

**NEW RECORDS OF ELACHISTINAE (LEPIDOPTERA, ELACHISTIDAE) FROM LITHUANIA**VIRGINIJUS SRUOGA<sup>1</sup>, POVILAS IVINSKIS<sup>2</sup><sup>1</sup>Lithuanian University of Educational Sciences, Studentu 39, LT-08106 Vilnius, Lithuania.

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**Introduction**

The Elachistinae (Elachistidae) is a cosmopolitan moth subfamily with about 750 described species (Kaila, 2011; Kaila *et al.*, 2011). These moths are small, often cryptic, with a wingspan usually between 5 and 14 mm. The head is smooth-scaled with a weakly raised neck tuft and a short, basally-scaled proboscis. The forewing pattern consists either of a white fascia and spots on a dark background or fuscous marks on a light background; or the moths can be unicoloured (white, yellowish, or creamy). Elachistinae moths rest in a rather characteristic posture, with the antennae directed backwards along the costal margin of the forewing and the tornal area of the forewing produced above the dorsum. The larvae are obligate leaf miners, most species feed on monocotyledonous grasses and only some on dicotyledonous plants (Parenti & Varalda, 1994; Sruoga & Ivinskis, 2005).

Based on the long-term records and collection data, Lithuanian Elachistinae have been summarized recently (Sruoga & Ivinskis, 2005). However, following this period a series of additional papers reporting new distribution data of Lithuanian Elachistinae was published (Paulavičiūtė, 2006, 2008a, 2008b; Ostrauskas *et al.*, 2010a, 2010b). Moreover, it seems that the knowledge on elachistine species distribution is still insufficient. Therefore, our primary aim of this paper is to provide new distribution data on Elachistinae reported from 22 administrative districts in Lithuania.

**Material and Methods**

Adult moths were collected by attracting them to mercury-vapour light and swept from low vegetation in the evening before sunset. The specimens were collected by Povilas Ivinskis (P.I.), Virginijus Sruoga (V.S.), Ričardas Kazlauskas (R.K.) and Asta Navickaitė (A.N.). Genitalia for identification purposes were prepared following the methods described by Robinson (1976) and Sruoga & Ivinskis (2005).

The material is deposited at the Laboratory of Entomology, Institute of Ecology of Nature Research Centre (Vilnius, Lithuania) and the Department of Zoology, Lithuanian University of Educational Sciences (Vilnius, Lithuania).

## List of localities

Akmenė district	Peiliškiai	56°15'30,7"N, 22°37'31,6"E
	Rusteikiai (1)	56°18'35,9"N, 22°38'33"E

	Rusteikiai (2)	56°18'31,1"N, 22°39'53"E
Biržai district	Biržų Giria f.	56°27'35"N, 24°90'81"E
Ignalina district	Meironys	55°34'01"N, 26°07'76"E
Kaišiadorys district	Vaiguvos Miškas f.	54°46'46,2"N, 24°12'39,4"E
	Būdos Miškas f.	54°91'09"N, 24°33'14"E
	Gastilionių Miškas f.	54°52'54,2"N, 24°09'38,9"E
Kaunas district	Vilkija	54°10'11"N, 23°74'67"E
Kėdainiai district	Saviečiai (1)	55°09'04,2"N, 23°59'04,1"E
	Saviečiai (2)	55°09'02,9"N, 23°59'00,7"E
	Sičioniai	55°09'30,9"N, 23°54'52,8"E
Klaipėda district	Kalotė	55°78'72"N, 21°10'83"E
Neringa municipality	Nida env.	55°17'13,6"N, 20°58'44"E
Lazdijai district	Paterai	54°10'11"N, 23°74'67"E
Marijampolė district	Juodeliai	54°22'50,0"N, 23°06'40,2"E
Molėtai district	Šakimas	55°02'45,6"N, 25°27'29,2"E
Panevėžys district	Raguvos Miškas f.	55°58'75"N, 24°58'65"E
Rokiškis district	Vosyna Nature Reserve	55°47'20,8"N, 25°48'07,6"E
Šilalė district	Medvėgalis	55°37'40,7"N, 22°23'32,8"E
Šilutė district	Inkakliai	55°48'18"N, 21°57'5"E
Švenčionys district	Gelednė	54°58'18,9"N, 26°01'59,3"E
	Kiauneliškis lake env.	55°16'27"N, 25°52'1"E
	Obelų Ragas	55°17'16,5"N, 26°02'48,3"E
	Pašliaužiukas lake env.	55°01'48"N, 25°39'34"E
	Purvinas lake env.	55°01'47"N, 25°37'56"E
Trakai district	Čižiūnai	54°36'03,5"N, 24°33'10,1"E
	Aukštadvaris env.	54°36'41,9"N, 24°30'55,1"E
Ukmergė district	Dukstynos Miškas f.	55°16'46,1"N, 24°51'00,9"E
Varėna district	Marcinkonys	54°01'45,3"N, 24°24'24,7"E
Vilkaviškis district	Skardupiai	54°28'03,7"N, 22°48'48,4"E
	Bačkiškiai	55°16'46,1"N, 24°51'00,9"E
Vilnius district	Čižiškė	54°94'06"N, 25°61'62"E
	Kalniškės	54°50'49,3"N, 25°10'34,9"E
Zarasai district	Jasai	55°46'36,3"N, 25°52'27,1"E

## Results

### *Perittia farinella* (Thunberg, 1794)

Obelų Ragas, 28 05 2008, 1♂; Marcinkonys, 15 06 2003, 1♂ (P.I.).

