesias legatella* ([Denis et Schiffermüller], 1775), the primary host plant of which being *Cytisus scoparius* (L.) Link., and further hosts include *Genista* spp. (all Fabaceae) (FAJČÍK & SLAMKA 1996). *Chesias legatella* is considered a very rare species in Hungary, with only one voucher specimen in the Hungarian National Museum Public Collections Centre – Hungarian Natural History Museum, Budapest (HNHM) prior to this study (UHERKOVICH 1977), and a handful of observations. The aim of this paper is to summarise these occurrences, and to report further eight records of this species.

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RESULTS

Chesias legatella ([Denis et Schiffermüller], 1775)
(Fig. 1)

Material examined – Hungary: one male, Kisvaszar (Baranya County), 4.X.1968, light trap, leg. Ákos Uherkovich; one male, Érd (Pest County), Avar street 20, at light, 6.X.2023, leg. Attila Pál; one male, Kapuvár, Rókató, 8.X.2023, light trap; one male, same locality but 9.X.2023, light trap; one male, Tolna (Tolna County), Kinizsi street 31, terrace, at light, 160 W HMLI, 13.X.2025, leg. Zsolt Kalotás; one male, Győr-Moson-Sopron County, Győr, Bácsa, 14.X.2025, agricultural light trap (deposited in the private collection of Béla Havasréti); one male, Budapest, 21st district, Csepel-Királyerdő, corner of Hollandi and Matróz streets, at light, 15.X.2025, leg. Balázs Tóth; one male, Fejér County, Gánt, Gránás, Gránási hill, 47.3552°N, 18.3744°E, at light, 16.X.2025, leg. Márton Bauer & Tamás Zvezdovics; one male, Fejér County, Lovasberény, szőlőhegy, 47°17'25.1"N 18°34'33.8"E, 17.X.2025, agricultural light trap (deposited in the private collection of Attila Takács). Specimens are deposited in the HHNM unless stated otherwise.

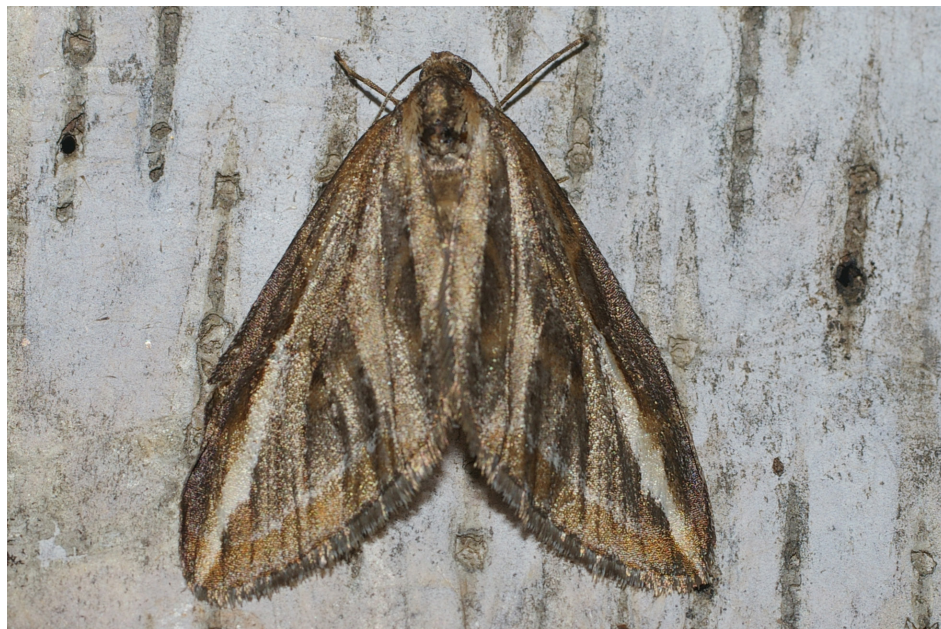


Fig. 1. *Chesias legatella* ([Denis et Schiffermüller], 1775), resting specimen, Érd, Pest County
(photo by Csaba Szabóky)

