

Two new species of the genus *Epermenia* Hübner, [1825] and some new distributional and taxonomic records (Lepidoptera: Epermeniidae)

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Abstract

Two new species are described and illustrated: *Epermenia (Calotripis) similella* Gaedike, sp. n. and *Epermenia (Cataplectica) lusitanica* Gaedike, sp. n. The lectotype of *Epermenia (Calotripis) strictellus* (Wocke, 1867) and *Epermenia (Cataplectica) iniquellus* (Wocke, 1867) is designated. The first records of thirteen species are established for different countries.

Keywords: Lepidoptera, Epermeniidae, new species, lectotype designation.

Dos nuevas especies del género *Epermenia* Hübner, [1825] y algunos registros nuevos de distribución y taxonómicos (Lepidoptera: Epermeniidae)

Resumen

Dos nuevas especies se describen e ilustran: *Epermenia (Calotripis) similella* Gaedike, sp. n. y *Epermenia (Cataplectica) lusitanica* Gaedike, sp. n. Se designa el lectotipo de *Epermenia (Calotripis) strictellus* (Wocke, 1867) y *Epermenia (Cataplectica) iniquellus* (Wocke, 1867). Se establecen los primeros registros de trece especies, para diferentes países.

Palabras clave: Lepidoptera, Epermeniidae, nuevas especies, designación del lectotipo.

Introduction

The kindness of several colleagues enabled me in recent years to study a lot of material from several Palaearctic regions. As result it is possible to describe two new species and to establish first records for several countries. Additionally, lectotypes are designated for two species, which were studied a long time ago during a visit to the ZIN. In the Palaearctic region three genera with 47 species of the family Epermeniidae are currently known.

Abbreviations used

coll. Larsen Knud Larsen, Dyssegaard, Denmark
coll. Mayr Anton Mayr, Feldkirch, Austria
coll. Tokar Zdeno Tokar, Sal'a, Slovakia

FMNH	Finnish Museum of Natural History, Helsinki, Finland
MFSN	Museo Friulano di Storia Naturale, Udine, Italy
SDEI	Senckenberg Deutsches Entomologisches Institut, Müncheberg, Germany
SMNK	Staatliches Museum für Naturkunde, Karlsruhe, Germany
ZIN	Zoological Institute, Russian Academy of Sciences, St. Petersburg, Russia
ZMHB	Museum für Naturkunde, Leibniz-Institut für Evolutions- und Biodiversitätsforschung, Berlin, Germany
ZMUC	Zoological Museum, Copenhagen, Denmark

Results

Epermenia (Calotropis) insecurella (Stainton, 1849)

Elachista insecurella Stainton, 1849. *Cat. Br. Tineidae & Pteroph.*, 24

Material examined: LEBANON, Batroun, 34°16'50,72"N, 35°47'23,99"E, Tel Ras Nhascl, 3 ♂♂, 1 ♀, 1-VI-2012, leg. J. Kullberg & T. Lievonen; FMNH; SDEI: **First record from Lebanon**. MONTENEGRO, Durmitor NP, 13 km SW Zabljak, Sedlo Pass, 1900 m, 43°05'50"N, 19°03'16"E, 1 ♂, 19-24.VII-2014, leg. C. Hviid & O. Karsholt; ZMUC: **First record from Montenegro**.

Epermenia (Calotropis) aequidentellus (Hofmann, 1867)

Chauliodus aequidentellus Hofmann, 1867. *Stett. ent. Ztg.*, 38, 206

DENMARK, Aarvik et al. (2021). **First record from Denmark**.

Material examined: ARMENIA, prov. Vayots Dzor, 10 km SE Areni Noravank, 1600 m, 39°41'07"N, 45°14'02"E, 1 ♂, 15-17-VII-2011, leg. O. Karsholt; ZMUC. **First record from Armenia**.