Rare species in Lithuania, known mainly from the southeastern part of the country. Earlier it was known only from 11 localities in 7 administrative districts (Sruoga & Ivinskis, 2005). This is the first record of *P. farinella* in Švenčionys administrative district and a new known locality in Varėna administrative district.

### *Stephensia brunnichella* (Linnaeus, 1767)

Saviečiai (1), 04 08 2000, 1♂ (P.I.).

Very rare species in Lithuania, earlier was recorded only from the single locality (Sruoga & Diškus, 2001) in Kaišiadorys administrative district. This is the first record of

*S. brunnichella* in Kėdainiai administrative district.

***Elachista gleichenella* (Fabricius, 1781)**

Dukstynos Miškas f., 13 06 2000, 1♂; Marcinkonys, 15 06 2003, 1♂; Skardupiai, 30 05 2002, 1♀ (P.I.).

Rare species in Lithuania, previously was known only from 3 localities: Neringa municipality, Kaunas and Panevėžys administrative districts (Sruoga & Ivinskis, 2005). This is the first record of *E. gleichenella* in Ukmergė, Varėna and Vilkaviškis administrative districts.

***Elachista serricornis* Stainton, 1854**

Purvinas lake env., 10 06 2007, 1♂ (P.I.); Bačkiškiai, 17 07 2009, 1♂ (A.N.); Jasai, 02 06 2004, 2♀ (P.I.).

Rare species in Lithuania, known from eastern part of the country (Sruoga & Ivinskis, 2005) and from one locality in the west (Tauragė administrative district (Paulavičiūtė, 2008b)). These are the first records of the species for the Vilkaviškis and Zarasai administrative districts and only the second known locality in Švenčionys administrative district.

***Elachista eleochariella* Stainton, 1851**

Inkakliai, 21 07 2006, 1♀; Čižiškė, 24 07 2004, 1♂ (P.I.).

Rare species in Lithuania, previously was known only from 3 localities in the southern part of the country and from one locality in the west (Sruoga & Ivinskis, 2005). This is the first record of *E. eleochariella* in Šilutė and Vilnius administrative districts.

***Elachista utonella* Frey, 1856**

Paterai, 19 07 2003, 1♀ (P.I.).

The species was known from 17 administrative districts (Sruoga & Ivinskis, 2005; Paulavičiūtė, 2008a, b). This is the first record for Lazdijai administrative district.

***Elachista albidella* Nylander, 1848**

Gastilionų Miškas f., 22 07 2003, 1♂; Gelednė, 21 06 2001, 2♂; Pašliaužukas lake env., 26 06 2002, 1♂ (P.I.).

Rare species in Lithuania, previously was known only from 5 administrative districts (Sruoga & Ivinskis, 2005). This is the first record of *E. albidella* in Kaišiadorys and Švenčionys administrative districts.

***Elachista kilmunella* Stainton, 1849**

Kiauneliškis lake env., 28 05 2008, 1♀ (P.I.).

Very rare species in Lithuania, earlier was only known from two localities (Sruoga & Ivinskis, 2005; Paulavičiūtė, 2006). This is the first record for Švenčionys administrative district.

***Elachista luticomella* Zeller, 1839**

Šakimas, 25 06 2002, 1♀; Raguvos Miškas f., 07 07 2009, 1♂ (P.I.).

This species in Lithuania was only known from 6 administrative districts (Sruoga & Ivinskis, 2005). This is the first record of *E. luticomella* in Molėtai and Panevėžys administrative districts.

***Elachista albifrontella* (Hübner, 1817)**

Saviečiai (2), 29 06 2006, 1♀; Juodeliai, 06 06 2008, 2♂ (P.I.).

This species is not rare in Lithuania, but distributional data still is scanty. This is the first record of *E. albifrontella* in Kėdainiai and Marijampolė administrative districts.

***Elachista apicipunctella* Stainton, 1849**

Vilkija, 10 06 1992, 1♂ (R.K.); Aukštadvaris env., 05 06 2001, 1♀ (P.I.); Čižiūnai,

03 06 2008, 1♂ (V.S.).

Rare species in Lithuania, earlier was known only in 4 administrative districts (Sruoga & Ivinskis, 2005). It has now been found in Kaunas administrative district and in two new localities in Trakai administrative district.

***Elachista subnigrella* Douglas, 1853**

Medvėgalis, 28 06 2005, 1♂ (P.I.).

Rare species in Lithuania, earlier was known only in 5 administrative districts (Sruoga & Ivinskis, 2005; Paulavičiūtė, 2008a, b). This is the first record of *E. subnigrella* in Šilalė administrative district.

***Elachista pomerana* Frey, 1870**

Biržų Giria f., 06 08 2009, 2♂; Kalotė, 10 08 2009, 1♂; Kalniškės, 29 05 2009, 5♂ (P.I.).

Rare species in Lithuania, previously was known in 14 administrative districts (Sruoga & Ivinskis, 2005; Paulavičiūtė, 2006, 2008b). This is the first record of *E. pomerana* in Klaipėda and Vilnius administrative districts and a new known locality in Biržai administrative district.

***Elachista humilis* Zeller, 1850**

Peiliškiai, 23 05 2002, 2♂; Rusteikiai (1), 02 07 2002, 2♂; Sičioniai, 03 08 2000, 1♂ (P.I.).

Rare species in Lithuania, earlier was known from 16 administrative districts (Sruoga & Ivinskis, 2005; Paulavičiūtė, 2008b). This is the first record of *E. humilis* in Akmenė and Kėdainiai administrative districts.

***Elachista canapennella* (Hübner, 1813)**

Rusteikiai (1), 02 07 2002, 1♂; Peiliškiai, 23 05 2002, 4♂; Juodeliai, 29 07 2009, 3♂ (P.I.).

This species is not rare in Lithuania (Sruoga & Ivinskis, 2005), but distributional data still is insufficient. This is the first record of *E. canapennella* in Akmenė and Marijampolė administrative districts.

***Elachista maculicerusella* (Bruand, 1859)**

Rusteikiai (2), 22 05 2002, 3♂; 23 07 2008, 1♂, 1♀; Meironys, 08 06 2006, 1♀; Saviečiai (2), 14 07 2009, 1♂; Vaiguvoš Miškas f., 31 07 2003, 1♂ (P.I.).

This species is not rare in Lithuania, but this is the first record of *E. maculicerusella* in Akmenė, Ignalina, Kėdainiai and Kaišiadorys administrative districts.

***Elachista argentella* (Clerck, 1759)**

Rusteikiai (1), 22 05 2002, 2♂; Peiliškiai, 23 05 2002, 1♀ (P.I.).

This species is known from many places in Lithuania (Sruoga & Ivinskis, 2005), but our findings are new for Akmenė administrative district.

***Elachista pollinariella* Zeller, 1839**

Juodeliai, 06 06 2008, 1♂ (P.I.).

This species is not rare (Sruoga & Ivinskis, 2005), but distributional data still is insufficient. This is the first record of *E. pollinariella* in Marijampolė administrative district.

***Elachista pullicomella* Zeller, 1839**

Juodeliai, 06 06 2008, 1♀ (P.I.).

This species is not rare in Lithuania (Sruoga & Ivinskis, 2005), but still was known only in 12 administrative districts. This is the first record of *E. pullicomella* in Marijampolė administrative district.

***Elachista subalbidella* Schläger, 1847**

Vosyna Nature Reserve, 01 06 2004, 1♂; Kalniškės, 14 06 2008, 1♀ (P.I.).

Rare species in Lithuania, still was known only in 6 administrative districts (Sruoga & Ivinskis, 2005). This is the first record of *E. subalbidella* in Rokiškis and Vilnius administrative districts.

***Elachista freyerella* (Hübner, 1825)**

Būdos Miškas f., 08 07 1996, 1♂ (P.I.).

This species is not rare in Lithuania (Sruoga & Ivinskis, 2005), but still was known only in 13 administrative districts. This is the first record of *E. freyerella* in Kaišiadorys administrative district.

***Elachista exactella* (Herrich-Schäffer, 1855)**

Nida env., 22 05 2006, 16♂, 3♀ (P.I.).

Very rare and locally distributed species in Lithuania. Previously was known only from 3 localities in coastal region of the country. This new locality is the southernmost finding of *E. exactella* in Lithuania.

**Discussion**

In this paper we provide new distribution data for 22 species of Elachistinae collected from 35 localities in 22 administrative districts of Lithuania. The distribution data for many species of Lithuanian Elachistinae are still scanty. The main reasons for such a still insufficient knowledge of Lithuanian Elachistinae have a different origin: (1) they are small without peculiar coloration and therefore rarely attract the attention of collectors; (2) most of Elachistinae larvae feed on monocots (Hodges, 1998; Kaila & Sugisima, 2011) and require a specially adapted equipment for rearing (Parenti, 2000; Sruoga & Ivinskis, 2005), and (3) these moths are poorly attracted to the light. Although no additional species to the total number of 39 Elachistinae recorded in Lithuania (Sruoga & Ivinskis, 2005) are added, we predict that this figure is far too low and does not in fact represent the true diversity of this group in the country.

We believe that further comprehensive studies focused on the Lithuanian Elachistinae could result in many new faunistic records and at least 20 new species for the country.

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## **Nauji duomenys apie Elachistinae (Lepidoptera, Elachistidae) Lietuvoje**

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### **Santrauka**

Straipsnyje pateikti nauji duomenys apie 22 Elachistinae rūšių paplitimą Lietuvoje. Iš viso registruotos 35 naujos radvietės 22 Lietuvos rajonuose. Kiekvienai rūšiai nurodytos tikslios sugavimo vietos, datos, individų skaičius ir rinkėjas.

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