Remarks – Data of the voucher specimen of the first Hungarian record of the species were published by UHERKOVICH (1977). The second specimen reported here, from Érd, was attracted to light at a house in a suburban area, where the second author operates a 160 W HgI metal halide bulb, a 20 W BLB compact light tube and a 60 W incandescent light bulb illuminating the walls of his house for 200 days per year; the specimen arrived to the BLB compact tube around midnight. The third and fourth specimens were collected by a Jermy-type light trap operated by the Forestry Research Institute in the Rókató forestry facility. The fifth specimen was collected at a terrace of a house in a suburban area at the light of a 160 W HMLI bulb, at 18:51, the temperature was around 10 °C. Five other species of Macrolepidoptera came to the light, each by one specimen. The sixth specimen came to the light trap operated by the Department of Agriculture, Plant Protection and Soil Conservation of the Government Office of Győr-Moson-Sopron County. The light trap is placed in a suburban area at the northern part of Győr, a town with 130,000 inhabitants. The trap is operated with a 145 W mercury vapour bulb because many streetlights are present nearby (Béla Havasréti, pers. comm). The collecting site of the seventh specimen is also located in a suburban area, this moth arrived to the light of a 20 W BL368 compact tube. The specimen was noticed around 22:00; the previous check of the light happened around 20:00. It was calm until the first catching attempt, then tried to fly away along the sheet but finally was captured with a vial. Four other macrolepidopteran species were observed that night. The eighth specimen was collected at the edge of a dry, closed natural grassland on dolomite, in a mosaic of natural and rural habitats. It arrived to light around 21:00 when the wind stopped and the sky became cloudy. The ninth specimen was collected by an agricultural light trap operated by the Department of Agriculture, Plant Protection and Soil Conservation of the Government Office of Fejér County. This light trap is installed in a rural area with cottages and vineyards.

Although *Cytisus scoparius* is the primary host plant of *Chesias legatella*, its larvae also accepted *Laburnum anagyroides* Medik. in rearing (HAUSMANN & VIIDALEPP 2012). This latter species is, apart from being native, a popular ornamental plant in gardens, parks and roadsides of Hungary. It cannot be excluded that propagules of *Chesias legatella* are introduced from Western Europe with ornamental plants and the moth species can reproduce on the *Laburnum* individuals of human settlements. This possibility is supported by the fact that most observations took place in suburban environment. The sporadic nature of the records of *Chesias legatella* might also be related to its relatively late flight time when only few observers are on the field. Large plant depots and markets should be examined by operating lights in their vicinity for attracting moths (Zsolt Kalotás, pers. comm.)

Further Hungarian observations – The species was observed further three times in Hungary but these voucher specimens could not be traced: Sarród, Kócsagvár (Győr-Moson-Sopron County), where András Ambrus found a dead specimen in 1995 (András Ambrus, pers. comm.); Hegyfalú (Vas County), where a presumably dead specimen was found in the 1930s or 1940s (András Ambrus, pers. comm.); and Rezi, Keszthely Mts. (Zala County), where Gábor Ronkay found a dead specimen in a spider web (Gábor Ronkay, pers. comm.). SZABÓKY (2020) mentioned Keszthely Mts., Zselic and Mecsek Mts. as occurrences of this species based on the records above. Furthermore, RONKAY *et al.* (2024) added Budapest to the known localities of *Chesias legatella* in Hungary.

Distribution – The species is known from the Iberian Peninsula and the British Isles across Central Europe to the Baltic countries (HAUSMANN & VIIDALEPP 2012); apparently it reaches the south-eastern limits of its distribution in the Carpathian Basin.

Identification – *Chesias legatella* can readily be distinguished from the related *Chesias rufata* (Fabricius, 1775) by wing pattern, habitat and flight time. The conspicuous white apical streak on the forewing of *Chesias legatella* is completely absent from *Chesias rufata* (Fig. 2) while the clearly visible reddish transverse fasciae of *Chesias rufata* are not present on *Chesias legatella*. This species is on the wing in September and October in heathland and clearings while *Chesias rufata* flies from April to May in sun-exposed slopes, often on limestone and dolomite. Although both species are protected by law in Hungary, *Chesias rufata* is much more widespread and frequent than *Chesias legatella*.



Fig. 2. *Chesias rufata* (Fabricius, 1775), resting specimen, Borsodbóta, Borsod-Abaúj-Zemplén County (photo by Csaba Szabóky)

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