Epermenia (Calotropis) strictellus (Wocke, 1867)

Chauliodus strictellus Wocke, 1867. *Stett. ent. Ztg.*, 28, 209

In the collection Wocke (ZIN) is one female with locality label "Sponsberg, 12.10.1856" [near to Breslau]. This specimen with the genitalia preparation No. 10184 (Zagulajev), erroneously labelled as holotype, is here designated as the lectotype. One male, labelled as holotypus, is not a member of the type series, it was collected in Vienna.

Material examined: GREECE, Crete, W, Agia lake, 10 km SW Chania, 1 ♀, 30-VI-2000, leg. A. Madsen et al.; ZMUC. **First record from Crete**; 1 ♀, NEPAL, NW Pokhara Banthathi, 2350m, 30.vii.1996, leg. M. Fibiger; ZMUC: **First record from Nepal**.

Epermenia (Calotropis) similella Gaedike, sp. n. (Figures 1, 3-4)

Holotype 1 ♂, INDIA: Kaschmir, 10km N Srinagar, 20-VII-1982, leg. M. u. E. Arenberger; "Gen. präp. [Genitalia slide] R. Gaedike 3880; Holotypus ♂, *Epermenia similella* sp. n., det. R. Gaedike 2022; ex coll. Arenberger, ded. 2021 SDEI.

Paratype: INDIA: Himachal Pradesh, Distr. Soian, Kakra bei Sallaghat, 31°04'N, 77°05'E, 1400 m, 1 ♀, 17-XI-1992, leg. Hacker & Peks; Gen. präp. [Genitalia slide] R. Gaedike 10079; ZMHB.

Description (Figure 1): Wingspan 10 mm; head greyish-brown, tips of scales lighter, antenna and pecten with the same colouration, labial palpus on outside also greyish-brown, on inside nearly white; thorax and tegulae greyish brown, tips of tegulae lighter; forewing on dorsum with four tufts of raised dark brown scales, the largest at 1/3, the second at 1/2, the minute third and fourth at 2/3 and 3/4; the basal third of wing light brown, the area between the first and the fourth tuft to costa dark brown, the apical area lighter brown, costa from base to apex and termen edged dark brown; hindwing grey.

Male genitalia (Figure 3): Uncus narrow, apically pointed, tegumen basally and in the middle with

more sclerotized edges; valva nearly as long as uncus-tegumen, ampulla curved to cucullus, with pointed tip, border to valva strongly sclerotized, sacculus with needle-shaped tip below border; phallus as long as valva, cornutus about two thirds of the length of the phallus, parallel-sided, with rounded apex.

Female genitalia (Figure 4): Proximal edge of segment VIII in the middle with sickle-shaped invagination with more strongly sclerotized edge, ostium and the beginning of ductus bursae more strongly sclerotized, enlarged in the middle, covered with minute sclerotized thorns, signum narrow, with strongly sclerotized keel, basally broader, narrowed to apex.

Biology: Foodplant of larvae unknown.

Etymology: Named because of similarity to *Epermenia chaerophyllella* (Goeze, 1783).

Diagnosis: Superficially not clearly distinguishable from *E. chaerophyllella*, but clear differences in the genitalia structure are visible. Male with one cornutus, sacculus with needle-shaped tip, while *chaerophyllella* has two cornuti, sacculus with broad rounded tip. Female with sickle-shaped invagination of segment VIII and minute thorns in the middle of ductus bursae, while *chaerophyllella* with V-shaped invagination, with ring-shaped and strongly sclerotized ostium and the area with strongly sclerotized thorns in ductus prolonged to corpus bursae.

Epermenia (Calotripis) falciformis (Haworth, 1828)

Recurvaria falciformis Haworth, 1828. *Lep. Brit.*, 4, 555

Material examined: SPAIN, Aragón, Carretera a Moscardón, 1600 m, 1 ♂, 5-VII-2010, leg. et coll. Tokar: **First record from Spain.** ITALY, Toscana, Firenze, Marradi, Badia della valle, 430 m, 1 ♂, 6-IX-1999, leg. A. Usvelli; MFSN: **First record from Italy.**

Epermenia (Cataplectica) iniquellus (Wocke, 1867)

Chauliodus iniquellus Wocke, 1867. *Stett. ent. Ztg.*, 28, 209

In the collection Wocke (ZIN) are three specimens (2 ♂♂, 1 ♀ [hills near Breslau, on flowers of *Athamanta oreoselinum* Moench, Middle of June]), the male with the genitalia preparation No. 10185 (Zagulajev) was erroneously labelled as holotype, it is here designated as lectotype, one other male and one female are paralectotypes.

