

**RARE AND NEW FOR THE LITHUANIAN FAUNA LEPIDOPTERA SPECIES***IVINSKIS POVILAS<sup>1</sup>, JOLANTA RIMŠAITĖ<sup>1</sup>, ARŪNAS EISMANTAS<sup>2</sup>*<sup>1</sup>Nature Research Centre, Akademijos 2, LT-08412, Vilnius, Lithuania.E-mail: <sup>1</sup>entlab@gmail.com; <sup>2</sup>zeltiskiai@gmail.com**Introduction**

After examination of newly collected and preserved material in the collection of the Laboratory of Entomology (Nature Research Centre) 8 new and 45 rare for the Lithuanian fauna Lepidoptera species from 16 families were identified and are presented in this paper.

**Material and Methods**

The majority of data were collected during field investigations by the authors P. Ivinskis (P.I.), J. Rimšaitė (J.R.) and Arūnas Eismantas (A.E.), some data – by Nikolajs Savenkovs (N.S.), Sandra and Simas Minkevičiai (S.S.M.) and Romualdas Feitauskas. Breeding from larvae, netting, light and wine trapping were used to collect moths. Light trapping with performed with screen (160 W mixed light lamp) and automatic traps with 300 W solar type lamps. The material was identified according Bengtsson *et al.*, 2008, Bengtsson & Johansson, 2011, Slamka, 2010. Data on distribution and faunistics follows Aarvik *et al.*, 2017. Taxonomical treatment and distribution follows the Fauna Europaea database (Karsholt & Nieuwerkerken, 2013). The specimens are deposited in the collection of Nature Research Centre. Species new for the Lithuanian fauna are marked with an asterisk (\*).

## List of localities

Locality	Administrative district	Coordinates (LAT, LONG)
Baltoji Vokė	Šalčininkai district	54.46533, 25.13192
Daubėnai	Vilnius district	54.55792, 25.45391
Drobūkščiai	Šilalė district	55.52479, 22.03937
Dubičiai	Varėna district	54.01565, 24.76376
Dūkštų Ažuolynas f.	Vilnius district	54.84306, 24.97028
Girutiškis reserve	Švenčionys district	55.20904, 25.86554
Juodkrantė	Neringa mun.	55.52239, 21.11575
Kalniškės	Vilnius district	54.84681, 25.17739
Kapiniškiai	Varėna district	54.02330, 24.29562
Liubavas	Kalvarija mun.	54.36201, 23.01356
Merkinė	Varėna district	54.15753, 24.17701
Nagliai reserve, 29 km	Neringa mun.	55.44019, 21.07547
Nida	Neringa mun.	55.28706, 20.96334
Perloja	Varėna district	54.20778, 24.37556

Petrašiūnai	Pakruojis district	56.01283, 23.92652
Rūdninkai	Šalčininkai district	54.37007, 25.09597
Rūdninkų Giria f.	Šalčininkai district	54.39294, 25.22995
Smėlynė	Vilnius mun.	54.74997, 25.37807
Želtiškiei (1)	Anykščiai distr.	55.39833, 25.26391
Želtiškiei (2)	Anykščiai distr.	55.39900, 25.25907

### List of species

#### ERIOCRANIDAE

##### \**Eriocrania salopiella* (Stainton, 1854)

Želtiškiei (1), 14 04 2017, 1 spec. (Fig. 1), photographed by (A.E.), proof by (N.S.).

#### NEPTICULIDAE

##### \**Trifurcula immundella* (Zeller, 1839)

Nagliai reserve, 29 km., 27 06 2018 in suitable biotope with host plant *Cytisus scoparius*, common (P.I., J.R.) (Fig. 2). Identified by Ivars Šulcs, proof by (N.S.)

#### GRACILLARIIDAE

##### *Callisto insperatella* (Nickerl, 1864)

Kalniškės, 30 04 2018, 2 spec. (P.I., J.R.).

#### YPONOMEUTIDAE

##### \**Swammerdamia passerella* (Zetterstedt, 1839)

Girutiškis r., 14 07 2018, 5 spec., in bushes of *Betula nana* (P.I., J.R.) (Fig. 3).

#### PLUTELLIDAE

##### *Rhigognostis incarnatella* (Steudel, 1873)

Smėlynė, 18 06 2018, 2 spec. (P.I., J.R.).

#### TORTRICIDAE

##### *Eana penziana* (Thunberg, 1791)

Merkinė, 06 07 2018, 2 spec. (P.I., J.R.).

##### *Cochylimorpha hilarana* (Herich-Schäffer, 1851)

Liubavas, 21 07 2018, 1 spec. (P.I., J.R.).

##### *Cochylimorpha straminea* (Haworth, 1811)

Liubavas, 21 07 2018 1 spec. (P.I., J.R.).

