

Contribution to the Microlepidoptera fauna of Balkans, Nr. 1 (Lepidoptera)

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FAZEKAS, I.: *Contribution to the Microlepidoptera fauna of Balkans, Nr. 1 (Lepidoptera)*.

Abstract: New records of 41 species collected in Balkans during more collecting trips between 1985 and 1996 are given. These species were observed during the day and night field surveys. Distributional or taxonomical notes are given for other species. *Acrolepiopsis vesperella* (Zeller, 1840) *Herculia incarnatalis* (Zeller, 1847) and *Crassa unitella* (Hübner, 1796) are recorded for the first time in Bulgaria. *Yponomeuta rorrella* (Hübner, 1796), *Y. cagnagella* (Hübner, 1813), *Ethmia bipunctella* (Fabricius, 1775) and *Metacrambus carectellus* (Zeller, 1847) are new species in Croatian fauna. *Acompsia tripunctella* ([Denis & Schiffermüller], 1775) is new to Greece. With 10 figures.

Keywords: Microlepidoptera, Balkans, faunistic, new records.

Introduction

The knowledge of the Balkans fauna has been enriched by the work of both amateur and professional researchers. It was a milestone when KARSHOLT and RAZOWSKI (1996) published their checklist of the Microlepidoptera of Europe. Levente Ábrahám (H-Kaposvár) has undertaken zoological expeditions in Balkans between 1985 and 1989. Imre Fazekas (H-Komló) and Kálmán Szeőke (H-Székesfehérvár) have both collected a few specimens in the region. In this paper records of 41 species collected during these expeditions are published and notes on distribution and taxonomy are presented. The present paper adds more new data collected during the author's field work in Balkans. The occurrence of *Acrolepiopsis vesperella* (Zeller, 1840), *Herculia incarnatalis* (Zeller, 1847) and *Crassa unitella* (Hübner, 1796) in Bulgaria is not surprising, the first records of the taxa. *Yponomeuta rorrella* (Hübner, 1796), *Y. cagnagella* (Hübner, 1813), *Ethmia bipunctella* (Fabricius, 1775) and *Metacrambus carectellus* (Zeller, 1847) are new to the Croatian fauna. *Acompsia tripunctella* ([Denis & Schiffermüller], 1775) is new to Greece. All specimens are deposited in the Lepidoptera Collection of the Somogy County Museum in Kaposvár and Biological Department of Regiograf Institute in Komló. Basically we apply the system and nomenclature of KARSHOLT and RAZOWSKI (1996), with some minor changes.

List of localities: – Bosnia, Neum, N 42°55'36.68" E 17°38'9.13"; – Bulgaria, Fazanovo, N 42°12'09.36" E 27°41'59.66"; – Bulgaria, Lozenets, N 42°12'09.36" E 27°47'55.00"; – Croatia, Popovec, N 45°51'16.31" E 16°8'21.91"; Croatia, Umag, N 45°25'57.56" E 13°32'9.46"; Croatia, Zadar, N 44°9'10.44" E 15°13'43.53"; – Greece, Lakmos Mts., N 39°40'60.00" E 21°7'0.00".



Fig. 1: Biogeographical regions in SO Europe and collecting sites (●) of Microlepidoptera in Balkans. Abbreviations: A= Alpine, At= Atlantic, B= Black sea, C= Continental, M= Mediterranean, P= Pannonian, S= Steppic

List of collected species

Nepticulidae

Ectoedemia mahalebella (Klimesch, 1936)

Material examined: 2 ex, Bosnia, Neum, 30.06.1996, leg. Fazekas I. – According to NIEUKERKEN (1985) a southern European species, south and east of the Alps, including hot alpine valleys. Oligophagous; the larvae feed on *Prunus avium* L., *P. cerasus* L., *P. comomilia* Ten., *P. fruticosa* Pallas and *P. mahaleb* L. Adults fly from May to end of June.

Tineidae

Hapsifera luridella Zeller, 1847

Material examined: 2 ex, Bulgaria, Fazanovo, 18.07.1985, leg. Ábrahám L.; 1 ex, Croatia, Popovec, 24.07.1985, leg. Ábrahám L. – Distribution in Balkans: Bulgaria, Macedonia, Greece, Crete, Cyprus. This species is unknown elsewhere in Europe.

Yponomeutidae

Yponomeuta rorrella (Hübner, 1796)

Material examined: 2 ex, Bulgaria, Fazanovo, 18.07.1985, leg. Ábrahám L.; 2 ex, Croatia, Popovec, 24.07.1985, leg. Ábrahám L. – new species in the fauna of Croatia. Old published records from Bosnia (GEORGIJEVIĆ & LUTERŠEK 1966). A relatively local species, occurring sporadically in much of Europe. Oligophagous: the larvae feed on species of *Salix*, including *S. alba* L. and *S. cinerea* L. They feed gregariously on the leaves in a silken web, between early May and late July. The moths fly in July and August.

