

## CHIRONOMUS NEWSLETTER ON CHIRONOMIDAE RESEARCH

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CEM - Centro de Estudos da Macaronésia  
ciências da vida e da terra

### XVI International Symposium on Chironomidae MADEIRA 2006

It is with great pleasure that the University of Madeira (UMa) and the Centro de Estudos da Macaronésia (CEM) invite you to the Island of Madeira for the XVI International Symposium on Chironomidae, to be held in 2006.

UMa and CEM have a growing international reputation for studies in island ecology as well as experience in organising international symposia and conferences on Madeira. The Chironomidae comprise, without doubt, the largest and most diverse dipteran group on Madeira, providing a wealth of study in several key areas, including biomonitoring and systematics. We hope that your contributions via the symposium will help to promote the value and fascinating areas of study involving this group.

Madeira, known as “the Floating Garden of the Atlantic”, is an autonomous region of Portugal, with a strong tradition of quality tourism. The largest remaining area of relict laurel forest or *laurisilva* in the world is found on Madeira. It is a UNESCO World Heritage site, protected by the Parque Natural da Madeira (PNM).

We hope that we will make your visit to Madeira in 2006 a memorable one.

Ruben Antunes Capela  
Dean of the University of Madeira

Professor Miguel Angelo Carvalho  
Director of CEM

## Professor Dr. hab. ZDISLAW KAJAK (1929 – 2002)



Polish science has met with a severe loss. On 16<sup>th</sup> July 2002 Professor Zdzislaw Kajak died, one of the most eminent Polish hydrobiologists, whose scientific activity was known not only in Poland but also in Europe.

The second half of the 20<sup>th</sup> century witnessed a dynamic development of Polish hydrobiology. Its rank was established not only by a few distinguished professors, Marian Gieysztor, Kazimierz Pawlowski, Karol Starmach, Marian Stangenberg, who survived the Second World War, but also by young hydrobiologists completing their studies in the 50s. One of the most outstanding representatives of this group was Professor Zdzislaw Kajak, who graduated in 1954 at the Faculty of Biology of Warsaw University, and who had undertaken research as a student in the Institute of Ecology of the Polish Academy of Science. He worked there till his last days. From the very beginning his scientific interests concentrated on benthic invertebrates, especially the Chironomidae. At first he carried out his research on old river beds (classical series of works concerning Chironomidae Lachy Konfederatka), then on lakes, rivers and reservoirs. He did not only collect data and describe the observations but first of all tried to explain the underlying mechanisms. That is why so many of his works concern not only field and laboratory experiments, but also methodology. Later on, as an Associate Professor (1968) and Professor (1988), he coordinated the research of large scientific groups and the research carried out within projects. His interests concentrated on the explanation of energy function and its transmission in the ecosystems of lakes and on the effect of pollution and basin management on ecosystems of rivers and reservoirs.

The results of his long scientific activity were published in over 250 publications including many books. Many times he was invited to participate in publications of collective, international works, and he himself initiated some of them. Among others, he was the main organizer of IBP/UNESCO Symposium on the Productivity of Inland Water, held in Kazimierz Dolny in 1970, and then co-editor of the works of the symposium, which gathered the most outstanding hydrobiologists of the world.

He was also very active in teaching, lecturing at Warsaw University and its branch in Białystok, at the University of Silesia and at the University of British Columbia, of which he was a visiting professor. He was a supervisor, or a referee, of many M. Sc. and Ph.D. dissertations. The activity in many Polish and foreign societies and committees was another domain where he showed his talent and energy. He was a founder-member of the Polish Hydrobiological Society, its president for many years and representative of Poland on the committee of the regional representatives of SIL.

Professor Kajak was a distinguished scientist opening new horizons in science. His works have a fundamental impact on hydrobiological science, especially on the ecological aspect of studies of Chironomidae larvae. For his pupils and followers he was kind, but, at the same time, a demanding Master.

## “THE NEWSLETTER GRANT”

We hereby would like to express our thanks for receiving the CHIRONOMUS NEWSLETTER grant which enabled us to participate the XV International Symposium on Chironomidae held at the University of Minnesota. Without this grant none of us would have attended this important meeting on Chironomidae. The grant thus enabled us not only to participate in the International Symposium, but also to meet many researchers in person and set up contacts which will prove very important for our future work.

Once more, thank you,

Alberto Araneda  
Universidad de Concepción, Concepción, Chile

Fábio de Oliveira Roque  
Universidade Federal de São Carlos, São Carlos, Brazil

Humberto Fonseca Mendes  
Universidade de São Paulo, Ribeirão Preto, Brazil

## *CURRENT RESEARCH*

### CHIRONOMIDAE OF THE BAIKALIAN REGION

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**Key words:** Chironomidae, Angara River, Angara Reservoirs

#### **Abstract**

The results of an investigation into the Chironomidae fauna of the Baikalian region (Angara River, Irkutsk, Bratsk, Ust'-Ilim Reservoirs) are presented. 144 species were discovered in the Angara River, 126 in the Irkutsk Reservoir, 132 in the Bratsk Reservoir, 92 in the Ust'-Ilim Reservoir. The regulation of the Angara River outflow resulted in a sharp change of environmental conditions, that caused changes in the Chironomidae fauna. In the Angara rheophilic species dominated (from subfamilies Diamesinae and Orthocladiinae), whereas in the reservoirs – pelophilic species from the subfamily Chironominae. In water bodies of the region 10 species of Baikalian endemics were discovered. The most endemic species (10) were found in the Irkutsk reservoir, the fewest(2) in the Ust'-Ilim reservoir.

#### **Introduction**

The most important features of the Angara River and its reservoirs are the conditions of water quality formation – the input of waters from the oligotrophic Lake Baikal, with low mineralization and very poor in organic substances.

The Angara is an outflow of Lake Baikal and joins with the Yenisey 1779 km away. The total outflow of the Angara includes 45% of originally Baikalian water. According to R. A. GOLYSHKINA (1970) the river sediments, resulting from the relief and geological structure of the valley, is mainly stony. Before regulation

the Angara River was a mountainous river with high flow (from 7 to 15 km h<sup>-1</sup>). The minimum water level was about 2 m, the most widely distributed depths were 4-7 m.

Concentration of gases in the Angara is very favorable for aquatic animals. Oxygen content during the open water season was 100-145% of saturation and only under ice decreased to 80-96%. The hydrochemical condition in the reservoirs differs insufficiently from that of the river and is favorable for animals (NIKOLAEVA, 1964, Primary..., 1982, Plankton..., 1982). The oxygen content is about 100% of saturation.

## Materials and methods

Published data on the Chironomidae and our own material from the Angara River and its reservoirs are analyzed. Samples were collected in 1957-1998. Over 1,000 quantitative and 500 qualitative samples are included. Qualitative

samples were collected with a net near the shore, quantitative samples with a Petersen sampler.

## Results

The Chironomidae fauna of the Angara River according to the literature (GRESE, 1953, VERSHININ, 1967, LINEVICH 1981) and our data includes 144 species (Table 1).

Table 1: The number of Chironomidae species in Baikalian region

Subfamily	Angara River	Irkutsk Reservoir	Bratsk Reservoir	Ust'-Ilim Reservoir
Tanypodinae	10	5	8	8
Diamesinae	10	8	4	4
Prodiamesinae	2	2	2	2
Orthoclaadiinae	63	45	43	26
Chironominae	59	68	75	52
Total	144	128	132	92

5 species – *Diamesa baicalensis* TSHERNOVSKIJ, *Orthocladus compactus* Linevitsh, *O. gregarius* LINEVITSH, *O. setosus* and *Neozavrelia minuta* LINEVITSH – are endemics of Baikal, *Cricotopus angarensis* LINEVITSH – endemic of Angara. Dominating species are *Diamesa baicalensis* TSHERNOVSKIJ, *Orthocladus olivaceus*

KIEFFER, *Eukiefferiella coerulea* KIEFFER, *O. thienemanni* KIEFFER, *Parorthocladus tridentifer* LINEVITSH, *Pseudodiamesa nivosa* GOETGHEBUER. The further from the inflow it acquires more features of usual Siberian rivers.

After outflow regulation there was created a cascade of reservoirs (Table 2).

Table 2: Characteristics of Angara Reservoirs

Reservoir	Start of filling	Finish of filling	Volume, km <sup>3</sup>	Maximal depth	Length
Irkutsk	1956	1958	2.1	35	55
Bratsk	1961	1967	179.0	100	570
Ust'-Ilimsk	1975	1977	59.4	90	302

The biological regime of the River has been changed: rheophilic species of Chironomidae have disappeared. Now the reservoirs are populated by pelophilic species.

Irkutsk Reservoir is an oligotrophic-mesotrophic water body with high water replacement velocity (24 times year<sup>-1</sup>). Now there are 126 species recorded, 10 of them are endemics of Baikal (*Diamesa baicalensis* TSHERNOVSKIJ, *Orthocladus setosus*, *O. gregarius* LINEVITSH, *O. compactus* LINEVITSH, *Paratanytarsus baicalensis* TSHERNOVSKIJ, *Sergentia (Baicalosergentia) baicalensis* TSHERNOVSKIJ, *S. (B.) rynocephala* LINEVITSH, *S. (B.) flavodentata* TSHERNOVSKIJ, *S. (B.) kozhowi* Linevitsh, and *Neozavrelia minuta* LINEVITSH). The main species near the beginning of the

reservoir is *Diamesa baicalensis* Tshernovskij, in the middle and near the outflow are *Chironomus rusticus* MEIGEN, *Ch. solitus* LINEVITSH et ERBAEVA, *Sergentia bauri* WUELKER et al., and *Microsetra sp.* Sandy and silt sediments near the dam are occupied by larvae of *Baicalosergentia* (LINEVITSH, 1981, PROVIZ, PROVITSH, 1999): *S. (B.) rynocephala* LINEVITSH, *S. (B.) flavodentata* TSHERNOVSKIJ, *S. (B.) kozhowi* LINEVITSH, and *S. (B.) colecta* PROVIZ V. et PROVIZ H.

Bratsk Reservoir is a mesotrophic water body with some eutrophy. Unlike Irkutsk Reservoir it is characterized by slight water flow (2 times year<sup>-1</sup>). Throughout the time of the investigation (1964-1998) there were 132 species of Chironomidae, including *Diamesa baicalensis*

TSHERNOVSKIJ, *Paratanytarsus baicalensis* TSHERNOVSKIJ, *Sergentia (Baicalosergentia) baicalensis* TSHERNOVSKIJ – Baikalian endemics. The main species are *Procladius ferrugineus* KIEFFER, *Tanytarsus gr. gregarius* Kieffer, *Cladotanytarsus gr. mancus* WALKER, *Endochironomus albipennis* MEIGEN, *Glyptotendipes paripes* EDWARDS, *Polypedilum nubeculosum* MEIGEN, *Chironomus plumosus* Linne. Of special interest is the discovery of Baikalian endemics *Paratanytarsus baicalensis* TSHERNOVSKIJ and *Sergentia (Baicalosergentia) baicalensis* TSHERNOVSKIJ in the Balagansk part of it in 1991-1998. The last species dwells in the deeper parts and near the dam.

Ust'-Ilimsk Reservoir is a mesotrophic-eutrophic water body. The water retention time is 1.5 times year<sup>-1</sup>. There are 92 species of Chironomidae. Baikalian endemics *Diamesa baicalensis* TSHERNOVSKIJ and *Sergentia (Baicalosergentia) baicalensis* TSHERNOVSKIJ are present there. As with Bratsk Reservoir the dominant species are *Procladius ferrugineus* KIEFFER, *Tanytarsus gr. gregarius* KIEFFER and *Chironomus plumosus* LINNE with the addition of *Microtendipes pedellus* DE GEER.

#### Discussion

The chironomid fauna of the Angara River is the direct continuation of the littoral fauna of the Lake Baikal. Among Baikalian endemic species *Diamesa baicalensis* TSHERNOVSKIJ was observed in all sites investigated on stony ground. *Orthocladius setosus*, *O. gregarius* LINEVITSH, *O. compactus* LINEVITSH, and *Neozavrelia minuta* LINEVITSH were discovered from inflow as far as Irkutsk dam. The water regulation by dam construction has caused the changes of living conditions and consequently species composition. Whereas the Angara River was characterized by rheophilic Diamesinae and Orthoclaadiinae, the reservoirs are characterized by pelophilic forms of Chironominae.

Some Baikalian species of Chironomidae have found acceptable conditions in the Reservoirs. *Diamesa baicalensis* TSHERNOVSKIJ, *O. gregarius* LINEVITSH, *O. compactus* LINEVITSH, and *Neozavrelia minuta* LINEVITSH were discovered in stony sediments in Irkutsk Reservoir. *Paratanytarsus baicalensis* TSHERNOVSKIJ, *Sergentia (Baicalosergentia) baicalensis* TSHERNOVSKIJ, *S. (B.) rynocephala* Linevitsh, *S. (B.) flavodentata* TSHERNOVSKIJ and *S. (B.) kozhowi* LINEVITSH occupy sandy and silt sediments in its central part. *Paratanytarsus baicalensis* TSHERNOVSKIJ in

Baikal inhabits silty sediments of the littoral (0-20 m), *Sergentia (Baicalosergentia) baicalensis* TSHERNOVSKIJ, *S. (B.) flavodentata* TSHERNOVSKIJ and *S. (B.) kozhowi* LINEVITSH occupy silty sediments at 20-50 and 50-400 m depth in Lake Baikal.

The Baikalian endemic *Diamesa baicalensis* TSHERNOVSKIJ inhabits stones in the bottom of Bratsk Reservoir. *Paratanytarsus baicalensis* TSHERNOVSKIJ was observed on silt in the littoral zone of Bratsk Reservoir and *S. (B.) baicalensis* occupies the profundal zone of this reservoir.

*D. baicalensis* was found in near dam zone of Ust'-Ilim Reservoir, as in Bratsk Reservoir. In some places of this reservoir *S. (B.) kozhowi* is found occasionally.

In comparison with the previous chironomid fauna of the Angara River, there are 4 more species. It can be connected with siltation unusual for the river bottom. The most Baikalian endemics are discovered in the Irkutsk Reservoir and only 2 species in Ust'-Ilimsk.

The Angara endemic *Cricotopus angarensis* LINEVITSH previously found from the Kitoy River to the Oka River now only inhabits plants in Irkutsk Reservoir.

#### References

- VERSHININ N.V. 1967. Feeding resources of fishes of Angara. In: *Fishes and feeding resources of rivers and reservoirs of Eastern Siberia*. Krasnoyarsk: 261-290. (In Russian)
- GOLYSHKINA R.A. 1970. *Zoobenthos of Angara River*. PhD thesis. Irkutsk. 35 p. (In Russian)
- GRESE I.I. 1953. Aquatic ecology of the lower part of Angara River. *Proc. Hydrobiological Society*. Moscow, V.5: 203-211. (In Russian)
- LINEVICH A.A. 1981. *Chironomidae of Baikal and Pribaikalye*. Novosibirsk. 152 p. (In Russian)
- NIKOLAEVA M. D. 1964. Hydrochemistry of Irkutsk Reservoir. *Biology of Irkutsk Reservoir*. Novosibirsk. P. 17-41. (In Russian)
- Primary production of Bratsk Reservoir*. 1983. Moscow. 245 p. (In Russian)
- Plankton of Ust'-Ilimsk Reservoir*. 1982, Leningrad. 134 p. (In Russian)
- PROVIZ V.I., PROVIZ A. I. 1999 *Atlas of larvae of Chironomidae of genus Sergentia from the Lake Baikal*. Novosibirsk. 101 p. (In Russian)

## *THESES*

### DOCTORAL THESES ON CHIRONOMID MIDGES IN THE UNIVERSITY OF BURDWAN SINCE 2000.

#### ASSESSMENT OF BIOLOGICAL WATER QUALITY OF THE RIVER DAMODAR OF BURDWAN DISTRICT, WEST BENGAL BASED ON CHIRONOMID COMMUNITY (DIPTERA: CHIRONOMIDAE).

by Dr. Goutam Bhattacharyay

#### Abstract

The river Damodar originating from Chhotanagpur Hills of Bihar traverses through the "Ruhr of Bengal" before pouring into the Bay of Bengal. It receives considerable amount of pollutant from coal mines and several industries i.e. Steel, Chemicals, Thermal Power plants, Coal washeries, cement plants, fertilizers etc. during its course through Asansol-Durgapur industrial area. The river receives heavy metallic pollutants such as Pb, Zn, Cu, Hg and Cd from the effluents of factories. Biological assessment of the water quality based on chironomid midges was undertaken. Samplings were done from the four sampling stations with suitable samplers to collect and to record the physiochemical characteristics like air and water temperature, water current, pH, DO, BOD, concentrations of Pb, Zn, Cu, Hg and Cd, sediment texture and the midges (eggs, larvae, pupae and adults). The data were analyzed statistically to correlate the individual and synergistic impact of pollutant on chironomid midges. The concentrations of Lead, Zinc and Copper were found to occur far above the permissible limit. Significant positive correlation was established between concentrations of heavy metals in water and sediment. Chironomid species, *Chironomus circumdatus* Kieffer *C.samoensis* (Edwards), *C.stratipennis* Kieffer *Kiefferulus barbatitarsis* (Kieffer) *K.calligaster* (Kieffer) *Stictochironomus polystictus* (Kieffer), *Cladotanytarsus gloveri* Chaudhuri & Das, *Procladius noctivagus* (Kieffer) and *Tanytus bilobatus* (Kieffer) were dominant species throughout the study area. Similarity index (Ss) calculated with the presence/absence data of chironomid larvae and adults showed that three polluted zones were to some extent dissimilar to pollution free reference zone. Diversity (D) and equitability (E) seemed to reflect the higher load of pollutants in the first three points rather than the fourth point. Diversity (D) was viewed to correlate negatively with the concentration of heavy metals in water and sediment showing their toxic effects. Deformities of the larvae of *Crytochironomus judicious* Chaudhuri & Chattopadhyay *Polypedilum nubifer* (Skuse), *Cladotanytarsus gloveri*, *Tanytarsus vinculus*, *Stictochironomus polystictus*, *Kiefferulus barbatitarsis*, *K.calligaster*, *Cricotopus sylvestris* Kieffer *Procladius noctivagus* and *Tanytus bilobatus* were noticed. Percentage of deformity did correlate positively with concentrations of Pb in water and sediment. The severity of deformity was also recorded higher in the larvae of chironomid collected from confluence point of polluted zones rather than from the reference point. A new proposed severity index, SISS(antenna) was also used for assessment of deformity in family or subfamily level as this index was made by summing up of severity of antennal deformity of larvae.

#### Adjudicators

Prof. Arshad Ali, University of Florida, Sanford, USA.  
Prof. K.Vijaykumar, University of Gulbarga, Gulbarga, India.  
Prof. A.Mukherjee, University of North Bengal, India.  
Dr.A.Hazra, Jt.Director, Zoological Survey of India, Calcutta.

#### Supervisors

Prof.P.K.Chaudhuri, University of Burdwan, India.  
Dr.A.K.Sadhu, Burdwan Raj College, University of Burdwan, India.

Year of Award: 2000

**MORPHOLOGY AND DIVERSITY OF CHIRONOMID COMMUNITIES OF DARJEELING-SIKKIM HIMALAYAS OF INDIA (DIPTERA: CHIRONOMIDAE)**

by Dr.Niladri Hazra.

