

**RARE LEPIDOPTERA SPECIES FOUND IN NORTHWEST LITHUANIA
IN 2021–2022**

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Introduction

This paper provides data on 52 rare Lepidoptera species found in Klaipėda, Kretinga and Plungė districts in 2021–2022. Two of them (*Carterocephalus palaemon* and *Papilio machaon*) are included into the List of animals, plants and fungi species protected in Lithuania (LR aplinkos ministro įsakymas..., 2020). Information on the locality, observation date and the number of specimens observed is provided for every species.

Material and Methods

The major part of the data was collected during 62 field trips in 2022. The main target of the research was the Heterocera group of Lepidoptera. 57 nights from early March to late October were spent while observing moths. The material was collected using 40 W LED UV and 160, 250, and 500 W blended mercury lamp bulbs, installed into screen-based or automatic light traps. In addition, various sugar baits and netting types were used to attract and catch species that do not react positively to light.

This research was carried out in various areas of the northwestern and western parts of Lithuania. More attention was paid to ruderal areas, sunny slopes, and river valleys, where valuable data was collected. Observations were carried out in 16 locations in the districts of Klaipėda, Kretinga and Plungė.

During this research, over 5500 specimens of Lepidoptera have been identified. The material was identified using various identification guides (Sterling & Parsons, 2012; Skou, 1986; Kazlauskas, 1984, 2008; Macek *et al.*, 2007, 2008, 2012, 2015). Collected specimens and photos are preserved in the private collection of the author.

List of localities

Locality	Administrative district	Coordinates (LAT, LONG)
Aisėnų Miškas f.	Klaipėda distr.	55.58969, 21.52774
Aukštkalvių Miškas f.	Kretinga distr.	55.93290, 21.38794
Didieji Mostaičiai, forest	Plungė distr.	55.77117, 21.64528
Klaipėda	Klaipėda mun.	55.69579, 21.19320
Malagiai, Veiviržas river valley	Klaipėda distr.	55.61996, 21.59883
Skomantai, Veiviržas river valley (1)	Klaipėda distr.	55.55436, 21.52610
Skomantai, Veiviržas river valley (2)	Klaipėda distr.	55.55151, 21.52492
Stirbiai (1)	Klaipėda distr.	55.65408, 21.55899

Stirbiai (2)	Klaipėda distr.	55.65735, 21.55585
Padumblės Miškas f.	Klaipėda distr.	55.61983, 21.51638
Perkūnai, forest	Klaipėda distr.	55.75421, 21.50868
Šateikių Giria f.	Plungės distr.	56.02466, 21.67758
Šilpelkės Miškas f.	Kretinga distr.	55.95131, 21.53949
Tyrų Pelkė	Klaipėda distr.	55.55893, 21.23015
Vėžaitinės Miškas f. (1)	Klaipėda distr.	55.74644, 21.53314
Vėžaitinės Miškas f. (2)	Klaipėda distr.	55.74653, 21.57632

List of species

NOLIDAE

***Bena bicolorana* (Fuessly, 1775)**

Aisėnų Miškas f., 17 08 2022, 1 spec.; Stirbiai (1), 18 06 2022, 1 spec.; Tyrų Pelkė, 19 08 2022, 1 spec.

DREPANIDAE

***Heterogenea asella* (Denis & Schiffermüller, 1775)**

Šateikių Giria f., 05 07 2022, 1 spec.

NOCTUIDAE

***Amphipyra berbera* (Rungs, 1949)**

Malagiai, Veiviržas river valley, 23 07 2022, 1 spec.; Skomantai, Veiviržas river valley (2), 13 08 2022, 1 spec.

***Amphipyra livida* (Denis & Schiffermüller, 1775)**

Malagiai, Veiviržas river valley, 05 08 2022, 1 spec.

***Antitype chi* (Linnaeus, 1758)**

Didieji Mostaičiai, forest, 26 08 2022, 1 spec.

***Apamea epomidion* (Haworth, 1809)**

Aisėnų Miškas f., 03 07 2022, 3 spec.; Malagiai, Veiviržas river valley, 23 06 2022, 8 spec.; 26 06 2022, 1 spec.

***Apamea lithoxylaea* (Denis & Schiffermüller, 1775)**

Stirbiai (2), 25 07 2022, 1 spec.

***Apamea remissa* (Hübner, 1809)**

Šilpelkės Miškas f., 06 06 2022, 1 spec.

***Autographa excelsa* (Kretschmar, 1862)**

Vėžaitinės Miškas f. (1), 03 08 2022, 1 spec.

***Callopietria juvenina* (Stoll, 1782)**

Didieji Mostaičiai, forest, 26 08 2022, 1 spec.; Malagiai, Veiviržas river valley, 05 08 2022, 1 spec.; Skomantai, Veiviržas river valley (2), 13 08 2022, 2 spec.

***Conisania luteago* (Denis & Schiffermüller, 1775)**

Stirbiai (1), 06 06 2022, 1 spec.