Yponomeuta cagnagella (Hübner, 1813)

Material examined: 2 ex, Bulgaria, Fazanovo, 18.07.1985, leg. Ábrahám L.; 1 ex, Croatia, Popovec, 24.07.1985, leg. Ábrahám L. – new species in the fauna of Croatia. Widely distributed in Europe, but is absent in other Balkan countries (see www.faunaeur.org). The moths fly from June to August. Monophagous on spindle (*Euonymus europaeus* L.), the larvae feeding gregariously in a silken web.

Acrolepiidae*Acrolepiopsis vespereilla* (Zeller, 1840)

Material examined: 1 ex, Bulgaria, Fazanovo, 18.07.1985, leg. Ábrahám L. New species in the fauna of Bulgaria. Distribution: North Africa, the whole European Mediterranean region and Germany. Rare and local in Balkans: Croatia, Serbia, Montenegro, Kosovo and Greece. The larvae are miners on *Tamus edulis* Lowe and *Smilax canariensis* Willd.

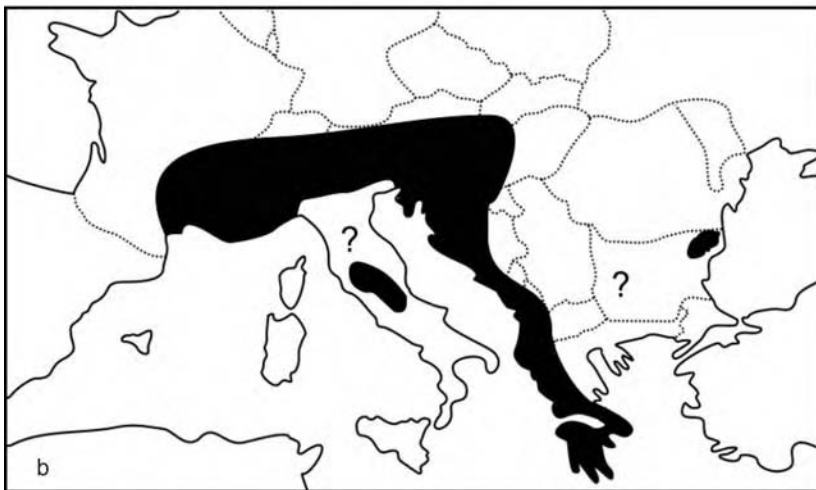
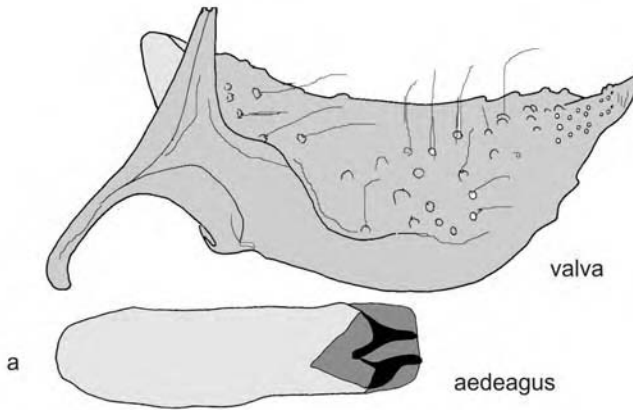


Fig. 2: *Ectodemia mahalebella* (Klimesch, 1936): a) male genitalia; b) sketch-map of distribution

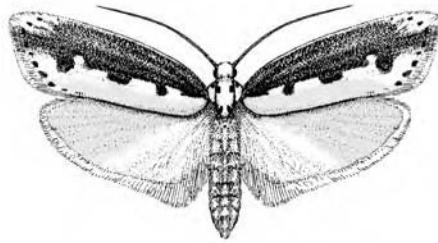


Fig. 3: Adult of *Ethmia bipunctella* (Fabricius, 1775)

Ethmiidae

Ethmia bipunctella (Fabricius, 1775)

Material examined: 1 ex, Croatia, Popovec, 24.07.1985, leg. Abraham L. New species in the fauna of Croatia, and yet to be reported in other Balkan countries; widely distributed in Europe. *Echium vulgare* L. is the larval foodplant in this region, both flowers and leaves being consumed. According to literature (SATTLER 1967) additional foodplants: *Echium calycinum* Viv., *Cynoglossum officinale* L., *Anchusa* L. spp. and *Lithospermum* L. spp. Outside Palaearctic well-known in North America. The main flight period is between May and August in Central Europe, but there is also a partial second generation in the autumn.

Oecophoridae

Epicallima icterinella (Mann, 1867)

Material examined: 1 ex, Bulgaria, Fazanovo, 18.07.1985, leg. Abraham L. According to KARSHOLT & RAZOWSKI (1996), known only in former Yugoslavia, Bulgaria and Greece (see www.faunaeur.org).

Pleurota pyropella ([Denis & Schiffermüller], 1775)

Material examined: 1 ex, Bulgaria, Fazanovo, 18.07.1985, leg. Abraham L. – this species is known to be frequent in Balkans.

