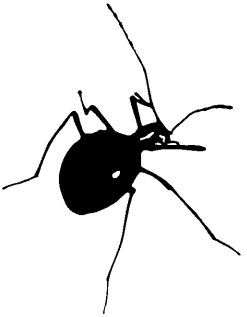

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CONTRIBUTION TO THE KNOWLEDGE OF CADDISFLIES (TRICHOPTERA) OF THE RESERVOIR LEDAVSKO JEZERO, NE SLOVENIA

Gorazd URBANIČ

University of Ljubljana, Biotechnical Faculty, Department of Biology, Večna Pot 111, SI-1001 Ljubljana, Slovenia, e-mail:gorazd.urbanic@uni-lj.si

Abstract – The list of 27 caddisfly species caught by light-trap at the reservoir Ledavsko jezero is given. The light trap has operated in three different seasons of the year (spring, summer and autumn) for four hours a day starting at sunset. Two species, *Triaenodes bicolor* and *Oecetis ochracea* are new to the caddisfly fauna of Slovenia, whereas species *Ironoquia dubia* and *Hydropsyche modesta* were caught before only in the larval stage. The species *Goera pilosa* is on the Red list of endangered Slovenian Trichoptera.

KEY WORDS: Trichoptera, fauna, Slovenia.

Izvleček – PRISPEVEK K POZNAVANJU MLADOLETNIC (TRICHOPTERA) LEDAVSKEGA JEZERA, SV SLOVENIJA

Sedemindvajset vrst mladoletnic je bilo ulovljenih na svetlobno past ob Ledavskem jezeru. Svetlobna past je bila vključena v treh različnih letnih časih (spomladi, poleti in v jeseni) po 4 ure na dan, s pričetkom ob sončnem zahodu. Vrsti *Triaenodes bicolor* in *Oecetis ochracea* sta novi v favni Slovenije, medtem ko sta *Ironoquia dubia* in *Hydropsyche modesta* bili pred tem najdeni le v stadiju ličinke. *Goera pilosa* je vrsta iz rdečega seznama ogroženih mladoletnic Slovenije.

KLJUČNE BESEDE: Trichoptera, favna, Slovenija.

Introduction

In the last two decades several studies of Slovenian caddisflies were published (Kos, 1983, 1985, Dmitrović et al., 1984; Malicky et al., 1986; Krušnik, 1984, 1987, 1990, 1991, 1992, 1996; Urbanič, 1999; Urbanič et al., 2000 a, b, c). During the last year a *Preliminary List of Slovenian Trichoptera* has been prepared (Krušnik & Urbanič, 2000). According to these data 218 species were mentioned for Slovenia, but for 212 species only the data were confirmed in last two decades. Despite the high number of mentioned species for Slovenia, data from stagnant waters are still scarce. Moreover, from the most eastern part of the Slovenia Prekmurje no data of caddisflies were published, neither from streams nor from stagnant waters.

