An overview of the Romanian Epermeniidae (Lepidoptera, Epermenioidea) summarizing the current knowledge in an annotated checklist

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Summary: An up-to-date assessment of the Romanian Epermeniidae fauna is presented. A total of 16 Epermeniidae species are currently accepted and one species, *Ochromolopis staintonella* (Millière, 1869), is excluded from the checklist. Three species are recorded in Romania for the first time: *Phaleurnis statariella* (Heyden, 1863), *Epermenia* (*Calotripis*) *falciformis* (Haworth, 1828) and *Epermenia* (*Epermenia*) *ochreomaculella* (Millière, 1854). The presence of two species requires confirmation: *Phaulernis dentella* (Zeller, 1839) and *Epermenia* (*Cataplectica*) *profugella* (Stainton, 1856). A total of eight additions and other corrections are provided for the regional distribution of the Romanian fauna. We recommend that the information about the Epermeniidae in the latest Romanian checklist (Rákosy & Goia 2021) is replaced by that in this publication.

Key words: Romania, Epermeniidae, faunistic overview, annotated checklist, first records, deleted species.

Introduction

Worldwide the Epermenoidea are a relatively well known group of Lepidoptera, traditionally with a varying phylogenetic position within the Ditrysia. In a recent study which combined systematized morphology with molecular data, the Alucitoidea, Carposinoidea and Epermenioidea are grouped together and form a monophylum, and the data suggest a sister group relationship between this group of superfamilies and the Gelechioidea (Heikkilä *et al.* 2015). Epermeniidae are small moths, with narrow, fringed wings, and tufts of erect scales on the forewing.

In Romania the Epermeniidae are poorly known, there was no dedicated study for the family so fare. In the earlier Romanian literature sources the Epermeniidae species were treated in the Tineina (e.g. Mann 1866: 357–358; Caradja 1899: 211; 1901: 160–161) or Elachistidae (e.g. Czekelius 1901: 47; Rebel 1911: 419) among taxa which currently are part of the families Momphidae, Scythrididae, Batrachedridae, Douglasiidae, etc. Later they were treated already in Epermeniidae in faunistic studies (e.g. Popescu-Gorj & Drăghia 1968: 235; Kovács *et al.* 2002: 59), catalogues (e.g. Popescu-Gorj 1964: 32; Căpuşe & Kovács 1987: 63) and checklists (Popescu-Gorj 1984: 130; Rákosy *et al.* 2003: 100; Rákosy & Goia 2021: 65–66). They were only occasionally mentioned in a few regional faunistic studies (e.g. Mann 1866; Rebel 1911; Diószeghy 1935; Popescu-Gorj & Nemeş 1965: 157; Kovács *et al.* 2002: 59) and catalogues of collections (e.g. Popescu-Gorj 1964: 32). Their number in the earliest checklists reflects the degree of their knowledge: three in Caradja (1899: 211), four in Caradja (1901: 160), both of which refer to the regions Dobrogea, Muntenia, Moldova and Oltenia, and five in Czekelius (1918: 47) referring to Banat, Crişana and Transylvania. In the checklists of the modern Romania 14 Epermeniidae species were mentioned in Popescu-Gorj (1984: 130) and 12 in both Rákosy *et al.* (2003: 100) and Rákosy & Goia (2021: 65–66).

Abbreviations used:
Depr. – Depression;
HNHM–Hungarian Natural History Museum, Budapest, Hungary;
Mts – Mountains;
ZMUC – Zoological Museum, Natural History Museum of Denmark, Copenhagen, Denmark.

Materials and methods

To compile this overview we examined a material of more than 370 Romanian specimens. The overwhelming majority came from our own collection together with the materials in the collection of the HNHM and the L. Diószeghy collection deposited in the Székely National Museum of Sfântu Gheorghe. Additionally, a few specimens from the collection of V. Dincă were also studied. The genitalia of almost every species were examined. If the identification based on external characters alone was difficult, e.g. in specimens belonging to the species *Epermenia* (*Calotripis*) *chaerophyllella* (Goeze,

1783), *E.* (*C.*) *aequidentellus* (Hofmann, 1867) and *E.* (*C.*) *strictellus* (Wocke, 1867), we made as many genitalia preparations as necessary to identify all of the specimens. Identification was made by the authors primarily using the study on the genitalia of the European Epermeniidae of Gaedike (1966) and the addition of Scholz (1996). The material in the collection of the HNHM was identified by R. Gaedike. The data obtained were compared with the results of a critical re-evaluation of the literature. Only a few specimens belonging to four species were sequenced.

The systematic list follows the classification used by Gaedike (1979a; 1993) and Budashkin & Gaedike (2005). All available synonyms were included. Following each valid species name in brackets the genus name with which originally was combined is given.

An account was compiled of all listed taxa summarizing the current knowledge: the general distribution based on literature; the provision of the most important literature data for the Romanian distribution, in chronological order of their recording in the different regions of the country and also within the regions; and a concise list of the old and recent collecting sites based on the examined material. The regional division of the country follows Rákosy & Goia (2021: 6–7). Following the same source we also distinguish three categories of records: those records between 1850–1900 we refer as 'very old records', those between 1901–1980 as 'old records' and those records between 1981–2025 we refer as 'recent records'. Detailed data are given only in the case of the first Romanian or regional records, the omitted and misidentified species. Collecting methods and biology data are only exceptionally given. The occurrence of the species for which the literature data lack or they are doubtful and no voucher material has been examined is considered uncertain and in need of confirmation.

In the case of the first Romanian records figures of the adults and genitalia are provided. The genitalia figures are schematic sketches.