Crassa unitella (Hübner, 1796)

Material examined: 1 ex, Bulgaria, Fazanovo, 18.07.1985, leg. Abraham L. – the first record of the taxon in Bulgaria. A rather local and rare species throughout in Balkans: Albania, Kosovo, Macedonia, Montenegro, Romania, Serbia. The moths fly from early June till the end of August. The larva lives on dead wood and fungus under bark of various trees; it hibernates. Pupation in the larval feeding place.

Blastobasidae

Blastobasis phycidella (Zeller, 1849)

Material examined: 3 ex, Croatia, Zadar, 29.07.1989, leg. Abraham L. – widely distributed in Europe, except the northern areas (e. g. Scandinavia). The moths fly in one generation between early June and late August.

Gelechiidae

Stomopterix detersella (Zeller, 1847)

Material examined: 1 ex, Bulgaria, Fazanovo, 18.07.1985, leg. Abraham L. – on the whole distributed in Balkans but unknown in Serbia and Montenegro. The species is unknown in many parts of Central Europe. In the Carpathian Basin (e.g. Transdanubian Mountains in Hungary) the habitat is rather barren, in rocky highlands.

Acompsia tripunctella ([Denis & Schiffermüller], 1775)

Material examined: 1 ex, Greece, 1700 m, Lakmos mts. 06.06.1990, leg. dr. Szeőke K. – new species in the fauna of Greece. Distribution in Europe: Austria, Croatia, Chechia, France, Germany, Hungary, Italy, Kosovo, Montenegro, Poland, Serbia, Slovakia, Slovenia, Switzerland, Ukraine. The species occurs in mountains regions in Balkans.

Tortricidae*Croesia forsskaleana* (Linnaeus, 1758)

Material examined: 1 ex, Bulgaria, Fazanovo, 18.07.1985, leg. Ábrahám L. – larva oligophagous on *Acer* spp. Univoltine: early or mid-July to late August. Widely distributed in Europe, introduced to North America.

Eudemis profundana ([Denis & Schiffermüller], 1775)

Material examined: 1 ex, Croatia, Popovec, 24.07.1985, leg. Ábrahám L. – West Palaearctic species, except for the northern belt and Asia Minor.

Hedya nubiferana (Hübner, [1796–99])

Material examined: 1 ex, Bulgaria, Fazanovo, 18.07.1985, leg. Ábrahám L. – larva polyphagous on *Rosaceae* spp., *Alnus*, *Betula*, *Salix*, *Quercus* etc. Holarctic. Adult flight from early June to late August. Widely distributed from British Isles to the Urals and from the White Sea to Caucasus. In Asia: Asia Minor to Iran and Iraq, then Turkmenia and Western Siberia, introduced Canada.

Epiblema scutulanum ([Denis & Schiffermüller], 1775)

Material examined: 1 ex, Croatia, Zadar, 29.07.1989, leg. Ábrahám L. – xerothermophilous species, polyphagous on *Arctium*, *Carduus*, *Centaurea*, *Cirsium*, *Jacea* etc., widely distributed in Palaearctic. In Balkans frequent.

Cydia fagiglandana (Zeller, 1841)

Examined material: 1 ex, Croatia, Popovec, 24.07.1985, leg. Ábrahám L. – occurs from Iran to British Isles and Scandinavia. The moth flies in two generation between May and late August. Larva oligophagous on *Fagus sylvatica* L., rarely on *Quercus* spp. and *Castanea sativa* Mill.

Pterophoridae*Agdistis adactyla* (Hübner, [1819])

Material examined: 1 ex, Croatia, Popovec, 24.07.1985, leg. Ábrahám L. – widely distributed SW, C Europe and extending to the east as far as Afghanistan and Mongolia. Xerothermophilous, preferring steppes and colline habitats. Univoltine, flying from early June to late August.

Stenoptilia bipunctidactyla (Scopoli, 1763)

Material examined: 1 ex, Croatia, Zadar, 29.07.1989, leg. Ábrahám, L. – known from Mongolia, Iran to Europe and Northern Africa (FAZEKAS 2006). Polyphagous on *Antirrhinum orantium* L., *Knautia arvensis* L., *Linaria vulgaris* Miller, *Scabiosa columbaria* L., *S. ochroleuca* L., *Succisa pratensis* Moench (FAZEKAS 2006). Bivoltine; the moths fly from mid-May to mid-July and from early August to mid-October. Preferred habitats are moist rich fens, eu- and mesotrophic meadows, colline and montane hay meadows, acid grasslands and heaths. According to GIELIS (1996), this species is correctly called *bipunctidactyla*, but its status is uncertain and needs verification. Its affinity with *Pterophorus plagiodactylus*, *P. serotinus*, *P. scabiodactylus* and *Stenoptilia succisae* is uncertain and remains problematic (see ARENBERGER 2005).

Pterophorus pentadactylus (Linnaeus, 1758)

Material examined: 4 ex, Bulgaria, Fazanovo, 18.07.1985, leg. Ábrahám L. – frequent in Balkans, the adult flies from May to late September. Oligophagous on *Convolvulus*

arvensis L., *C. cantabrica* L. and *Calystegia sepium* L. Habitat: ubiquitous in colline and montane hay meadows, acid grasslands and heaths; halophytic habitats, dry open grasslands; dry and semi-dry closed grasslands; secondary and degraded marshes and grasslands; semi-natural, often secondary woodland-grassland mosaics.