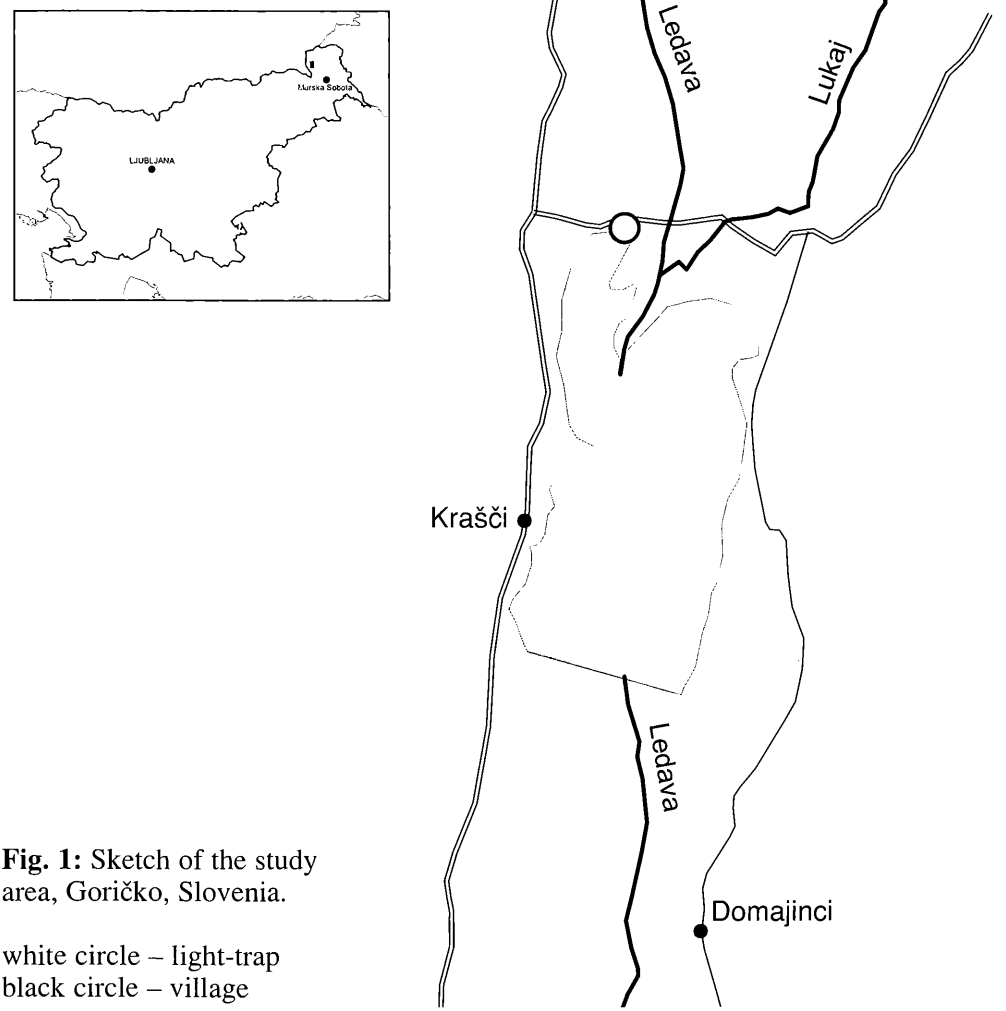

Fig. 1: Sketch of the study area, Goričko, Slovenia.

white circle – light-trap
black circle – village

Study area

Ledavsko jezero is a reservoir located on Goričko the most northeastern hilly region of the Slovenia (Fig. 1). This region is characteristic of high evapotranspiration (650-700 mm) and low precipitation (800-900 mm) (Kolbezen & Pristov, 1998). The river Ledava, the main tributary to the River Mura with a pluvio-nival water regime and mean water discharge at the village Polana 1.37 m^3/s, is the biggest river of the region. With the impoundation of this river upstream from the village Domajinci, the reservoir was constructed in the 1970s. The reservoir comprises a surface area of 146 ha, at the highest water 218 ha. The northern part of the reservoir shore has wooded riparian vegetation; trees of *Alnus glutinosa* and *Salix* spp. dominate, whereas herbal vegetation is present in the southern part.

Material and Methods

Adult caddisflies were collected using a light-trap in three different seasons of the year: spring (15. 5. 2000), summer (27. 7. 1999) and autumn (28. 9. 2000). The light trap with a 300 W ultra-violet lamp was placed at the northern part of the reservoir. The light was switched on at sunset and operated for four hours. The specimens were preserved in 70 % ethanol in the field, and identified in the laboratory using a SZH 10 stereomicroscope (Olympus, Japan) and the identification keys of various authors (Malicky, 1983; Pitsch, 1993; Nogradi, 1999). The nomenclature follows *Limnofauna Europaea* (Botosaneanu & Malicky, 1978).