Epermenia (Cataplectica) lusitanica Gaedike sp. n. (Figures 2, 5-6)

Holotype ♂, "PORTUGAL, Ext. Ericeira, 30 m, 4-8-VII-1986, [leg.] O. Karsholt;" "Coll. ZMUC Copenhagen Denmark;" "Holotypus ♂, *Epermenia lusitanica* sp. n. det. R. Gaedike;" ZMUC. Paratypes: 1 ♂, with the same location dates;" "Gen.pröp. [Genitalia slide] R. Gaedike 3153;" "ex coll. ZMUC, ded. 1986 SDEI;" 1 ♀, with the same location dates; "Gen.pröp. [Genitalia slide] R. Gaedike 3154;" ZMUC.

Description (Figure 2): Wingspan 11mm; head cream-coloured, antenna and pecten dark grey, labial palpus on outside also dark grey, on inside and the apical segment cream-coloured; neck and thorax cream-coloured, tegulae basally dark grey; forewing at dorsum with three tufts of raised scales, the first and largest at 1/4, the two others before and behind 1/2; wing from base to the first tuft light cream-coloured, along the cell, above the tufts, a light brown band, a patch of same colour before apex separated from the band by minute black dot, the area behind and above the band and at the apex is dark grey, some cream-coloured smaller patches between the first two tufts and subapically at costa; hindwing light grey.

Male genitalia (Figure 5): Uncus straight, with pointed tip, proximal edge of tegumen more strongly sclerotized; valva as long as uncus-tegumen complex, ampulla curved to cucullus, border to valva only somewhat more strongly sclerotized, sacculus proximal with needle-shaped tip; phallus shorter than valva, slightly curved, cornutus more than a half of the length of phallus, lensed-shaped, with pointed tip.

Female genitalia (Figure 6): Proximal edge of segment VIII straight, more strongly sclerotized than the other part of segment, corpus bursae without signum.

Biology: Foodplant of larvae unknown.

Etymology: Named after the ancient name “Lusitania” for Portugal.

Diagnosis: Superficially very similar to *E. iniquellus*, and not surely distinguishable. Differences are seen in the genitalia structure. Male genitalia with straight uncus with pointed tip, cornutus lens-shaped, proximally pointed, while *iniquellus* with proximal rounded uncus, cornutus longer, narrow; female genitalia with more strongly sclerotized proximal edge of segment VIII, while *iniquellus* with lens-shaped, somewhat more strongly sclerotized area at proximal edge of segment VIII, the beginning of ductus bursae somewhat enlarged.

Epermenia (Cataplectica) wockeellus (Staudinger, 1880)

Chauliodus wockeellus Staudinger, 1880. *Horae Soc. ent. Ross.*, 25(1879/1880), 382

Material examined: IRAN, S-Iran, 15 km wnw Djahrom, 1150 m, 1 ♂, 27-III-1973, Tamarisken-Steppe, leg. H. G. Amsel; SMNK; S-Iran, Tangetchogan, 930 m, 30 km n Kazerun, 1 ♀, 23-III-1973, leg. H. G. Amsel; SMNK: **First records from Iran.** CYPRUS, N-Cyprus, Hisarköy, 250 m, 35°18'E, 33°06'E, 1 ♂, 22-29-III-2008, leg. B. Skule, ZMUC: **First record from Europe.**