Pyralidae

Hypsopygia costalis (Fabricius, 1775)

Material examined: 1 ex, Croatia, Popovec, 24.07.1985, leg. Ábrahám L. – widespread in Europe, but absent from Ireland and Slovenia.

Herculia incarnatalis (Zeller, 1847)

Material examined: 2 ex, Bulgaria, Fazanovo, 18.07.1985, leg. Ábrahám L.; 5 ex, Croatia, Popovec, 24.07.1985, leg. Ábrahám L. – South European species: Portugal, Spain, France, Italy, Croatia, Hungary, Romania and Greece. New species for the Bulgarian fauna.

Synaphe punctalis (Fabricius, 1775) (= *angustalis* Denis & Schiffermüller, 1775)

Material examined: 1 ex, Croatia, Popovec, 24.07.1985, leg. Ábrahám L. – widespread in Europe, but unknown in north east regions.

Orthopygia glaucinalis (Linnaeus, 1758)

Material examined: 2 ex, Bulgaria, Fazanovo, 18.07.1985, leg. Ábrahám L.; 2 ex, Croatia, Popovec, 24.07.1985, leg. Ábrahám L. – this species has been collected in many places in Balkans, but is absent from Slovenia, Serbia and Montenegro.

Pyralis regalis ([Denis & Schiffermüller], 1775)

Material examined: 2 ex, Bulgaria, Fazanovo, 18.07.1985, leg. Ábrahám L.; 6 ex, Croatia, Popovec, 24.07.1985, leg. Ábrahám L. – known mainly in South-eastern Europe. Unknown in British Isles, Benelux States, Germany, Portugal, Slovenia and Norway.

Endotricha flammealis ([Denis & Schiffermüller], 1775)

Material examined: 2 ex, Bulgaria, Fazanovo, 18.07.1985, leg. Ábrahám L.; 1 ex, Croatia, Popovec, 24.07.1985, leg. Ábrahám L. – frequent in Balkans.

Phycita roborella ([Denis & Schiffermüller], 1775) (= *spissicella* Fabricius, 1777)

Material examined: 2 ex, Croatia, Popovec, 18.07.1985 and 10 ex, 24.07.1985, leg. Ábrahám L. – widely distributed in Europe, but in Balkans absent from Slovenia, Bosnia, Serbia and Montenegro.

Conobathra repandana (Fabricius, 1798) (= *tumidella* Zincken, 1818)

Material examined: 1 ex, Bulgaria, Fazanovo, 18.07.1985, leg. Ábrahám L.; 1 ex, Croatia, Zadar, 29.07.1989, leg. Ábrahám L. – this species known in Balkans so far in Croatia, Bulgaria and Greece. No data from Ireland nor from much of Eastern Europe.

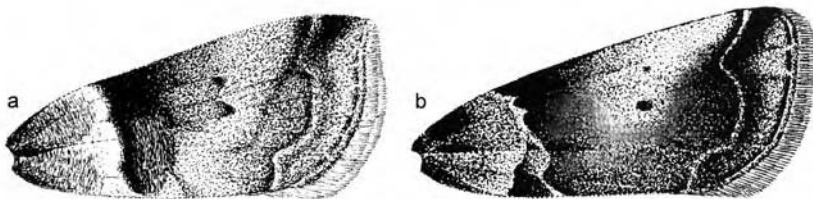


Fig. 4: Forewing of species: a) *Conobathra repandana* (Fabricius, 1798); b) *Trachycera suavella* (Zincken, 1818).

Trachycera suavella (Zincken, 1818)

Material examined: 1 ex, Croatia, Popovec, 24.07.1985, leg. Ábrahám L.; 1 ex, Croatia, Zadar, 29.07.1989, leg. Ábrahám L. – in the Balkans, unknown from Slovenia and Serbia.

Ephestia elutella (Hübner, 1796)

Material examined: 2 ex, Bulgaria, Fazanovo, 18.07.1985, leg. Ábrahám L. – widely distributed in Balkans but no data from Serbia.

Ematheudes punctella (Treitschke, 1833)

Material examined: 2 ex, Croatia, Popovec, 24.07.1985, leg. Ábrahám L. – unknown in northern Europe. No published records from Slovenia and Serbia.

Crambidae*Calamotropha paludella* (Hübner, [1824])

Material examined: 1 ex, Bulgaria, Lozenets 17.07.1988, leg. Ábrahám L. – known in Eurasia, Africa, Madagascar and Australia. Widely distributed in Balkans, but local in central countries (e. g. Serbia, Croatia).