**Abstract**

Morphology of sixty-three species belonging to twenty-five genera under four sub families has been worked out. Of them, 11 species and one genus have been proposed here as new to science and three previously described species from other countries be reported for the first time in this subcontinent. Descriptions of the life stages of the following species: *Ablabesmyia alba* Chaudhuri, Debnath & Nandi, *Coffmania adiecta* n.sp., *Coffmania animispina* n.sp., *Macropelopia amplituberculata* n.sp., *M.nebulosa* (Meigen), *Paramerina ampliseta* n.sp., *P.clara* n.sp., *P.inficia* Chaudhuri & Debnath, *Rheopelopia lenicornuta* nom.nov., *Brillia teretuba* n.sp., *Corynoneura centromedia* n.sp., *C. incidera* n.sp., *Corynoneura nasuticeps* n.sp., *Metriocnemus albolineatus* (Meigen), *Paracricotopus spinicornis* n.sp., *Parametriocnemus ornaticornis* (Kieffer), *Paraphaenocladus impensus albusalatus* Chaudhuri & Sinharay, *Polypedilum (Pentapedilum) convexum* John., *P.(Pentapedilum) centisetum* n.sp., *P. (Pentapedilum) unispinum* nom. nov., *P.(Pentapedilum) yapensis* Tokunaga and *Rheotanytarsus pellucidus* Chaudhuri & Datta. Diversity index and percentage of relative abundance of immature stages from springs at three different altitudes have been measured a studied. Physico-chemical parameters like temperature, DO, pH and conductivity of habitats of ecology of several species have also been recorded and correlated with abundance of the species stated in the thesis.

Adjudicators

Prof. Xinhua Wang, University of Nankai, P.R.China.

Dr. J.R.B. Alfred, Director, Zoological Survey of India, Calcutta.

Supervisor

Prof.P.K.Chaudhuri, University of Burdwan, India.

Year of award: 2000

**CYTOTAXONOMIC CATEGORIZATION OF A SPECIES OF CHIRONOMUS MIEGEN AND KIEFFERULUS GOETHEBUER (DIPTERA-CHIRONOMIDAE).**

by Dr.Ms. Basuli Maitra

**Abstract**

The cytological studies were performed in the polytene chromosomes from the salivary glands of the five chironomid species namely, *Chironomus circumdatus* Kieffer *C.stratipennis* Kieffer *C.javanus* Kieffer *Kiefferulus barbatitarsus* (Kieffer) and *K.calligaster* (Kieffer). The morphometric analyses on the adult, pupa, larva and egg mass of the above noted species were carried out. Polytene chromosomes of each of the species have been used to frame a cytological key of the species as an additional clue for identification of the species. Processing for C-bandings have helped to construct the cytological maps of the polytene chromosomes of the species, which appeared to be useful in categorization of the species. The polytene chromosome of the following species *Chironomus circumdatus*, *C. stratipennis* Kieffer and *C. javanus* appear to belong to *pseudo-thummi* complex having the chromosomal combination BF, CD, AE and G. Four Polytene chromosomes in *C. circumdatus* showed the key features as slender first chromosome, broad highly active fourth chromosome and less intercalary distribution of constitutive heterochromatin. The key cytological features of *C.stratipennis* are compact as well as slender fourth chromosome associated with NOR, moderate activity of 1st and 2nd chromosome, high active status of 3rd chromosome and moderate response of the intercalary position of the chromosomes to C-banding. The main features of *C. javanus* are slender fourth chromosome lacking a NOR, first chromosome with highest activity level with a large Balbiani ring, second and fourth chromosome both having NOR with compact organisation and considerable amount of C-band terminal and intercalary chromatin material. *Kiefferulus barbatitarsis* fusion of three chromosome arms was noticed and represents a new complex i.e. duplex with arm combination AEG,BF and CD. Besides the fusion of three chromosome arms to produce a very large first chromosome. It includes presence of NOR in the first chromosome and third

chromosome with occasional terminal or intercalary asynapsis, lack of C-positive region in the intercalary positions in the chromosomes. In *K.calligaster* showed chromocentric organisation of the chromosome arms. Seven chromosome arms could be recognised as A,B,C,D,E,F and G. Presence of massive chromocenter, presence of NOR in the arm G and higher activity level of arm B and C distinguishes it from other *Kiefferulus* species.

#### Adjudicators

Prof. Odwin Hoffrichter, University of Freiburg, Germany.

Prof.A.L.Bhatia, University of Rajasthan, India.

Prof.R.N.Chatterjee, University of Calcutta, Calcutta.

#### Supervisors

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Year of award: 2001

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### SYSTEMATICS AND BIOLOGY OF SOME CHIRONOMIDS MIDGE (DIPTERA: CHIRONOMIDAE) OF EAST-SIKKIM HIMALAYAS OF INDIA.

Dr.Surendra K. Pradhan

#### Abstract

The thesis includes systematics and biology of 34 species under 21 genera of Chironomids from the east Sikkim Himalayas of India. Life stages of 11 Indian species have also been put on record for the first time with biology of some aspects of four Orthoclad species have also been written in the thesis.

#### Adjudicators

Prof.Haruo Fukuhara, Niigata University, Igarashi, Japan.

Prof. M.Vikram Reddy, Kakatiya University, Andhra Pradesh, India.

Prof.Samiran Chakravorty, Kalyani University, Kalyani, India.

#### Supervisor

Prof.P.K.Chadhuri, The University of Burdwan, Burdwan, India.

Year of award: 2002.

## **SHORT-COMMUNICATIONS**

### **Chironomidae exuviae A key to pupal exuviae of the West Palaearctic Region**

Peter H. Langton & Henk Visser 2003

The updated key to pupal exuviae of the West Palaearctic region (Langton 1991) is now available in CD-ROM. This has been achieved with the collaboration of Henk Visser at the Biodiversity Centre of ETI at the University of Amsterdam as part of ETI's Interactive Identification System for the European Limnofauna (IISEL). All described West Palaearctic species are included with complete and up to date synonymy and distribution data. The key to nearly 1000 taxa and descriptions are illustrated by more than 1,500 drawings and the text is hyperlinked to a glossary of scientific terms. The disc requires Windows 95, 98 or ME, Pentium processor, 16MB RAM, 4x CD-ROM player, 16 bit colour monitor or Macintosh computer with PowerPC processor, MacOS 8.x or 9.x, 16MB RAM, 4x CD-ROM player, 16 bit colour monitor. See [www.eti.uva.nl](http://www.eti.uva.nl) for details of cost and supply.



## On the exuviae of *Cricotopus ephippium* (Zett.) and *polaris* (Kieffer)

Peter H. Langton

I have seen a number of *C. polaris* misidentified as *ephippium*. Some *polaris* exuviae have the anterior thorax quite rugose towards the suture, but they can be easily distinguished from *ephippium* by the armament of tergites III and IV extending past the anterior muscle marks into the antero-lateral corners; in *ephippium* the point patches are trapezoidal.

### Request for material

At the beginning of August I will start my PhD programme at Museum of Zoology, University of Bergen under the guidance of Prof. Ole A. Sæther and Ass. Prof. Trond Andersen. My theme for the thesis will be a revision of the subgenus *Pentapedilum* Kieffer of the genus *Polypedilum* Kieffer. I will appreciate a loan of reared or other associated material of *Pentapedilum*, but also of *Polypedilum* s. str. as *Pentapedilum* is likely not to be monophyletic.

The material can be sent either to me or to Ole A. Sæther at the Museum of Zoology in Bergen. I do not have an e-mail in Bergen as yet so any messages can be sent to Prof. Sæther (e-mail [ole.sather@zmb.uib.no](mailto:ole.sather@zmb.uib.no))

Thank you in advance

Emmanuel A. Oyewo  
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Norway

### News from India

Prof. P. K. Chaudhuri has been entrusted with the Co-ordinatorship of five centres working with the "TAXONOMY OF DIPTERA" funded by the Department of Environment & Forest, Govt. of India. under All India coordinated project of Insect Taxonomy (AICOPTAX) and the University of Burdwan has been marked as LEAD INSTITUTE. The part of chironomids is being investigated in the University of Burdwan under Prof. P.K. Chaudhuri (Principal Investigator) and Dr. Abhijit Mazumdar (Co-Principal Investigator).

Dr. Abhijit MAZUMDAR has joined a post of Reader in the Department of Zoology, University of Burdwan in September 2002. Dr. Mazumdar, an worker in Chironomids was a faculty member in Arunachal University (India) has resumed working in Chironomids in the state of Arunachal of the eastern Himalayas adjacent to China together with the material being gathered from the field surveys of the above project.

The chironomid midges (both dried and microslide-mounts) and the recent literature dealing with the above of the Afrotropical, Australasian, Palaearctic and the Oriental realms will thankfully be acknowledged.

Checklist on Indian chironomids is available at <http://www.ncbi.org.in/dit/>

### Ersatz techniques for rabid collectors

Peter H. Langton

I suppose that there are those chironomists that do not know of my use of neat Gin for preserving specimens when abroad. Air lines have no reservations about transporting a large bottle of duty free, but try taking a litre of isopropanol and you could find boarding the plane a trifle complicated! I prefer Gin for the olfactory ambience when sorting the specimens later, but I have used Vodka and White Rum equally successfully. For those who recoil in horror at the thought of using these chemicals for any purpose other than consumption, alternatives I have found adequate for the short term are mild, non-bleach disinfectants that do not turn white in water (e.g. Milton) or salt solution. The samples are sorted in much water and transferred to alcohol for storage or mounting.

Killing adults for dry mounting (rarely practised by chironomists these days) can also be a problem abroad, but painting the bottom of a champagne cork with nail varnish makes a very effective killing bottle when pushed into the top of a 3x1" glass specimen tube. It works well for much larger insects as well. Unaccompanied males could find this a novel introduction to the attractive lady at the next table!

One can feel strangely naked when deprived of one's collecting net, but all is not lost. Here are five tested solutions:-

1) Exuviae floating on the surface of a water butt or small pond, or fetched up on the strand of a lake or river can be scooped up in a handkerchief, which is then folded to enclose the catch. The exuviae can be floated off in water later and transferred to preservative. (In the absence of a handkerchief, I suppose any other dispensable article of clothing will do - be original!)

2) Leaves caught in a stream or at the outlet of a lake or pond can be transferred to a plastic bag, a sock (not woollen) or even an empty pocket. These leaf packs release exuviae, pupae and larvae when agitated in water.

3) Spiders' webs containing trapped adults can be detached from their supports and stored in any available receptacle (an empty crisp packet will do). When transferred to alcohol the web's adhesive dissolves and careful teasing apart of the adults provides specimens which tend to be in excellent condition with all appendages still attached

4) The Hoffrichter technique (I am indebted to Odwin for introducing this to me): swarms are swatted with the hand thoroughly moistened with saliva - the adhering adults are then transferred carefully with a finger tip to a similarly moistened container, to be washed out later with preservative.

5) At times and in places where the adults are roosting in brambles or other thorny vegetation, the modern 'beating tray' (umbrella held upside down) can be effective. It needs an accomplice to hold the umbrella and beat the bush above it with a stick. Poised with a pooter, there is much sport to be had trying to suck up the beasts before they fly off!

Finally, it may not be common knowledge that empty photographic film canisters make excellent containers for small collections as they are leak proof, light in weight and resist damage.

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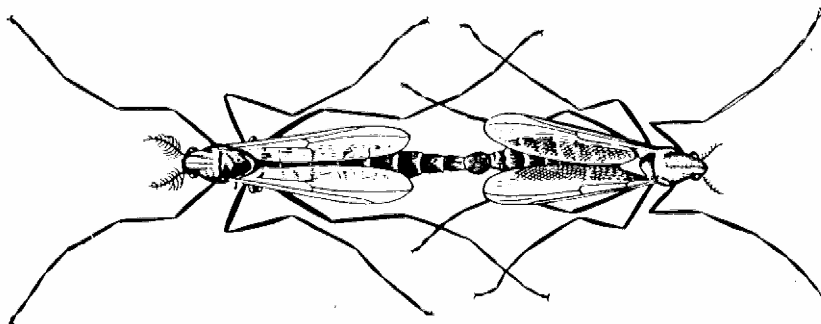
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**Deadline for CHIRONOMUS 17  
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by Odwin Hoffrichter

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This listing is compiled, as usual, from many sources: databases, tables of contents of journals, references and citations of papers, autopsy of many periodicals, lists provided by authors (thanks to you!). As not all titles of a particular year can be reported the following year, the current titles are preceded by supplementary of the earlier year (2 years at most). Only printed titles are reported here. Online publications should be retrieved differently, in particular, check the chironomid home page for eventual references.

Supplement to 2000 Current Bibliography:  
additions & corrections

- Amisah, S. and Cowx, I. G. 2000a. Impacts of abandoned mine and industrial discharges on fish abundance and macroinvertebrate diversity of the Upper River Don in South Yorkshire, UK. - *J. Freshwat. Ecol.* 15: 237-250.
- ASTM 2000a. Standard test methods for measuring the toxicity of sediment-associated contaminants with freshwater invertebrates. - In: *ASTM 2000 Annual book of standards 11.05: Biological effects and environmental fate. Biotechnology. Pesticides*: 1141-1223. Am. Soc. Test. Mater., Philad.
- Belanger, S. E., Guckert, J. B., Bowling, J. W., Begley, W. M., Davidson, D. H., LeBlanc, E. M. and Lee, D. M. 2000a. Responses of aquatic communities to 25-6 alcohol ethoxylate in model stream ecosystems. - *Aquat. Toxic.* 48: 135-150.
- Belyanina, S. I. and Filinkova, T. N. 2000a. Chironomids of the genera *Chironomus* and *Camptochironomus* (Diptera, Chironomidae) in the north of Russia. - In: *Biodiversity and dynamics of ecosystems in North Eurasia [BDENE 2000], vol. 1, pt 3: Molecular-genetic bases of biodiversity (animals and plants)*, pp. 17-18. Inst. Cytol. Genet. [IC & G], Sib. Otd. Ross. Akad. Nauk, Novosibirsk.
- Bieniarz, K., Kownacki, A. and Epler, P. 2000a. *Biologia stawów rybnych. Czesc I. (Biology of fish ponds. Part I.)* - Wyd. Inst. Ryb. sródladowego. Olsztyn. 98 pp.
- Bis, B., Zdanowicz, A. and Zalewski, M. 2000a. Effects of catchment properties on hydrochemistry, habitat complexity and invertebrate community structure in a lowland river. - *Hydrobiologia* 422/423: 369-387.
- Bitušík, P. 2002a. *Prírucka na urcovanie lariev pakomaróv (Diptera: Chironomidae) Slovenska. Cast I. Buchonomyiinae, Diamesinae, Prodiamesinae a Orthoclaadiinae. (A handbook to identification of chironomid larvae (Diptera: Chironomidae) of Slovakia. Part I. Buchonomyiinae, Diamesinae, Prodiamesinae a Orthoclaadiinae.)* - Tech. Univ., Zvolen. 133 pp.
- Brune, A., Frenzel, P. and Cypionka, H. 2000a. Life at the oxic-anoxic interface: microbial activities and adaptations. - *FEMS Microbiol. Rev.* 24: 691-710.
- César, I. I., Ocón, C., Paggi, A. C., Rodrigues, C. A., Spaccesi, F., Tangorra, M. y Tassara, M. P. 2000a. Diversidad de invertebrados bentónicos del Río de la Plata. - *Biol. acuát.* 19: 27-63.
- Chakraborty, D. K., Mollah, M. A. R. and Ali, M. S. 2000a. Feeding interaction of cat fishes, *Clarias gariepinus*, *Clarias batrachus* and their hybrids. - *Bangladesh J. Zool.* 28: 33-40.
- Clements, W. H., Carlisle, D. M., Lazorchak, J. M. and Johnson, P. C. 2000a. Heavy metals structure benthic communities in Colorado mountain streams. - *Ecol. Applic.* 10: 626-638.
- Collier, K. J. and Halliday, J. N. 2000a. Macroinvertebrate-wood associations during decay of plantation pine in New Zealand pumice-bed streams: stable habitat or trophic subsidy? - *J. N. Am. benthol. Soc.* 19: 94-111.
- Courtney, L. A. and Clements, W. H. 2000a. Sensitivity to acidic pH in benthic invertebrate assemblages with different histories of exposure to metals. - *J. N. Am. benthol. Soc.* 19: 112-127.
- Diserud, O. H. and Engen, S. 2000a. A general and dynamic species abundance model, embracing the lognormal and the gamma models. - *Am. Nat.* 155: 497-511.
- Durnova, N. A. and Belyanina, S. I. 2000a. Comparative analysis of the karyotypes of nine *Glyptotendipes* species (Diptera, Chironomidae) from Russia. - In: *Biodiversity and dynamics of ecosystems in North Eurasia [BDENE 2000], vol. 1, pt 3: Molecular-genetic bases of biodiversity (animals and plants)*, pp. 31-34. Inst. Cytol. Genet. [IC & G], Sib. Otd. Ross. Akad. Nauk, Novosibirsk.
- Eckert, J. 2000a. *Wie verwandt sind die Lebensgemeinschaften in aquatischen Mesokosmen und Gewässern in ihrer Umgebung?* - Dipl.-Arb., RWTH Univ. Aachen. 87 pp.
- Gong, Z., Xie, P. and Wang, S. 2000a. Macrozoobenthos in 2 shallow, mesotrophic Chinese lakes with contrasting sources of primary production. - *J. N. Am. benthol. Soc.* 19: 709-724.

