

# First record of *Scrobipalpa chrysanthemella* (E. Hofmann, 1867) from Poland and new faunistic data on Lepidoptera from Bieszczady National Park

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**Abstract:** *Scrobipalpa chrysanthemella* (E. Hofmann, 1867) was recorded for the first time in Poland. In addition, new data on the occurrence of 13 Lepidoptera species in the Bieszczady National Park are presented. *Elachista dimicatella* Rebel, 1903 was reported for the first time from Poland outside the Tatra Mountains.

**Keywords:** micro-moths, Microlepidoptera, new records, faunistics

## Introduction

Microlepidoptera of the Western Bieszczady Mountains are still largely unexplored. The research carried out in the last decades has

contributed to the scientific knowledge of micromoths only to a small extent. This paper presents some of the most important data obtained during field work conducted in the Bieszczady National Park in 2021<sup>1</sup> (Fig. 1).

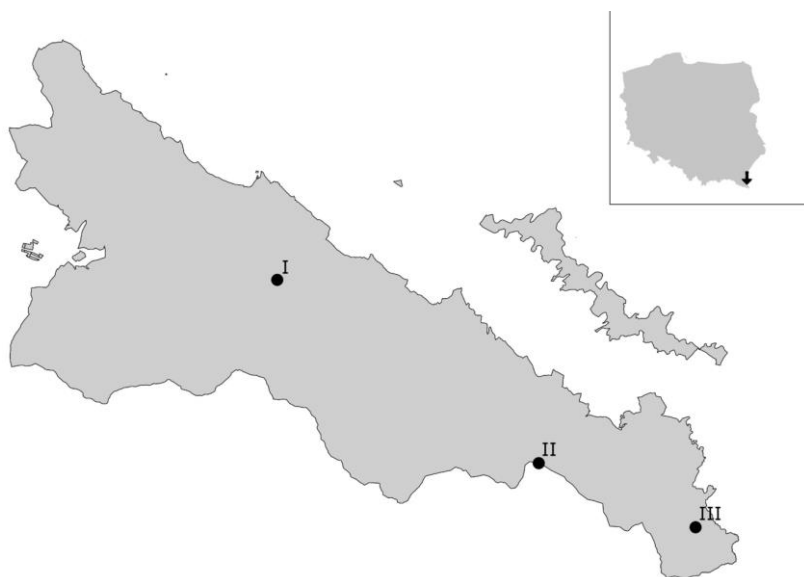


Fig. 1. Localities of records in Bieszczady National Park: I - Połonina Caryńska (1150 m a.s.l.), II - Przełęcz Bukowska (1120 m a.s.l.), III - Sianki (800 m a.s.l.).

<sup>1</sup>Permit: DOP-WPN.61.118.2021.MŚP

The primary method of field work was light trapping. Some specimens were also obtained while sweeping herbaceous vegetation in the afternoon.

There are no current data for the species presented in this paper from the Podkarpackie Province (Buszko & Nowacki 2017). *Scrobipalpa chrysanthemella* (E. Hofmann, 1867) was recorded in Poland for the first time and *Elachista dimicatella* Rebel, 1903 was recorded for the first time from outside the Tatra Mountains.

## Results

### List of species

#### *Micropterigidae*

##### *Micropterix aureatella* (Scopoli, 1762)

Locality: Połonina Caryńska (FV14), 1 ex., 22.06.2021, leg. F. Paluch (Fig. 2). The specimen was caught during the day by sweeping the low vegetation with a net in the Carpathian beech forest *Dentario glandulosae-Fagetum*.

The species is new to the Podkarpackie Province. In Poland, it occurs locally, mainly in the northern and southern parts of the country, on heaths and in humid forests. The biology of preimaginal stages is unknown (Bengtsson *et al.* 2008).

#### *Nepticulidae*

##### *Stigmella myrtillella* (Stainton, 1857)

Locality: Przełęcz Bukowska (FV23), 1 ex., 9.07.2021, leg. F. Paluch. The specimen was caught by sweeping the low vegetation with a net in a montane *Vaccinium* community in the evening hours.

The species is new to the Podkarpackie Province. In Poland, it has been reported from many localities throughout the country.

#### *Elachistidae*

##### *Elachista dimicatella* Rebel, 1903

Locality: Połonina Caryńska (FV14), 1 ex., 22.06.2021, leg. F. Paluch (Fig. 3). The specimen was caught by sweeping the low vegetation with a net in the evening hours in a montane meadow dominated by *Poa chaixii* Vill.

The species is new to the Podkarpackie Province. It occurs in Central and South-Eastern Europe, in the Alps and the Carpathians (Traugott-Olsen & Nielsen 1977; Laštůvka *et al.* 2018). In Poland, it has so far been found in the Tatra Mountains, where it occurs from the lower subalpine zone to the alpine zone (Buszko *et al.* 2000).