Agriphila tolli tolli (Bleszynski, 1952)

Material examined: 4 ex, Croatia, Umag, 16.08.1994, leg. Fazekas I. – *A. tolli* can mainly be found in central and eastern Mediterranean region characterized by warm summer and evergreen, sclerophyllous forest. The Carpathian basin, however, featured by wet continental climate, is mostly populated by *Agriphila tolli* subspecies *pelsonius* Fazekas, 1985. Outside Europe, in western Asia (Asia Minor, Cyprus, Syria, Iraq, Iran,

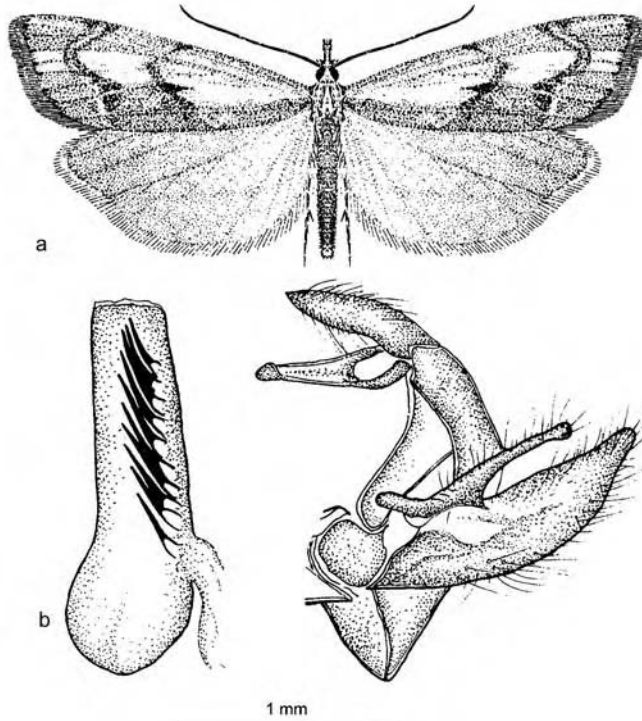


Fig. 5: Adult (a) and male genitalia (b) of *Agriphila tolli* (Bleszynski, 1952)



Fig. 6: Sketch-map of distribution of *Agriphila tolli* subspecies-circle: (Att) *Agriphila tolli tolli* (Bleszynski, 1952); (Atp) *A. tolli pelsonius* Fazekas, 1985; (Atb) *A. tolli beieri* Bleszynski, 1955

Caucasus etc.) the well-known subspecies *A. tolli beieri* Bleszynski, 1955 is found (FAZEKAS 1991c). *Agriphila geniculea* (Haworth, 1811) and *A. tolli* are two very similar species, separable in genitalia and wing pattern (FAZEKAS 1995: Abb. 2; 2002: Fig. 1.). According to the chorological data available, *A. geniculea* is an expansive Atlantic-Mediterranean species, while *A. tolli* is a typical element of the Pontomediterranean fauna. The species-pair evolved from one monophyletic unit, and are real geo-ecological vicariants (FAZEKAS 1995), which are not known to occur sympatrically in Balkans.

Agriphila brioniella Zerny, 1914

Material examined: 2 ex, Croatia, Umag, 16.08.1994, leg. Fazekas I. – distribution: Transcaucasia, Crimea peninsula, Asia Minor, Cyprus, Balkans, Hungary, Slovakia, Italy, Sardinia, Sicily, South France (FAZEKAS 1991a). Differentiation of characters between *Agriphila inquinatella* and *A. brioniella* are according to FAZEKAS (1991a).

Agriphila inquinatella ([Denis & Schiffermüller], 1775)

Material examined: 12 ex, Croatia, Umag, 16.08.1994, leg. Fazekas I. – according to FAZEKAS (1991b): "Die Art *inquinatella* wurde von Marokko und in ganz Europa sowie östlich bis Turkestan nachgewiesen und zwar vor allem aus Gebieten mit sandigem, kalkigem und vulkanischem Boden. Habitate von Tief- und Gebirgländern werden vielerorts von dieser Art bewohnt."

Catoptria pinella (Linnaeus, 1758)

Material examined: 1 ex, Croatia, Popovec, 24.07.1985, leg. Ábrahám L. – widely distributed from Japan to Europe and North Africa. The moths fly from mid-May to mid-September. Frequent in Balkans.

Catoptria falsella ([Denis & Schiffermüller], 1775)

Material examined: 1 ex, Bulgaria, Fazanovo, 18.07.1985, leg. Ábrahám L. – in Europe, frequent in south Scandinavia and Central Europe, local in British Isles and

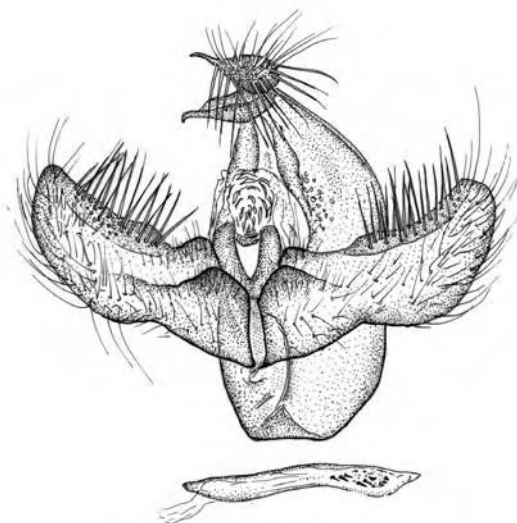


Fig. 7: Male genitalia of *Metacrambus carectellus* (Zeller, 1847)

Iberia. Collected throughout the Balkans. The moths fly in two generation from mid-May to mid-October. Adults occur in meso- and hygrophyl biotopes.

