

PRELIMINARY LIST OF DIATOM SPECIES IN THE GUTS OF CHIRONOMIDAE FOUND IN THE RESEARCH AREA „RITRODAT“ OF THE OBERER SEEBACH

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INTRODUCTION

Based on diatom frustules found in guts of some larval chironomid species inhabiting the bed sediments, the following list is compiled.

ORDNUNG PENNALES

Unterordnung ARAPHIDINAE

Familie FRAGILARIACEAE Hustedt 1930

Gattung *Diatoma* (BORY):

- D. hyemalis* (Roth) HEIBERG
- D. cf. mesoden* (Ehrenberg) KÜTZING
- D. vulgaris* BORY
- D. vulgaris* Morphotyp *linearis* mit kopfförmigen Enden
- D. vulgaris* Morphotyp *vulgaris*

Gattung *Fragilaria* (LYNGBYE):

- F. construens* ? (Ehrenberg) GRUNOW

Gattung *Meridion* (AGARDH):

- M. circulare* AGARDH

Unterordnung RAPHIDINEAE

Familie EUNOTIACEAE Kützing 1844

Gattung *Eunotia* (EHRENBERG):

- Eunotia* sp. ?

Familie ACHNANTHACEAE Kützing 1844

Gattung *Achnanthes* (BORY):

- A. lanceolata* (Brébisson) GRUNOW
- A. cf. lanceolata* var. *dubia* (Grunow) LANGE-BERTALOT
- A. minutissima* KÜTZING (diff. variationes)

Gattung *Cocconeis* (EHRENBERG):

- C. pediculus* EHRENBERG
- C. placentula* EHRENBERG

Familie NAVICULACEAE Kützing 1844

Gattung *Cymbella* (AGARDH):

- C. affinis* KÜTZING
- C. ehrenbergii* KÜTZING
- C. minuta* HILSE
- C. sinuata* GREGORY
- C. ventricosa* KÜTZING

Gattung *Gomphonema* (EHRENBERG):

- G. angustum* AGARDH
- G. cf. clevei* FRICKE

Gattung *Navicula* (BORY):

- Navicula* sp.

Gattung *Rhoicosphenia* (GRUNOW):

- R. abbreviata* (Agardh) LANGE-BERTALOT

Familie BACILLARIACEAE Ehrenberg 1840

Gattung *Nitzschia* (HASSALL):

- Nitzschia* sp. ?

The investigated larval chironomids (P for predatory, D for detritivorous, Roman numbers for larval state):

		Instar	Date of Sampling
<i>Eukiefferiella clypeata</i>	D	II	28.10.1993
<i>Nilotanytus dubius</i>	P	III	16.05.1992, 28.10.1993
<i>Orthocladus</i> sp.	D	I	28.10.1993
<i>Paratrithocladus skirwithensis</i>	D	II	28.10.1993
<i>Parorthocladus nudipennis</i>	D	III	28.10.1993
<i>Synorthocladus semivirens</i>	D	II, III	28.10.1993 (II), 28.10.1993 (III)
<i>Thienemanniella</i> sp.	D	II	28.10.1993
<i>Thienemanninia geijskesi</i>	P	II, III	16.12.1991, 16.05.1992

Although the number of analysed larval chironomids (19) is too small to draw general conclusions, some striking results were found:

- 1) Except of some individuals of the predatory species *Nilotanytus dubius*, in every larval species and individual *Achnanthes minutissima* was found.
- 2) In 9 of 12 cases (i.e. individuals) where *Achnanthes minutissima* was found, it turned out to be the most abundant diatom species eaten. This is in agreement with findings of (1) Hustedt (1922) and the research of (2) Kann (1978) who found *Achnanthes minutissima* to be (1) „häufig“ (frequent) respectively (2) „sehr häufig“ (very frequent) in the region of Kazim (2)/ Seebach (1).
- 3) In addition to that - four other genera turned out to be much more abundant in the guts than others: *Diatoma* (especially *D. vulgare*) and *Cymbella* (especially *C. minuta*), ranking on the first place after *Achnanthes minutissima*, followed by *Gomphonema* and *Cocconeis*, which were also found in higher abundances in the Seebach environment (Hustedt 1922, Kann 1978).

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* was used for Diatom identificaton

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