#### *Coleophoridae*

The species from the genus *Coleophora* listed below were recorded near the village of Baligród in the Bieszczady Mountains more than half a century ago (Toll 1952). They were neither included in the Distributional Checklist (except *C. sylvaticella*) nor confirmed later.

##### *Coleophora prunifoliae* Doets, 1944

Locality: Bukowiec (FV33), 1 ex., 11.07.2021 leg. F. Paluch.

The current observations in Poland come from eight provinces, located mainly in the western part of the country.

##### *Coleophora alcyonipennella* (Kollar, 1832)

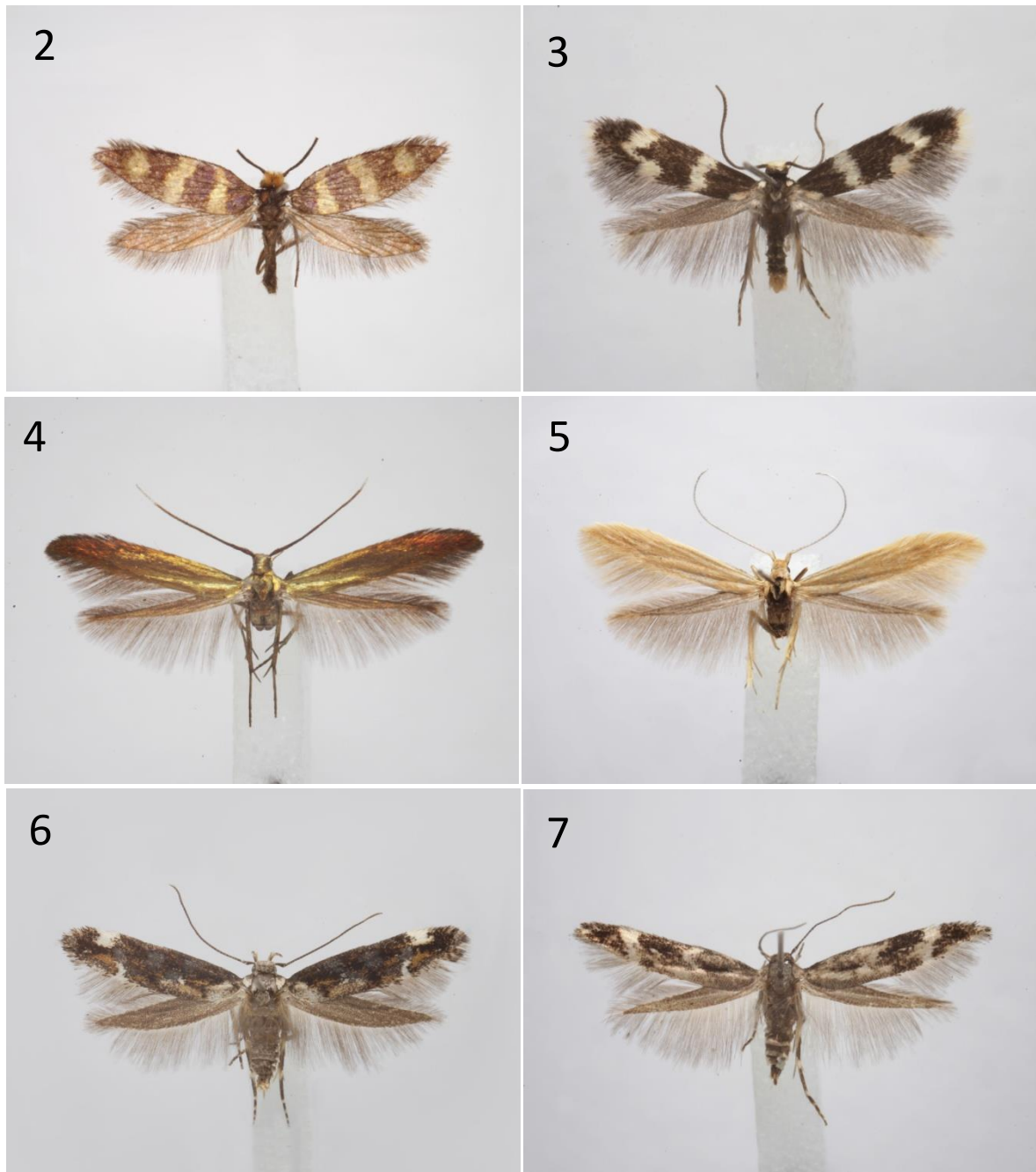
Locality: Połonina Caryńska (FV14), 1 ex., 7.07.2021 leg. F. Paluch (Fig. 4).