Metacrambus carectellus (Zeller, 1847)

Material examined: 5 ex, Croatia, Zadar, 29.07.1989, leg. Ábrahám, L. – according to SLAMKA (2008) unknown in Croatia (see 125th in map: p. 79). In Balkans, known from Bulgaria, Greece, Macedonia and Albania. New species in the fauna of Croatia.

Gesneria centuriella ([Denis & Schiffermüller], 1775)

Material examined: 2 ex, Bulgaria, Fazanovo, 18.07.1985, leg. Ábrahám, L. – Holarctic, boreomontane species. In Balkans, not known from Serbia, Slovenia, Croatia, Bosnia, Macedonia or Albania. According to NUSS (2005), adults have been collected at light on sandy slopes or screes with sparse vegetation and in subalpine forests close to the tree line.

Pyrausta aurata (Scopoli, 1763)

Material examined: 1 ex, Bulgaria, Fazanovo, 18.07.1985, leg. Ábrahám L. – local in Balkans. The moths fly in two generation from mid-April to mid-September; flies in the daytime and visits flowers. Adults occur in xero- and mesophyl biotopes. Forewing deep purple, suffused blackish; hindwing blackish with curved golden yellow postmedian line and basal patch (Fig. 8).

Loxostege sticticalis (Linnaeus, 1761)

Material examined: 9 ex, Bulgaria, Fazanovo, 18.07.1985, leg. Ábrahám L.; 2 ex, Croatia, Popovec, 24.07.1985, leg. Ábrahám L. – frequent in Balkans.

Uresiphita gilvata (Fabricius, 1794)

Material examined: 2 ex, Croatia, Zadar, 29.07.1989, leg. Ábrahám L. – not very frequent in Balkans, unknown in Albania.

Nomophila noctuella ([Denis & Schiffermüller], 1775)

Material examined: 2 ex, Bulgaria, Fazanovo, 18.07.1985, leg. Ábrahám L.; 1 ex, Croatia, Popovec, 24.07.1985, leg. Ábrahám L.; 1 ex, Croatia, Zadar, 29.07.1989, leg. Ábrahám L. – frequent and widely distributed in Balkans.

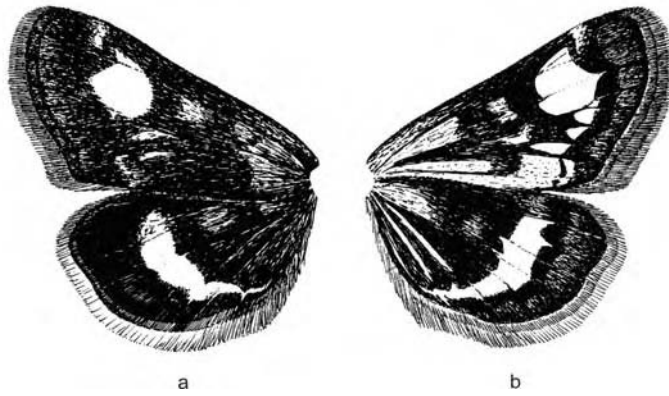


Fig. 8: Forewing patterns of *Pyrausta aurata* (Scopoli, 1763): a) underside, b) upperside

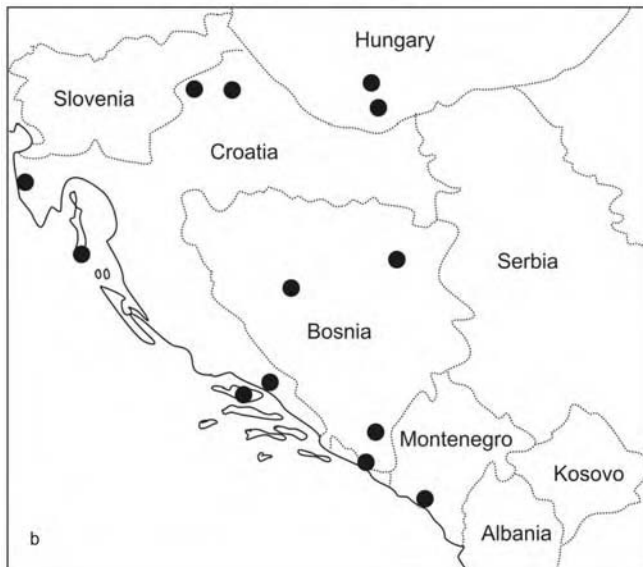
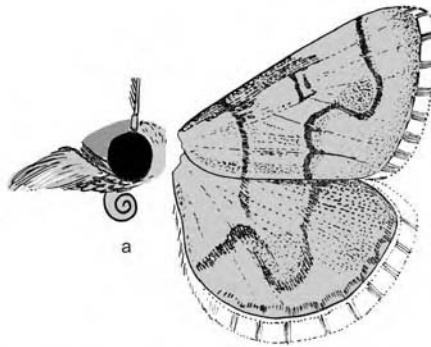