***Cryphia algae* (Fabricius, 1775)**

Stirbiai (1), 15 08 2022, 3 spec.

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

Aisėnų Miškas f., 17 08 2022, 5 spec.; Tyrų pelkė, 19 08 2022, 1 spec.

***Cucullia absinthii* (Linnaeus, 1761)**

Malagiai, Veiviržas river valley, 23 07 2022, 1 spec.

***Cucullia asteris* (Denis & Schiffermüller, 1775)**

Stirbiai (1), 16 08 2022, 1 spec.

***Euchalcia modestoides* (Poole, 1989)**

Šateikių Giria f., 05 07 2022, 1 spec.

***Hadena confusa* (Hufnagel, 1766)**

Stirbiai (1), 06 06 2022, 1 spec.

***Hecatera bicolorata* (Hufnagel, 1766)**

Stirbiai (1), 06 06 2022, 1 spec.

***Lamprotes c-aureum* (Knoch, 1781)**

Malagiai, Veiviržas river valley, 23 07 2022, 1 spec.

***Mythimna straminea* (Treitschke, 1825)**

Malagiai, Veiviržas river valley, 05 08 2022, 1 spec.

***Noctua comes* (Hübner, 1813) (Fig. 1)**

Stirbiai (1), 22 07 2022, 1 spec.

***Noctua interjecta* (Hübner, 1803)**

Malagiai, Veiviržas river valley, 23 07 2022, 5 spec.; 14 08 2022, 2 spec.; Stirbiai (2), 25 07 2022, >10 spec.

***Phlogophora meticulosa* (Linnaeus, 1758)**

Vėžaitinės Miškas f. (1), 01 07 2022, 1 spec.

***Tiliacea citrigo* (Linnaeus, 1758)**

Didieji Mostaičiai, forest, 26 08 2022, 1 spec.

***Xestia stigmatica* (Hübner, 1813)**

Malagiai, Veiviržas river valley, 05 08 2022, 1 spec.

***Xylena vetusta* (Hübner, 1813)**

Tyrų pelkė, 20 05 2022, 1 spec.

***Xylomoya graminea* (Graeser, 1889)**

Šilpelkės Miškas f., 06 06 2022, 1 spec.

GEOMETRIDAE

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

Aisėnų Miškas f., 09 09 2021, 1 spec.

***Cleorodes lichenaria* (Hufnagel, 1767)**

Malagiai, Veiviržas river valley, 23 07 2022, 1 spec.; 14 08 2022, 1 spec.; Stirbiai (2), 25 07 2022, 1 spec.

***Earophila badiata* (Denis & Schiffermüller, 1775)**

Aisėnų Miškas f., 21 04 2022, 1 spec.

***Isturgia arenacearia* (Denis & Schiffermüller, 1775)**

Malagiai, Veiviržas river valley, 05 08 2022, 1 spec.; Stirbiai (1), 19 08 2022, 1 spec.

***Larentia clavaria* (Haworth, 1809)**

Stirbiai (1), 27 08 2022, 2 spec.

***Martania taeniata* (Stephens, 1831)**

Malagiai, Veiviržas river valley, 23 07 2022, 1 spec.; Šateikių Giria f., 05 07 2022, 1 spec.

***Perizoma affinitata* (Stephens, 1831)**

Šilpelkės Miškas f., 06 06 2022, 1 spec.

***Selenia lunularia* (Hübner, 1788)**

Stirbiai (1), 06 08 2022, 1 spec., Vėžaitinės Miškas f. (1), 03 08 2022, 1 spec.

***Triphosa dubitata* (Linnaeus, 1758)**

Skomantai, Veiviržas river valley (2), 13 08 2022, 1 spec.; Stirbiai, 27 08 2022, 1 spec.

SPHINGIDAE

***Macroglossum stellatarum* (Linnaeus, 1758)**

Padumblės Miškas f., 14 08 2022, 1 spec.; Stirbiai (1), 18 09 2022, 1 spec.

CRAMBIDAE

***Anania funebris* (Ström, 1768)**

Malagai, Veiviržas river valley, 05 08 2022, 1 spec.

***Synaphe punctalis* (Fabricius, 1775)**

Malagai, Veiviržas river valley, 23 07 2022, 1 spec.

HESPERIIDAE

***Carterocephalus palaemon* (Pallas, 1771)**

Vėžaitinės Miškas f. (2), 07 06 2022, 1 spec.

EREBIDAE

***Catephia alchymista* (Denis & Schiffermüller, 1775) (Fig. 2)**

Stirbiai (2), 15 08 2022, 1 spec.

***Catocala electa* (Vieweg, 1790)**

Tyrų pelkė, 12 08 2022, 2 spec.

***Catocala promissa* (Denis & Schiffermüller, 1775)**

Aukštkalvių Miškas, f., 22 07 2022, 2 spec.; Malagai, Veiviržas river valley, 23 07 2022, 1 spec.; 05 08 2022, >5 spec.; Skomantai, Veiviržas river valley (2), 13 08 2022, >5 spec.; Stirbiai (2), 25 07 2022, 1 spec.; 15 08 2022, 1 spec.