##### \**Apotomis lineana* (Denis & Schiffermüller, 1775)

Petrašiūnai, 19 06 2018, 1 spec. (P.I., J.R.). Identification was confirmed by (N.S.) (Fig. 4).

##### *Eucosma conterminana* (Guenée, 1845)

Petrašiūnai, 08 07 2018, 1 spec. (P.I., J.R.).

##### *Epiblema inulivora* (Meyrick, 1932)

Petrašiūnai, 03 06 2018, 1 spec. (P.I., J.R.).

#### OECOPHORIDAE

##### *Deuterogonia pudorina* (Wocke, 1857)

Smėlynė, 27–28 07 2018, 2 spec. (P.I., J.R.).

##### *Schiffermuelleria schaefferella* (Linnaeus, 1758)

Dūkštų Ažuolynas f., 03 06 2018, 1 spec. (P.I., J.R.).

#### GELECHIIDAE

##### *Dichomeris ustalella* (Fabricius, 1794)

Daubėnai, 25 05 2018, 1 spec. (P.I., J.R.).

***Apoda bifractella* (Duponchel, 1843)**

Petrašiūnai, 19 06 2018, >10 spec. in the meadow with *Inula britannica* (P.I., J.R.).

***Filatima ukrainica* Piskunov, 1971**

Nagliai reserve, 29 km, 07–27 06 2018, >50 spec. in bushes of *Salix rosmarinifolia*. (P.I., J.R.). For the first time this species was found in 1970 by P. Ivinskis (Ivinskis & Piskunov, 1971).

***Cosmardia moritzella* (Treitshke, 1835)**

Kalniškės, 16 05 2018, 1 spec. (P.I., J.R.).

***Carpatolechia epomidella* (Tengström, 1869)**

Dubičiai, 21 07 2017, 8 spec. (P.I., J.R.).

COLEOPHORIDAE

***Coleophora polonicella* Zeller, 1865**

Nagliai reserve, 29 km, 27 06 2018, 1 case, imago 24 07 2018 (P.I., J.R.).

BLASTOBASIDAE

**\**Hypotopa segnella* (Zeller, 1873)**

Rūdninkai, 25 06 2016 1♂ (P.I., J.R.), det. (N.S.) (Fig. 5).

PTEROPHORIDAE

***Agdistis adactyla* (Hübner, 1819)**

Petrašiūnai, 08 07 2018, 1 spec. (P.I., J.R.).

***Porrittia galactodactyla* (Denis & Schiffermüller, 1875)**

Kalniškės, 07 09 2018, 1 spec. (P.I., J.R.).

NYMPHALIDAE

***Brenthis daphne* (Bergsträsser, 1780)**

Nida, 27 06 2018, 4 spec. (N.S.)

LYCAENIDAE

***Plebejus argyrognomon* (Bergsträsser, 1779)**

Nagliai reserve, 29 km, 08 06 2018, 4 spec. (P.I.).

PYRALIDAE

**\**Delplanqueia inscriptella* Leraut, 2001**

Rūdninkai, 06 05 2017, 1 spec. (P.I., J.R.) (Fig. 6).

***Nephoterix angustella* (Hubner, 1796)**

Kalniškės, 12 09 2018, 1 spec.; Perloja, 18 07 2018, 1 spec. (P.I., J.R.).

***Acrobasis obtusella* (Hübner, 1796)**

Liubavas, 21 07 2018, 1 spec. (P.I., J.R.).

**\**Phycitodes lacteella* (Rothschild, 1915)**

Želtiškieiai (2), 09 09 2018, 1 spec. (A.E.) (Fig. 7), photographed by A.E.).

***Sclerocona acutella* (Eversmann, 1842)**

Kapiniškiai, 30 05 2018, 1 spec. (P.I., J.R.).

***Heliothela wulfeniana* (Scopoli, 1763)**

Smėlynė, 16 07 2018, 2 spec. (P.I., J.R.).

**\**Agriphila biarmicus* (Tengström, 1865)**

Kapiniškiai, 07 27-08 01 2018, abundant (P.I., J.R.) (Fig. 8).

GEOMETRIDAE

***Cyclophora porata* (Linnaeus, 1767)**

Liubavas, 21 07 2018, 1 spec. (P.I., J.R.).

***Cyclophora linearia* (Hübner, 1799)**

Baltoji Vokė, 07 07 2018, 1 spec. (P.I., J.R.).

***Idaea ochrata* (Scopoli, 1763)**

Nagliai reserve, 29 km, 27 06 2018, 2 spec. (P.I., J.R.).

***Scopula decorata* (Denis & Schiffermüller, 1875)**

Rūdninkai, 25 05 2018, 1 spec. (P.I., J.R.).

***Epirrhoe tartuensis* Möls, 1965**

Dubičiai, 20 06 2018, 3 spec. (P.I., J.R.).