After the accounts of the species of the Epermeniidae currently accepted in the Romanian fauna, there follows a second list with one previously recorded, but currently deleted taxon, which is also mentioned in the main list by its genus, but details are only given in the second list.

Results

In the present study we deal with 17 Epermeniidae species placed in three genera. 16 of them are the currently accepted and one species excluded from the checklist. They are placed in three genera, 13 species were examined and four are derived from the literature. The following three species are first records for the Romanian fauna: *Phaulernis statariella* (Heyden, 1863), *Epermenia* (*Calotripis*) *falciformis* (Haworth, 1828) and *Epermenia* (*Epermenia*) *ochreomaculella ochreomaculella* (Millière, 1854). The species *Ochromolopis zagulajevi* Budashkin & Satchkov, 1991 was omitted from the latest Romanian checklist (Rákosy & Goia 2021: 66). The presence in the Romanian fauna of *Phaulernis dentella* (Zeller, 1839) and *Epermenia* (*Cataplectica*) *profugella* (Stainton, 1856) is uncertain and needs confirmation. *Ochromolopis staintonella* (Millière, 1869) was removed from the Romanian checklist by Rákosy *et al.* (2003: 361).

The material examined also provided data for three first records for the different regions of the country: in Transylvania *Epermenia* (*Calotripis*) *petrusellus* (Heylaerts, 1883) and in Muntenia *Phaulernis fulviguttella* (Zeller, 1839) and *Ochromolopis ictella* (Hübner, [1813]). Rákosy & Goia (2021) omitted regional records on five occasions: *Epermenia* (*Calotripis*) *chaerophyllella* (Goeze, 1783), *E.* (*C.*) *aequidentellus* (Hofmann, 1867) and *E.* (*C.*) *strictellus* (Wocke, 1867) in Crișana and the latter species also in Transylvania and Moldova, these are now included.

Finally, owing to the numerous additions, we propose the replacement of the Epermeniidae in the latest Romanian checklist (Rákosy & Goia 2021: 65–66, 224, 289) with the following lists.

The systematic and synonymic list of the Romanian Epermeniidae

Only the accepted taxa are listed and all available synonyms provided. The genus name with which the species was originally combined is given in brackets following each valid species name.

Epermenioidea Minet, 1983

Epermeniidae Spuler, 1910

Epermeniinae Spuler, 1910

Phaulernini Gaedicke, 1966

Phaulernis Meyrick, 1895
= *Aechmia* Staintin, 1854, nec. Treitschke, 1833

Phaulernis statariella (Heyden, 1863) (*Oecophora*)
= *Oecophora silerinella* Zeller, 1868, nec. Rebel, 1915
= *Oecophora laserpitiella* Pfaffenzeller, 1870
Phaulernis fulviguttella (Zeller, 1839) (*Oecophora*)
= *Oecophora flavimaculella* Stainton, 1849
= *Oecophora auromaculata* Frey, 1865
= *Phaulernis monticola* Moriuti, 1982
Phaulernis dentella (Zeller, 1839) (*Aechmia*)

Epermeniini Spuler, 1910

Epermenia Hübner, 1824 s. l.
= *Tichotripis* Hübner, 1825

= *Chauliodus* Tretschke, 1833
= *Lophonotus* Stephens, 1834
= *Chauliomorpha* Blanchard, 1840
= *Calotrypis* Herrich-Schäffer, 1854
= *Heydenia* Hofmann, 1868, nec. Förster, 1856
= *Epimenia* Kearfott, 1903 (misspelling)
= *Acanthedra* Meyrick, 1917
= *Epermeniola* Gaedike, 1968, subgenus

Calotripis Hübner, 1825, subgenus

Epermenia (*Calotripis*) *insecurella* (Stainton, 1849) (*Elachista*)
= *Chauliodus illigerellus* Stainton, 1848, nec Hübner, [1813]
= *Elachista dentosella* Stainton, 1851
= *Elachista dentosella* Herrich-Schäffer, 1854
Epermenia (*Calotripis*) *chaerophyllella* (Goeze, 1783) (*Phalaena*)
= *Phalaena bicristata* auct.
= *Tinea testaceella* Hübner, [1813]
= *Lophonotus fasciculellus* Stephens, 1834
= *Chauliodus nigrostriatellus* Heylaerts, 1883
= *Epermenia turatiella* Constantini, 1923
Epermenia (*Calotripis*) *aequidentellus* (Hofmann, 1867) (*Chauliodus*)
= *Chauliodus daucellus* Peyerimhoff, 1970
Epermenia (*Calotripis*) *strictellus* (Wocke, 1867) (*Chauliodus*)
= *Epermenia sublimicola* Meyrick, 1930
= *Epermenia anthracoptila* Meyrick, 1930
Epermenia (*Calotripis*) *petrusellus* (Heylaerts, 1883) (*Chauliodus*)
= *Epermenia kroneella* Rebel, 1903
= *Epermenia notodoxa* Gozmány, 1952
Epermenia (*Calotripis*) *falciformis* (Haworth, 1828) (*Recurvaria*)
Epermenia (*Calotripis*) *illigerella* (Hübner, [1813]) (*Tinea*)

Epermenia Hübner, 1824 s. str., subgenus

Epermenia (*Epermenia*) *pontificella* (Hübner, 1796) (*Tinea*)
Epermenia (*Epermenia*) *scurella* (Stainton, 1851) (*Elachista*)
Epermenia (*Epermenia*) *ochreomaculella ochreomaculella* (Millière, 1854) (*Chauliodus*)
= *Epermenia prohaskaella* Schawerda, 1921