Epermenia (Cataplectica) theimeri Gaedike, 2001

Epermenia theimeri Gaedike, 2001. *Ent. Zeitschrift*, 111(8), 230-231, 4 figs

Material examined: AUSTRIA, Vorarlberg, Bregenzerwald, Kanisfluh, Umg. GH Edelweiß, 1405 m, N 47°19'32", E 9°55'53", 1 ♂, 21-VII-2019, leg. and coll. T. Mayr: **First record beside types, first record from Austria.**

Epermenia (Epermenia) scurella (Stainton, 1851)

Elachista scurella Stainton, 1851. *Suppl. Cat. Br. Tineidae & Pteroph.*, 25

Material examined: MONTENEGRO, Durmitor NP, 13 km SW Zabljak, Sedlo Pass, 1900m, 43°05'50"N, 19°03'16"E, 1 ♂, 19-24-VII-2014, leg. C. Hviid & O. Karsholt; ZMUC: **First record from Montenegro.**

Epermenia (Epermenia) ochreomaculellus asiatica Gaedike, 1979

Epermenia ochreomaculella asiatica Gaedike, 1979. *Beitr. Ent.*, 29(1), 278, figures 6-8, 10

Material examined: IRAN, Khorasan: Quchan, 1 ♂, 19-V-2010, leg. G. Petrányi & P. Hentschel; ZMUC. **First record from Iran.**

Epermenia (Epermeniola) thailandica Gaedike, 1987

Epermenia thailandica Gaedike, 1987. *Tinea, Suppl.*, 12, 155, figures 1-7

Material examined: NEPAL, NW Pokhara Banthati, 2350 m, 2 ♀♀, 30-VII-1996, leg. M. Fibiger; ZMU. **First record from Nepal.**

Epermenia (Epermeniola) pseudofuscomaculata Kuroko & Gaedike, 2006

Epermenia pseudofuscomaculata Kuroko & Gaedike, 2006. *Trans. lepid. Soc. Japan*, 57(1), 65, figures 28, 39, 50-S2

Material examined: NEPAL, Nepal, Godavari, 15 km SE Kathmandu, 1500 m, 1 ♂, 23-25-V-1996, 27°40'N, 85°25'E, Exp. A. Albrecht, O. Biström, K. Mikkola & A. Wikberg; FMNH: **First record from Nepal.**

Ochromolopis ictella (Hübner, 1796)

Tinea ictella Hübner, 1796. *Samm. eur. Schmett.*, pl. 53, fig. 361

Material examined: DENMARK, Lolland: Rodbyhaven, 1 specimen, early July 2010, leg. et coll.

Larsen [Karsholt, pers. comm.]. **First record from Denmark.** The specimen is surely introduced, it is not native.

Ole Karsholt informed me about the location: “Rødbyhavn is where the ferryboat from Puttgarden to Denmark enters. There is a very interesting biotope originating from a former, large railway area. However, *Thesium* is not growing there, and I believe that the specimen arrived with the strong, southern winds which we had early July.”

This seems to be a situation similar to that in the year 1967, when this species was discovered in Finland (Krogerus, 1969).

Ochromolopis zagulajevi Budashkin & Sachkov 1991

Ochromolopis zagulajevi Budashkin & Sachkov, 1991. *Zool. Zhurn.*, 70(10), 78, figures 1-2

Material examined: ROMANIA, Donaudelta, Letea, 2 ♂♂, 18-19-V-1993, leg. L. Rakosy; ZMUC. **First record from Romania.** BULGARIA, 5 km N Sandanski, 150-200 m, 2 ♂♂, 23-27-V-2010, leg. O. Karsholt, ZMUC. **First record from Bulgaria.**