***Paraeulype berberata* (Denis & Schiffermüller, 1875)**

Smėlynė, 31 08 2018, 1 spec. (P.I., J.R.).

***Nothocasis sertata* (Hübner, 1817)**

Juodkrantė, 09 10 2018, 10 spec. (P.I., J.R.).

***Cabera leptographa* Wehrli, 1936**

Liubavas, 21 07 2018 1 spec. (P.I., J.R.).

## SPHINGIDAE

***Agrius convolvuli* (Linnaeus, 1758)**

Baltoji Vokė, 07 09 2018, 1 spec. (P.I., J.R.); Juodkrantė, 6–14 09 2018, bird ringing trap, 8 spec. (S.S.M.)

***Acherontia atropos* (Linnaeus, 1758)**

Drobūkščiai, 12 08 2018, two larvae in potatoes field (leg. Romualdas Feitauskas).

## EREBIDAE

***Calyptria thalictri* (Borkhausen, 1790)**

Perloja, 18 07 2018, 10 spec.; Smėlynė, 28 07 2018, 1 spec. (P.I., J.R.).

## NOCTUIDAE

***Helicoverpa armigera* (Hübner, 1808)**

Rūdninkų Giria f., 02 09 2018, 2 spec. (P.I., J.R.).

***Hydrillula palustris* (Hübner, 1808)**

Merkinė, 21 05 2018, 1 spec. (P.I., J.R.).

***Crypsedra gemmea* (Treitschke, 1825)**

Merkinė, 27 07 2018 2 spec. (P.I., J.R.).

***Xylomoia graminea* (Gaeser, 1889)**

Baltoji Vokė, 06 09 2018, 1 spec. (P.I., J.R.).

***Conistra rubiginosa* (Scopoli, 1763)**

Kalniškės, 10-12 10 2018, 3 spec. (P.I., J.R.).

***Aporophyla lueneburgensis* (Freyer, 1848)**

Baltoji Vokė, 07 09 2018, 2 spec. (P.I., J.R.).

***Hyssia cavernosa* (Eversmann, 1842)**

Merkinė, 29 07 2018, 1 spec. (P.I., J.R.).

***Sideridis kitti* (Schawerda, 1914)**

Merkinė, 06 07 2018, 2 spec. (P.I., J.R.).

***Hadena filigrana* (Esper, 1788)**

Merkinė, 23 05 2018, 1 spec. (P.I., J.R.).

***Xestia castanea* (Esper, 1798)**

Rūdninkai, 29 07 2018, 1 spec. (P.I., J.R.).

## NOLIDAE

***Nycteola asiatica* (Krulikovsky, 1904)**

Smėlynė, 31 08 2018, 1 spec. (P.I., J.R.).

**Discussion**

Seven species of Lepidoptera registered in Lithuania for the first time are presented in this report.

*Eriocrania salopiella* (Eriocranidae) is a widely distributed species in all Nordic and in all Baltic countries (Aarvik *et al.*, 2017) and has been reported from Poland, Russia, Netherlands, Great Britain, Ireland, France (Karsholt *et al.*, 2008). The main morphological feature of this species – forewing purplish, tornal spot triangular big. Species flight period – April–May. The larvae make blotch mine mainly on *Betula pubescens* (Bengtsson *et al.*, 2008).

*Trifurcula immundella* (Nepticulidae) is a species widely distributed almost in all Europe, in the North Europe found only in Sweden, Denmark (Karsholt *et al.*, 2008) and from Baltic countries is reported only from Lithuania. Larvae developing in stamps of *Cytisus scoparius* from October to May. Sometimes locally abundant in sandy habitats with the larval food plant (Bengtsson *et al.*, 2008).

*Swammerdamia passerella* (Yponomeutidae) is distributed in Nordic countries with exception Denmark, in Latvia (Aarvik *et al.*, 2017), Great Britain (Karsholt *et al.*, 2008). Flight period – June–early July. Larva feed on *Betula nana*, at first mining, later – feeding externally beneath a web. Occurs on moors with *Betula nana*, in lowland (Bengtsson *et al.*, 2008).

*Apotomis lineana* (Tortricidae) has been reported from almost all European countries with exception Norway and some South European countries (Karsholt *et al.*, 2008). Imagoes forewings are narrow compared to others *Apotomis* species. Larvae feed on various *Salix*.

*Hypotopa segnella* (Blastobasidae) is distributed in Finland, Russia, Poland, Czech, Slovakia, Germany, France and Austria (Karsholt *et al.*, 2008). Larval food object is unknown, but maybe they feed as other species of this family on plant detritus.

*Delplanqueia inscriptella* (Pylalidae). Forewing narrow with apex blunt crimson-brown to ash grey. Closely related to *D. dilutella*, which forewing has more variable coloration and genitalia are different. Distributed mainly in South Europe (Leraut, 2014), as well in Sweden, Denmark and Latvia (Aarvik *et al.*, 2017). Larvae host plant – *Thymus* sp.