Cataplectica Walsingham, 1894, subgenus

Epermenia (*Cataplectica*) *profugella* (Stainton, 1856) (*Asychna*)

Ochromolopinae Gaedike, 1966

Ochromolopis Hübner, [1825]

Ochromolopis ictella (Hübner, [1813]) (*Tinea*)
= *Ornix ictipennella* Treitschke, 1833
Ochromolopis zagulajevi Budashkin & Satchkov, 1991 (*Ochromolopis*)

Annotations

Epermenioidea Minet, 1983 is worldwide distributed, only comprises the family Epermeniidae (Budashkin & Gaedike 2005: 123). In a study of Heikkilä *et al.* (2015), which combined systematized morphology with molecular data, the Alucitoidea, Carposinoidea and Epermenioidea are grouped together and form a monophylum, and the data suggest a sister group relationship between this group and the Gelechioidea.

Epermeniidae Spuler, 1910 is a family comprising worldwide 14 genera and around 190 described species (Huemer *et al.* 2025: 237). The known larvae begin life as concealed feeders, but feed externally in later instars (Pohl *et al.* 2018: 116). Host-plants of larvae of most species are various Apiaceae, rarely also other families e.g. Araliaceae, Pittosporaceae, Santalaceae, Rosaceae (Gaedike 2008; Eiseman 2019: 113; Wang *et al.* 2021: 263). From the Palaearctic region three genera with 48 species are known (Gaedike 2022: 755), 29 from Europe (Huemer *et al.* 2025: 238) and 16 from Romania. It comprises two subfamilies: Epermeniinae Spuler, 1910 and Ochromolopinae Gaedike, 1966.

Epermeniinae Spuler, 1910 comprises two tribes: Phaulernini and Epermeniini.

Phaulernini Gaedike, 1966 comprises the genus *Phaulernis* Meyrick, 1895.

Phaulernis Meyrick, 1895 is distributed in the Palaearctic region (Gaedike 1979a: 272), and Africa, comprises nine species, seven from the Palaearctic region, five from Europe, and three from Romania.

Phaulernis statariella (Heyden, 1863) is distributed in the mountain areas of Europe (the Alps and in the south-east to Bosnia in the Balkan Peninsula) (Lepiforum; BOLD) and herewith is recorded also from the Carpathian Mountains.

First record for the Romanian fauna: Transylvania, Eastern Carpathians: Bicaz Gorge, 1200 m: 1 ♂, 13.VII.1981; 2 ♂, 2.VII.1982; 1 ♂, 19.VII.1985; 3 ♀, 4.VII.1987, prep. genit. 2922/♀/ Kovács; 1 ♂, Harghita Mts, Királykútja, 1000 m, 25.VII.2009 (without abdomen); 1 ♀, Hășmaș Mts, Ecem, 1550–1750 m, 14.VII.2011; Ciuc Mts, Muntele Păgânilor, 1150–1250 m: 1 ♂, 6.VII.2017; 18 ♂, 5 ♀, 13.VII.2018 (Fig. 1), prep. genit. 2883/♂/ (Fig. 2) and 2884/♀/ Kovács, DNA sample TLMF Lep 38717 (658[0n]) ♂ and TLMF Lep 38719 (658[0n]) ♀, S. & Z. Kovács leg. & coll.

Remarks. The adults were found on or beaten from

Fig. 1. *Phaleurnis statariella* (Heyden, 1863): adult, female, wingspan 8.5 mm, Ciuc Mts, Muntele Păgânilor, 1150 m, 13.VII.2018, S. & Z. Kovács leg. & coll.

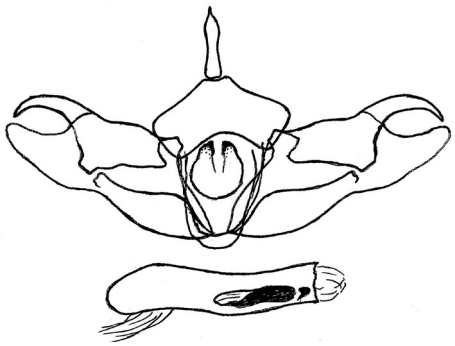

Fig. 2. *Phaleurnis statariella* (Heyden, 1863): male genitalia in ventral view, prep. genit. 2883, same data as Fig. 1.

the flowers of *Laserpitium latifolium* L., which may be its host-plant in Romania. The barcoded specimens resulted in 100% similarity with specimens from the Alps (South-Tyrol in Italy and Carinthia in Austria).

Phaulernis fulviguttella (Zeller, 1839) is distributed in the mountain areas and northern Europe, eastwards through the Caucasus to the Russian Far East and Japan (Gaedike 1979a: 272; 1979b: 93; Budashkin & Gaedike 2005: 126).

Romanian records are from Dobrogea: Tulcea (Mann 1866: 356 as *Oecophora*; Caradja 1899: 211, as *Heydenia*; 1901: 161); Moldova: Ceahlău Mts (Caradja 1901: 161). The recent record from Transylvania in Rákosy *et al.* (2003: 100) and Rákosy & Goia (2021: 65) refers to the so far unpublished material in the S. & Z. Kovács collection (see below).

We examined recently collected material from the Eastern Carpathians (Ceahlău Mts; Bicaz Gorge: 1 ♀, Cupaș valley, 11.VII.1983; 1 ♀, 1200 m, 7.VII.2016; 1 ♂, 6 ♀, Hășmaș Mts, Ecem,1550–1750 m, 14.VII.2011) and Southern Carpathians (Piatra Craiului Mts: 1 ♂, Piatra Craiului Mică, 1600 m, 31.VII.1981; 1 ♀, Brâna Caprelor, 1800 m, 23.VII.2015; Bucegi Mts, Jepii valley, 1800–2000 m: 1 ♂, 1.VIII.1999; 2 ♂, 11.VIII.2005), S. & Z. Kovács leg. & coll.