Fig. 9: *Metasia ophialis* (Treitschke, 1829): a) head and forewing; b) records of from western Balkans

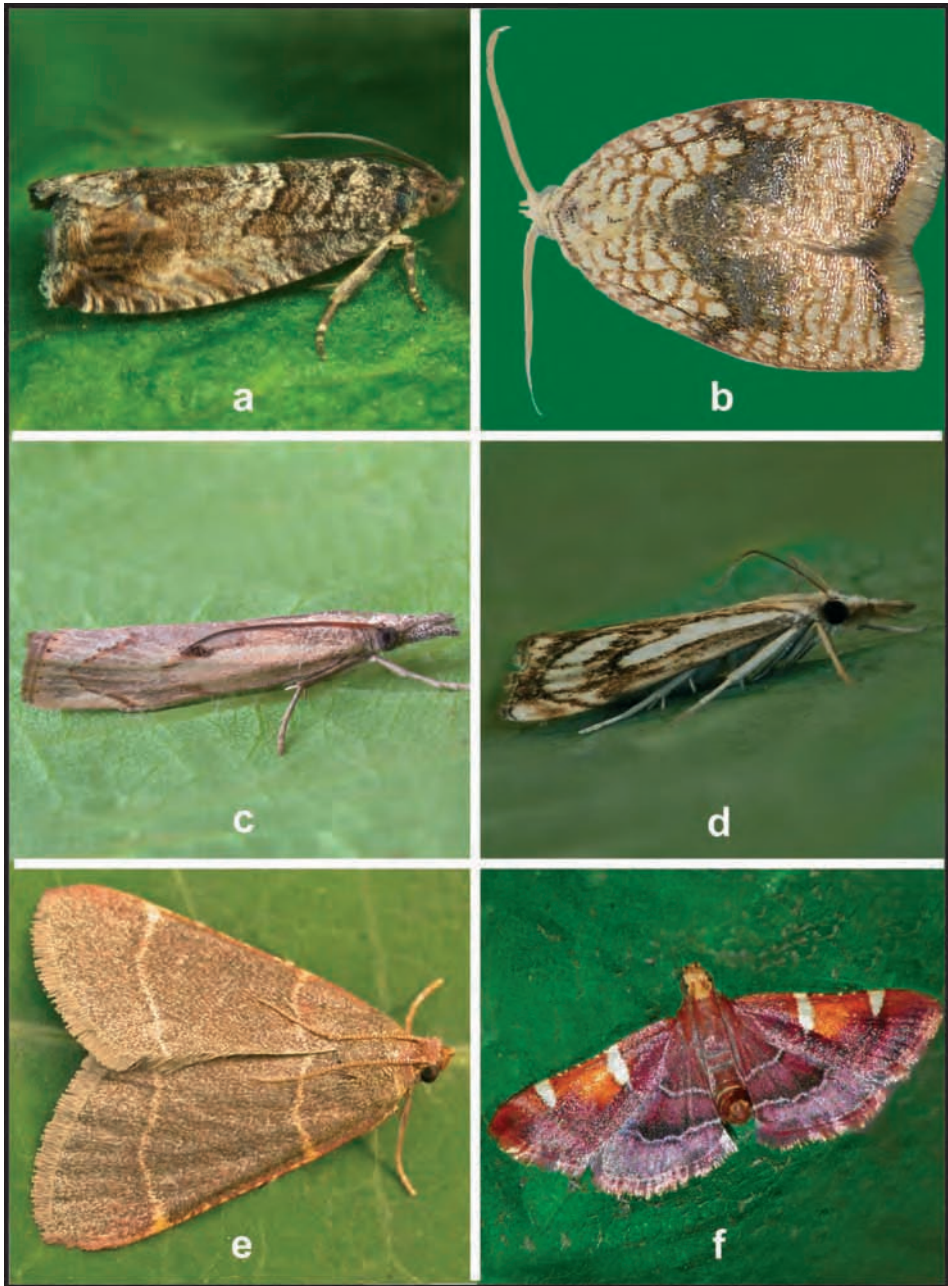


Fig. 10: Adult of species: a) *Cydia fagiglandana* (Zeller, 1841), b) *Croesia forsskaleana* (Linnaeus, 1758), c) *Agriphila inquinatella* ([Denis & Schiffermüller], 1775), d) *Catoptria falsella* ([Denis & Schiffermüller], 1775), e) *Orthopygia glaucinalis* (Linnaeus, 1758), f) *Pyralis regalis* ([Denis & Schiffermüller], 1775)

Metasia ophialis (Treitschke, 1829)

Material examined: 1 ex, Croatia, Zadar, 29.07.1989, leg. Abraham L. – larva and hostplant unknown. Univoltine: from June to late September. Nominat species widely distributed in Hungary, xerothermophilous, preferring sandy soils or limestone. Rare and very isolated populations in Bohemia (Brno), S Slovakia, Austria (only in Steiermark), Romania. The data from Balkan incomplete (GANEV 1984). According to KLIMESCH (1968), known in other areas in Balkans, but the Serbian researchers (JAKŠIĆ & MIHAILOVIĆ 1996), recently reported it from a very small area. The occurrence in the Western Europe needs confirmation. The species was found in 2004 in Belgium (SPRONCK, GEORIS 2009). According to author's "La biologie de *Metasia ophialis* est inconnue mais cette espèce a une période de vol s'étalant de juin à septembre. Elle fréquente les endroits et calcaries."

