

ФЛОРА И ФАУНА БОЛОТА ЦЕЛАУ

Тезисы докладов международной научной
конференции



Калининград
1996

populi as the rare local species should especially stressed. All but the last species live in disappearing wetlands.

Disappearing of suitable habitats may cause the extinction of many rare species, also those which need for their development such specific areas as highmoor peatbogs.

CADDIS FLIES (TRICHOPTERA) OF THE ZEHLAU PEATBOG, RESULTS OF PRELIMINARY STUDIES

S. Czachorowski

*(Institute of Biology and Environment Protection,
Teachers Training College, Olsztyn)*

Caddis flies of highmoor peatbogs are relatively poorly known. One can learn about the occurrence of caddis larvae in peatbogs from only a few works (Krey, 1938; Kreuzer, 1940; Enderleinen, 1908; Czachorowski, 1995). Moreover, these data are often incomplete.

Considering the postlake origin of the Zehlau peatbog as well as its great area surrounded by primary forests, the Zehlau peatbog is a good study area on caddis flies living in peatbogs and area of investigations on changes of Trichoptera fauna in the course of lakes succession.

The aim of the study is a presentation of the preliminary results of investigations on caddis flies of the Zehlau peatbog (Pravdinskoje Boloto).

Study area

Larvae of caddis flies and adults specimens were collected during 4 sampling trips in September 1994 and June, July and September 1995. Larvae caught by a hydrobiological sampler came from tens of peatbogs pools and sporadically from streams and small forest pools and field pools surrounding the Zehlau peatbog. In the close vicinity of these water bodies, adults specimen were also collected by means of an entomological net. The present study comprises of majority of the collected material (more than 100 samples). 40 samples are still waiting for identification. Altogether, more than 800 larvae and 40 adults specimens have been identified up to now.

Results

In the reservoirs located on the study area 880 specimens of Trichoptera were caught. These specimens belonged to 15 species. Only five species were represented by adults. *Holocentropus dubius* was the dominant species which larvae are predacious (Table).

Polycentropodidae

The species *Holocentropus dubius* commonly occurred in all reservoir systems and nearly all investigated water bodies. Larvae occurred in all studied phenological periods whereas imagines only in the summer (June - July). The species *Cyrnus insolutus* is represented by only four adults. There is lack of larvae in the samples. However, taking into account their environmental preferences, one can hope finding them in peatbogs reservoirs. So, this species must be rare, or its larvae live in quite different than studied habitats (they may live in bottoms of water bodies).

Ecnomidae

Ecnomus tenellus - this species occurred relatively often, although the number of larvae was small. It seems that this species were more numerous, but because larvae may live in bottoms of reservoirs they probably were not caught.

Phryganeidae

Larvae of that family were found quite often. The most common species was *Agrypnia obsoleta*, less common *Phryganea bipunctata*, rare were *Phryganea grandis*, *Agrypnia pagetana* and *Oligotricha striata*. The last one was common in mid-forest reservoirs surrounding the Zehlau peatbog.

Hydroptilidae

Numerous larvae of the genus *Oxyethira* were caught during summer in the water bodies of the Inselblanken system. Identification of the nymphs suggested that it was *O. tristella*. A question arises whether the occurrence of *Oxyethira* larvae in the Inselblanken system is connected with the separate character of these water bodies or they were caught there simply by chance.

Limnephilidae

Larvae of *Limnephilus externus* were commonly found in reservoirs. This species occurred in all systems but nowhere in mass amount. Only in one reservoir larvae of *L. stigma* were found. Because adults specimens of 4 other species were also identified, it might be possible that during the spring time more species of that genus could be found there but in less quantity. On the other hand adults specimens may also fly there occasionally since species mentioned above were common in small mid-forest and mid-field reservoirs belonging to the buffer zone of the Zehlau peatbog.

Discussion

Four species: *Holocentropus dubius*, *Agrypnia obsoleta*, *Oligotricha striata* and *Limnephilus externus* may be classified as the typhobionts. Their strong association with acid waters and peatbog reservoirs confirmed data gathered from lakes and water bodies of Poland and other parts of Europe. As the lake species may be classified *Cyrnus insolutus*, *Ecnomus tenellus* and the genus *Phryganea*. The small water bodies taxa are represented weakly

The Trichoptera grouping in the studied peatbogs reservoirs were typical for the final stages of overgrowing lakes in their disharmonic succession.

Table

Species	Caddisflies collected in the Zehlau peatbog				
	1	2	3	4	5
<i>Holocentropus dubius</i> (Ramb.)	177*	106*	29*	44	206
<i>Cynus insolutus</i> McL.	3*	-	-	-	1**
<i>Ecnomus tenellus</i> (Ramb.)	14*	11	3	1	4
<i>Oxyethira tristella</i> Klap.	-	-	60*	-	-
<i>Oligotricha striata</i> L.	-	2	-	-	-
<i>Agrypnia obsoleta</i> (Hag.)	8*	13*	3	3**	9*
<i>Agrypnia pagetana</i> Curt.	-	-	-	-	3
<i>Phryganea bipunctata</i> Retz.	3	2	-	21	9
<i>Phryganea grandis</i> L.	4	1	-	-	1
<i>Phryganea</i> sp. juv.	15	31	2	-	35
<i>Limnephilus auricula</i> Curt.	-	-	-	-	1**
<i>Limnephilus externus</i> Hag.	16	19*	1	2	3
<i>Limnephilus flavicornis</i> (Fab.)	-	-	1**	-	-
<i>Limnephilus griseus</i> Curt.	-	-	-	-	1**
<i>Limnephilus lunatus</i>	-	1**	-	-	-
<i>Limnephilus stigma</i> Curt	-	-	-	-	5

Notes: 1 - 1 - Grosse Blanken, 2 - Grabenblanken, 3 - Inselblanken,
 4 - Birkenblanken, 5 - another water bodies, * - including imagines,
 ** - only imagines