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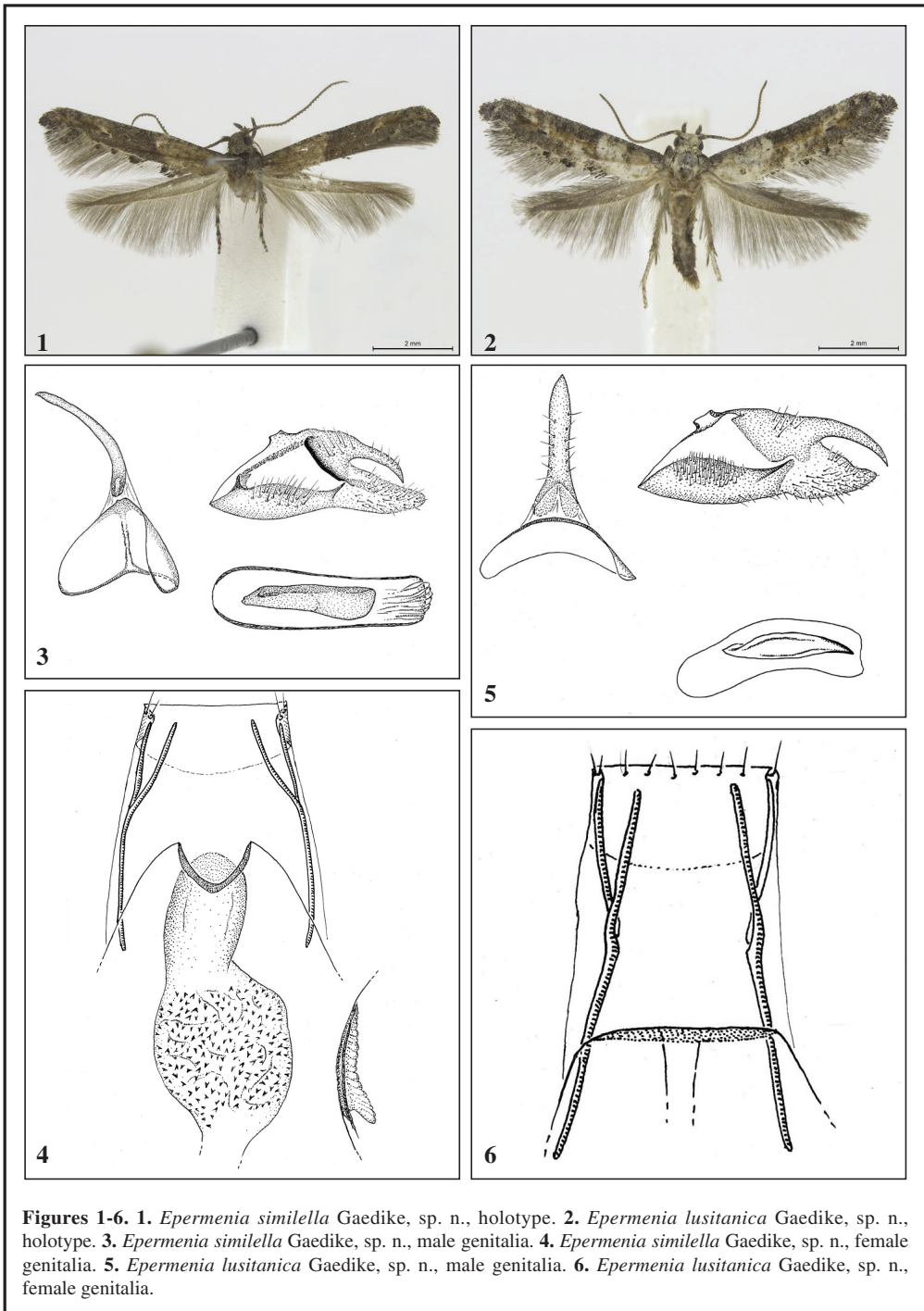
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Figures 1-6. 1. *Epermenia similella* Gaedike, sp. n., holotype. 2. *Epermenia lusitanica* Gaedike, sp. n., holotype. 3. *Epermenia similella* Gaedike, sp. n., male genitalia. 4. *Epermenia similella* Gaedike, sp. n., female genitalia. 5. *Epermenia lusitanica* Gaedike, sp. n., male genitalia. 6. *Epermenia lusitanica* Gaedike, sp. n., female genitalia.