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References

- ARENBERGER, E. 2005: Platyptiliinae: Platyptiliini: Stenoptilia. – In Gaedike, R.: Microlepidoptera Palaearctica, Zwölfter Band, Pterophoridae 3. Teilband. – Goecke & Evers, Keltern, 191 pp.
- FAZEKAS, I. 1991a: *Pitheochroa annae* Huemer, 1990 und *Agriphila brioniella* Zerny, 1914 als neue Arten im Bakony-Gebirge (Ungarn), Lepidoptera: Tortricidae et Pyralidae. – *Folia Musei Historico-naturalis Bakonyiensis* 10: 59–66.
- FAZEKAS, I. 1991b: *Agriphila inquinatella* (D. & S.); Eine Charakterisierung der topotypischen Populationen (Lepidoptera, Crambidae). – *Nota Lepidopterologica* 14 (1): 15–23.
- FAZEKAS, I. 1991c: *Agriphila tolli* beieri Bleszynski, 1955 status novus (Lepidoptera: Crambidae). – *Annalen des Naturhistorischen Museums in Wien* 92 (B): 113–119.
- FAZEKAS, I. 1995: Die geographische Verbreitung der Art *Agriphila tolli* (Bleszynski, 1952) in Europe (Lepidoptera, Crambidae). – *Nachrichtenblatt der Bayerischen Entomologen* 44 (3/4): 39–47.
- FAZEKAS, I. 2002: *Agriphila geniculea* (Haworth, 1811) occurring in Southern-Transdanubia (SW-Hungary), Microlepidoptera, Crambidae. – *Natura Somogyiensis* 3: 57–62.
- FAZEKAS, I. 2006: Beiträge zur Kenntnis der Pterophoriden-Fauna Ungarns, Nr. 9, *Stenoptilia* Hübner, 1825 Aufzeichnungen, Nr. 3: *Stenoptilia*-Fauna Ungarns (Microlepidoptera: Pterophoridae). – *Folia Historico Naturalia Musei Matraensis* 30: 231–245.
- GANEV, J. 1984: Contribution to the study of the Pyraloidea of the Balkan Peninsula. – *Nota Lepidopterologica* 7 (1): 39–49.
- GEORGIJEVIĆ, E. & LUTERŠEK, D. 1966: Beitrag zur Kenntnis der entomofauna von Bosnien und Herzegovina. – RADOVI, Šumarskog Fakulteta i Instituta za Šumartsvo u Sarajevu. Godina XI, Knjiga 11., Sveska 5: 5–68. (text in Serbian, with German summary)
- GIELIS, C. 1996: Pterophoridae. – In P. HUEMER, O. KARSHOLT and L. LYNEBORG (eds): *Microlepidoptera of Europe* 1: 1–222.
- JAKŠIĆ, P. & MIHAILOVIĆ, L. 1996: Dopune i korekcije. [The Fauna of Durmitor, 5: Lepidoptera (Insecta): additions and corrections]. – *The Fauna of Durmitor* 5: 91–106.
- KLIMESCH, J. 1968: Die Lepidopterenfauna Mazedoniens, IV. Microlepidoptera: – Skopje, 201 pp.

-
- NIEUKERKEN, E.J. van 1985: A taxonomic revision of the Western Palaerctic species of the subgenere *Zimmermannia* Hering and *Ectoedemia* Busck s.str. (Lepidoptera, Nepticulidae), with notes in their phylogeny. – Tijdschrift voor Entomologie 128 (1): 1–164.
- NUSS, M. 2005: Scopariinae. Pp. 177–178. In P. HUEMER & O. KARSHOLT (eds.): Microlepidoptera of Europe 4: 1–304.
- SÄTTLER, K. 1967: Ethmiidae. In AMSEL, H.G., GREGOR, F. & REISSER, H.: Microlepidoptera Palaearctica, 2. Band. – Verlag Georg Fromme & CO, Wien, 1–185 pp. and 1–106 tabl.
- SLAMKA, F. 2008: Pyraloidea of Europe (Lepidoptera), Volume 2. Crambinae & Schoenobiinae. – Bratislava, 223 pp.
- SPRONCK, R. & GEORIS, A. 2009: *Metasia ophialis* (Lepidoptera: Crambidae, Spilomeninae) une espèce nouvelle pour la faune belge. – Phegea 36 (1): 23–24.