*Phycitodes lacteella* (Pylalidae) is distributed in South and Central Europe, in Middle East, Central Asia, North Africa (Leraut, 2014). Known as migrant in Sweden, Denmark, Finland and Estonia (Aarvik *et al.*, 2017). Flight period – August–September. Host plant is unknown.

*Agriphila biarmicus* (Crambidae) – is distributed in Nordic and Baltic countries, Russia, registered from the mountains of Italy, Czech and Austria (Karsholt *et al.*, 2008). Flight time – June–July. Moths habitat is calcareous terrain, host plant of larvae is unknown.

Other Lepidoptera species mentioned in this report are quite rare. Curonian spit is the second locality in Lithuania for *Coleophora polonicella* (Coleophoridae), until now this species was known only from Trakai environs, reported by Prüffer in 1947.

*Nephoterix angustella* (Pylalidae), *Agrius convolvuli*, *Acherontia atropos* (Sphigidae) were registered in Lithuania as migrants.



Fig. 1. *Eriocrania salopiella* (Stainton, 1854), photo A. Eismantas



Fig. 2. *Trifurcula immundella* (Zeller, 1839)



Fig. 3. *Swammerdamia passerella* (Zetterstedt, 1839)



Fig. 4. *Apotomis lineana* (Denis & Schiffermüller, 1775)

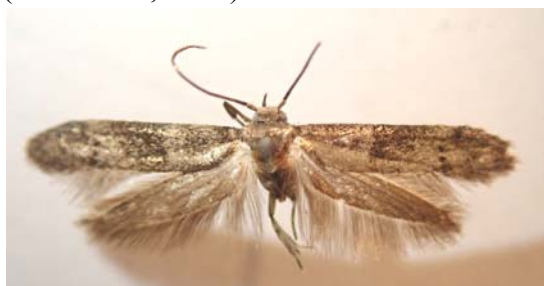


Fig. 5. *Hypotopa segnella* (Zeller, 1873)



Fig. 6. *Delplanqueia inscriptella* Leraut, 2001



Fig. 7. *Phycitodes lacteella* (Rothschild, 1915), photo A. Eismantas



Fig. 8. *Agriphila biarmicus* (Tengström, 1865)



Fig. 9. *Nycteola asiatica* (Krulikovsky, 1904), photo R. Markevičiūtė

*Filatima ukrainica* (Gelechiidae) was rediscovered in Nagliai reserve in bushes of *Salix rosmarinifolia*. The species was described from Ukraine by Piskunov in 1971, later female was described from Curonian spit (Ivinskis & Piskunov 1981). Now this species is known from Sweden (Aarvik *et al.*, 2017), Hungary (Karsholt *et al.*, 2013). Host plant unknown, but imago in Lithuania was found in bushes of *S. rosmarinifolia*.

*Agdistis adactyla* (Pterophoridae) until now was known only from South Lithuania, *Brenthis daphne* (Nymphalidae) was known only from continental part of West Lithuania (Ivinskis, 2004).

*Porritia galactodactyla* (Pterophoridae). Normal flying period of this species is June–July (Buszko, 1979), it seems that we found a specimen from the second generation.

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## Retos ir naujos Lietuvos faunos drugių rūšys

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### Santrauka

Pateikiami duomenys apie 45 retas ir aštuonias naujas Lietuvos faunai drugių rūšis priklausančias 19 šeimų. Naujos Lietuvos faunai rūšys – *Eriocrania salopiella* (šeima Eriocraniidae), *Trifurcula immundella* (šeima Nepticulidae), *Swammerdamia passerella* (šeima Yponomeutidae), *Apotomis lineana* (šeima Tortricidae), *Hypotopa segnella* (šeima Blastobasidae), *Delplanqueia inscriptella*, *Phycitodes lacteella*, *Agriphila biarmicus* (šeima Pyralidae) kaip tikėtinos, buvo ieškomos jau daugelį metų. Rūšys *Nephopterix angustella*, *Agrius convolvuli*, *Acherontia atropos* yra migrantai. Kuršių Nerijoje pakartotinai rasta *Filatima ukrainica*. Po pirmojo šios rūšies radimo 1970 prie Nidos (Ivinskis & Piskunov, 1971), tik po kelių dešimtmečių intensyviai ieškant buvo rasta jų populiacija prie *Salix rosmarinifolia*, spėjama, rūšies mitybinio augalo. Po *F. ukrainica* aprašymo iš Ukrainos, papildomai rūšis rasta tik Lietuvoje, Švedijoje ir Vengrijoje. Pateikiami duomenys apie antrąją *Coleophora polonicella* radavietę Lietuvoje.

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