- Gourari, L., Boushaba, A., Julia, R. et Akdim, B. 2000a. Hydrochimie, processus, facteurs de précipitation des encroûtements travertineux et les cas géo-environnementaux du ralentissement de leur formation actuelle dans le bassin karstique de l'Oued Aggai (Causse de Sefrou, Moyen-Atlas, Maroc). - *Commun. Inst. geol. min* 87:
- Grozev, D., Hubenova-Siderova, T. and Zaikov, A. 2000a. Species and size selectivity of European cat-fish (*Silurus glanis*) to natural food when reared in aquarium to one month of age. - *Zhivotnov"dni Nauki* 37: 14-18.
- Grzybkowska, M. 2000a. (Drift not only genetic and continental.) - *Kosmos* 49: 113-122.
- Hahn, T., Liess, M. und Schulz, R. 2000a. Beeinträchtigungen des Hormonsystems durch Umweltchemikalien auch bei aquatischen Insekten? Mögliche Testendpunkte und erste Ergebnisse an *Chironomus riparius* (Diptera: Chironomidae). - *Tag. Dt. Ges. Limnol.* 1999: 878-882.
- Hahn, T., Liess, M. und Schulz, R. 2000b. *Chironomus riparius* und Tebufenozid: Ein Modellsystem zur Erkennung hormoneller Wirkungen bei aquatischen Insekten. - *Tag. Soc. envir. Toxic. Chem. (SETAC), dtspr. Sekt. Hamburg.*
- Hoffman, R. L. and Liss, W. J. 2000a. Waldo Lake macroinvertebrates. - *Lake Reservoir Mgmt* 16: 124-132.
- Jablonska, I. and Koszalka, J., 2000a. Assemblages of Chironomidae larvae in the Hanczanska Bay (Lake Wigry). - *Nat. Sci.* 5: 253-261.
- Johannson, O., Dermott, R., Graham, D. M., Dahl, J. A., Millard, E. S., Myles, D. D. and LeBlanc, J. 2000a. Benthic and pelagic secondary production in Lake Erie after the invasion of *Dreissena* spp. with implications for fish production. - *J. Gt Lakes Res.* 26: 31-54.
- Kangur, K. 2000a. Surusaasklased (Diptera: Chironomidae) kahes Eesti suurjarves. (Chironomidae in the macrozoobenthos of two large lakes of Estonia.) - *Eesti Looduseuurijate Seltsi Aastaraamat* 79: 182-199.
- Kashian, D. R. and Burton, T. M. 2000a. A comparison of macroinvertebrates of two Great Lakes coastal wetlands: testing potential metrics for an index of ecological integrity. - *J. Gt Lakes Res.* 26: 460-481.
- King, R. S., Nunnery, K. T. and Richardson, C. J. 2000a. Macroinvertebrate assemblage response to highway crossings in forested wetlands: implications for biological assessment. - *Wetlands Ecol. Mgmt* 8: 243-256.
- Kitching, R. L. 2000a. *Food webs and container habitats. The natural history and ecology of phytotelmata.* - Camb. Univ. Pr., Camb. 431 pp.
- Klukowska, M. 2000b. Relacja między larwami *Epoicocladus flavens* (Diptera, Chironomidae) i *Ephemera danica* (Ephemeroptera, Ephemeridae) - pasożytnictwo, komensalizm czy ... ? (Relationship between *Epoicocladus flavens* (Diptera, Chironomidae) and *Ephemera danica* (Ephemeroptera, Ephemeridae) larvae - parasitism, commensalism or ... ?]. - *VII Ogólnopolskie Warsztaty Bentologiczne (Proc. VII Polish benthol. Workshop)*, pp. 1-2.
- Kohler, A. E., Shively, R. S. and Peck, B. J. 2002a. Benthic macroinvertebrate biomonitoring in the Lost River sub-basin, Oregon and California, 1999. - In: Shively, R. S., Kohler, A. E., Peck, B. J., Coen, M. A. and Hayes, B. S. (eds.): *Water quality, benthic macroinvertebrate, and fish community monitoring in the Lost River sub-basin, Oregon and California, 1999. Report of sampling activities in the Lost River sub-basin conducted by the U. S. Geol. Surv., Biol. Resourc. Div., Klamath Falls Duty Station*: 25-71.
- Kownacki, A., Margraiter, M., Kawecka, B. and Kwandrans, J. 2000a. Effect of wastes on cyanobacteria, algae, and macroinvertebrate communities in an alpine stream. - *Acta hydrobiol., Kraków* 42: 215-230.
- Kownacki, A. 2000a. The use of benthic macroinvertebrates in the biomonitoring of river water quality - how do we interpret faunistic data? - *Acta hydrobiol., Kraków* 42: 187-206.
- Kownacki, A. 2000b. Diversity of benthic macroinvertebrates as a monitoring method for polluted rivers. - *Acta hydrobiol., Kraków* 42: 207-214.
- Kubovčík, V. and Novíkmeč, M. 2001a. Preimaginal stages of Diptera from different substrates of the Zbojský potok stream (Poloniny National Park). - *Acta Univ. carol. biol.* 45: 89-96.
- Kuhlmann, M. L. 2000a. *Invertebrados bentónicos e qualidade ambiental.* - Doct. Thes., Univ. São Paulo. 133 pp.
- Marmonier, P., Claret, C. and Dole-Olivier, M.-J. 2000a. Interstitial fauna in newly-created floodplain canals of a large regulated river. - *Regul. Rivers Res. Mgmt* 16: 23-36
- Matena, J. 2000a. Nové poznatky o rodu *Chironomus* v České republice. (New data about the genus *Chironomus* in the Czech Republic.) - In: Rulík, M. (ed.): *XII. Limnologická konference Limnologie na prelomu tisíciletí, Kouty nad Desnou, September 18-22*, pp. 202-205. Univ. Palack. Olomouc.
- Matthaei, C. D. Townsend, C. R. 2000b. Inundated floodplain gravels in a stream with an unstable bed: temporary shelter or true invertebrate refugium? - *N. Z. Jl mar. Freshwat. Res.* 34: 147-156.

- Maxted, J. R., Barbour, M. T., Gerritsen, J., Poretti, V., Primrose, N., Silvia, A., Penrose, D. and Rentrow, R. 2000a. Assessment framework for mid-Atlantic coastal plain streams using benthic macroinvertebrates. - *J. N. Am. benthol. Soc.* 19: 128-144.
- Messias, M. C. 2000b. Sebastião José de Oliveira, uma vida dedicada ao Instituto Oswaldo Cruz. - *Ent. Vectores* 7: 239-253.
- Mutz, M., Pusch, M. und Siefert, J. 2000a. Ausgewählte Aspekte der Morphologie und Ökologie von Fließgewässern der Bergbaufolgelandschaft. - In: Wiegand, G., Bröring, U., Mrzljak, J. and Schulz, F. (eds.): *Naturschutz in Bergbaufolgelandschaften: Landschaftsanalyse und Leitbildentwicklung*, pp. 299-313. Physika-Verl., Heidelb.
- Nelson, S. M. and Roline, R. A. 2000a. Leaf litter breakdown in a mountain stream impacted by a hypolimnetic release reservoir. - *J. Freshwat. Ecol.* 15: 479-490.
- Norton, S. B., Cormier, S. M., Smith, M. and Jones, R. C. 2000a. Can biological assessments discriminate among types of stress? A case study from the Eastern Corn Belt Plains ecoregion. - *Envir. Toxic. Chem.* 19: 1113-1119.
- Polukonova, N. V. 2000a. Analysis of morphological similarity and difference of chironomids (Chironomidae, Diptera) at various stages of metamorphosis. - In: *Biodiversity and dynamics of ecosystems in North Eurasia [BDENE 2000], vol. 1, pt 3: Molecular-genetic bases of biodiversity (animals and plants)*, pp. 86-88. Inst. Cytol. Genet. [IC & G], Sib. Otd. Ross. Akad. Nauk, Novosibirsk.
- Pruess, K. P., Adams, B. J., Parsons, T. J., Zhu, X. and Powers, T. O. 2000a. Utility of the mitochondrial cytochrome oxidase II gene for resolving relationships among black flies (Diptera: Simuliidae). - *Molec. Phylogenet. Evol.* 16: 286-295.
- Shilova, A. I. i Zelentsov, N. I. 2000a. Fauna khironomid (Diptera, Chironomidae) Zapolyar'ya v predelakh Krasnyarskogo kraya. (The fauna of chironomids (Diptera, Chironomidae) of the polar region in the Krasnoyarsk district.) - *Biol. vnutr. Vod* 2: 49-57.
- Shilova, A. I. i Zelentsov, N. I. 2000b. Materialy po faune khironomid (Diptera, Chironomidae) vodoemov Vologodskoi oblasti. (Materials to the chironomid (Diptera, Chironomidae) fauna of Vologda district.) - *Ekologiya, bioraznoobrazie i sistematika vodnykh bespozvonochnykh* 2: 72-83. Borok.
- Shobanov, N. A. 2000a. *Rod Chironomus Meigen (Diptera, Chironomidae). Sistematika, biologiya, evolyutsiya. (Genus Chironomus Meigen (Diptera, Chironomidae). Systematics, biology, evolution.)* - Avtoref. Diss. Dokt. biol. Nauk, Sankt-Peterburg. 52 pp.
- Shumnyi, V. K. i Gruzdev, A. D. 2000a. Iya Ivanovna Kiknadze (k 70-letiyu so dnya rozhdeniya). (Iya Ivanovna Kiknadze (to her 70th birthday).) - *Tsitologiya* 42: 209-211.
- Soszka, H. and Kudelska, D. 2000a. Macroinvertebrate-based biological methods of assesing river quality applied widely in European countries. - *Acta hydrobiol.* 42: 263-272.
- Suhling, F., Befeld, S., Häusler, M., Katzur, K., Lepkojus, S. and Mesléard, F. 2000a. Effects of insecticide applications on macroinvertebrate density and biomass in rice-fields in the Rhône-delta, France. - *Hydrobiologia* 431: 69-79.
- Talley, T. S., Dayton, P. K. and Ibarra-Orlando, S. E. 2000a. Tidal flat macrofaunal communities and their associated environments in estuaries of southern California and northern Baja California, Mexico. - *Estuaries* 23: 97-114.
- Tatole, V. 2000a. Contributions to the knowledge of the chironomid fauna (Diptera) from Romania. - *Trav. Mus. natn. Hist. nat. Grigore Antipa* 42: 111-116.
- Tatole, V. 2000b. Checklist of Chironomidae (Diptera) of Romania. - *Trav. Mus. natn. Hist. nat. Grigore Antipa* 42: 117-132.
- U. S. Envir. Protect. Ag. 2000a. *Methods for measuring the toxicity and bioaccumulation of sediment-associated contaminants with freshwater invertebrates. 2nd ed.* - EPA/600/R-99/064.
- Usseglio-Polatera, P., Bournaud, M., Richoux, P. and Tachet, H. 2000a. Biological and ecological traits of benthic freshwater macroinvertebrates: relationships and definition of groups with similar traits. - *Freshwat. Biol.* 43: 175-205.
- Wiedenbrug, S. 2000a. *Studie zur Chironomidenfauna aus Bergbächen von Rio Grande do Sul, Brasilien.* - Doct. Diss., Univ. München. 444 pp.
- Wolnomiejski, N., Luscinska, M. and Grygiel, I. 2000a. Algae in plankton and muddy sediments as well as in a food content of the larvae *Chironomus* f. l. *plumosus* (L.) of the Szczecin Lagoon (the Great Lagoon). - *Oceanol. Stud.* 29: 43-56.
- Wright, J. F., Winder, J. M., Gunn, R. J. M., Blackburn, J. H., Symes, K. L. and Clarke, R. T. 2000a. Minor local effects of a River Thames power station on the macroinvertebrate fauna. - *Regul. Rivers Res. Mgmt* 16: 159-174.
- Yamamoto, M. 2000a. (Chironomidae (Diptera) found in the garden of the Imperial Palace, Tokyo.) - *Mem. natn. Sci. Mus.* 36: 381-395.



Zander, C. D., Reimer, L. W., Barz, K., Dietel, G. and Strohbach, U. 2000a. Parasite communities of the Salzhaff (Northwest Mecklenburg, Baltic Sea) II. Guild communities, with special regard to snails, benthic crustaceans, and small-sized fish. - *Parasitol. Res.* 86: 359-372.

Zbikowski, J. 2000a. Macrozoobenthos of the Vistula in the section from Wyszogród to Torun. - *Pr. limnol.* 21: 75-84.

Supplement to 2001 Current Bibliography:  
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Barbosa, F. A. R., Callisto, M. and Galdean, N. (2000) 2001a. The diversity of benthic macroinvertebrates as an indicator of water quality and ecosystem health: a case study for Brazil. - *Aquat. Ecosyst. Hlth Mgmt* 4: 51-59.

Barbosa, F. A. R., Callisto, M. and Vianna, J. de A. (2000) 2001a. Water quality, phytoplankton, and benthic macroinvertebrates of the upper and lower Rio Paraguay basin, Paraguay. - *RAP Bull. biol. Assess.* 19: 61-67.

Barrow, T. M. and Peters, E. J. 2001a. Movements of rainbow trout in response to dissolved oxygen and food availability in Lake Ogallala, Nebraska. - *J. Freshwat. Ecol.* 16: 321-329.

Berezina, N. A. 2001a. (Influence of ambient pH on freshwater invertebrates under experimental conditions.) - *Ekologiya* 2001, 5: 372-381. [also published as: *Russ. J. Ecol.* 32: 343-351.]

Bis, B. and Higler, L. W. G. 2001a. Riparian vegetation of streams and the macroinvertebrate community structure. - *Ecohydrol. Hydrobiol.* 1: 253-260.

Björnsson, B. 2001b. Diel changes in the feeding behaviour of Arctic char (*Salvelinus alpinus*) and brown trout (*Salmo trutta*) in Ellidavatn, a small lake in southwest Iceland. - *Limnologica* 31: 281-288.

Bocian, J., Bis, B. and Zalewski, M. 2001a. The restoration of different degraded river systems. - In: Nuland, H. I. and Cals, M. H. (eds.): *River restoration in Europe*, pp. 137-143. RIZA, Wageningen.

Boix, D., Sala, J. and Moreno-Amich, R. (2000) 2001a. Succession of the macroinvertebrate community in a temporary pond. - *Verh. int. Verein. Limnol.* 27: 2586-2593.

Burks, R. L., Jeppesen, E. and Lodge, D. M. 2001a. Pelagic prey and benthic

predators: impact of odonate predation on *Daphnia*. - *J. N. Am. benthol. Soc.* 20: 615-628.

Callisto, M., Moretti, M. e Goulart, M. 2001a. Macroinvertebrados bentônicos como ferramenta para avaliar a saúde de riachos. - *Revta bras. Recursos hidr.* 6: 71-82.

Cardona, L. 2001a. Non-competitive coexistence between Mediterranean grey mullet: evidence from seasonal changes in food availability, niche

breadth and trophic overlap. - *J. Fish Biol.* 59: 729-744.

Carter, J. L. and Resh, V. H. 2001a. After site selection and before data analysis: sampling, sorting, and laboratory procedures used in stream benthic macroinvertebrate monitoring programs by USA state agencies. - *J. N. Am. benthol. Soc.* 20: 658-682.

Cavalli, L., Miquelis, A. and Chappaz, R. 2001a. Combined effects of environmental factors and predator-prey interactions on zooplankton assemblages in five high alpine lakes. - *Hydrobiologia* 455: 127-135.

Cleto F., S. E. N. e Walker, I. 2001a. Efeitos do ocupação urbana sobre a macrofauna de invertebrados aquáticos de um igarapé da cidade de Manaus/AM - Amazônia central. - *Acta amazon.* 31: 69-89.

Colautti, D. C. y Lenicov, M. R. 2001a. Alimentación de la carpa (*Cyprinus carpio* Linnaeus 1758) en la laguna de Lobos, Provincia de Buenos Aires, Argentina. - *Ecol. austral* 11: 69-78.

De Pauw, N., Beyst, B., and Heyden, S. (2000) 2001a. Development of a biological assessment method for river sediments in Flanders, Belgium. - *Verh. int. Verein. Limnol.* 27: 2703-2708.

Delong, M. D., Thorp, J. H., Greenwood, K. S. and Miller, M. C. 2001a. Responses of consumers and food resources to a high magnitude, unpredicted flood in the upper Mississippi River basin. - *Regul. Rivers Res. Mgmt* 17: 217-234.

Dobrowolski, Z. 2001a. Density, biomass, and distribution of benthic invertebrates in the mid-lake zone of the coastal Lake Gardno. - *Oceanol. Stud.* 30: 39-58.

Durnova, N. A. 2001a. Ekologo-morfologicheskie osobennosti lichinok *Glyptotendipes* Kieffer, 1913 (Diptera, Chironomidae). (Ecological-morphological peculiarities of larvae of *Glyptotendipes* Kieffer, 1913 (Diptera, Chironomidae).) - In: *Entomologicheskie i parazitologicheskie issledovaniya v Povolzh'e: Sb. nauch. Trud* 1: 52-57. Izd. Saratov Univ.

Edwards, J. S. and Thornton, I. W. B. 2001a. Colonization of an island volcano, Long Island, Papua New Guinea, and an emergent island, Motmot, in its caldera lake. VI. The pioneer arthropod community of Motmot. - *J. Biogeogr.* 28: 1379-1388.

Epler, J. H. 2001a. *Identification manual for the larval Chironomidae (Diptera) of North and South Carolina*. Version 1.0. St. Johns Riv. Wat.

- Mgmt Distr. Spec. Publ. SJ2001-SP13, Florida. vi + 516 pp.
- Fallu, M.-A. 2001a. Fossils from lake sediments in Northern Québec and Labrador: a window into past climate changes. - *Arctic* 54: 468-471.
- Filho, M. I. S. and Maltchik, L. (2000) 2001a. Stability of macroinvertebrates to hydrological disturbance by flood and drought in a Brazilian semi-arid river (NE Brazil). - *Verh. int. Verein. Limnol.* 27: 2461-2466.
- Freire, C. F. e Fonseca-Gessner, A. 2001a. Larvas de Chironomidae (Diptera) na microbacia do Ribeirão Cachim, São Carlos, São Paulo, Brasil. - *Ent. Vectores* 8: 417-429.
- Gilka, W. 2001b. Sezonowa dynamika pojawu wybranych gatunków ochotkowatych z plemienia Tanytarsini Pojezierza Kaszubskiego (Diptera: Chironomidae). (Seasonal dynamic of some chironomids of the tribe Tanytarsini in Kashubian Lakeland (Diptera: Chironomidae).) - *Acta ent. siles.* 7-8: 31-42.
- Gilka, W. 2001c. A review of Polish *Cladotanytarsus* KIEFFER (Diptera: Chironomidae) with description of three new species. - *Polskie Pismo ent.* 70: 307-328.
- Gibson, R. J. and Colbo, M. H. (2000) 2001a. The response of salmonids and aquatic invertebrates to urban influenced enrichment in a Newfoundland river, Canada. - *Verh. int. Verein. Limnol.* 27: 2071-2078.
- Gratzer, Hermann and Ahlf, W. 2001a. Adjustment of a formulated sediment for sediment testing with *Caenorhabditis elegans* (Nematoda). - *Acta hydrochim. hydrobiol.* 29: 41-46.
- Habdija, I., Radanovic, I. and Matonickin, R. (2000) 2001a. Functional feeding structure of benthic macroinvertebrates in travertine barrier biotopes. - *Verh. int. Verein. Limnol.* 27: 2594-2599.
- Haenni, J.-P. 2001a. Fossil Diptera in Baltic amber: The collection of the Muséum d'Histoire Naturelle Neuchâtel. - In: Krzeminska; E. and Krzeminski, W. (eds.): *Abstr. 2nd Int. Congr. Palaeont.: Fossil Insects*, pp. 23-24. Kraków.
- Hahn, T. 2001a. *Hormonelle Wirkungen von Umweltchemikalien bei aquatischen Insekten: Entwicklung von Testmethoden am Beispiel der Mücke Chironomus riparius Meigen (Diptera: Nematocera)*. - Tenea Verl., Berl. 128 pp.
- Hahn, T. und Schulz, R. 2001a. Ist die Vitellogenese auch bei aquatischen Insekten als Biomarker für fremdstoffinduzierte hormonelle Störungen nutzbar? Ergebnisse am Beispiel der Mücke *Chironomus riparius*. - *Tag. Dt. Ges. Limnol* 2000: 681-686.
- Hall, M. J., Closs, G. P. and Riley, R. H. 2001a. Relationships between land use and stream invertebrate community structure in a South Island, New Zealand, coastal stream catchment. - *N. Z. J. mar. Freshwat. Res.* 35: 591-603.
- Hall, R. O. Jr., Likens, G. E. and Malcolm, H. M. 2001a. Trophic basis of invertebrate production in 2 streams at the Hubbard Brook Experimental Forest. - *J. N. Am. benthol. Soc.* 20: 432-447.
- Harrel, S. L. and Dibble, E. D. 2001a. Factors affecting foraging patterns of juvenile bluegill (*Lepomis macrochirus*) in vegetated habitats of a Wisconsin lake. - *J. Freshwat. Ecol.* 16: 581-589.
- Hatch, J. T. and Besaw, S. 2001a. Food use of Minnesota populations of the Topeka shiner (*Notropis topeka*). - *J. Freshwat. Ecol.* 16: 229-233.
- Hayward, J. M. R., Ingersoll, C. G., Jones, J. R. and Whites, D. W. 2001a. Influence of sediment type sand exposure time on likeness of colonization tray and background macroinvertebrate assemblages. - *J. Freshwat. Ecol.* 16: 565-573.
- Hebdon, J. L. and Hubert, W. A. 2001a. Drifting invertebrate composition, densities, and biomass from fall through winter in three Wyoming tail waters. - *Intermount. J. Sci.* 7: 49-56.
- Heinrichs, M. L., Walker, I. R. and Mathewes, R. W. 2001a. Chironomid-based paleosalinity records in southern British Columbia, Canada: a comparison of transfer functions. - *J. Paleolimnol.* 26: 147-159.
- Heiri, O. 2001a. *Holocene palaeolimnology of Swiss mountain lakes reconstructed using subfossil chironomid remains: past climate and prehistoric human impact on lake ecosystems*. - Ph. D. Thes., Univ. Bern. 113pp.
- Hirabayashi, K., Iwakuma, T., Kondo, S. and Ueno, R. (eds.) 2001a. *Yusurika no Sekai. (The World of Chironomidae)*. - Baifukan, Tokyo. 306 pp. [in Japanese only]
- Hodgson, J. Y. and Hodgson, J. R. (2000) 2001a. Exploring optimal foraging by largemouth bass (*Micropterus salmoides*) from three experimental lakes. - *Verh. int. Verein. Limnol.* 27: 1757-1762.
- Ilyashuk, B. P. i Ilyashuk, E. A. 2001b. Izmenenie fauny khironomid pri evtrofirovanii i zagryaznenii sredy obitaniya metallami: rezultaty paleoekologicheskikh issledovaniy. (Change of chironomid fauna by eutrophication and metal pollution of the habitat: results of paleoecological investigations.) - *Tez. Dokl. 8. S''ezd. gidrobiol. Obshch. Ross. Akad. Nauk* 2: 132-133. Kaliningrad.