The current observations in Poland come from eight provinces, located mainly in the northern part of the country.

##### *Coleophora sylvaticella* Wood, 1892

Locality: Połonina Caryńska (FV14), 1 ex., 7.07.2021 leg. F. Paluch (Fig. 5).

In Poland, it occurs throughout the entire upland and mountain ranges; in the Tatra Mountains up to the subalpine (mugo pine) zone (Razowski 1990; Buszko *et al.* 2000).



Figs 2-7. Adults. 2 –*Micropterix aureatella*, 3 - *Elachista dimicatella*, 4 – *Coleophora alcyonipennella*, 5 – *Coleophora sylvaticella*, 6 – *Mompha conturbatella*, 7 – *Mompha sturnipennella*.

### **Momphidae**

#### ***Mompha conturbatella*** (Hübner, 1819)

Locality: Przełęcz Bukowska (FV23), 1 ex., 9.07.2021 leg. F. Paluch (Fig. 6).

A Holarctic species whose range in Europe (except its northern part) is limited to mountains (Koster & Sinev, 2003). In Poland, it occurs in the Tatra Mountains and on Mt Babia Góra, as well as in single localities in the northern part of the country (Buszko *et al.*

2000; Zajda *et al.* 2021). The species is new to the Podkarpackie Province.

***Mompha sturnipennella*** (Treitschke, 1833)

Locality: Przetęcz Bukowska (FV23), 1 ex., 14.07.2021 leg. F. Paluch (Fig. 7).

It is a Holarctic species that occurs in Central and Northern Europe, in Siberia, the Far East and Canada (Koster & Sinev, 2003). In Poland, it occurs in the Tatra Mountains and on Mt Babia Góra, as well as in single localities in the northern part of the country (Buszko *et al.* 2000; Zajda *et al.* 2021). The species is new to the Podkarpackie Province.

***Mompha idaei*** (Zeller, 1839)

Locality: Połonina Caryńska (FV14), 1 ex., 22.06.2021 leg. F. Paluch.

A Holarctic species, widely distributed and common in Northern Europe and Russia, while further south its occurrence is limited to mountain areas (Koster & Sinev, 2003).

In Poland, it was observed in single localities in the Carpathians, the Sudetes, Białowieża Primeval Forest and Pomerania (Riedl 1969, Zajda *et al.* 2021); recently reported from the vicinity of Lublin (Mazurkiewicz & Pałka 2003). The closest historical localities to the Bieszczady Mountains are located in today's Ukraine (Riedl & Rizun 2002). The species is new to the Podkarpackie Province.

**Gelechiidae**

***Bryotropha similis*** (Stainton, 1854)

Locality: Przetęcz Bukowska (FV23), 1 ex., 14.07.2021 leg. F. Paluch

The species is new to the Podkarpackie Province; widely distributed in Poland.

***Scrobipalpa chrysanthemella*** (E. Hofmann, 1867)

Locality: Połonina Caryńska (FV14), 1♀, 22.06.2021 leg. F. Paluch (Fig. 8).



Fig. 8. *Scrobipalpa chrysanthemella*: a – adult female, b – female genitalia, c - signum

A species new to fauna of Poland. Reported from scattered localities in Europe, from eastern France (Nel & Varenne 2019) to Ukraine and Russia in the east; reported i.a.

from the Czech Republic, Slovakia, Romania, Hungary, Austria, Germany and Switzerland (Huemer & Karsholt 2010; de Jong 2014).

Host plants of *S. chrysanthemella* include *Leucanthemum vulgare* Lam., *Leucanthemum atratum* (Jacq.), and *Tanacetum corymbosum* (L.). The caterpillar feeds in a linear-blotch mine in the apical part of basal leaves from August to October. Pupation takes place in a mine or detritus on the soil surface. The imago appears between April and May, mainly in shady, humid lowland and mountain forests (Huemer & Karsholt, 2010).

### **Oecophoridae**

#### ***Denisia stipella* (Linnaeus, 1758)**

Locality: Sianki (FV33), 1 ex. 8.07.2021 leg. F. Paluch.

The species is new to the Podkarpackie Province. Reported so far from all other provinces.

### **Epermeniidae**

#### ***Epermenia illigerella* (Hübner, 1813)**

Locality: Sianki (FV33), 1 ex. 8.07.2021 leg. F. Paluch.

The species is widespread in Central and Northern Europe, locally also in Southern Europe. It is observed in June and July. The caterpillar lives on *Aegopodium podagraria* L. (Buszko & Skalski, 1980). In Poland, current observations come from 10 provinces. The species is new to the Podkarpackie Province.

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