***Catocala sponsa* (Linnaeus, 1767)**

Skomantai, Veiviržas river valley (2), 13 08 2022, 2 spec.

PAPILIONIDAE

***Papilio machaon* (Linnaeus, 1758)**

Klaipėda, 06 05 2022, 1 spec.

LASIOCAMPIDAE

***Eriogaster lanestris* (Linnaeus, 1758)**

Perkūnai, forest, 13 04 2022, 3 spec.

***Odonestis pruni* (Linnaeus, 1758)**

Stirbiai (2), 25 07 2022, 1 spec.

***Trichiura crataegi* (Linnaeus, 1758)**

Malagai, Veiviržas river valley, 24 08 2022, 1 spec.

TORTRICIDAE

***Acleris umbrana* (Hübner, 1799)**

Aisėnų Miškas f., 21 04 2022, 1 spec.; Šilpelkės Miškas f., 06 06 2022, 1 spec.

TINEIDAE

***Scardia boletella* (Fabricius, 1794)**

Vėžaitinės Miškas f. (2), 20 08 2022, 1 spec.

COSSIDAE

***Acossus terebra* (Denis & Schiffermüller, 1775)**

Stirbiai (1), 22 07 2022, 1 spec.



Fig. 1. *Noctua comes* (Hübner, 1813)



Fig. 2. *Catephia alchymista* (Denis & Schiffermüller, 1775)

Discussion

Two individuals of *Isturgia arenacearia* were registered at the research sites in Malagai and Stirbiai (Klaipėda district). Last data of this species was known from the southern regions of Lithuania – Alytus, Vilnius, Kaunas environs, Prienai and Varėna districts (Ūsaitis *et al.*, 2021). *I. arenacearia* is a local species living in various xerothermic habitats – dry meadows, slopes covered with bushes, scrubs, and other

similar places where larvae feed on various *Fabaceae* plants (Macek *et al.*, 2012). According to other sources, larvae feed primarily on *Medicago* (Wagner, 2022), which is a widely cultivated plant throughout the country as a cattle fodder crop. It can be assumed that the species expands its distribution range.

Noctua comes is increasingly found in Lithuania every year. Most localities are along the coastal zone and the southeastern part of the country, where several individuals have been found over the past years (Ivinskis, Rimšaitė, 2021; Ūsaitis *et al.*, 2021; Kaupys, 2019). According to some authors, *N. comes* is an ubiquitous species which occurs almost everywhere where herbs grow under extensive conditions (Wagner, 2022). The main reason for the uneven distribution of this species in Lithuania may be related to the temperature at the hibernation period of larvae, which probably successfully overwinters in the coastal zone. Individuals of *N. comes* observed in the southeastern regions of the country may be migrants. In July of 2022, one fresh specimen was attracted to the light trap in the Stirbiai (1) research site (Fig. 1).

Another interesting finding is *Catephia alchymista* (Fig. 2), which is described as a Mediterranean species distributed in Central and Southern Europe, North Africa, and Turkey where it lives in various habitats where *Quercus* grows – mixed forests, scrub steppes, forest steppes, glades, and clearings (Macek *et al.*, 2008). Until now, just few specimens were known from Lithuania. The first published finding fact was from Kaunas environs, where one specimen was caught in 1960 by A. Lešinskas (Kazlauskas, 1984). After over a half-century, this species was rediscovered in Kaunas municipality and Prienai district in 2021 (Ūsaitis *et al.*, 2021). In 2022, one specimen was attracted to light in a research site between mixed forest and seminatural meadow in Stirbiai.

Cyclophora linearia is a very rare oak wood species (Kazlauskas, 1984). *C. linearia* inhabits deciduous and mixed forests with *Fagus*, especially in cooler and shaded habitats like northern slopes and valleys (Macek *et al.*, 2012). It is interesting that the species in Lithuania was found in quite different, well heated and dry habitats – dunes, military ground territories, etc. (Ūsaitis *et al.*, 2020, Kaupys, 2019). In September of 2021, one specimen was observed in Aisėnų Miškas f. (Klaipėda distr.), where *Pinus sylvestris* and young *Quercus* are growing.

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Retos drugių rūšys aptiktos šiaurės vakarų Lietuvoje 2021–2022 metais

M. KAUPYS

Santrauka

Šiame straipsnyje pateikiami duomenys apie 52 retas drugių rūšis aptiktas Klaipėdos, Kretingos ir Plungės rajonuose 2021–2022 metais. Dvi iš jų (*Carterocephalus palaemon* ir *Papilio machaon*) įtrauktos į Lietuvos Respublikos saugomų gyvūnų, augalų ir grybų sąrašą. Prie kiekvienos rūšies pateiktos stebėjimo vietos koordinatės, stebėjimo data ir individų skaičius.

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