- Ilyashuk, E. A. i Ilyashuk, B. P. 2001a. Formirovanie i razvitie fauny khironomid subarktycheskogo ozera v golotsene. (Formation and development of the chironomid fauna of a subarctic lake in the Holocene.) - *Tez. Dokl. 8. S"ezd. gidrobiol. Obshch. Ross. Akad. Nauk 1*: 284-286. Kaliningrad.
- Iwakuma, T. 2001a. (Chironomids as useful insects.) - In: Hirabayashi, K., Iwakuma, T., Kondo, S. and Ueno, R. (eds.) 2001a. *Yusurika no Sekai. (The World of Chironomidae)*, pp. 74-81. Baifukan, Tokyo.
- Iwakuma, T., Kondo, S. and Takemon, Y. 2001a. (Life histories of chironomids.) - In: Hirabayashi, K., Iwakuma, T., Kondo, S. and Ueno, R. (eds.) 2001a. *Yusurika no Sekai. (The World of Chironomidae)*, pp. 114-128. Baifukan, Tokyo.
- Johansen, M. 2001a. Evidence of freshwater feeding by adult salmon in the Tana River, northern Norway. - *J. Fish Biol.* 59: 1405-1407.
- Jurkiewicz-Karnkowska, E. 2001a. Heavy metals in some short food chains in the lowland dam reservoir (Zegrzynski Reservoir, central Poland). - *Ecohydrol. Hydrobiol.* 1: 449-456.
- Kajak, Z. and Prus, P. 2001c. What makes *Chironomus* more abundant above the bottom? Field experiments in mesocosms. - *Ecohydrol. Hydrobiol.* 1: 423-434.
- Kamei, M., Hirabayashi, K. and Ohno, M. 2001a. (Control of chironomid pests.) - In: Hirabayashi, K., Iwakuma, T., Kondo, S. and Ueno, R. (eds.) 2001a. *Yusurika no Sekai. (The World of Chironomidae)*, pp. 82-111. Baifukan, Tokyo.
- Kay, W. R., Halse, S. A., Scanlon, M. D. and Smith, M. J. 2001a. Distribution and environmental tolerance of aquatic macroinvertebrate families in the agricultural zone of southwestern Australia. - *J. N. Am. benthol. Soc.* 20: 182-199.
- Keiper, J. B. and Casamatta, D. A. 2001a. Benthic organisms as forensic indicators. - *J. N. Am. benthol. Soc.* 20: 311-324.
- Kirk-Spriggs, A. H., Ismay, J. W., Ackland, M., Roháček, J., Mathis, W. N., Foster, G. A., Pape, T., Cranston, P. S. and Meier, R. 2001a. Inter-tidal Diptera of southwestern Africa (Chironomidae, Canacidae, Chloropidae, Milichiidae, Tethinidae, Ephydriidae, Sphaeroceridae, Coelopidae, Sarcophagidae and Anthomyiidae). - *Cimbebasia* 17: 85-135.
- Klukowska, M. 2001a. *Georthocladus luteicornis* (Goetghebuer, 1941) (Diptera: Chironomidae, Orthocladiinae) - ciekawy gatunek w faunie ochotkowatych Polski. (*Georthocladus luteicornis* (Goetghebuer, 1941) (Diptera: Chironomidae, Orthocladiinae) the interesting species in Polish chironomids fauna.) - *VIII Ogólnopolskie Warsztaty Bentologiczne (Proc. VIII Polish benthol. Workshop)*, p. 18.
- Kobayashi, T. and Yamamoto, M. 2001a. (Taxonomy and morphology of Chironomidae.) - In: Hirabayashi, K., Iwakuma, T., Kondo, S. and Ueno, R. (eds.) 2001a. *Yusurika no Sekai. (The World of Chironomidae)*, pp. 129-269. Baifukan, Tokyo.
- Køie, M. 2001a. The life cycle of *Capillaria gracilis* (Capillariidae), a nematode parasite of gadoid fish. - *Sarsia* 86: 383-387.
- Kornijów, R., Stryjecki, R., Kuoppamäki, K., Horppila, J., Luokkanen, E. and Kairesalo, T. (2000) 2001. Do water mites benefit from benthivorous fish in vegetated lake areas? - *Verh. int. Verein. Limnol.* 27: 3291-3294.
- Kornijów, R., Szczerbowski, J. A. and Bartel, R. 2001. Epiphytic fauna associated with elodeids of the Iraqi lakes Tharthar and Habbaniya. - *Archs Pol. Fish.* 9, Suppl. 1: 145-154.
- Kornijów, R., Szczerbowski, J. A., Krzywosz, T. and Bartel, R. 2001a. The macrozoobenthos of the Iraqi lakes Tharthar, Habbaniya and Razzazah. - *Archs Pol. Fish.* 9, Suppl. 1: 125-143.
- Kownacki, A. 2001a. Chironomidae - wieża Babel? (Chironomidae - Tower of Babel?) - *DNO Biul. Sekcji Bentologicznej PTH*, 9: 5.
- Kuhlmann, M. L., Hayashida, C. Y. and Araújo, R. P. A. 2001a. Using *Chironomus* (Chironomidae: Diptera) mentum deformities in environmental assessment. - *Acta limnol. bras.* 12: 55-61.
- Lencioni, V., Maiolini, B. and Zuccati, S. (1999) 2001a. Temporal drift patterns in a high mountain stream system (Conca, Adamello-Brenta Natural Park, Trentino, Italy). - *Studi trent. Sci. nat., Acta biol.* 76: 113-123.
- Lobinske, R. J. 2001a. *Ecological studies of larval Glyptotendipes paripes (Chironomidae: Diptera) in selected central Florida lakes for creating an exploratory temporal and spatial model of nuisance populations.* - Ph. D. Thes., Univ. Fla. 163 pp.
- Maheshwari, G. and Maheshwari, G. 2001a. Some new Chironomidae from south and middle Andaman Islands, India (Diptera: Chironomidae). - *J. Bombay nat. Hist. Soc.* 98: 406-421.
- Marshall, B. D. 2001a. An evaluation of the sensitivity of a macroinvertebrate biomonitoring study in headwater streams of New River Gorge National River. - *J. Freshwat. Ecol.* 16: 415-428.

- Merz, J. E. 2001a. Diet of juvenile fall-run chinook salmon in the lower Mokelumne River, California. - *Cal. Fish Game* 87: 102-114.
- Mihuc, T. B., Bryan, C. F. and Beck, L. T. (2000) 2001a. Long-term comparison of water hyacinth (*Eichhornia crassipes*) invertebrate assemblages in a sub-tropical river floodplain: 1975-1976 and 1994-1995. - *Verh. int. Verein. Limnol.* 27: 2535-2539.
- Miserendino, M. L. 2001b. Length-mass relationships for macroinvertebrates in freshwater environments of Patagonia (Argentina). - *Ecol. austral* 11: 3-8.
- Morales, C. J. and Pimentel, F. Z. 2001a. The Diptera order in the amber of Chiapas, Mexico. - In: Krzeminska, E. and Krzeminski, W. (eds.): *Abstr. 2nd Int. Congr. Palaeont.: Fossil Insects*, pp. 47-48. Kraków.
- Morozova, E. E. 2001a. Morfo-kariologicheskoe izuchenie *Demicryptochironomus vulneratus* Zetterstedt, 1838 (Diptera, Chironomidae) iz vodoemov Saratovskoi oblasti. (Morpho-karyological investigation of *Demicryptochironomus vulneratus* Zetterstedt, 1838 (Diptera, Chironomidae) from water reservoirs in the Saratov District.) - In: *Entomologicheskije i parazitologicheskije issledovaniya v Povolzh'e. Sb. nauch. Trud* 1: 32-37. Izd. Saratov Univ.
- Morrone, J. J. 2001a. *Biogeografía de América Latina y el Caribe*. - *Manuales y Tesis* 3. Soc. ent. aragon., Zaragoza. 148 pp.
- Mosch, E. C., Heider, V. und Röhrig, R. 2001a. *Die Chironomidenfauna des Probst Jesarer Sees/Lübtheen (Mecklenburg-Vorpommern)*. - Unters. Auftr. St. Amt. Umwelt Nat., Schwerin. 6 pp.
- Muñoz, E., Mendoza, G. and Valdovinos, C. 2001a. Rapid biodiversity assessment in five lentic systems of central Chile: benthonic macroinvertebrates. - *Gayana* 65: 173-180.
- Nijboer, R. C. and Verdonshot, P. F. M. (2000) 2001a. Taxonomic adjustment affects data analysis: an often forgotten error. - *Verh. int. Verein. Limnol.* 27: 2546-2549.
- Nocentini, A. M. and Boggero, A. 2001a. First phase of macroinvertebrate repopulation of Lake Orta (Buccione Basin) after liming. - *J. Limnol.* 60: 110-126.
- Noordhuis, R. 2001a. Macrofauna in het IJsselmeergebied. (Macroinvertebrates in the Lake IJsselmeer area.). - *Levende Natuur* 102: 231-236.
- O'Hare, M. T., Ervine, D. A. and Murphy, K. J. (2000) 2001a. Benthic invertebrate flow preferences in an upland Scottish stream. - *Verh. int. Verein. Limnol.* 27: 2448-2452.
- OECD 2001a. *Guidelines for the testing of chemicals. Proposal for a new Guideline 218. Sediment-water chironomid toxicity test using spiked sediment*. - Draft Doc., Feb. 2001. OECD, Paris. 21 pp.
- OECD 2001b. *Guidelines for the testing of chemicals. Proposal for a new Guideline 219. Sediment-water chironomid toxicity test using spiked water*. - Draft Doc., Feb. 2001. OECD, Paris. 21 pp.
- Ogura, K., Inoue, E., Kanki, S., Miyahara, M. and Hirao, M. (2000) 2001a. Fate of DDT and PCB in some lakes in Japan. - *Verh. int. Verein. Limnol.* 27: 3076-3081.
- Orendt, C. 2001a. Chironomiden in Kleingewässern der nördlichen Kalkalpen (Quellen, Bäche, Tümpel, Kleinseen). - *Tag.ber. dt. Ges. Limnol.* 2000: 434-436.
- Paggi, A. C. 2001a. Diptera: Chironomidae. - In: Fernández, H. R. y Domínguez, E. (eds.): *Guía para la determinación de los artrópodos bentónicos sudamericanos*. Univ. Nac. Tucumán, *Cienc. exact. nat.* 1: 282 pp.
- Paller, M. H. 2001a. Comparison of fish and macroinvertebrate bioassessments from South Carolina coastal plain streams. - *Aquat. Ecosyst. Hlth Mgmt* 4: 175-186.
- Paturej, E. and Jablonska, I. 2001. The diversity of zooplankton and benthos communities in a shallow coastal Lake Gardno. - *Nat. Sci.* 8: 61-71.
- Peck, M. R. 2001a. *A site-specific tropical sediment toxicity test using Chironomus crassiforceps to investigate metal bioavailability in acid-sulphate sediments*. - Ph. D. Thes., Univ. Stirling.
- Perkovsky, E. E. 2001a. First results of the analysis of the Rovno amber fauna. - In: Krzeminska, E. and Krzeminski, W. (eds.): *Abstr. 2nd Int. Congr. Palaeont.: Fossil Insects*, pp. 49-50. Kraków.
- Peterson, C. G., Valett, H. M., Dahm, C. N. and Marshall, M. C. (2000) 2001a. Heterogeneity in algal-grazer associations in a small montane spring. - *Verh. int. Verein. Limnol.* 27: 2453-2460.
- Piercey, G. E., Levings, C. D. and Grout, J. A. 2001a. Metal analyses from water samples collected near Britannia Mine and in Howe Sound, British Columbia, 1997 and 1998. - *Can. Data Rep. Fish. aquat. Sci.* 1082: 1-39.
- Pothoven, S. A., Nalepa, T. F., Schneeberger, P. J. and Brandt, S. B. 2001a. Changes in diet and body condition of lake whitefish in southern

- Lake Michigan associated with changes in benthos. - *N. Am. J. Fish. Mgmt* 21: 876-883.
- Rinehart, J. P., Cakra-Ireland, R. A., Flannagan, R. D. and Denlinger, D. L. 2001a. Expression of ecdysone receptor is unaffected by pupal diapause in the flesh fly, *Sarcophaga crassipalpis*, while its dimerization partner, USP, is downregulated. - *J. Insect Physiol.* 47: 915-921.
- Roque, F. O. and Trivinho-Strixino, S. 2001a. Benthic macroinvertebrates in mesohabitats of different spatial dimensions in a first order stream (São Carlos - SP). - *Acta limnol. bras.* 13: 69-77.
- Salmoiraghi, G., Gumiero, B., Pasteris, A., Prato, S., Bonacina, C. and Bonomi, G. 2001a. Breakdown rates and macroinvertebrate colonisation of alder (*Alnus glutinosa*) leaves in an acid lake (Lake Orta, N Italy), before, during and after a liming intervention. - *J. Limnol.* 60: 127-133.
- Sanseverino, A. M. and Nessimian, J. L. 2001a. Hábitats de larvas de Chironomidae (Diptera) en riachos de Mata Atlântica no Estado do Rio de Janeiro. - *Acta limnol. bras.* 26: 29-38.
- Sasa, M. and Suzuki, H. 2001c. Studies on the species of family Chironomidae (Diptera) collected on Minamidaito Island, Okinawa, south Japan. Part 1. - *Trop. Med.* 43: 61-92.
- Seredszus, F. and Wichard, W. 2001a. Buchonomyiinae (Diptera, Chironomidae) in Baltic amber. - In: Krzeminska; E. and Krzeminski, W. (eds.): *Abstr. 2nd Int. Congr. Palaeont.: Fossil Insects*, p. 65. Kraków.
- Sergeeva, I. V. 2001a. Khironomidy roda *Procladius* (Diptera, Chironomidae: Tanytopodinae). Sistematika, morfologiya, kariotipy. (Chironomids of the genus *Procladius* (Diptera, Chironomidae: Tanytopodinae). Systematics, morphology, karyotypes.) - In: *Entomologicheskije i parazitologicheskije issledovaniya v Povolzh'e. Sb. nauch. Trud* 1: 5-8. Izd. Saratov Univ.
- Sibley, P. K., Dixon, D. G. and Barton, D. R. 2001a. Impact of bleached kraft pulp mill effluent on the nearshore benthic community of Jackfish Bay, Lake Superior. - *Wat. Qual. Res. J. Can.* 36: 815-833.
- Simon, K. S. and Benfield, E. E. 2001a. Leaf and wood breakdown in cave streams. - *J. N. Am. benthol. Soc.* 20: 550-563.
- Skriver, J., Friberg, N., and Kirkegaard, J. (2000) 2001a. Biological assessment of running waters in Denmark: introduction of the Danish Stream Fauna Index (DSFI). - *Verh. int. Verein. Limnol.* 27: 1822-1830.
- Smith, M. E. and Andrikovics, S. (2000) 2001a. Benthic invertebrates in blackwaters: a comparison of macro- and mesofaunal assemblages in south-eastern United States and Middle Europe. - *Verh. int. Verein. Limnol.* 27: 2556-2561.
- Sundermann, A. 2001a. *Untersuchungen zur Autökologie von Stempellina montivaga / Stempellina spec. nov. (Diptera, Chironomidae), einer köcherbauenden Zuckmücke helokrener Quellen.* - Dipl.-Arb., Univ. Marburg. 90 pp.
- Thoele, B. 2001a. The harvest and culture of life freshwater aquatic invertebrates. - *Alaska Sea Grant Rep. 01-03*: 125-129.
- Toman, M. J. and Podgornik, S. (2000) 2001a. Artificial substrate colonization by macroinvertebrates in a small stream ecosystem. - *Verh. int. Verein. Limnol.* 27: 2567-2570.
- Toyama, M. 2001a. (Chironomids as harmful insects.) - In: Hirabayashi, K., Iwakuma, T., Kondo, S. and Ueno, R. (eds.) 2001a. *Yusurika no Sekai. (The World of Chironomidae)*, pp. 58-65. Baifukan, Tokyo.
- Tyson, J. T. and Knight, R. L. 2001a. Response of yellow perch to changes in the benthic invertebrate community of western Lake Erie. - *Trans. Am. Fish. Soc.* 130: 766-782.
- Ueno, R., Nishino, M., Nakazato, R., Hirabayashi, K., Kondo, S., Kasuya, S. and Shimomura, H. 2001a. (Outbreak of midge, Chironomidae). - In: Hirabayashi, K., Iwakuma, T., Kondo, S. and Ueno, R. (eds.) 2001a. *Yusurika no Sekai. (The World of Chironomidae)*, pp. 2-57. Baifukan, Tokyo.
- Vadineanu, A., Cristofor, S., Ignat, Gh., Ciubuc, C., Risnoveanu, G., Bodescu, F. and Botnariuc, N. (2000) 2001a. Structural and functional changes within the benthic communities of Danube Delta lakes. - *Verh. int. Verein. Limnol.* 27: 2571-2576.
- Verdonschot, P. F. M. (2000) 2001a. Soft-bottomed lowland streams: a dynamic desert. - *Verh. int. Verein. Limnol.* 27: 2577-2581.
- Walton, W. E. 2001a. Effects of *Triops newberryi* (Notostraca: Triopsidae) on aquatic insect communities in ponds in the Colorado desert of southern California. - *Israel J. Zool.* 47: 491-511.
- Wichard, W. and Weitschat, W. 2001a. Taphonomy and systematic of aquatic insects in Baltic amber. - In: Krzeminska; E. and Krzeminski, W. (eds.): *Abstr. 2nd Int. Congr. Palaeont.: Fossil Insects*, p. 79. Kraków.
- Wildermuth, H. 2001b. Zuckmückenlarven als Epizoen von *Somatochlora metallica* (Diptera: Chironomidae; Odonata: Corduliidae). - *Libellula* 20: 171-174.