Results and discussion

A total of 200 individuals belonging to 27 species, 19 genera and 9 families were recorded during light-trapping at the reservoir Ledavsko jezero (Tab. 1). *Hydroptila sparsa*, *Hydropsyche angustipennis* and *Hydropsyche contubernalis* were caught in spring and summer or in spring and autumn trappings, all other species were caught only once. Limnephilidae, the most diverse family of the investigated area, were represented with nine species, all caught in the autumn light-trapping. Amongst them an adult specimen of *Ironoquia dubia* was recorded for the first time in Slovenia, although larvae had been found before in the River Ščavnica (Urbanič et al., 2000 b, c). The second most diverse family Leptoceridae represented 7 species. Two species of this family *Oecetis ochracea* (Curtis, 1825) and *Triaenodes bicolor* (Curtis, 1834) are first records for the caddisfly fauna of Slovenia. Both were caught in the summer light-trapping. From the same family the findings of *Athripsodes albifrons* and *Oecetis lacustris* are also of special faunistical interest. The only published records of *Athripsodes albifrons* in Slovenia were published by Radovanović (1935)

Table 1: List of caddisfly species caught at the reservoir Ledavsko Jezero, NE Slovenia.

Date	5. 5. 2000		27. 7. 1999		28. 9. 2000		Total
	Number of specimens						
Taxa	♂	♀	♂	♀	♂	♀	
Hydroptilidae							
Ithytrichia lamellaris Eaton, 1873	10	3					13
Hydroptila sparsa Curtis, 1834		4				2	6
Hydropsychidae							
Hydropsyche angustipennis (Curtis, 1834)	1				10		11
Hydropsyche bulbifera McLachlan, 1878	1						1
Hydropsyche contubernalis McLachlan, 1865	2		5				7
**Hydropsyche modesta* Navas, 1925	2						2
Hydropsyche pellucidula (Curtis, 1834)			1				1
Hydropsyche spp. (♀♀)		42		29			71
Polycentropodidae							
Cyrnus trimaculatus (Curtis, 1834)			1	1			2
Psychomyiidae							
Psychomyia pusilla (Fabriciusl, 1781)	1	2					3
Ecnomidae							
Ecnomus tenellus (Rambur, 1842)	11	13					24
Limnephilidae							
**Ironoquia dubia* (Stephens, 1837)					1		1
Limnephilus affinis Curtis, 1834					8	12	20
Limnephilus griseus (Linneaus, 1758)					2		2
Limnephilus ignavus McLachlan, 1865					2	1	3
Grammotaulius nigropunctatus (Retzius, 1783)					1	2	3
Glyphotaelius pellucidus (Retzius, 1783)					1		1
Anabolia furcata Brauer, 1857					12		12
Potamophylax rotundipennis (Brauer, 1857)					5	3	8
Stenophylax permistus McLachlan, 1875						1	1
Goeridae							
Goera pilosa (Fabricius, 1775)	2						2
Leptoceridae							
Athripsodes albifrons (Linneaus, 1758)			1				1
Ceraclea dissimilis (Stephens, 1836)				1			1
** *Triaenodes bicolor* (Curtis, 1834)				1			1
Mystacides longicornis (Linneaus, 1758)				1			1
Mystacides nigra (Linneaus, 1758)	3	3					6
Oecetis lacustris (Pictet, 1834)		3					3
** *Oecetis ochracea* (Curtis, 1825)			1	1			2
Number of species	11		8		11		27

Legend: **– new record for the caddisfly fauna of Slovenia
*– first record of adult specimen in Slovenia

from Ljubljana under the synonym name *Leptocerus interjectus* McLachlan and from south Slovenia (Kos, 1985), whereas *Oecetis lacustris* was reported from the River Ščavnica Valley (Urbanič, 1999). Five species of the family Hydropsychidae with *Hydropsyche modesta*, in Slovenia known before only in the larval stage (Urbanič, 1999; Urbanič et al., 2000 b), represented the third most diverse family of the investigated area. All remaining families were represented with two (Hydroptilidae) and one species, respectively. Amongst those *Goera pilosa* is included in the Red List of Trichoptera in Slovenia as an »endangered species« (IUCN: E) (Krušnik, 1992).

According to rare published data on caddisfly fauna from Slovenian water bodies with stagnant water and northeastern Slovenia, other new records for the caddisfly fauna of Slovenia are expected. Nevertheless, according to previous knowledge of the Slovenian caddisfly fauna, new records are expected all over the country.

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