

***Zelleria hepariella* Stainton, 1849 in the Bohemian Forest (Lepidoptera: Yponomeutidae)**

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Abstract

The Ermine moth *Zelleria hepariella* Stainton, 1849 was recorded in the Bohemian Forest (= Šumava Mts.) for the first time. It has been found in the Czech Republic quite recently and probably it is expanding here at present. In the Bohemian Forest, *Z. hepariella* was collected in montane *Anthyrium* spruce forest and beech forest of Smrčina – the first zone of the nature conservation in the National Park Šumava.

Key words: Lepidoptera, *Zelleria hepariella*, spreading, faunistics, Czech Republic

INTRODUCTION

The genus *Zelleria* Stainton, 1849 includes more than 50 species (cf. AGASSIZ 1996), only four of them occur in Europe (AGASSIZ & FRIESE 1996): *Z. hepariella* Stainton, 1849, *Z. abisella* (Chrétien, 1910), *Z. oleastrella* (Millière, 1864), and *Z. plumbeella* (Staudinger, 1871). The fifth species, *Z. wolffi* Klimesch, 1983, is known from the Canary Islands and Madeira. The Ermine moth *Z. hepariella* has been described from southern England and it is the most widespread species of this genus in Europe at present. SPULER (1910) mentioned its occurrence in England, Germany, the Alps, Dalmatia, and Greece, the species has been found later also in Spain, France, Corsica, Sardinia, Italy, Ireland, Netherlands, Switzerland, Romania, Denmark, Norway, Sweden, and Latvia (AGASSIZ & FRIESE 1996) and at last in Estonia, Finland, Sicily, and Macedonia (AGASSIZ 2004). The species is known recently from all neighbouring countries too: Austria (HUEMER & TARMANN 1993), Germany (GAEDIKE & HEINICKE 1999), and Slovakia (LAŠTŮVKA 1998); older data are from Poland (BARANIAK 2000). It was previously known from central and northern Bohemia within the Czech Republic. A few specimens were collected in 2004 and 2005 (ŠUMPICH et al. 2006).

MATERIAL

Bohemia mer.: Bohemian Forest, Trojmezna – the 1st zone of the Šumava National Park, Rakouská Louka (= meadow) locality, 48°46.276' N, 13°51.123' E, 1330 m a.s.l., peat bog, the climax spruce forests in the surrounding, 19 July 2006, 1 ex. at light, J. Šumpich leg., det. et coll.; Bohemian Forest, Smrčina – the 1st zone of the Šumava National Park, 48°44.956' N, 13°55.554' E, 1243 m a.s.l., montane *Anthyrium* spruce forest (climax spruce forest), 25 July 2006, 1 ex. in light trap, J. Šumpich leg., det. et coll.; Bohemian Forest, Smrčina – the 1st

zone of the Šumava National Park, Seitzova Cesta way, 48°45.337' N, 13°55.838' E, 1010 m a.s.l., natural montane beech forest, 19 Aug 2006, 1 ex. at light, J. Šumpich leg., det. et coll.

RESULTS AND DISCUSSION

Except the records in the Bohemian Forest, only two localities in the Czech Republic are known: Radobýl Nature Reserve near Litoměřice and Týřovické Skály in the Křivoklátsko Protected Landscape Area (both the Bohemian thermophyticum) (ŠUMPICH et al. 2006). Both localities are steep rocky slopes with xerothermophilous vegetation and thermophilous oak forests in surroundings. The *Z. hepariella* larval food plant is *Fraxinus excelsior* (cf. AGASSIZ 1996). However, according to SPULER (1910) the larva is found also on *Artemisia vulgaris* and this trophic preference is mentioned by GOZMANY (1956) and REIPRICH (2001), too. An association with xerothermophilous vegetation in the Bohemian thermophyticum is possible.

In the Bohemian Forest, *Z. hepariella* is associated with natural montane beech forest, which is blended with climax stadium of montane *Anthyrium* spruce forest in altitude approx. 1200 m a.s.l. Larval host plant is probably *Fraxinus excelsior*, because of absence *Artemisia vulgaris* here. However, the study of ecological demands of *Z. hepariella* in montane forests of the Smrčina Mt. is desirable. Some other species living in this habitat within the scope of the faunistic lepidopteran research in 2006 (J. Šumpich, unpubl. data) distinguish



Fig. 1. *Zelleria hepariella* Stainton, 1849 found at 19 July 2006 at Rakouská Louka locality. Wingspan 12 mm. Orig. Jan Šumpich.

rather different ecological preferences beside the lowland habitats. The occurrence of *Z. hepariella* at an altitude higher than 1000 m a.s.l. is very interesting and within the territory of Central Europe unique (only in the Alps, it is flying up to 1400 m a.s.l.).

The specimen found 19 July 2006 was collected in association with *Elachista quadripunctella* (Hübner, 1825) (Elachistidae), *Chionodes luctuellus* (Hübner, 1793), *Neofaculta infernella* (Her.-Sch., 1854) (Gelechiidae), *Eudonia petrophila* (Standfuss, 1848) (Pyrilidae), *Venusia cambrica* Curtis, 1839, *Entephria caesiata* (Den. & Schiff., 1775) (dominant) (Geometridae), *Apamea rubrarena* (Treitschke, 1825), *Xestia speciosa* (Hübner, 1813) (Noctuidae), and some other species. The specimen found 25 July 2006 was collected in association with *Hepialus fusconebulosus* (De Geer, 1778) (Hepialidae), *Niditinea striolella* (Matsumura, 1931) (Tineidae), *Denisia similella* (Hübner, 1796) (Oecophoridae), *Pandemis cinnamomeana* (Treitschke, 1830) (Tortricidae), *Watsonalla cultraria* (Fabricius, 1775) (Drepanidae), *Pungleria capreolaria* (Den. & Schiff., 1775), *Entephria caesiata* (Den. & Schiff., 1775), *Eulithis populata* (Linnaeus, 1758) (eudominant), *Hydriomena furcata* (Thunberg, 1784) (eudominant), *Perizoma didymatum* (Linnaeus, 1758) (Geometridae), *Hypena crassalis* (Fabricius, 1787), *Eurois occulta* (Linnaeus, 1758) (Noctuidae), and some other species. The specimen found 19 Aug 2006 was collected in association with *Argyresthia semitesta-cella* (Curtis, 1833) (dominant) (Yponomeutinae), *Agonopterix curvipunctosa* (Haworth, 1811) (Depressariidae), *Caryocolum cassellum* (Walker, 1864) (Gelechiidae), *Cosmotriche lobulina* (Den. & Schiff., 1775) (Lasiocampidae), *W. cultraria* (Drepanidae), *P. capreolaria*, *Colostygia olivata* (Den. & Schiff., 1775) (Geometridae), *Brachyloomia viminalis* (Fabricius, 1776), *Lithomoia solidaginis* (Hübner, 1803) (Noctuidae), and some other species. The broad period of the adult occurrence corresponds with published data (cf. AGASSIZ 1996) as well as with the recent records in the Bohemian thermophyticum; the species is univoltine, the imago overwinters.

It seems that the species is expanding in the Czech Republic at present as well it escapes the attention, because the lepidopteran fauna of these areas of the Bohemian Forest Region has not been investigated in detail hitherto.

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