- Wold, L. A. 2001a. *Some effects of aluminum sulfate and arsenic sulfide on Daphnia pulex and Chironomus tentans*. - Ph. D. Thes., Wash. St. Univ. 134 pp.
- Wolfram, G. 2001a. Zoobenthos. - In: Dokulil, M., Hamm, A. und Kohl, J.-K. (eds.): *Ökologie und Schutz von Seen*, pp. 161-183. UTB 2110. Facultas-Univ.-Verl., Wien.
- Zorina, O. V. 2001a. New species of the genera *Cryptotendipes*, *Dicrotendipes*, *Microtendipes* and *Stenochironomus* (Diptera, Chironomidae, Chironominae) from the Russian Far East. - *Vest. Zool.* 35: 31-38; 103 [Ukr. summary].
- Current Bibliography 2002**
- Abdoli, A., Rahmani, H. and Rasooli, P. 2002a. On the occurrence, diet and reproduction of *Neogobius fluviatilis* in Madarsoo stream, Golestan National Park (north eastern Iran). - *Zool. Middle East* 26: 123-128.
- Ali, A., Frouz, J. and Lobinske, R. J. 2002a. Spatio-temporal effects of selected physico-chemical variables of water, algae and sediment chemistry on the larval community of nuisance Chironomidae (Diptera) in a natural and a man-made lake in central Florida. - *Hydrobiologia* 470: 181-193.
- Andersen, T. and Mendes, H. F. 2002a. Neotropical and Mexican *Mesosmittia* Brundin, with the description of four new species (Insecta, Diptera, Chironomidae). - *Spixiana* 25: 141-155.
- Andersen, T. and Mendes, H. F. 2002b. New species and records of the *Axarus "rogersi"* group" from South and Central America (Diptera, Chironomidae). - *Acta zool. Acad. Sci. hung.* 48: 35-40.
- Andersson, S. och Tobiasson, S. 2002a. Bottenfaunanundersökningar inför saneringen av Örserumsviken. (Bottom fauna investigations for restoration of Örserum Bay.) - *Rapp. 2002: 11. Kalmar Univ., Inst. Biol. Miljövetensk.*: 15 pp.
- Añón Suárez, D. A. 2002a. Life history and secondary production of *Ablabesmyia reissi* (Diptera: Chironomidae) from Lake Escondido, Bariloche, Argentina. - *J. N. Am. benthol. Soc.* 21: 414-429.
- Arengo, F. and Baldassarre, G. A. 2002a. Patch choice and foraging behavior of nonbreeding American Flamingos in Yucatan, Mexico. - *Condor* 104: 452-457.
- Ashe, P. and O'Connor, J. P. 2002a. A review of the known associations, commensal, phoretic and ectoparasitic, involving the aquatic stages of Chironomidae (Diptera) with Trichoptera. - *Nova Supplta ent.* 15: 467-480.
- Babut, M., Perrodin, Y., Bray, M., Clément, B., Delolme, C., Devaux, A., Durrieu, C., Garric, J., Vollat, B., Becart, D. et Charrier, C. 2002a. Évaluation des risques écologiques causés par des matériaux de dragage : proposition d'une approche adaptée aux dépôts en gravière en eau. - *Révue. Sci. Eau* 15: 615-639.
- Bakanov, A. I. 2002a. Taksonomicheskii sostav i obilie bentosa Sheksninskogo vodokhranilishcha v kontse 20 veka. (Taxonomical composition and abundance of benthos in the Sheksna Reservoir at the end of the 20th century.) - *Biol. vnutr. Vod I*: 66-75.
- Baker, S. 2002a. Food habits and feeding electivity of the turquoise darter, *Etheostoma inscriptum*, in a Georgia Piedmont stream. - *J. Freshwat. Ecol.* 17: 385-390.
- Balci, P. and Kennedy, J. H. 2002a. Egg to adult development times of five species of chironomids (Diptera). - *Ent. News* 113: 21-24.
- Balci, P. and Kennedy, J. H. 2002b. Secondary production of *Apedilum elachistum* Townes (Diptera: Chironomidae) in simulated reservoir wetlands. - *Wetlands* 22: 669-676.
- Baldó, F. and Drake, P. 2002a. A multivariate approach to the feeding habits of small fishes in the Guadalquivir Estuary. - *J. Fish Biol.* 61, Suppl. A: 21-32.
- Battle, J. M. and Golladay, S. W. 2002a. Aquatic invertebrates in hardwood depressions of southwest Georgia. - *SEast. Nat.* 1: 149-158.
- Belanger, S. E., Bowling, J. W., Lee, D. M., LeBlanc, E. M., Kerr, K. M., McAvoy, D. C., Christman, S. C. and Davidson, D. H. 2002a. Integration of aquatic fate and ecological responses to linear alkyl benzene sulfonate (LAS) in model stream ecosystems. - *Ecotoxic. envir. Saf.* 52: 150-171.
- Bellstedt, R. und Samietz, R. 2002a. Katalog der in den Sammlungen des Museums der Natur Gotha aufbewahrten Typen. Teil 1: Insekten. - *Abh. Ber. Mus. Nat. Gotha* 22: 187-195.
- Benoy, G. A., Nudds, T. D. and Dunlop, E. 2002a. Patterns of habitat and invertebrate diet overlap between tiger salamanders and ducks in prairie potholes. - *Hydrobiologia* 481: 47-59.
- Bentivegna, C. S. 2002a. Advancing monosaccharides as biomarkers: part I. Development of fluorophore-assisted carbohydrate-electrophoresis in *Chironomus riparius*. - *Aquat. Toxic.* 61: 95-109.
- Bentivegna, C. S. 2002b. Advancing monosaccharides as biomarkers: Part II. Effects

- of starvation and cadmium in *Chironomus riparius* as detected by fluorophore-assisted carbohydrate-electrophoresis. - *Aquat. Toxic.* 61: 111-126.
- Bettinetti, R. and Provini, A. 2002a. Toxicity of 4-nonylphenol to *Tubifex tubifex* and *Chironomus riparius* in 28-day whole-sediment tests. - *Ecotoxic. envir. Saf.* 53: 113-121.
- Bettinetti, R., Cuccato, D., Galassi, S. and Provini, A. (2001) 2002a. Toxicity of 4-nonylphenol in spiked sediment to three populations of *Chironomus riparius*. - *Chemosphere* 46: 201-207.
- Bhattacharyya, S., Klerks, P. L. and Nyman, J. A. 2002a. Toxicity to freshwater organisms from oils and oil spill chemical treatments in laboratory microcosms. - *Envir. Pollut.* 122: 205-215.
- Bickel, D. 2002a. Diptera diversity on tree trunks. - In: Yeates, D. (ed.): *Abstr. 5<sup>th</sup> Int. Congr. Dipterol., Brisbane*: 20.
- Bigler, C., Larocque, I., Peglar, S. M., Birks, H. J. B. and Hall, R. I. 2002a. Quantitative multiproxy assessment of long-term patterns of Holocene environmental change from a small lake near Abisko, northern Sweden. - *Holocene* 12: 481-496.
- Björk, P., Baurén, G., Jin, S., Tong, Y.-G., Bürglin, T. R., Hellman, U. and Wieslander, L. 2002a. A novel conserved RNA-binding domain protein, RBD-1, is essential for ribosome biogenesis. - *Molec. Biol. Cell* 13: 3683-3695.
- Blocksom, K. A., Kurtenbach, J. P., Klemm, D. J., Fulk, F. A. and Cormier, S. M. 2002a. Development and evaluation of the Lake Macroinvertebrate Integrity Index (LMII) for New Jersey lakes and reservoirs. - *Envir. Monit. Assess.* 77: 311-333.
- Boix, D. y Sala, J. 2002a. Riqueza y rareza de los insectos acuáticos de la laguna temporal de Espolla (Pla de l'Estany, Cataluña). - *Boln Asoc. esp. Ent.* 26: 45-57.
- Bonnett, M. L. and Lambert, P. W. 2002a. Diet of giant kokopu, *Galaxias argenteus*. - *N. Z. Jl mar. Freshwat. Res.* 36: 361-369.
- Boothroyd, I. K. G. 2002a. *Cricotopus* and *Paratrichocladius* (Chironomidae: Insecta) in New Zealand, with description of *C. hollyfordensis* n. sp., and redescription of adult and immature stages of *C. zealandicus* and *P. pluriserialis*. - *N. Z. Jl mar. Freshwat. Res.* 36: 775-788.
- Bovero, S., Hankeln, T., Michailova, P., Schmidt, E. and Sella, G. 2002a. Nonrandom chromosomal distribution of spontaneous breakpoints and satellite DNA clusters in two geographically distant populations of *Chironomus riparius* (Diptera: Chironomidae). - *Genetica* 115: 273-281.
- Bovero, S., Sella, G., Hankeln, T., Michailova, P. and Schmidt, E. 2002a. Spontaneous breakpoints and satellite DNA clusters distribution in two populations of *Chironomus riparius* Meigen 1804 from polluted sediments. - *Chromosome Res.* 10, Suppl. 1: 14.
- Boyero, L. and DeLope, J. L. 2002a. Short-term recolonization of stones in a tropical island stream. - *Mar. Freshwat. Res.* 53: 993-998.
- Brady, V. J., Cardinale, B. J., Gathman, J. P. and Burton, T. M. 2002a. Does facilitation of faunal recruitment benefit ecosystem restoration? An experimental study of invertebrate assemblages in wetland mesocosms. - *Restor. Ecol.* 10: 617-626.
- Brodersen, K. P. and Anderson, N. J. 2002a. Distribution of chironomids (Diptera) in low arctic West Greenland lakes: trophic conditions, temperature and environmental reconstruction. - *Freshwat. Biol.* 47: 1137-1157.
- Brooks, R. T., Miller, S. D. and Newsted, J. 2002a. The impact of urbanization on water and sediment chemistry of ephemeral forest pools. - *J. Freshwat. Ecol.* 17: 485-488.
- Brunke, M., Hoffmann, A. and Pusch, M. 2002a. Association between invertebrate assemblages and mesohabitats in a lowland river (Spree, Germany): A chance for prediction? - *Arch. Hydrobiol.* 154: 239-259.
- Buat, P., Ramlal, P. S. and Guildford, S. J. 2002a. The relationship between organic matter, invertebrates, and bacteria in the sediments of Lake Malawi. - *Aquat. Ecosyst. Hlth Mgmt* 5: 307-313.
- Buchwalter, D. B., Jenkins, J. J. and Curtis, L. R. 2002a. Respiratory strategy is a major determinant of [<sup>3</sup>H]water and [<sup>14</sup>C]chlorpyrifos uptake in aquatic insects. - *Can. J. Fish. aquat. Sci.* 59: 1315-1322.
- Burgherr, P., Ward, J. V. and Robinson, C. T. 2002a. Seasonal variation in zoobenthos across habitat gradients in an alpine glacial floodplain (Val Roseg, Swiss Alps). - *J. N. Am. benthol. Soc.* 21: 561-575.
- Burton, T. M., Stricker, C. A. and Uzarski, D. G. 2002a. Effects of plant community composition and exposure to wave action on invertebrate habitat use of Lake Huron coastal wetlands. - *Lakes Reservoirs Res. Mgmt* 7: 255-269.
- Buss, D. F., Baptista, D. F., Silveira, M. P., Nessimian, J. L. and Dorvillé, L. F. M. 2002a. Influence of water chemistry and environmental degradation on macroinvertebrate assemblages



- in a river basin in south-east Brazil. - *Hydrobiologia* 481: 125-136.
- Caldwell, B. A. and Wiersema, N. A. 2002a. New records and observations for parasitic chironomid midges (Diptera: Chironomidae) and their mayfly (Ephemeroptera) hosts. - *Ent. News* 113: 11-14.
- Callaghan, A., Fisher, T. C., Grosso, A., Holloway, G. J. and Crane, M. 2002a. Effect of temperature and pirimiphos methyl on biochemical biomarkers in *Chironomus riparius* Meigen. - *Ecotoxic. envir. Saf.* 52: 128-133.
- Callisto, M. e Gonçalves, J. F. Jr. 2002a. A vida nas águas das montanhas. - *Ciência hoje* 182: 68-71.
- Callisto, M., Barbosa, F. A. R. and Moreno, P. 2002a. The influence of *Eucalyptus* plantations on the macrofauna associated with *Salvinia auriculata* in southeast Brazil. - *Braz. J. Biol.* 62: 63-68.
- Callisto, M., Moreno, P., Gonçalves, J. F. Jr., Leal, J. J. F. and Esteves, F. A. 2002a. Diversidade e biomassa de larvas de Chironomidae (Diptera) em uma lagoa costeira impactada no Estado do Rio de Janeiro, Brasil. - *Braz. J. Biol.* 62: 77-84.
- Callisto, M., Vono, V., Barbosa, F. A. R. and Santeiro, S. M. 2002a. Chironomidae as a food resource for *Leporinus amblyrhynchus* (Teleostei: Characiformes) and *Pimelodes maculatus* (Teleostei: Siluriformes) in a Brazilian reservoir. - *Lundiana* 3: 67-73.
- Cameron, N. G., Schnell, Ø. A., Rautio, M. L., Lami, A. Livingstone, D. M., Appleby, P. G., Dearing, J. A. and Rose, N.L. 2002a. High-resolution analyses of recent sediments from a Norwegian mountain lake and comparison with instrumental records of climate. - *J. Paleolimnol.* 28: 79-93.
- Catalan, J., Pla, S., Rieradevall, M., Felip, M., Ventura, M., Buchaca, T., Camarero, L., Brancelj, A., Appleby, P. G., Lami, A., Grytnes, J. A., Agustí-Panareda, A. and Thompson, R. 2002a. Lake Redó ecosystem response to an increasing warming the Pyrenees during the twentieth century. - *J. Paleolimnol.* 28: 129-145.
- Cauchie, H.-M. 2002a. Chitin production by arthropods in the hydrosphere. - *Hydrobiologia* 470: 63-96.
- Cazzaniga, N. J., Tamburi, N., Carrizo, M. and Ponce, G. F. 2002a. Feeding *Girardia anceps* (Platyhelminthes: Tricladida) in the laboratory. - *J. Freshwat. Ecol.* 17: 93-98.
- Çelik, K. 2002a. Community structure of macrobenthos of a southeast Texas sand-pit lake related with water temperature, pH and dissolved oxygen concentration. - *Turk. J. Zool.* 26: 333-339.
- Céréghino, R., Cugny, P. and Lavandier, P. 2002a. Influence of intermittent hydropeaking on the longitudinal zonation patterns of benthic invertebrates in a mountain stream. - *Int. Rev. Hydrobiol.* 87: 47-60.
- Chaloner, D. T., Martin, K. M., Wipfli, M. S., Ostrom, P. H. and Lamberti, G. A. 2002a. Marine carbon and nitrogen in southeastern Alaska stream food webs: evidence from artificial and natural streams. - *Can. J. Fish. aquat. Sci.* 59: 1257-1265.
- Chaloner, D. T., Wipfli, M. S. and Caouette, J. P. 2002a. Mass loss and macroinvertebrate colonisation of Pacific salmon carcasses in south-eastern Alaskan streams. - *Freshwat. Biol.* 47: 263-273.
- Chalupová, Š. and Matena, J. 2002a. Společenstva pakomaru horní Stropnice v Novohradských horách (jižní Čechy). (Chironomid communities of the Upper Stropnice River (Novohradské Mountains, South Bohemia).) - In: Papáček, M. (ed.): *Biodiverzita a přírodní podmínky Novohradských hor*, pp. 245-250. Jihočeská Univ., Ent. Ustav AV CR, České Budejovice.
- Chaton, P. F., Ravanel, P., Tissut, M. and Meyran, J. C. 2002a. Toxicity and bioaccumulation of fipronil in the nontarget arthropodan fauna associated with subalpine mosquito breeding sites. - *Ecotoxic. envir. Saf.* 52: 8-12.
- Chattopadhyay, S. 2002a. Studies on the larval feeding mechanism of *Chironomus samoensis* Edwards (Diptera: Chironomidae). - *Geobios, Jodhpur* 29: 58.
- Chattopadhyay, S. 2002b. Studies on the larval feeding mechanism of *Chironomus samoensis* Edwards (Diptera: Chironomidae). - *Geobios, Jodhpur* 29: 193.
- Chattopadhyay, S. 2002c. Effect of amputation of male palps on the sexual behaviour of *Chironomus samoensis* Edwards (Diptera: Chironomidae). - *J. exp. Zool., India* 5: 79-80.
- Chessman, B. C., Trayler, K. M. and Davis, J. A. 2002a. Family- and species-level biotic indices for macroinvertebrates of wetlands on the Swan Coastal Plain, Western Australia. - *Mar. Freshwat. Res.* 53: 919-930.
- Choi, J., Caquet, T. and Roche, H. 2002a. Multilevel effects of sublethal fenitrothion exposure in *Chironomus riparius* Mg. (Diptera, Chironomidae) larvae. - *Envir. Toxic. Chem.* 21: 2725-2730.
- Clerk, S. 2002a. *Fossil chironomids as indicators of water quality impacts from aquaculture activities*. - M. Sc. Thes., Queen's Univ. Kingston. 137 pp.

- Cobb, S. E. and Watzin, M. C. 2002a. Zebra mussel colonies and yellow perch foraging: spatial complexity, refuges, and resource enhancement. - *J. Gt Lakes Res.* 28: 256-263.
- Collier, K. J. 2002a. Effects of flow regulation and sediment flushing on instream habitat and benthic invertebrates in a New Zealand river influenced by a volcanic eruption. - *River Res. Applics* 18: 213-226.
- Copp, G. H., Fox, M. G. and Kovác, V. 2002a. Growth, morphology and life history traits of a cool-water European population of pumpkinseed *Lepomis gibbosus*. - *Arch. Hydrobiol.* 155: 585-614.
- Correia, A. M. 2002a. Niche breadth and trophic diversity: feeding behaviour of the red swamp crayfish (*Procambarus clarkii*) towards environmental availability of aquatic macroinvertebrates in a rice field (Portugal). - *Acta oecol.* 23: 421-429.
- Craig, C. L. and Riekel, C. 2002a. Comparative architecture of silks, fibrous proteins and their encoding genes in insects and spiders. - *Comp. Biochem. Physiol. B* 133: 493-507.
- Crane, J. L., MacDonald, D. D., Ingersoll, C. G., Smorong, D. E., Lindskoog, R. A., Severn, C. G., Berger, T. A. and Field, L. J. 2002a. Evaluation of numerical sediment quality targets for the St. Louis River Area of Concern. - *Archs envir. Contam. Toxic.* 43: 1-10.
- Crane, M., Sildanchandra, W., Kheir, R. and Callaghan, A. 2002a. Relationship between biomarker activity and developmental endpoints in *Chironomus riparius* Meigen exposed to an organophosphate insecticide. - *Ecotoxic. envir. Saf.* 53: 361-369.
- Cranston, P. S., Edward, D. H. D. and Cook, L. G. 2002a. New status, species, distribution records and phylogeny for Australian mandibulate Chironomidae (Diptera). - *Aust. J. Ent.* 41: 357-366.
- Crosa, G., Villa, S. and Cotta-Ramusino, M. 2002a. Local versus longitudinal biological variability in a high gradient stream. - *Hydrobiologia* 477: 107-114.
- Cuda, J. P., Coon, B. R., Dao, Y. M. and Center, T. D. 2002a. Biology and laboratory rearing of *Cricotopus lebetis* (Diptera: Chironomidae), a natural enemy of the aquatic weed hydrilla (Hydrocharitaceae). - *Ann. ent. Soc. Am.* 95: 587-596.
- Cuppen, J. G. M., Crum, S. J. H., Van den Heuvel, H. H., Smidt, R. A. and Van den Brink, P. J. 2002a. Effects of a mixture of two insecticides in freshwater microcosms: I. Fate of chlorpyrifos and lindane and responses of macroinvertebrates. - *Ecotoxicology* 11: 165-180.
- Curran, F. C. T. and Murray, D. A. 2002a. Emergence of Chironomidae (Diptera: Insecta) at the Avoca River, Co. Wicklow, Ireland. - *Verh. int. Verein. Limnol.* 27: 3546-3549.
- Dangles, O. 2002a. Functional plasticity of benthic macroinvertebrates: implications for trophic dynamics in acid streams. - *Can. J. Fish. aquat. Sci.* 59: 1563-1573.
- De Boer, W. J., Den Besten, P. J. and Ter Braak, C. F. 2002a. Statistical analysis of sediment toxicity by additive monotone regression splines. - *Ecotoxicology* 11: 435-450.
- Declerck, S., Louette, G., de Bie, T. and de Meester, L. 2002a. Patterns of diet overlap between populations of non-indigenous and native fishes in shallow ponds. - *J. Fish Biol.* 61: 1182-1197.
- De Crespín de Billy, V. and Usseglio-Polatera, P. 2002a. Traits of brown trout prey in relation to habitat characteristics and benthic invertebrate communities. - *J. Fish Biol.* 60: 687-714.
- De Haas, E. M., Reuvers, B., Moermond, C. T. A., Koelmans, A. A. and Kraak, M. H. S. 2002a. Responses of benthic invertebrates to combined toxicant and food input in floodplain lake sediments. - *Envir. Toxic. Chem.* 21: 2165-2171.
- Del Rosario, R. B., Betts, E. A. and Resh, V. H. 2002a. Cow manure in headwater streams: Tracing aquatic insect responses to organic enrichment. - *J. N. Am. benthol. Soc.* 21: 278-289.
- Dettinger-Klemm, P.-M. A. 2002a. Drought-tolerance and the impact of the photoperiod on growth and adult emergence in *Polypedium tritum* (Walker, 1856) (= *Polypedium uncinatum* Goetghebuer, 1921 syn. nov.). - *Tag.ber. dt. Ges. Limnol.* 2001: 681-686.
- Devine, J. A. and Vanni, M. J. 2002a. Spatial and seasonal variation in nutrient excretion by benthic invertebrates in a eutrophic reservoir. - *Freshwat. Biol.* 47: 1107-1121.
- Dick, J. T. A., Platvoet, D. and Kelly, D. W. 2002a. Predatory impact of the freshwater invader *Dikerogammarus villosus* (Crustacea: Amphipoda). - *Can. J. Fish. aquat. Sci.* 59: 1078-1084.
- Dietz-Brantley, S. E., Taylor, B. E., Batzer, D. P. and DeBiase, A. E. 2002a. Invertebrates that aestivate in dry basins of Carolina Bay wetlands. - *Wetlands* 22: 767-775.
- Diserud, O. H. and Aagaard, K. 2002a. Testing for changes in community structure based on repeated sampling. - *Ecology* 83: 2271-2277.

- Doi, H. and Kukichi, E. 2002a. Analysis of food sources for *Chironomus acerbiphilus* larvae in strong acidic Lake Katanuma. - *Jap. J. Limnol.* 63: 160-162.
- Dovciak, A. L. and Perry, J. A. 2002a. In search of effective scales for stream management: Does agroecoregion, watershed, or their intersection best explain the variance in stream macroinvertebrate communities? - *Envir. Mgmt* 30: 365-377.
- Duft, M., Fittkau, K. and Traunspurger, W. 2002a. Colonization of enclosures in a Costa Rican stream: effects of macrobenthos on meiobenthos and the nematode community. - *J. Freshwat. Ecol.* 17: 531-541.
- Duggan, I. C., Collier, K. J., Champion, P. D., Croker, G. F., Davies-Colley, R. J., Lambert, P. W., Nagels, J. W. and Wilcock, R. J. 2002a. Ecoregional differences in macrophyte and macroinvertebrate communities between Westland and Waikato: are all New Zealand lowland streams the same? - *N. Z. Jl mar. Freshwat. Res.* 36: 831-845.
- Dyer, S. D. and Wang, X. 2002a. A comparison of stream biological responses to discharge from wastewater treatment plants in high and low population density areas. - *Envir. Toxic. Chem.* 21: 1065-1075.
- Edds, D. R., Gillette, D. P., Maskey, T. M. and Mahato, M. 2002a. Hot-soda process paper mill effluent effects on fishes and macroinvertebrates in the Narayani River, Nepal. - *J. Freshwat. Ecol.* 17: 543-554.
- Einarsson, Á., Gardarsson, A. Gíslason, G. M. and Ives, A. R. 2002a. Consumer-resource interactions and cyclic population dynamics of *Tanytarsus gracilentus* (Diptera: Chironomidae). - *J. Anim. Ecol.* 71: 832-845.
- Ekrem, T. 2002a. A review of selected South- and East Asian *Tanytarsus* v. d. Wulp (Diptera: Chironomidae). - *Hydrobiologia* 474: 1-39.
- Ekrem, T. 2002b. Towards a phylogeny of *Tanytarsus* van der Wulp (Diptera: Chironomidae). Is morphology alone sufficient to reconstruct the genealogical relationship? - In: Yeates, D. (ed.): *Abstr. 5<sup>th</sup> Int. Congr. Dipterol., Brisbane*: 61.
- Englund, R. A. 2002a. The loss of native biodiversity and continuing nonindigenous species introductions in freshwater, estuarine, and wetland communities of Pearl Harbor, Oahu, Hawaiian Islands. - *Estuaries* 25: 418-430.
- Erbaeva, E. A., Safronov, G. P. i Kitsuk, T. I. 2002a. Fauna donnykh bespozvonochnykh Bratskogo vodokhranilishcha. (Fauna of bottom invertebrates in the Bratsk Reservoir.) - *Biol. vnutr. Vod* 1: 15-22.
- Fan, T. W.-M., Teh, S. J., Hinton, D. E. and Higashi, R. M. 2002a. Selenium biotransformations into proteinaceous forms by foodweb organisms of selenium-laden drainage waters in California. - *Aquat. Toxic.* 57: 65-84.
- Fenoglio, S., Agosta, P., Bo, T. and Cucco, M. 2002a. Field experiments on colonization and movements of stream invertebrates in an Apennine river (Visone, NW Italy). - *Hydrobiologia* 474: 125-130.
- Fesl, C. 2002a. Biodiversity and resource use of larval chironomids in relation to environmental factors in a large river. - *Freshwat. Biol.* 47: 1065-1087.
- Fesl, C. 2002b. Niche-oriented species-abundance models: different approaches of their application to larval chironomid (Diptera) assemblages in a large river. - *J. Anim. Ecol.* 71: 1085-1094.
- Fleituch, T., Soszka, H., Kudelska, D. and Kownacki, A. 2002a. Macroinvertebrates as indicators of water quality in rivers: a scientific basis for Polish standard method. - *Arch. Hydrobiol. Suppl.* 141, *Large Rivers* 13: 225-239.
- Frantsevich, L. and Gladun, D. 2002a. Evolution of the middle leg basal articulation in flies (Diptera). - *Acta zool.* 83: 125-147.
- Fritz, K. M. and Dodds, W. K. 2002a. Macroinvertebrate assemblage structure across a tallgrass prairie stream landscape. - *Arch. Hydrobiol.* 154: 79-102.
- Frouz, J., Ali, A. and Lobinske, R. J. 2002a. Influence of temperature on developmental rate wing length, and larval head capsule size of pestiferous midge *Chironomus crassicaudatus* (Diptera: Chironomidae). - *J. econ. Ent.* 95: 699-705.
- Frouz, J., Ali, A. and Lobinske, R. J. 2002b. Suitability of morphological parameters for instar determination of pestiferous midges *Chironomus crassicaudatus* and *Glyptotendipes paripes* (Diptera: Chironomidae) under laboratory conditions. - *J. Am. Mosquito Control Ass.* 18: 222-227.
- Furuya, V. R. B., Hayashi, C., Furuya, W. M. e Ducatti, C. 2002a. Abundância natural do isótopo estável de carbono (<sup>13</sup>C) de alguns itens alimentares e sua contribuição no crescimento de juvenis de pintado, *Pseudoplatystoma corruscans* (Agassiz, 1829) (Osteichthyes, Pimelodidae). - *Acta sci. Univ. Estad. Maringa* 24: 493-498.

- Gandouin, E. and Franquet, E. 2002a. Late Glacial and Holocene chironomid assemblages in Lac Long Inférieur (southern France, 2090 m): palaeoenvironmental and palaeoclimatic implications. - *J. Paleolimnol.* 28: 317-328.
- García-Criado, F., Fernández-Aláez, M. and Fernández-Aláez, C. 2002a. Relationship between benthic assemblage structure and coal mining in the Boeza River basin (Spain). - *Arch. Hydrobiol.* 154: 665-689.
- Gebhardt, U. 2002a. Zuckmücken und Cholera. - *Naturw. Rdsch.* 55: 102.
- Gerdaux, D., Bergeret, S., Fortin, J. and Baronnet, T. 2002a. Diet and seasonal patterns of food composition of *Coregonus lavaretus* in Lake Annecy: comparison with the diet of other species of the fish community. - *Arch. Hydrobiol. Spec. Issues Adv. Limnol.* 57: 199-207.
- Gilka, W. 2002a. Tanytarsini (Diptera: Chironomidae) of Poland - a faunistic review. - *Polskie Pismo ent.* 71: 415-428.
- Gillis, P. L., Diener, L. C., Reynoldson, T. B. and Dixon, D. G. 2002a. Cadmium-induced production of a metallothionein-like protein in *Tubifex tubifex* (Oligochaeta) and *Chironomus riparius* (Diptera): correlation with reproduction and growth. - *Envir. Toxic. Chem.* 21: 1836-1844.
- Golovanova, I. L., Komov, V. T. i Kuz'mina, V. V. 2002a. Vliyanie povyshennogo soderzhaniya rtuti v korme na aktivnost' karbogidraz i proteinaz u razlichnykh gidrobiontov. (Effect of high mercury content in food on carbohydrase and proteinase activities in different hydrobionts.) - *Biol. vnutr. Vod* 1: 85-89.
- Gong, Zh., Xie, P. and Li, Y. 2002a. Effect of temperature and photoperiod on hatching of eggs of *Tokunagayusurika akamusi* (Tokunaga) (Diptera: Chironomidae). - *J. Freshwat. Ecol.* 17: 169-170.
- Graham, T. B. 2002a. Survey of aquatic macroinvertebrates and amphibians at Wupatki National Monument, Arizona, USA: An evaluation of selected factors affecting species richness in ephemeral pools. - *Hydrobiologia* 486: 215-224.
- Gray, A., Simenstad, C. A., Bottom, D. L. and Cornwell, T. J. 2002a. Contrasting functional performance of juvenile salmon habitat in recovering wetlands of the Salmon River estuary, Oregon, U.S.A.. - *Restor. Ecol.* 10: 514-526.
- Grebe, M. and Spindler-Barth, M. 2002a. Expression of ecdysteroid receptor and ultraspiracle from *Chironomus tentans* (Insecta, Diptera) in *E. coli* and purification in a functional state. - *Insect Biochem. molec. Biol.* 32: 167-174.
- Greenberg, M. S., Burton, G. A Jr. and Rowland, C. D. 2002a. Optimizing interpretation of in situ effects of riverine pollutants: impact of upwelling and downwelling. - *Envir. Toxic. Chem.* 21: 289-297.
- Grey, J. 2002a. A chironomid conundrum: queries arising from stable isotopes. - *Verh. int. Verein. Limnol.* 28: 102-105
- Grillet, M. E., Legendre, P. and Borcard, D. 2002a. Community structure of Neotropical wetland insects in Northern Venezuela. I. Temporal and environmental factors. - *Arch. Hydrobiol.* 155: 413-436.
- Grillet, M. E., Legendre, P. and Borcard, D. 2002b. Community structure of Neotropical wetland insects in Northern Venezuela. II. Habitat type and environmental factors. - *Arch. Hydrobiol.* 155: 437-453.
- Groenendijk, D., Lucker, S. M, Plans, M., Kraak, M. H. and Admiraal, W. 2002a. Dynamics of metal adaptation in riverine chironomids. - *Envir. Pollut.* 117: 101-109.
- Gross, E. M. and Kornijów, R. 2002a. Investigation on competitors and predators of herbivorous aquatic Lepidoptera (*Acentria ephemerella*) on submersed macrophytes in a large prealpine lake. - *Verh. int. Verein. Limnol.* 28: 721-725.
- Grzybkowska, M. and Dukowska, M., 2002a. Communities of Chironomidae (Diptera) above and below a reservoir in a lowland river: long-term study. - *Annls zool.* 52: 235-247.
- Grzybkowska, M. Dukowska, M., Szczerkowska, E., Majecki, J. i Kucharski, L. 2002a. Response of a macrobenthic community to a strong hydraulic stress in the mosaic lowland river. - In: Gwozdziński, K. (ed.): (*The Tuchola Primateval Forest - resources and their conservation*), pp. 185-204. Łódź Univ. Pr.
- Guiguer, K. R. R. A., Reist, J. D., Power, M. and Babaluk, J. A. 2002a. Using stable isotopes to confirm the trophic ecology of Arctic charr morphotypes from Lake Hazen, Nunavut, Canada. - *J. Fish Biol.* 60: 348-362.
- Gur'ev, V. P. i Blinov, A. G. 2002a. Filogeneticheskie vzaimootnosheniya golarkticheskikh populyatsii *Chironomus* [sic!] *entis* i *Chironomus plumosus* s uchetom vozmozhnoi gorizontal'noi peredachi mitokhondrial'nykh genov. - *Genetika* 38, 3: 310-315. [also published as: Phylogenetic relationships among Holarctic populations of *Chironomus entis* and *Chironomus plumosus* in view of possible horisontal [sic!] transfer of

- mitochondrial genes. - *Russ. J. Genet.* 38, 3: 239-243.]
- Haggerty, S. M., Batzer, D. P. and Jackson, C. R. 2002a. Macroinvertebrate assemblages in perennial headwater streams of the Coastal Mountain range of Washington, U. S. A. - *Hydrobiologia* 479: 143-154.
- Hahn, T. and Schulz, R. 2002a. Ecdysteroid synthesis and imaginal disc development in the midge *Chironomus riparius* as biomarkers for endocrine effects of tributyltin. - *Envir. Toxic. Chem.* 21: 1052-1057.
- Hahn, T., Schenk, K. and Schulz, R. 2002a. Environmental chemicals with known endocrine potential affect yolk protein content in the aquatic insect *Chironomus riparius*. - *Envir. Pollut.* 120: 525-528.
- Halpern, M., Gasith, A. and Broza, M. 2002a. Does the tube of a benthic chironomid larva play a role in protecting its dweller against chemical toxicants? - *Hydrobiologia* 470: 49-55.
- Halpern, M., Gasith, A., Bresler, V. M. and Broza, M. 2002a. The protective nature of *Chironomus luridus* larval tubes against copper sulfate. - [Online publication at: <http://www.insectscience.org/>] *J. Insect Sci.* 2.8: 1-5.
- Halse, S. A., Cale, D. J., Jasinska, E. J. and Shiel, R. J. 2002a. Monitoring change in aquatic invertebrate biodiversity: sample size, faunal elements and analytical methods. - *Aquat. Ecol.* 36: 395-410.
- Hamerlík, L. 2002a. First record of *Labrundinia longipalpis* and *Polypedilum nubifer* (Diptera, Chironomidae) from Slovakia. - *Biológia, Bratisl.* 57: 602.
- Hamilton, R. IV and Duffield, R. M. 2002a. Novel observations of midge and mosquito larval population dynamics in leaves of the northern pitcher plant, *Sarracenia purpurea* L. - *Hydrobiologia* 482: 191-196.
- Harrel, R. C. and Smith, S. T. 2002a. Macrobenthic community structure before, during, and after implementation of the Clean Water Act in the Neches River estuary (Texas). - *Hydrobiologia* 474: 213-222.
- Harrison, A. D. 2002a. A general view on the communities of the Chironomidae adults in the Ethiopian Rift Valley lakes. - In: Tudorancea, C. and Taylor, W. D. (eds.): *Ethiopian Rift Valley lakes*, pp. 157-162. Backhuys Publs, Leiden.
- Hart, E. A. and Lovvorn, J. R. 2002a. Interpreting stable isotopes from macroinvertebrate foodwebs in saline wetlands. - *Limnol. Oceanogr.* 47: 580-584.
- Hazra, N. and Chaudhuri, P. K. 2002a. A new primitive orthoclad species, *Brillia argentituba* sp. n., from the Darjeeling-Sikkim Himalayas of India (Insecta: Diptera: Chironomidae). - *Reichenbachia* 34: 381-387.
- Hazra, N., Saha, G. K. and Chaudhuri, P. K. 2002a. Records of Orthoclad species from the Darjeeling-Sikkim Himalayas of India (Diptera: Chironomidae), with notes on their ecology. - *Hydrobiologia* 474: 41-55.
- Heylen, S. and De Pauw, N. 2002a. Mentum deformities in *Chironomus* larvae for assessment of freshwater sediments in Flanders, Belgium. - *Verh. int. Verein. Limnol.* 28: 781-785.
- Hickey, C. W. and Golding, L. A. 2002a. Response of macroinvertebrates to copper and zinc in a stream mesocosm. - *Envir. Toxic. Chem.* 21: 1854-1863.
- Higuti, J. and Takeda, A. M. 2002a. Spatial and temporal variation in densities of chironomid larvae (Diptera) in two lagoons and two tributaries of the Upper Parana River floodplain, Brazil. - *Braz. J. Biol.* 62 (4B): 807-818.
- Hirabayashi, K. 2002a. (Abundance and seasonal trend of dominant chironomid midges in the middle reach of the Chikuma River.) - *Jap. J. Ecol. [Otsu]* 52: 281-285.
- Hirvenoja, M. 2002a. The fauna in two cold springs and in an epirhithral pool in southern Finland. - *Sahlbergia* 7: 7-25.
- Hollows, J. W., Townsend, C. R. and Collier, K. J. 2002a. Diet of the crayfish *Paranephrops zealandicus* in bush and pasture streams: insights from stable isotopes and stomach analysis. - *N. Z. J. mar. Freshwat. Res.* 36: 129-142.
- Horecký, J., Stuchlík, E., Chvojka, P., Bitušák, P., Liška, M., Pšenáková, P. and Špacek, J. 2002a. Effects of acid atmospheric deposition on chemistry and benthic macroinvertebrates of forest streams in the Brdy Mts (Czech Republic). - *Acta Soc. zool. bohém.* 66: 189-203.
- Hose, G. C., Lim, R. P., Hyne, R. V. and Pablo, F. 2002a. A pulse of endosulfan-contaminated sediment affects macroinvertebrates in artificial streams. - *Ecotoxic. envir. Saf.* 51: 44-52.
- Houston, L., Barbour, M. T., Lenat, D. and Penrose, D. 2002a. A multi-agency comparison of aquatic macroinvertebrate-based stream bioassessment methodologies. - *Ecol. Indicators* 1: 279-292.
- Houston, W. A. and Duivenvoorden, L. J. 2002a. Replacement of littoral native vegetation with the ponded pasture grass *Hymenachne amplexicaulis*: effects on plant, macroinvertebrate and fish biodiversity of backwaters in the Fitzroy River, Central

- Queensland, Australia. - *Mar. Freshwat. Res.* 53: 1235-1244.
- Hutchens, J. J. Jr. and Wallace, J. B. 2002a. Ecosystem linkages between southern Appalachian headwater streams and their banks: leaf litter breakdown and invertebrate assemblages. - *Ecosystems* 5: 80-91.
- Ilyashuk, B. P. 2002a. (Relict crustaceans under conditions of long-term pollution of subarctic Lake Imandra: results of observations in 1930-1998.) - *Ekologiya* 2002, 3: 215-219. [also published as: *Russ. J. Ecol.* 33: 200-204.]
- Jackson, J. K., Horwitz, R. J. and Sweeney, B. W. 2002a. Effects of *Bacillus thuringiensis israelensis* on black flies and nontarget macroinvertebrates and fish in a large river. - *Trans. Am. Fish. Soc.* 131: 910-930.
- Jacobsen, D. and Bojsen, B. 2002a. Macroinvertebrate drift in Amazon streams in relation to riparian forest cover and fish fauna. - *Arch. Hydrobiol.* 155: 177-197.
- Jacobsen, R. E. and Perry, S. A. 2002a. A new species of *Manoa* (Diptera: Chironomidae) from Everglades National Park. - *J. N. Am. benthol. Soc.* 21: 314-325.
- Jäger, I. S. and Walz, N. 2002a. *Chaoborus flavicans* (Diptera) is an oxy-regulator. - *Arch. Hydrobiol.* 155: 401-411.
- Jensen, K. H. and Larsson, P. 2002a. Predator evasion in *Daphnia*: the adaptive value of aggregation associated with attack abatement. - *Oecologia* 132: 461-467.
- Jeong, K. Y., Yum, H.-Y., Lee, I.-Y., Ree, H.-I., Hong, Ch. S., Kim, D. S. and Yong, T.-S. 2002a. Molecular cloning and characterization of tropomyosin, a major allergen of *Chironomus kiiensis*, a dominant species of non-biting midges in Korea. - *J. Allergy clin. Immunol.* 109, 1, Suppl.: S131.
- Jin-Clark, Y., Lydy, M. J. and Zhu, K. Y. 2002a. Effects of atrazine and cyanazine on chlorpyrifos toxicity in *Chironomus tentans* (Diptera: Chironomidae). - *Envir. Toxic. Chem.* 21: 598-603.
- Johansson, F. and Wahlström, E. 2002a. Induced morphological defence: evidence from whole-lake manipulation experiments. - *Can. J. Zool.* 80: 199-206.
- Johnson, A. A and Kleve, M. G. 2002a. *Strelkovimermis rubtsovi* n. sp. and *Strelkovimermis ozawindibi* n. sp. (Nematoda: Mermithidae) parasitizing chironomid (Insecta: Diptera) adults eclosing from northern Minnesota glacial lakes. - *J. Parasitol.* 88: 942-946.
- Jones, R. T., Marshall, J. T., Crowley, S. F., Bedford, A., Richardson, N., Bloemendal, J. and Oldfield, F. 2002a. A high resolution, multiproxy late-glacial record of climate change in intrasystem responses in northwest England. - *J. Quat. Sci.* 17: 329-340.
- Kaczorowska, E. and Gilka, W. 2002a. The first record of *Bryophaenocladus vernalis* (GOETGHEBUER, 1921) (Diptera: Chironomidae) in Poland. - *Polskie Pismo ent.* 71: 355-358.
- Kakareko, T. 2002a. The importance of benthic fauna in the diet of small common bream *Abramis brama* (L.), roach *Rutilus rutilus* (L.), pikeperch *Sander lucioperca* (L.) and ruffe *Gymnocephalus cernuus* (L.) in the Wloclawek Reservoir (Poland). - *Arch. Ryb. pol.* 10: 221-231.
- Kasumyan, A. O. 2002a. Sturgeon food searching behaviour evoked by chemical stimuli: A reliable sensory mechanism. - *J. appl. Ichthyol.* 18: 685-690.
- Kawai, K., Inoue, E. and Imabayashi, H. 2002a. Temporal changes in male chironomid midges attracted to black-light in the Yoshiki River. - *Med. Ent. Zool.* 53: 281-284.
- Kawai, K., Okamoto, H. and Imabayashi, H. 2002a. Five new chironomid species of five genera from Japan. - *Med. Ent. Zool.* 53: 73-82.
- Kawai, K., Suitsu, K. and Imabayashi, H. 2002a. Chironomid fauna in the Lake Biwa area. - *Med. Ent. Zool.* 53: 273-280.
- Kayser, H., Ertl, P., Eilinger, P., Spindler-Barth, M. and Winkler, T. 2002a. Diastereomeric ecdysteroids with a cyclic hemiacetal in the side chain produced by cytochrome P450 in hormonally resistant insect cells. - *Archs Biochem. Biophys.* 400: 180-187.
- Kiesler, E., Miralles, F. and Visa, N. 2002a. HEL/UAP56 binds cotranscriptionally to the Balbiani ring pre-mRNA in an intron-independent manner and accompanies the BR mRNP to the nuclear pore. - *Curr. Biol.* 12: 859-862.
- Kiknadze, I. I., Golygina, V. V. i Filippova, M. A. 2002a. Dokazatel'stvo vidospetsificheskoi peritsentricheskoi inversii v kariotipe khironomidy *Chironomus balatonicus*. (Evidence of species specific pericentric inversion in the karyotype of the midge *Chironomus balatonicus*.) - *Tsitologiya* 44: 97-101.
- Kiknadze, I. I., Istomina, A. G. i Salova, T. A. 2002a. Funktsional'naya morfologiya politennykh khromosom khironomidy *Chironomus pilicornis* F. iz vodoemov kriolitozony. (The functional morphology of

- polytene chromosomes in the midge *Chironomus pilicornis* F. from the permafrost zone reservoirs.) - *Tsitologiya* 44: 89-96.
- King, R. S. and Richardson, C. J. 2002a. Evaluating subsampling approaches and macroinvertebrate taxonomic resolution for wetland bioassessment. - *J. N. Am. benthol. Soc.* 21: 150-171.
- Klemetsen, A., Elliott, J. M., Knudsen, R. and Sørensen, P. 2002a. Evidence for genetic differences in the offspring of two sympatric morphs of Arctic charr. - *J. Fish Biol.* 50: 933-950.
- Klemm, D. J., Blocksom, K. A., Thoeny, W. T., Fulk, F. A., Herlihy, A. T., Kaufmann, P. R. and Cormier, S. M. 2002a. Methods development and use of macroinvertebrates as indicators of ecological conditions for streams in the Mid-Atlantic Highlands Region. - *Envir. Monit. Assess.* 78: 169-212.
- Klukowska, M. 2002a. Siedliskowe zróżnicowanie struktury zgrupowań Chironomidae wybranych starorzeczy Pilicy, Rawki i Grabi. - (Habitat differentiation of Chironomidae community structure in selected oxbow lakes along the Pilica, the Rawka and the Grabia Rivers.) - *Mat. Ogólnopolskich Warsztatów Bentologicznych (Proc. IX Polish benthol. Workshop)*, p. 15.
- Klukowska, M. 2002b. Epibiontyczna forma ohotki *Epoicocladius flavens* na larwach jetki *Ephemera danica*. (Epibiontic form of chironomid *Epoicocladius flavens* on nymphs of mayflies *Ephemera danica*.) - In: Lawrynowicz, M. i Różga, B. (eds): *Tucholski Park Krajobrazowy 1985-2000, stan poznania*, pp. 451-458. Wyd. UL., Łódź.
- Klukowska, M. i Tonczyk, G. 2002a. Materiały do znajomości bezkręgowców wodnych Tucholskiego Parku Krajobrazowego. (Preliminary list of aquatic invertebrates of Tucholski National Park.) In: Lawrynowicz, M. i Różga, B. (eds): *Tucholski Park Krajobrazowy 1985-2000, stan poznania*, pp. 441-450. Wyd. UL., Łódź.
- Kobayashi, T. and Kagaya, T. 2002a. Differences in litter characteristics and macroinvertebrate assemblages between litter patches in pools and riffles in a headwater stream. - *Limnology* 3: 37-42.
- Kobayashi, T. and Kubota, K. 2002a. A revision of male adult *Ablabesmyia* (Diptera: Chironomidae: Tanypodinae) from Japan, with a description of *A. prorasha*, new species, and a key to adult male species of the genus. - *Raffles Bull. Zool.* 50: 317-326.
- Kochi, K. 2002a. (Decomposition of fresh leaves and colonization by shredders in a small mountain stream.) - *Jap. J. Ecol.* 52: 331-342.
- Koel, T. M. and Stevenson, K. E. 2002a. Effects of dredge material placement on benthic macroinvertebrates of the Illinois River. - *Hydrobiologia* 474: 229-238.
- Koinig, K. A., Kamenik, C., Schmidt, R., Agusti-Panareda, A., Appleby, P., Lami, A., Prazakova, M., Rose, N., Schnell, Ø. A., Tessadri, R., Thompson, R. and Psenner, R. 2002a. Environmental changes in an alpine lake (Gossenköllesee, Austria) over the last two centuries - the influence of air temperature on biological parameters. - *J. Paleolimnol.* 28: 147-160.
- Kolar, C. S., Fullerton, A. H., Martin, K. M. and Lamberti, G. A. 2002a. Interactions among zebra mussel shells, invertebrate prey, and Eurasian ruffe or yellow perch. - *J. Gt Lakes Res.* 28: 664-673.
- Kolobov, M. Yu. i Burkovsky, I. V. 2002a. Zimnee sostoyanie soobshchestva kak faza godovogo tsikla v razvitii bespozvonochnykh na litorali Belogo morya. (Winter state of community as phase of annual cycle in development of invertebrates in the White Sea littoral.) - *Usp. sovrem. Biol.* 122: 222-226.
- Kondo, S. and Yamamoto, M. 2002a. Biological characteristics of *Hydrobaenus bivaquartus* (Sasa et Kawai), 1987 (Chironomidae). - In: Yeates, D. (ed.): *Abstr. 5<sup>th</sup> Int. Congr. Dipterol., Brisbane*: 120.
- Koperski, P. 2002a. Factors determining diversity in diet composition: multivariate analysis of a guild of epiphytic predators. - *Arch. Hydrobiol.* 155: 291-314.
- Korhola, A., Vasko, K., Toivonen, H. T. T. and Olander, H. 2002a. Holocene temperature changes in northern Fennoscandia reconstructed from chironomids using Bayesian modeling. - *Quat. Sci. Rev.* 21: 1841-1860.
- Kornijów, R., Peczuła, W., Lorens, B., Ligeza, S., Rechulicz, J., Kowalczyk-Pecka, D. 2002a. Shallow Polesie lakes from the view point of alternative stable states theory. - *Acta agrophys.* 68: 61-72.
- Kornijów, R., Smal, H., Peczuła, W., Lorens, B., Rechulicz, J., Sugier, P., Paleolog-Demetra, A., Ligeza, S., Tarkowska-Kukuryk, M., Kowalczyk, D., Szafran, K. and Halkiewicz, A. 2002a. Hypertrophication of Lake Syczynskie (Eastern Poland). - *Limnol. Rev.* 2: 209-215.
- Kowalczyk, J. K., Soszynski, B., Majecki, J. i Grzybkowska, M. 2002a. (Proposition of an assessment of the insect fauna of the Wzniesienia Łódzkie Landscape Park.) - In: Kurowski, J. K. i Witoslawski, P. (eds.): *(Functioning of landscape parks in Poland)*, pp. 134-140. Łódź Univ. Pr.

- Kozfkay, J. R. and Scarnecchia, D. L. 2002a. Year-class strength and feeding ecology of age-0 and age-1 paddlefish (*Polyodon spathula*) in Fort Peck Lake, Montana, USA. - *J. appl. Ichthyol.* 18: 601-607.
- Kukkonen, J. V. K. 2002a. Lethal body residue of chlorophenols and mixtures of chlorophenols in benthic organisms. - *Archs envir. Contam. Toxic.* 43: 214-220.
- Kurashov, E. A. 2002a. The role of meiobenthos in lake ecosystems. - *Aquat. Ecol.* 36: 447-463.
- Kuroli, G. 2002a. Dominance and change in the numbers of mosquito larvae of the biting mosquitoes sub-family (Culicinae) in the Szigetköz region. - *Acta phytopathol. ent. hung.* 37: 261-279.
- Kuzin, F. E., Shilova, I. E., Lezzi, M. and Gruzdev, A. D. 2002a. DNA in the centromeric heterochromatin of polytene chromosomes is topologically open. - *Chromosome Res.* 10: 201-208.
- Kyerematen, R. A. K. and Andersen, T. 2002a. *Rheotanytarsus* Thienemann et Bause (Diptera: Chironomidae) from Central America and Mexico. - *Stud. neotrop. Fauna Envir.* 37: 23-51.
- Lagarrigue, T., Céréghino, R., Lim, P., Reyes-Marchant, P., Chappaz, R., Lavandier, P. and Belaud, A. 2002a. Diel and seasonal variations in brown trout (*Salmo trutta*) feeding patterns and relationship with invertebrate drift under natural and hydropeaking conditions in a mountain stream. - *Aquat. living Resourc.* 15: 129-137.
- Langdon, P. G. 2002a. Holocene environmental reconstruction from NW Iceland: modern and subfossil chironomid assemblages within a multiproxy context. - *Quat. Newsl.* 96: 55-59.
- Langton, P. H. 2002a. A preliminary survey of the non-biting midges (Diptera: Chironomidae) of northern Ireland. - *Bull. Ir. biogeogr. Soc.* 26: 14-28.
- Laville, H. and Langton, P. 2002a. The lotic Chironomidae (Diptera) of Corsica (France). - *Annls Limnol.* 38: 53-64.
- LeFevre, S. R. and Sharpe, W. E. 2002a. Acid stream water remediation using limestone sand on Bear Run in southwestern Pennsylvania. - *Restor. Ecol.* 10: 223-236.
- Lehtonen, H. and Kahilainen, K. 2002a. Food composition and diet overlap of three sympatric forms of European whitefish, *Coregonus lavaretus* (L.), in a subarctic lake. - *Arch. Hydrobiol. Spec. Issues Adv. Limnol.* 57: 383-395.
- Leslie, H. A., Oosthoek, A. J., Busser, F. J., Kraak, M. H. and Hermens, J. L. 2002a. Biomimetic solid-phase microextraction to predict body residues and toxicity of chemicals that act by narcosis. - *Envir. Toxic. Chem.* 21: 229-234.
- Leslie, H. A., ter Laak, T. L., Busser, F. J. M., Kraak, M. H. S. and Hermens, J. L. M. 2002a. Bioconcentration of organic chemicals: Is a solid-phase microextraction fiber a good surrogate for biota? - *Envir. Sci. Technol.* 36: 5399-5404.
- Levin, L. A. and Talley, T. S. 2002a. Natural and manipulated sources of heterogeneity controlling early faunal development of a salt marsh. - *Ecol. Applics* 12: 1785-1802.
- Li, X., Qiao, C.-L. and Xu, Y. 2002a. Studies on the esterase polymorphism of the *Chironomus* complex population in the Ya-Er Lake near Wuhan. - *Acta hydrobiol. sin.* 26: 148-154.
- Liljaniemi, P., Vuori, K.-M., Ilyashuk, B. and Luotonen, H. 2002a. Habitat characteristics and macroinvertebrate assemblages in boreal forest streams: relations to catchment silvicultural activities. - *Hydrobiologia* 474: 239-251.
- Linhart, J., Fiurášková, M. and Uvíra, V. 2002a. Moss- and mineral substrata-dwelling meiobenthos in two different low-order streams. - *Arch. Hydrobiol.* 154: 543-560.
- Linhart, J., Vlcková, Š. and Uvíra, V. 2002a. Bryophytes as a special mesohabitat for meiofauna in a rip-rapped channel. - *River Res. Applic.* 18: 321-330.
- Liu, Y.-f., Zhang, G.-r., Gu, D.-x. and Wen, R.-z. 2002a. Enzyme-linked immunosorbent assay used to detect the food relationships of the arthropods in paddy fields. - *Acta ent. sin.* 45: 352-358.
- Lizotte, R. E. Jr., Dorn, P. B., Steinriede, R. W. Jr., Wong, D. C. L. and Rodgers, J. H. Jr. 2002a. Ecological effects of an anionic C<sub>12-15</sub> AE-3S alkylethoxysulfate surfactant in outdoor stream mesocosms. - *Envir. Toxic. Chem.* 21: 2742-2751.
- Lllansó, R. J., Scott, L. C., Dauer, D. M., Hyland, J. L. and Russell, D. E. 2002a. An estuarine benthic index of biotic integrity for the mid-Atlantic region of the United States. I. Classification of assemblages and habitat definition. - *Estuaries* 25: 1219-1230.
- Lllansó, R. J., Scott, L. C., Hyland, J. L., Dauer, D. M., Russell, D. E. and Kutz, F. W. 2002a. An estuarine benthic index of biotic integrity for the mid-Atlantic region of the United States. I. Index development. - *Estuaries* 25: 1231-1242.



- Lobinske, R. J., Ali, A. and Frouz, J. 2002a. Laboratory estimation of degree-day developmental requirements of *Glyptotendipes paripes* (Diptera: Chironomidae). - *Envir. Ent. 31*: 608-611.
- Lobinske, R. J., Ali, A. and Frouz, J. 2002b. Ecological studies of spatial and temporal distributions of larval Chironomidae (Diptera) with emphasis on *Glyptotendipes paripes* in three central Florida lakes. - *Envir. Ent. 31*: 637-647.
- Lobinske, R. J., Cichra, C. E. and Ali, A. 2002a. Predation by bluegill (*Lepomis macrochirus*) on larval Chironomidae (Diptera) in relation to midge standing crop in two central Florida lakes. - *Fla. Ent. 85*: 372-375.
- Lotter, A. F., Appleby, P. G., Bindler, R., Dearing, J. A., Grytnes, J.-A., Hofmann, W., Kamenik, C., Lami, A., Livingstone, D. M., Ohlendorf, C., Rose, N. and Sturm, M. 2002a. The sediment record of the past 200 years in a Swiss high-alpine lake: Hagelseewli (2339 m a.s.l.). - *J. Paleolimnol. 28*: 111-127.
- Lu, L. and Wu, R. S. S. (2003) 2002a. Recolonization and succession of subtidal macrobenthic infauna in sediments contaminated with cadmium. - *Envir. Pollut. 121*: 27-38.
- Lui, T. H., Lee, S. Y. and Sadovy, Y. 2002a. Macrobenthos of a tidal impoundment at the Mai Po Marshes Nature Reserve, Hong Kong. - *Hydrobiologia 468*: 193-211.
- Lukin, V. B. 2002a. Perestroiki soobshchestv fitoperifitona v khode sezonnoi suksessii: osedanie planktonnykh form i press fitofagov (lichinok khironomid). (Changes in phytoperiphyton community during seasonal succession: Influence of plankton sedimentation and grazing by chironomid larvae.) - *Zh. obshch. Biol. 63*: 418-425.
- Lynch, R. J., Bunn, S. E. and Catterall, C. P. 2002a. Adult aquatic insects: Potential contributors to riparian food webs in Australia's wet-dry tropics. - *Austral Ecol. 27*: 515-526.
- Makarova, O. L. 2002a. Akarotsenozy (Acariformes, Parasitiformes) polyarnykh pustyn'. 2. Tsenoticheskie svyazi. Struktura naseleniya. Sootnoshenie podotryadov. (Acarocenoses (Acariformes, Parasitiformes) in polar deserts. 2. Cenotic relations. Structure of communities. Proportion of suborders.) - *Zool. Zh. 81*: 1222-1238.
- Mamcarz, A., Loro, R., Luczynski, M., Bortot, N., Furgala-Selezniow, G., Grava, B., Kucharczyk, D., Kujawa, R., Skrzypczak, A. and Zanetti, M. 2002a. Biology and status of whitefishes from Lake Santa Croce (Dolomites, Italy). - *Arch. Hydrobiol. Spec. Issues Adv. Limnol. 57*: 397-409.
- Mancinelli, G., Costantini, M. L. and Rossi, L. 2002a. Cascading effects of predatory fish exclusion on the detritus-based food web of a lake littoral zone (Lake Vico, central Italy). - *Oecologia 133*: 402-411.
- March, J. G., Pringle, C. M., Townsend, M. J. and Wilson, A. I. 2002a. Effects of freshwater shrimp assemblages on benthic communities along an altitudinal gradient of a tropical island stream. - *Freshwat. Biol. 47*: 377-390.
- Mariani, S., Maccaroni, A., Massa, F., Rampacci, M. and Tancioni, L. 2002a. Lack of consistency between trophic interrelationships of five sparid species in two adjacent central Mediterranean coastal lagoons. - *J. Fish Biol. 61, Suppl. A*: 138-147.
- Marklund, O. and Sandsten, H. 2002a. Reduction of benthic macroinvertebrates due to waterfowl foraging on submerged vegetation during migration. - *Aquat. Ecol. 36*: 541-547.
- Marshall, J. D., Jones, R. T., Crowley, S. F., Oldfield, F., Nash, S. and Bedford, A. 2002a. A high resolution Late-Glacial isotopic record from Hawes Water, Northwest England: Climatic oscillations: calibration and comparison of palaeotemperature proxies. - *Palaeogeogr. Palaeoclimatol. Palaeoecol. 185*: 25-40.
- Martin, J., Guryev, V. and Blinov, A. 2002a. Population variability in *Chironomus* (*Camptochironomus*) species (Diptera, Nematocera) with a Holarctic distribution: evidence of mitochondrial gene flow. - *Insect molec. Biol. 11*: 387-397.
- Martin, J., Guryev, V., Blinov, A. and Edward, D. H. D. 2002a. A molecular assessment of the extent of variation and dispersal between Australian populations of the genus *Archaeochlus* Brundin (Diptera: Chironomidae). - *Invert. Syst. 16*: 599-603.
- Martin, J., Guryev, V., Blinov, A., Macdonald, S. S. and Edward, D. H. D. 2002a. The phylogenetic relationships of *Archaeochlus* Brundin, *Austrochilus* Cranston and *Afrochilus* Freeman (Diptera: Nematocera), basal chironomid genera with a Gondwanan connection. - In: Yeates, D. (ed.): *Abstr. 5<sup>th</sup> Int. Congr. Dipterol., Brisbane*: 145.
- Martinez, E. A., Moore, B. C., Schaumlöffel, J. and Dasgupta, N. 2002a. The potential association between menta deformities and trace elements in Chironomidae (Diptera) taken from a heavy metal contaminated river. - *Archs envir. Contam. Toxic. 42*: 286-291.

- Massaferro, J. and Brooks, S. J. 2002a. Response of chironomids to Late Quaternary environmental change in the Taitao Peninsula, southern Chile. - *J. Quat. Sci.* 17: 101-111. [in addition: Erratum: 721.]
- Massaferro, J., Brooks, S. J. and Jackson, K., A. 2002a. Estudio preliminar de la distribución y composición de las comunidades de quironómidos (Diptera: Chironomidae) en el Parque Nacional Laguna San Rafael (46°S). - *Boln Mus. nac. Hist. nat. Chile* 51: 123-134.
- Matena, J. a Matenová, V. 2002a. Pakomari rodu *Chironomus* MEIGEN (Diptera, Chironomidae) vo Novohradských horách (jižní Čechy). (The genus *Chironomus* MEIGEN (Diptera, Chironomidae) in the Novohradské Mountains, (South Bohemia).) - In: Papáček, M. (ed.): *Biodiverzita a přírodní podmínky Novohradských hor*, pp. 241-244. Jihočeská Univ., Ent. Ustav AV CR, České Budejovice.
- Mathooko, J. M. and Otieno, C. O. 2002a. Does surface textural complexity of woody debris in lotic ecosystems influence their colonization by aquatic invertebrates? - *Hydrobiologia* 489: 11-20.
- Mathuriau, C. and Chauvet, E. 2002a. Breakdown of leaf litter in a neotropical stream. - *J. N. Am. benthol. Soc.* 21: 384-396.
- Maund, S. J., Hamer, M. J., Lane, M. C., Farrelly, E., Rapley, J. H, Goggin, U. M. and Gentle, W. E. 2002a. Partitioning, bioavailability, and toxicity of the pyrethroid insecticide cypermethrin in sediments. - *Envir. Toxic. Chem.* 21: 9-15.
- Mayer, C. M., Keats, R. A., Rudstam, L. G. and Mills, E. L. 2002a. Scale-dependent effects of zebra mussels on benthic invertebrates in a large eutrophic lake. - *J. N. Am. benthol. Soc.* 21: 616-633.
- McCutchan, J. H. Jr. and Lewis, W. M. Jr. 2002a. Relative importance of carbon sources for macroinvertebrates in a Rocky Mountain stream. - *Limnol. Oceanogr.* 47: 742-752.
- McIntosh, M. D., Benbow, M. E. and Burky, A. J. 2002a. Effects of stream diversion on riffle macroinvertebrate communities in a Maui, Hawaii, stream. - *River Res. Applic.* 18: 569-581.
- Meissner, K., Muotka, T. and Kananeni, I. 2002a. Drift responses of larval blackflies and their invertebrate predators to short-term flow regulation. - *Arch. Hydrobiol.* 154: 529-542.
- Mendes, H. F. and Andersen, T. 2002a. Two new species of *Qiniella* Wang & Saether (Diptera: Chironomidae) from Southeast Asia. - *Tijdschr. Ent.* 145: 89-93.
- Meregalli, G., Bettinetti, R., Pluymers, L., Vermeulen, A. C., Rossaro, B. and Ollevier, F. 2002a. Mouthpart deformities and nucleolus activity in field-collected *Chironomus riparius* larvae. - *Archs envir. Contam. Toxic.* 42: 405-409.
- Mermillod-Blondin, F., Gérino, M., Creuzé des Châtelliers, M. and Degrange, V. 2002a. Functional diversity among 3 detritivorous hyporheic invertebrates: an experimental study in microcosms. - *J. N. Am. benthol. Soc.* 21: 132-149.
- Merritt, R. W., Cummins, K. W., Berg, M. B., Novak, J. A., Higgins, M. J., Wessell, K. J. and Lessard, J. L. 2002a. Development and application of a macroinvertebrate functional-group approach in the bioassessment of remnant river oxbows in southwest Florida. - *J. N. Am. benthol. Soc.* 21: 290-310.
- Merz, J. E. 2002a. Comparison of diets of prickly sculpin and juvenile fall-run chinook salmon in the lower Mokelumne River, California. - *SWest. Nat.* 47: 195-204.
- Metzeling, L., Robinson, D., Perriss, S. and Marchant, R. 2002a. Temporal persistence of benthic invertebrate communities in south-eastern Australian streams: taxonomic resolution and implications for the use of predictive models. - *Mar. Freshwat. Res.* 53: 1223-1234.
- Michailova, P., Krastanov, B. and Kownacki, A. 2002a. Cytotaxonomical characteristics of genus *Chironomus* Meigen (Diptera: Chironomidae) from different localities of Poland. - *Annls zool., Warszawa* 52: 215-225.
- Michailova, P., Todorova, K. and White, K. 2002a. The effect of lead on the salivary gland chromosomes of *Glyptotendipes salinus* Michailova (Chironomidae, Diptera). - *Biologia, Bratisl.* 57: 359-367.
- Michiels, S. and Spies, M. 2002a. Description of *Conchapelopia hittmairorum*, spec. nov., and redefinition of similar western Palaearctic species (Insecta, Diptera, Chironomidae, Tanyptodinae). - *Spixiana* 25: 251-272.
- Miller, T. E., Horth, L. and Reeves, R. H. 2002a. Trophic interactions in the phytotelmata communities of the Pitcher Plant, *Sarracenia purpurea*. - *Community Ecol.* 3: 109-116.
- Minakawa, N., Gara, R. I. and Honea, J. M. 2002a. Increased individual growth rate and community biomass of stream insects associated with salmon carcasses. - *J. N. Am. benthol. Soc.* 21: 651-659.

- Miner, J. A. and Taylor, P. D. 2002a. Effects of peatland size and exposure on two species of Diptera inhabiting the pitcher plant *Sarracenia purpurea* L. - *Ecoscience* 9: 347-354.
- Mistri, M. 2002a. Persistence of benthic communities: a case study from the Valli di Comacchio, a Northern Adriatic lagoonal ecosystem (Italy). - *ICES J. mar. Sci.* 59: 314-322.
- Mistri, M., Ghion, F., Modugno, S. and Rossi, R. 2002a. Response of macrobenthic communities to an hydraulic intervention in an enclosed lagoon (Valle di Gorino, northern Italy). - *J. mar. biol. Ass. UK* 82: 771-778.
- Moller Pillot, Kh. i Moroz, M. L. 2002a. Issledovanie dvukrylykh (Insecta: Diptera) iz rodnikovykh sistem Belarusi. (Investigation of flies (Insecta: Diptera) from spring systems in Belarus.) - *Vestsi nats. Akad. Navuk Belarusi, Ser. biyal. Navuk* 4: 93-97.
- Moore, M. T., Schulz, R., Cooper, C. M., Smith, S. Jr. and Rodgers, J. H. Jr. 2002a. Mitigation of chlorpyrifos runoff using constructed wetlands. - *Chemosphere* 46: 827-835.
- Moreira, S. S. and Zuanon, J. 2002a. Dieta de *Retroculus lapidifer* (Perciformes: Cichlidae), um peixe reofilico do rio Araguaia, Estado do Tocantins, Brasil. - *Acta Amazon.* 32: 691-705.
- Morrison, H. A., Whittle, D. M. and Haffner, G. D. 2002a. A comparison of the transport and fate of polychlorinated biphenyl congeners in three Great Lakes food webs. - *Envir. Toxic. Chem.* 21: 683-692.
- Mosch, E. C., Heider, V. und Röhrig, R. 2002a. *Die Chironomidenfauna des Vielbecker Sees (Mecklenburg-Vorpommern)*. - *Unters. Auftr. St. Amt. Umwelt Nat., Schwerin*. 9 pp.
- Mousavi, S. K. 2002a. Boreal chironomid communities and their relations to environmental factors - the impact of lake depth, size and acidity. - *Boreal Envir. Res.* 7: 63-75.
- Mousavi, S. K. 2002b. *Community structure of Chironomidae (Diptera) in subarctic lakes*. - *Thes. Doct. Sci., Univ. Tromsø*. 32 pp.
- Mousavi, S. K., Sandring, S. and Amundsen, P.-A. 2002a. Diversity of chironomid assemblages in contrasting subarctic lakes - impact of fish predation and lake size. - *Arch. Hydrobiol.* 154: 461-484.
- Mustow, S. E. 2002a. Biological monitoring of rivers in Thailand: use and adaptation of the BMWP score. - *Hydrobiologia* 479: 191-229.
- Mutz, M., Schlieff, J. und Pusch, E. H. M. 2002a. Ökologische Besonderheiten der Fließgewässer in der Niederlausitzer Bergbaufolgelandschaft. - *Verh. Ges. Ökol.* 32: 227.
- Muzaffar, S. B. and Colbo, M. H. 2002a. The effects of sampling technique on the ecological characterization of shallow, benthic macroinvertebrate communities in two Newfoundland ponds. - *Hydrobiologia* 477: 31-39.
- Mwaura, F., Mavuti, K. M. and Wamicha, W. N. 2002a. Biodiversity characteristics of small high-altitude tropical man-made reservoirs in the Eastern Rift Valley, Kenya. - *Lakes Reservoirs Res. Mgmt* 7: 1-12.
- Nelson, S. M. and Lieberman, D. M. 2002a. The influence of flow and other environmental factors on benthic invertebrates in the Sacramento River, U.S.A. - *Hydrobiologia* 489: 117-129.
- Neumann, M., Baumeister, J., Liess, M. and Schulz, R. 2002a. An expert system to estimate the pesticide contamination of small streams using benthic macroinvertebrates as bioindicators. II. The knowledge base of LIMPACT. - *Ecol. Indicators* 2: 239-249. [corrected in 2003]
- Newburn, E. and Krane, D. 2002a. Molecular identification of chironomid species. - *ACS Symp. Ser.* 806: 363-383.
- Nolte, U. 2002a. Chironomid communities are prime indicators for stream health: case study from south east Queensland, Australia. - In: Yeates, D. (ed.): *Abstr. 5<sup>th</sup> Int. Congr. Dipterol., Brisbane*: 173-174.
- Norton, S. B., Cormier, S. M., Smith, M., Jones, R. C. and Schubauer-Berigan, M. 2002a. Predicting levels of stress from biological assessment data: empirical models from the Eastern Corn Belt Plains, Ohio, USA.. - *Envir. Toxic. Chem.* 21: 1168-1175.
- Nyman, M., Korhola, A., Tuhkanen, S. and Oja, M. 2002a. Subfossil chironomid (Diptera, Chironomidae) assemblages and Holocene temperature reconstruction derived from them: a high resolution down core study of a subarctic Lake Toskal. - *Turun Yliopiston Maantieteen Laitoksen Jukaisuja [Publnes Inst. geogr. Univ. Turkuensis]* 165: 68-69.
- Ofenböck, G. and Moog, O. (2001) 2002a. Danube-Net-Basket-Sampler - a cheap but effective method for sampling benthic invertebrates in large rivers. - *Verh. int. Verein. Limnol.* 27: 3959-3965.
- Ogbeibu, A. E. and Oribhabor, B. J. 2002a. Ecological impact of river impoundment using benthic macro-invertebrates as indicators. - *Wat. Res.* 36: 2427-2436.

- Olafsson, J. S., Adalsteinsson, H., Gislason, G. M., Hansen, I. and Hrafnisdottir, Th. 2002a. Spatial hereogeneity in lotic chironomids and simuliids in relation to catchment characteristics in Iceland. - *Verh. int. Verein. Limnol.* 28: 157-163.
- Olsen, D. A., Matthaei, C. D. and Townsend, C. R. 2002a. Freeze core sampling of the hypreos: implications of use of electropositioning and different settling periods. - *Arch. Hydrobiol.* 154: 261-274.
- Orendt, C. 2002a. Gliederung nördlicher Alpenvorlandflüsse anhand von Chironomiden. - *Tag.ber. dt. Ges. Limnol.* 2001: 687-691.
- Orendt, C. 2002b. Die Chironomidenfauna des Inns bei Mühlendorf (Oberbayern). - *Lauterbornia* 44: 109-120.
- Orendt, C. 2002c. Biozönotische Klassifizierung naturnaher Flussabschnitte des nördlichen Alpenvorlandes auf der Grundlage der Zuckmücken-Lebensgemeinschaften (Diptera: Chironomidae). - *Lauterbornia* 44: 121-146.
- Osano, O., Admiraal, W., Klamer, H. J. C., Pastor, D. and Bleeker, E. A. J. 2002a. Comparative toxic and genotoxic effects of chloroacetanilides, formamidines and their degradation products on *Vibrio fischeri* and *Chironomus riparius*. - *Envir. Pollut.* 119: 195-202.
- Özkan, N. 2002a. Five new Chironomidae (Diptera) species for the Turkish fauna. - *Turk. J. Zool.* 26: 183-188.
- Palmer, S., Walker, I., Heinrichs, M., Hebda, R. and Scudder, G. 2002a. Postglacial midge community change and Holocene palaeotemperature reconstructions near treeline, southern British Columbia (Canada). - *J. Paleolimnol.* 28: 469-490.
- Palmer, T. A., Montagna, P. A. and Kalke, R. D. 2002a. Downstream effects of restored freshwater inflow to Rincon Bayou, Nueces Delta, Texas, USA. - *Estuaries* 25: 1448-1456.
- Partridge, M. R. and Berry, C. 2002a. Insecticidal activity of the *Bacillus sphaericus* Mtx1 toxin against *Chironomus riparius* [sic!]. - *J. Invert. Path.* 79: 135-136.
- Peck, M. R., Klessa, D. A. and Baird, D. J. 2002a. A tropical sediment toxicity test using the dipteran *Chironomus crassiforceps* to test metal bioavailability with sediment pH change in tropical acid-sulfate sediments. - *Envir. Toxic. Chem.* 21: 720-728.
- Peng, J., Liu, J., Xiong, B., Yu, F. and Xu, C. 2002a. Preliminary studies on community structure and biodiversity of zoobenthos in Fuqiaohe Reservoir, Hubei Province. - *Hupo Kexue* 14: 90-96.
- Pennuto, C. M., Wooster-Brown, C. L. and Belisle, C. A. 2002a. Infestation intensity and prevalence of an ectosymbiotic midge under variable environmental and host conditions. - *Can. J. Zool.* 80: 2061-2071.
- Perova, S. N. i Shcherbina, G. Kh. 2002a. Mnogoletnie izmeneniya vidovogo sostava Gor'kovskogo vodokhranilishcha. (Long-term changes in species composition of macrozoobenthos in the Gorky Reservoir.) - *Biol. vnutr. Vod* 1: 55-64.
- Persson, A. and Brönmark, C. 2002a. Foraging capacities and effects of competitive release on ontogenetic diet shift in bream, *Abramis brama*. - *Oikos* 97: 271-281.
- Péry, A. R. R., Mons, R., Flammarion, P., Lagadic, L. and Garric, J. 2002a. A modeling approach to link food availability, growth, emergence, and reproduction for the midge *Chironomus riparius*. - *Envir. Toxic. Chem.* 21: 2507-2513.
- Petänen, T., Lyytikäinen, M., Lappalainen, J., Romantschuk, M. and Kukkonen, J. V. K. 2002a. Assessing sediment toxicity and arsenite concentration with bacterial and traditional methods. - *Envir. Pollut.* 122: 407-415.
- Petrova, N. and Michailova, P. 2002a. Cytogenetic characteristics of *Chironomus bernensis* Klotzli (Diptera: Chironomidae) from a heavy metal polluted station in Northern Italy. - *Annl. zool., Warszawa* 52: 155-161.
- Piccolo, J. J. and Wipfli, M. S. 2002a. Does red alder (*Alnus rubra*) in upland riparian forests elevate macroinvertebrate and detritus export from headwater streams to downstream habitats in southeastern Alaska? - *Can. J. