

PROTECTED SPECIES OF INSECTS FOUND IN VERKIAI REGIONAL PARK (SOUTHEASTERN LITHUANIA) IN 2007

DALIUS DAPKUS

Department of Zoology, Vilnius Pedagogical University, Studentų 39, LT-08106 Vilnius, Lithuania. E-mail: daldap@vpu.lt

Introduction

Verkiai Regional Park (with an area of 2673 ha) is located in the North of Vilnius city. The park was established in 1992 with the aim to protect and sustainably develop natural landscape and cultural heritage complexes. Natural and partly natural territories, mainly forest, occupy approximately 80% of the park. Verkiai forest is the largest forest in the regional park. The park has a system of long, deep ravines of the Žalieji Ežerai lakes and the valley of the unique two-way Riešė - Turniškė rivulet (State Service ..., 2007). Wet meadows are scattered along these rivers. Quite a big fen is located in the north-western part of the park. The south-eastern part of the park borders the river Neris. Such a great variety of habitats is suitable for populations of plants and animals. Anyway, the territory of the park is under the strong anthropogenic pressure as many new buildings appear on the border of it or in the park itself.

The faunistic studies of insects of the Verkiai environs were carried out before the regional park was established as a protected area. The studies of Coleoptera (Milender, 1982; Pileckis, Monsevičius, 1982; Milender *et al.*, 1984), Diptera (Pakalniškis, 1982, 1983, 1986, 1990, 1991), Hymenoptera (Jakimavičius, 1985, 1991; Stanionytė, 1984, 1986, 1988), Lepidoptera (Ivinskis, 1982, 1988, 1990; Ivinskis *et al.*, 1988, 1990), Odonata (Stanionytė, 1993) and Trichoptera (Cibaitė, 2003) were carried out. Some species as *Coenonympha tullia*, *Euphydryas aurinia*, *Papilio machaon*, *Osmoderma eremita*, *Synanthedon vespiformis*, *Nehalena speciosa* and *Anax parthenope*, included into the Lithuanian Red Data Book, were found in the environs of Verkiai and the data on these findings were published (Balevičius, 1992; Ivinskis & Augustauskas, 2004; Rašomavičius, 2007). The aim of this article is to present faunistic data on protected insect species found in the park in 2007.

Material and Methods

The material was collected by the author of this report during field expeditions from May till August, 2007. Insects were collected in different habitats using a standard entomological net. The main attention was paid to butterflies and moths (Lepidoptera) and dragonflies (Odonata). The material is preserved in the collection of Vilnius Pedagogical University. The geographical coordinates were measured using Garmin eTrex GPS receiver.

List of species**LEPIDOPTERA****LYCAENIDAE*****Lycaena dispar* (Haworth, 1802)**

Didieji Gulbinai, W bank of the Gulbinas lake (54°47'49"N, 25°17'48"E), 13 06 2007, 1 spec., 21 06 2007, 1 spec.; Kalinas (54°48'22"N, 25°16'36"E), 13 06 2007, 1 spec., 21 06 2007, 2 spec.; Krempliai, along the Turniškių Upelis rivulet (54°45'29"N, 25°19'33"E), 19 06 2007, 2 spec.; Staviškės, wet meadows along the Riešė rivulet (54°45'60"N, 25°20'50"E), 12 06 2007, 3 spec., 19 06 2007, 1 spec.; Turnišškės, meadows along the Turniškių Upelis rivulet (54°44'56"N, 25°18'23"E), 12 06 2007, 2 spec., 19 06 2007, 1 spec., (54°45'04"N, 25°19'03"E), 12 06 2007, 3 spec.; all in wet meadows.

***Plebeius (Aricia) eumedon* (Esper, 1780)**

Kalinas (54°48'03"N, 25°17'28"E), 13 06 2007, 3 spec., 21 06 2007, 3 spec., (54°48'18"N, 25°17'02"E), 21 06 2007, 2 spec., wet meadows.

NYMPHALIDAE***Melitaea diamina* (Lang, 1789)**

Kalinas (54°48'04"N, 25°17'28"E), 05 06 2007, 3 spec., 13 06 2007, 5 spec., (54°48'19"N, 25°17'07"E), 13 06 2007, 1 spec., wet meadows.

***Lopinga achine* (Scopoli, 1763)**

W bank of the Balsys lake (54°47'29"N, 25°18'35"E), 05 06 2007, 1 spec.; Turnišškės, small forests close to the Turniškių Upelis rivulet (N54°45'03"N, 25°18'55"E), 12 06 2007, 1 spec., 19 06 2007, 4 spec.; Krempliai (54°45'27"N, 25°19'32"E), 19 06 2007, 1 spec.; Verkių Miškas forest (54°46'12"N, 25°18'14"E), 19 06 2007, 1 spec., edges and glades of forests.

GEOMETRIDAE***Epirrhoe tartuensis* Möls, 1965**

Kalinas (54°48'04"N, 25°17'27"E), 13 06 2007, 2 spec., (54°48'22"N, 25°16'57"E), 13 06 2007, 3 spec., (54°48'10"N, 25°17'12"E), 21 06 2007, 4 spec., in fens.

ODONATA**LIBELLULIDAE*****Leucorrhinia pectoralis* (Charpentier, 1825)**

lake to the S of the Sausas lake (54°46'13"N, 25°18'33"E), 05 06 2007, ~30 spec., 19 06 2007, 2 spec.; NW bank of the Naujujų Verkių Ežeras lake (54°46'00"N, 25°18'39"E), 05 06 2007, ~15 spec.; S bank of the Sausas lake (54°46'16,17"N, 25°18'38"E), 05 06 2007, 5 spec.; SW bank of the Alsas lake (54°45'48"N, 25°18'24"E), 05 06 2007, 1 spec. All adults were flying close to the lakes.

GOMPHIDAE***Ophiogomphus cecilia* (Fourcroy, 1785)**

Jeruzalė (54°43'54"N, 25°17'29"E), 27 06 2007, 3 exuvia, bank of the river Neris; Krempliai, meadows along the Turniškių Upelis rivulet (54°45'04"N, 25°18'46"E), 18 07 2007, 1 spec.; Raudondvario Miškas forest (54°48'32,15"N, 25°17'50"E), 21 06 2007, 1 spec.; Staviškės (54°46'05"N, 25°20'45"E), 12 06 2007, 1 spec.,

(54°46'00"N, 25°20'50"E), 19 06 2007, 1 spec., close to the Riešė rivulet; Staviškės (54°45'50"N 25°21'15"E), 27 06 2007, 20 exuvia, bank of the river Neris; Verkiiai (54°44'45"N, 25°17'30"E), 27 06 2007, 34 exuvia, bank of the river Neris.

Discussion

Seven species of insects, included into the Lithuanian Red Data Book (Rašomavičius, 2007), were registered during the research. Four of them (*Lycaena dispar*, *Lopinga achine*, *Leucorrhinia pectoralis* and *Ophiogomphus cecilia*) are also protected in the European Union according to the Habitats Directive (Council Directive ..., 1992). *Melitaea diamina* is known in Lithuania since 1994 (Dapkus, 1995). It seems to be a spreading species in our country and it was known only from eastern and northern parts of Lithuania (Švitra, 2004). It is the first record of the species in the Vilnius district.

References

- Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora. 1992. *Official Journal L 206*: 7–50.
- Balevičius K. (ed.). 1992. *Red Data Book of Lithuania [Lietuvos raudonoji knyga]*. Vilnius.
- Cibaitė G. 2003. New caddis fly (Trichoptera) species recorded in Lithuania in 1991–2002. *New and Rare for Lithuania Insect Species* 15: 6–10.
- Dapkus D. 1995. 32 rare and 1 new for the Lithuanian fauna Lepidoptera species. In V. Jonaitis (ed.) *New and Rare for Lithuania Insect Species. Records and Descriptions of 1994–1995*. Vilnius, 161–164.
- Ivinskis P. 1982. 138 Lepidoptera species new to the Lithuanian SSR, found in 1968–1982. In V. Jonaitis (ed.) *New and Rare for Lithuania Insect Species. Records and Descriptions of 1982*. Vilnius, 28–47.
- Ivinskis P. 1988. 18 new and 4 rare to the Lithuanian SSR Lepidoptera species described in 1988. In V. Jonaitis (ed.) *New and Rare for Lithuania Insect Species. Records and Descriptions of 1988*. Vilnius, 26–32.
- Ivinskis P. 1990. 2 new and 34 rare for the Lithuanian fauna Lepidoptera species described in 1990. In V. Jonaitis (ed.) *New and Rare for Lithuania Insect Species. Records and Descriptions of 1990*. Vilnius, 29–34.
- Ivinskis P., Karalius S., Manikas A., Pacevičius V., Švitra G. 1988. 1 new and 76 rare to the Lithuanian SSR Lepidoptera species, found in 1954–1987. In V. Jonaitis (ed.) *New and Rare for Lithuania Insect Species. Records and Descriptions of 1988*. Vilnius, 9–25.
- Ivinskis P., Buiškis A., Karalius S., Manikas A., Ostrauskas H., Pacevičius V., Stepanauskas R., Štililis D. 1990. 143 rare for Lithuania Noctuidae (Lepidoptera) species. In V. Jonaitis (ed.) *New and Rare for Lithuania Insect Species. Records and Descriptions of 1990*. Vilnius, 35–61.
- Ivinskis P., Augustauskas J. 2004. *Butterflies of Lithuania [Lietuvos dieniniai drugiai]*. Kaunas: Lututė.
- Jakimavičius A. 1985. 25 new, 1 rare for the Lithuanian SSR and 1 rare for the USSR species of Braconidae, found in 1967–1984. In V. Jonaitis (ed.) *New and Rare for Lithuania Insect Species. Records and Descriptions of 1985*. Vilnius, 53–60.