Remarks. The records from the Bucegi Mts represent the first regional record for Muntenia.

Phaulernis dentella (Zeller, 1839) is distributed in Europe, except most of the southern areas (Gaedike 1979a: 272).

In Romania it was recorded only from Transylvania: Șincai in the Transylvanian Basin (Rothschild 1912: 30).

Remarks. We consider the presence of the species in Romania uncertain and in need of confirmation because Gaedike (1979a: 272) specified that the species is not present in the Balkans, Hungary and Romania.

Epermeniini Spuler, 1910 comprises 11 genera, but only one in Europe.

Epermenia Hübner, 1824 s. l. is the genus which includes the most of the species of the family, is worldwide distributed, with the most of the species in the Palaearctic, Oriental and Ethiopian regions. It comprises 94 species in four subgenera: *Calotripis* Hübner, 1825, *Epermenia* Hübner, 1824 s. str., *Cataplectica* Walsingham, 1894 and *Epermeniola* Gaedike, 1968. All are represented in the Palaearctic region, but the latter is not present in Europe. A neighbour-joining tree of in the BOLD available *Epermenia* species was figured by Wang *et al.* (2021: 266 fig. 1), another comprising 15 European species was published by Huemer *et al.* (2025: 240). From the Palaearctic region 26 species are known, 21 from Europe (Huemer *et al.* 2025: 238–239) and 12 from Romania.

Calotripis Hübner, 1825 is a worldwide distributed subgenus.

Epermenia (*Calotripis*) *insecurella* (Stainton, 1849) is distributed in Europe except the southern- and northernmost parts, eastwards through parts of the Middle East to Mongolia, Kazakhstan, Turkmenistan and Tuva in Russia (Gaedike 1979a: 273; Budashkin & Gaedike 2005: 127; Heckford & Beavan 2019; 2020: 192).

Romanian records are from Dobrogea: Tulcea (Mann 1866: 358 as *Chauliodus*; Caradja 1899: 211; 1901: 160); Banat: Mehadia (Rebel 1917: 44 as *dentosella* H.S.); Transylvania: Viișoara (Kovács *et al.* 2002: 59), and according to Rákosy & Goia (2021: 66) there is an old record from Moldova and a recent from Dobrogea.

We examined recently collected material from Transylvania: Transylvanian Basin (Viișoara in Cluj County) and Apuseni Mts (Trascău Mts: Cheia), S. & Z. Kovács leg. & coll.

Remarks. This species was mentioned two times in the checklist of the Romanian Microlepidoptera by Popescu-Gorj (1984: 130), with this name and also as *Cataplectica dentosella* (Herrich-Schäffer, 1854), its synonym. *Epermenia plumbeella* Rebel, 1916 has been treated as a synonym of this species, but recently Schmid (2023) demonstrated with differences in the

external and genitalia morphology, DNA-barcode and biology that it is a valid species.

Epermenia (*Calotripis*) *chaerophyllella* (Goeze, 1783) is widespread in most of the Palaearctic region eastwards to eastern Siberia and Uzbekistan (Gaedike 1979a: 274; 1979b: 99; Budashkin & Gaedike 2005: 128).

In Romania it was recorded from Dobrogea: Tulcea (Mann 1866: 358 as *Chauliodus*; Caradja 1899: 211; 1901: 160); Moldova: Grumăzești (Caradja 1901: 160); Transylvania: Sibiu (Czekelius 1906: 86; 1907: 163; Gaedike 1975: 222), Cluj (Popescu-Gorj 1964: 32), Beclean (Gaedike 1966: 672; 1975: 222), Turzii Gorge (Rákosy 2002: 70); Crișana: Ineu (Gaedike 1966: 672; 1975: 222); and Oltenia: Ocnele Mari (Stănoiu 1990: 66; Stănoiu & Chimişliu 1993: 44).

We examined old material from Crișana: Ineu, L. Diószeghy leg. & coll. and coll. HNHM, and Transylvania (Beclean), J. Ujhelyi leg., coll. HNHM. Recently collected material was examined from Transylvania: Eastern Carpathians (Harghita Mts, Bicaz Gorge, Ciuc Depr.), Transylvanian Basin (Mihalț in Alba County, Toldal in Mureș County); and Dobrogea (Hagieni forest, Dumbrăveni), S. & Z. Kovács leg. & coll.

Remarks. The literature data from Crișana were omitted by Rákosy & Goia (2021: 66). The old material examined from Crișana (Ineu) was found among the unidentified material of the L. Diószeghy collection.

Epermenia (*Calotripis*) *aequidentellus* (Hofmann, 1867) is distributed in almost whole Europe, expanding eastwards to Siberia (Gaedike & Baldizzone 2008: 77).

Romanian records are from Transylvania: Sibiu (Czekelius 1918: 47), Cluj (Popescu-Gorj 1964: 32), Rimetea (Rákosy & Wieser 2010: 57); Moldova: Suceava (Popescu-Gorj & Nemeș 1965: 157); Crișana: Ineu (Gaedike 1966: 674; 1975: 222); and according to Rákosy & Goia (2021: 66) there is an old record also from Muntenia.

Rejected records: Sfântu Gheorghe (Kovács & Kovács 1994: 43 as *Ephermenia*), Viișoara (Kovács *et al.* 2002: 59). The vouchers of both sources are deposited in the S. & Z. Kovács collection, re-examined with the study of the genitalia they proved to be *E.* (*C.*) *strictellus* (details see below).

We examined old material from Crișana: Ineu, L. Diószeghy leg. & coll. and coll. HNHM, and recently collected material from Transylvania: Eastern Carpathians (Perșani Mts) and Apuseni Mts (Trascău Mts, Gilău Mts), S. & Z. Kovács leg. & coll.

Remarks. The literature data from Crișana was omitted by Rákosy & Goia (2021: 66). The materials mentioned in the literature must be re-examined, some of them may refer to *E.* (*C.*) *strictellus*. The material examined from Crișana (Ineu) was found among the unidentified material of the L. Diószeghy collection. One male specimen from the Apuseni Mts (Trascău Mts, Gilău Mts, 900 m, Scărița-Belioara, 10.VII.2024, S. &. Z. Kovács leg. & coll.) was successfully sequenced (DNA sample TLMF Lep 38728 (658[0n])).

Epermenia (*Calotripis*) *strictellus* (Wocke, 1867) is Holarctic in distribution (Budashkin & Gaedike 2005: 129).

Romanian records are from Crișana: Ineu (Gaedike 1966: 676; 1975: 222); Transylvania: Sucutard (Gaedike 1966: 676), Cluj (Gaedike 1975: 222); Moldova: Suceava (Gaedike 1975: 222); and Dobrogea: Periprava in Danube Delta (Popescu-Gorj & Drăghia 1968: 235), Cocoș Monastery, Greci and Horia in the Măcin Mts (Popescu-Gorj 1976: 161; Wieser *et al.* 2000: 35).

We examined old material from Crișana (Ineu), L. Diószeghy leg. & coll. and coll. HNHM, and recently collected material from Transylvania: Transylvanian Basin (Toldal and Glodeni in Mureș County, Viișoara in Cluj County: 1 ♀, 11.IX.1998; 1 ♀, 4.V.2000; 3 ♂, 30.IX.2000; 13 ♂, 4 ♀, 22.VIII.2002, prep. genit. 2897/♂/ Kovács, S. & Z. Kovács leg. & coll.), Eastern Carpathians (Baraolt Mts: Ariușd and Sfântu Gheorghe, 17.VII.1986, prep. genit. 2904/♀/ Kovács, S. & Z. Kovács leg. & coll., Bicaz Gorge, Harghita Mts, Ciuc Mts, Bodoc Mts, Trei Scaune Depr., Ciuc Depr.), Apuseni Mts (Trascău Mts), S. & Z. Kovács leg. & coll.

Remarks. The literature data from Crișana, Transylvania and Moldova were omitted by Rákosy & Goia (2021: 66). The material examined from Crișana (Ineu) was found among the unidentified material of the L. Diószeghy collection. The materials with detailed data from Sfântu Gheorghe and Viișoara were misidentified and published as *E.* (*C.*) *aequidentellus* (Kovács & Kovács 1994: 43; Kovács *et al.* 2002: 59). In the material examined this species proved to be the most common and widespread within the group of the three, this and the preceding two, externally very similar species.

Three specimens of the above mentioned examined material were recently successfully sequenced (1 ♂, Munții Apuseni, Munții Trascăului, Piatra Secuilor, Rimetea, 26.VIII.2022, prep. genit. 2901/♂/ Kovács, DNA sample TLMF Lep 38720 (658[0n]); 1 ♀, Carpații Orientali, Munții Ciucului, Racu, Cseretető, 750 m, 16.VII.2021, DNA sample TLMF Lep 38724 (658[0n]); 1 ♀, Carpații Orientali, Ciuc Depression, Șumuleu (Miercurea Ciuc), 700 m, 12.VIII.2022, prep. genit. 2909/♀/ Kovács, DNA sample TLMF Lep 38726 (658[0n]), all S. &. Z. Kovács leg. & coll.), but all clustered to *Epermenia* (*Calotripis*) *infracta* Braun, 1926. Therefore, we suspect first of all there might be identification problems, but putative problems in the taxonomy must also be taken

in consideration. As far as these will be clarified we treat the Romanian sequenced specimens as *E.* (*C.*) *strictellus*. *E.* (*C.*) *infracta* was described from Canada and its synonym, *E.* (*C.*) *strictelloides* Gaedike, 1977, from the USA, Oregon (Gaedike 1977: 305; 2008: 61–62; Pohl *et al.* 2016: 144; Pohl *et al.* 2018: 116; Eiseman 2019: 113). However, there are several DNA sequences under this name also from the Palaearctic region (BOLD). Among them is also a Romanian record from Transylvania: 1 ex., [Apuseni Mts], Turzii Gorge, 11.VIII.2012, Ch. Wieser leg., Landesmuseum Kärnten coll. (Wieser in BOLD as BIN: BOLD:AAH4267, PHLAJ034-13, Sample ID: KLM Lep 00794 (658 bp), License Holder: Peter Huemer, Landesmuseum Kärnten). This Romanian record was treated as uncertain, and the species was not included in the checklist by Rákosy & Goia (2021: 289). Following our sequencing results we realised that the data of *E.* (*C.*) *infracta* in BOLD cluster in 3 groups, all at low distance among them, one group is Nearctic, another Holarctic (including also the Romanian sequences) and the third is Palaearctic in distribution, this suggests that it might be a species complex in need of taxonomic revision.

Epermenia (*Calotripis*) *petrusellus* (Heylaerts, 1883) is only known from southern France and Central Europe (Gaedike 1979a: 275).

In Romania only a single record was known from Crișana: Ineu (Gaedike 1966: 667; 1975: 222; Petersen & Gaedike 1985: 33) based on old material collected by L. Diószeghy.

We examined old material from Crișana (Ineu), L. Diószeghy leg. & coll. and coll. HNHM, recently collected material from Transylvania, Eastern Carpathians: Perșani Mts, Vârghiș Gorge, 600–900 m: 1 ♂, 4–6.VII.1980; 1 ♂, 26.VI.2016; 1 ♀, Harghita Mts, Bicsad, 1–3.VII.1984; 1 ♀, Bicaz Gorge, 1100 m, 26–27.VII.1995; 1 ♀, Bârsei Depr., Prejmer forest, 9.VII.2013, prep. genit. 2888/♀/ Kovács; 1 ♀, Baraolt Mts., Ariușd, 600 m, 2.VI.2024, S. & Z. Kovács leg. & coll.

Remarks. It is the first regional record for Transylvania.

Epermenia (*Calotripis*) *falciformis* (Haworth, 1828) is distributed from Great Britain, Spain and Italy through Central and Northern Europe to the Russian Far East (Scholz 1996: 295; Budashkin & Gaedike 2005: 130; Gaedike 2022: 757).

First record for the Romanian fauna: Transylvania, Eastern Carpathians: 2 ♂, Perșani Mts, Vârghiș Gorge, 600–900 m, 6–7.VI.2014 (Fig. 3); 2 ♂, Giurgeu Depr., Voșlăbeni, Szenéte, 10.VII.2017, prep. genit. 2891/♂/ Kovács (Fig. 4); 1 ♂, Olt Valley, Bicsad, 600 m, 10.VI.2025; 1 ♀, Giurgeului Depr., Remetea, 715 m, 26.VII.2025, S. & Z. Kovács leg. & coll.

Remarks. The species has been misidentified and treated for a long period as the synonym of *E.* (*C.*) *illigerella* until its taxonomic status was clarified by Scholz (1996).

Epermenia (*Calotripis*) *illigerella* (Hübner, [1813]) is distributed in most of the European countries, expanding eastwards to Siberia and the Altai area (Gaedike 1979a: 274; 1979b: 102; Budashkin & Gaedike 2005: 130).

Romanian records are from Moldova: Grumăzești (Caradja 1901: 160), Dolhasca, Rotunda (Popescu-Gorj & Nemeș 1965: 157), Poiana Stampei (Pavel & Tomozii 2011: 29); Transylvania: Sibiu (Czekelius 1906: 86; 1907: 163), Șincai and Zimbor in the Transylvanian Basin (Rothschild 1912: 30); Retezat Mts (Diószeghy 1935: 125; Popescu-Gorj 1964: 32; Căpușe & Kovács 1987: 63), Cluj (Popescu-Gorj 1964: 32); Oltenia: Călimănești (Stănoiu 1990: 66; Stănoiu & Chimișliu 1993: 44); Muntenia: Poiana Șipa, Zoological Station and Poiana Stânii in the Bucegi Mts (Popescu-Gorj 1995: 177); and according to Rákosy & Goia (2021: 66) it is an old record also from Banat.

We examined old and recently collected material from Transylvania: Southern Carpathians (Retezat Mts), L. Diószeghy leg. & coll., Eastern Carpathians (Bicaz Gorge, Harghita Mts, Bodoc Mts), and Transylvanian Basin (Glodeni in Mureș County), S. & Z. Kovács leg. & coll.

Remarks. Its larva was mentioned from *Aegopodium* by Stănoiu & Chimișliu (1993: 44). The materials mentioned in old records must be re-examined, some of them may refer to *E.* (*C.*) *falciformis*, which has been treated for a long period as a synonym of this species.

Epermenia Hübner, 1824 s. str., a subgenus distributed only in the Palaearctic region (Gaedike 1979a: 285).

Epermenia (*Epermenia*) *pontificella* (Hübner, 1796) is distributed in almost the whole, except northern Europe and Turkey (Budashkin & Gaedike 2005: 131).

Romanian records are from Dobrogea: Tulcea (Mann 1866: 357 as *Chauliodus*; Caradja 1899: 211; 1901: 160); Transylvania, Transylvanian Basin: Buza, Șincai (Rothschild 1912: 30), Sucutard (Gaedike 1966: 659), Moldovenești, Bădeni, Dateș, Berghia (Vicol 1995: 366), Viișoara (Kovács *et al.* 2002: 59); and Moldova: Ponoare (Pavel & Tomozii 2011: 29).

We examined recently collected material from Transylvania: Eastern Carpathians (Bicaz Gorge, Harghita Mts, Gurghiu Mts, Perșani Mts, Ciuc Mts), Apuseni Mts (Gilău Mts, Metaliferi Mts) and Transylvanian Basin (Toldal, Glodeni and Lechința in Mureș County, Viișoara in Cluj County, Miluani in Alba County), S. & Z. Kovács leg. & coll.

Remarks. In the material examined this species proved to be the most common and widespread within

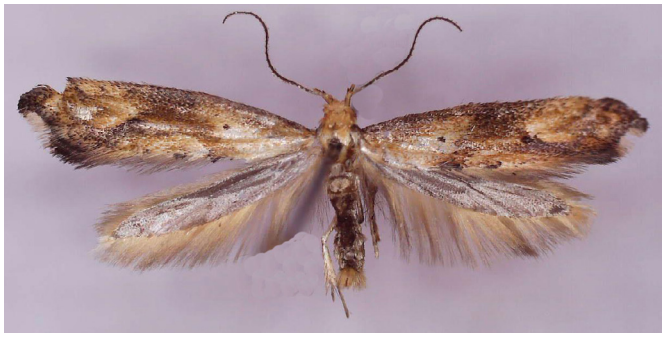

Fig. 3. *Epermenia* (*Calotripis*) *falciformis* (Haworth, 1828): adult, male, wingspan 12 mm, Perșani Mts, Vârghiș Gorge, 600–900 m, 6–7.VI.2014, S. & Z. Kovács leg. & coll.

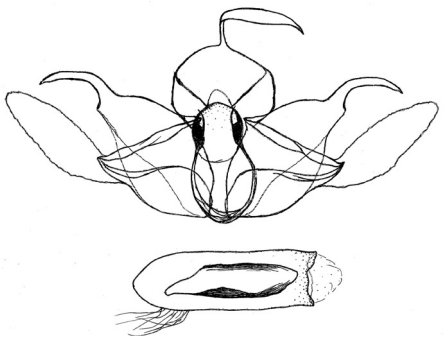

Fig. 4. *Epermenia* (*Calotripis*) *falciformis* (Haworth, 1828): male genitalia in ventral view, Giurgeu Depr., Voșlăbeni, Szenéte, 10.VII.2017, prep. genit. 2891, S. & Z. Kovács leg. & coll.

the family, at least in Transylvania.

A neighbour-joining tree published by Huemer *et al.* (2025: 240) reveals 3 European clusters to this species suggesting cryptic diversity. Romanian material was not yet sequenced.

Epermenia (*Epermenia*) *scurella* (Stainton, 1851) is distributed in the mountain ranges of Europe from Spain through the Alps and Carpathians to the Balkan Peninsula (Gaedike 1979a: 277; 2022: 757).

In Romania it was recorded from Banat: Băile Herculane (Abafi-Aigner *et al.* 1896: 74), Mehadia (Rebel 1911: 419); Maramureș: Rodnei Mts, Pietrosul Rodnei, Poiana Știol, 1550 m (Szabó 1988; Stănescu & Ruşti 1997: 96); and the recent records from Transylvania and Muntenia mentioned by Rákosy *et al.* (2003: 100) and Rákosy & Goia (2021: 66) refer to the so far unpublished material from the S. & Z. Kovács collection (see below).

We examined material from Transylvania: old from Sucutard, A. Schmidt leg., coll. HNHM, and recently collected from the Eastern Carpathians (Bicaz Gorge: 1 ♂, 11.VII.1983; Hășmaș Mts: 1 ♂, Hășmaș peak, 1600 m, 9.VII.1983; 1 ♀, Ecem, 1550–1750 m, 14.VII.2011) and Southern Carpathians (Bucegi Mts, Jepii valley, 1600–2100 m: 1 ♂, 10.VIII.1986; 5 ♂, 1 ♀, 1.VIII.1990; 1 ♂, 27.VI.2003; 4 ♂, 7.VII.2015; 2 ♂, 3 ♀, 8.VII.2015; 2 ♂, Bucegi Mts, Caraiman, 2100 m, 7.VII.2015; 2 ♂, Făgăraș Mts, Iezerul Caprei, 2000 m, 14.VII.2016), S. & Z. Kovács leg. & coll.

Remarks. It is a characteristic day-flying element of the exposed high-mountain habitats.

Epermenia (*Epermenia*) *ochreomaculella ochreomaculella* (Millière, 1854) is distributed throughout South Europe from the Iberian Peninsula through Bulgaria and Ukraine to the Caucasus and Southern Ural Mts (Budashkin & Gaedike 2005: 131; Gaedike & Baldizzone 2008: 78). *E. ochreomaculella asiatica* Gaedike, 1979 is distributed from the Near East (Lebanon) through Mongolia to the Amur area, the host-plants of the larvae of both subspecies are still unknown (Gaedike 1979a: 278; Budashkin & Gaedike 2005: 131).

First record for the Romanian fauna: Dobrogea, Cetatea Histria: 1 ♂, 25–26.VIII.1999; 1 ♂, 20.VII.2011; Dobrogea, Hagieni forest: 1 ♂, 26.VII.2006, prep. genit. 2637/♂/ Kovács; 1 ♂, 3.VI.2014; 1 ♂, Dobrogea, Dobrogei Gorge, 19.VIII.2009; 9 ♂, Dobrogea, Crucea, 25.IX.2010, prep. genit. 2886/♂/ Kovács; 1 ♂, Dobrogea, Cotu Văii, 25.VIII.2017 (Fig. 5); 1 ♂, Dobrogea, Ostrov (Piatra), Lunca Dunării, 28.VI.2020, S. & Z. Kovács leg. & coll.; Muntenia, Buzău County, Breaza: 1 ♂, 26.IV.2003; 2 ♂, 3.V.2005, V. Dincă leg. & coll.; 1 ♂, Muntenia, Stânca Tohani, 350–400 m: 1 ♂, 20.V.2022; 1 ♂, 9.VI.2023; 3 ♂, 13.IV.2024, prep. genit. 2882/♂/ Kovács (Fig. 6); 1 ♀, 6.IX.2024; 1 ♂, 1 ♀, 4.V.2025; 3 ♂, 1 ♀, 2.IX.2025, S. & Z. Kovács leg. & coll.

Remarks. All were attracted to artificial light in xerothermic habitats. In the material examined this species proved to be the most common and widespread within the family in the south-eastern part of the country (Dobrogea and Muntenia). Collecting data, spanning the whole warm period of the year, suggest the presence of more, probably overlapping generations.

Cataplectica Walsingham, 1894, a subgenus with Palaearctic distribution.

Epermenia (*Cataplectica*) *profugella* (Stainton, 1856) is distributed in scattered localities in North, Central and East Europe (Budashkin & Gaedike 2005: 133).

In Romanian it was recorded from Moldova: Văratec (Caradja 1902: 618) and Muntenia: Azuga (Caradja 1902: 618). According to the data of the catalogues (Rákosy *et al.* 2003: 100; Rákosy & Goia 2021: 66) there are recent data from Transylvania, and the latter also mentions very old data from Dobrogea.

Remarks. In lack of examined voucher material we consider that the presence of this species in Romania is uncertain and needs confirmation, and the data of the catalogues may be results of confusions with other species.

Fig. 5. *Epermenia* (*Epermenia*) *ochreomaculella* (Millière, 1854): adult, male, wingspan 9 mm, Dobrogea, Cotu Văii, 25.VIII.2017, S. & Z. Kovács leg. & coll.

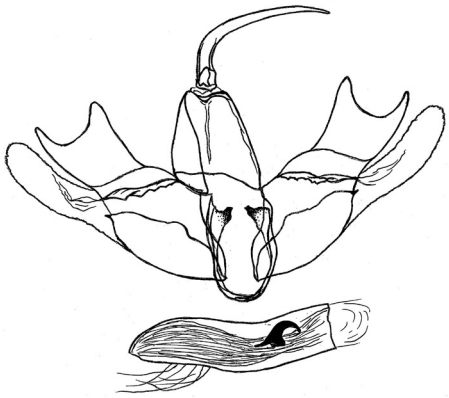

Fig. 6. *Epermenia* (*Epermenia*) *ochreomaculella* (Millière, 1854): male genitalia in ventral view, Subcarpații Curburii, Stânca Tohani, 350–400 m, 13.IV.2024, prep. genit. 2882, S. & Z. Kovács leg. & coll.

Ochromolopinae Gaedike, 1966 comprises two genera with 19 species.

Ochromolopis Hübner, 1825 currently comprises 14 species which are distributed in the Palaearctic, Nearctic, Afrotropical and Oriental regions (Gaedike & Mally 2014: 49). From the Palaearctic region four, from Europe three species are known. All three were also recorded from Romania, but *O. staintonella* (Millière, 1869) was later deleted from the checklist by Rákosy *et al.* (2003: 361) as unlikely (see below).

Ochromolopis ictella (Hübner, [1813]) is distributed in Central, South and East Europe, North Africa (Budashkin & Gaedike 2005: 133; Gaedike & Baldizzone 2008: 78).

In Romania it was recorded from Dobrogea: Tulcea (Mann 1866: 358; Caradja 1899: 211; 1901: 161) and Transylvania: Sibiu (Czekelius 1924: 256), Ciugudu de Jos (Vicol 1995: 366).

We examined recently collected material from Transylvania: Transylvanian Basin (Lechința in Mureș County), Eastern Carpathians (Harghita Mts, Giurgeului Depr., Ciuc Mts), Apuseni Mts (Trascău Mts: Cheia); and Muntenia: 2 ♂, Buzău County, Breaza, ca 350 m, 22–25.IV.2006, V. Dincă leg. & coll.

Remarks. It is the first regional record for Muntenia. The record from Dobrogea is uncertain, may also refer to *O. zagulajevi*.

Ochromolopis zagulajevi Budashkin & Satshkov, 1991 was described from Ukraine, Caucasus, Transcaucasus and Western Kazakhstan (Budashkin & Sachkov 1991: 78), also recorded from Russia, Moldova, Georgia and Armenia (Budashkin & Gaedike 2005: 134).

Later also recorded from Bulgaria and Romania: 2 ♂, Dobrogea, Danube Delta, Letea, 18-19.V.1993, L. Rákosy leg., ZMUC coll. (Gaedike & Mally 2014: 53 fig. 13, 54 fig. 29; Gaedike 2022: 759).

Remarks. The species was omitted by Rákosy & Goia (2021: 66). The spelling of the name of the second author of the species differs in the literature sources: Satshkov (Budashkin & Sachkov 1991: 78; Budashkin & Gaedike 2005: 134), Sachkov (e.g. Gaedike & Mally 2014: 49; Gaedike 2022: 759) or Satschkov (Budashkin & Sinev 2019: 119), we follow the first, which seems to be the correct being used by the authors to the description of the species (however, to the English abstract the spelling of the name of the second author is Sachkov). Gaedike & Mally (2014: 53 fig. 13, 54 fig. 29) presented only the figures of two details of the male genitalia from the Danube Delta, but this site or Romania was not mentioned in the text. The collecting data were published only later as the first record of the species for the Romanian fauna by Gaedike (2022: 759), but without referring to the figures of the previous study.

Taxa deleted from the Romanian checklist

Ochromolopis staintonella (Millière, 1869) is distributed in the European part of the Mediterranean and Switzerland (Gaedike & Baldizzone 2008: 78). It was included in the checklist of the Romanian Microlepidoptera by Popescu-Gorj (1984: 130), but in lack of evidence and considering its Mediterranean range, it was removed from the Romanian checklist by Rákosy *et al.* (2003: 361) as unlikely.

Conclusions

In Romania Epermeniidae seem to be widely distributed and well represented, but, evidently, they are under-recorded. Some of them are similar in their external appearance and most of them very similar in the genitalia, which might create difficulties in their identification. We suppose that the record of further three–four species can be expected in the future.

Owing to the numerous additions and the corrections we recommend that the information about the Epermeniidae in the latest Romanian checklist (Rákosy & Goia 2021: 65–66, 224, 289) is replaced by that in this publication.

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