- Jakimavičius A. 1991. 23 new for the Lithuanian fauna braconid (Hymenoptera, Braconidae) found in 1969–1990. In V. Jonaitis (ed.) *New and Rare for Lithuania Insect Species. Records and Descriptions of 1991*. Vilnius, 42–47.
- Milender G. V. 1982. 25 species of weevils new to the Lithuanian SSR, found in 1966–1979. In V. Jonaitis (ed.) *New and Rare for Lithuania Insect Species. Records and Descriptions of 1981*. Vilnius, 37–44.
- Milender G. V., Monsevičius Vidm., Soo V. 1984. 26 species of Coleoptera new to the Lithuanian SSR, found in 1974–1983. In V. Jonaitis (ed.) *New and Rare for Lithuania Insect Species. Records and Descriptions of 1984*. Vilnius, 23–30.
- Pakalniškis S. 1982. 14 new to the USSR and 28 new to the Lithuanian SSR Agromyzidae (Dipt.) species, found in 1980–1982. In V. Jonaitis (ed.) *New and Rare for Lithuania Insect Species. Records and Descriptions of 1982*. Vilnius, 67–78.
- Pakalniškis S. 1983. 18 new to the Lithuanian SSR species of mining Diptera, found in 1980–1982. In V. Jonaitis (ed.) *New and Rare for Lithuania Insect Species. Records and Descriptions of 1983*. Vilnius, 60–65.
- Pakalniškis S. 1986. 19 new to the USSR and 26 new to the Lithuanian SSR Agromyzidae (Dipt.) species, found in 1980–1986. In V. Jonaitis (ed.) *New and Rare for Lithuania Insect Species. Records and Descriptions of 1986*. Vilnius, 58–66.
- Pakalniškis S. 1990. 10 new to the USSR and 8 new to Lithuania Agromyzidae (Dipt.) species, found in 1986–1989. In V. Jonaitis (ed.) *New and Rare for Lithuania Insect Species. Records and Descriptions of 1990*. Vilnius, 85–89.
- Pakalniškis S. 1991. 63 new to Lithuania Diptera species found in 1974–1990. In V. Jonaitis (ed.) *New and Rare for Lithuania Insect Species. Records and Descriptions of 1991*. Vilnius, 59–67.
- Pileckis S., Monsevičius Vidm. 1982. 65 new and 3 very rare for the Lithuanian SSR Coleoptera species found in 1971–1980. In V. Jonaitis (ed.) *New and Rare for Lithuania Insect Species. Records and Descriptions of 1981*. Vilnius, 12–30.
- Rašomavičius V. (ed.). 2007. *Red Data Book of Lithuania [Lietuvos raudonoji knyga]*. Kaunas: Lututė.
- Stanionytė A. 1984. 18 species of hymenopterous chalcids new to the Lithuanian SSR, found in 1968–1983. In V. Jonaitis (ed.) *New and Rare for Lithuania Insect Species. Records and Descriptions of 1984*. Vilnius, 41–50.
- Stanionytė A. 1986. 14 species of hymenopterous chalcids new to the Lithuanian SSR, found in 1969–1985. In V. Jonaitis (ed.) *New and Rare for Lithuania Insect Species. Records and Descriptions of 1986*. Vilnius, 43–49.
- Stanionytė A. 1988. 5 new to the USSR and 17 new to the Lithuanian SSR species of chalcids (Hymenoptera, Pteromalidae), found in 1974–1986. In V. Jonaitis (ed.) *New and Rare for Lithuania Insect Species. Records and Descriptions of 1988*. Vilnius, 53–61.
- Stanionytė A. 1993. The check-list of dragonflies (Odonata) of Lithuania. In V. Jonaitis (ed.) *New and Rare for Lithuania Insect Species. Records and Descriptions of 1993*. Vilnius, 50–60.
- State Service for Protected Areas under the Ministry of Environment. 2007. Verkių Regional Park [Verkių regioninis parkas]. Available at www.vstt.lt. Accessed October 26, 2007.
- Švitra G. 2004. *Melitaea diamina* (Lang, 1789) (Lepidoptera, Nymphalidae) is spreading in Lithuania. *New and Rare for Lithuania Insect Species* 16: 37–41.

**Saugomų vabzdžių rūšių radavietės Verkių regioniniame parke (pietryčių Lietuva)
2007 metais**

D. DAPKUS

Santrauka

Straipsnyje pateikiami duomenys apie saugomas drugių ir žirgelių rūšis, užregistruotas tyrimų Verkių regioniniame parke metu. Tyrimai atlikti 2007 metais. Prie kiekvienos rūšies pateikiama radvietė, data, individų skaičius, buveinė.

Received: November 3, 2007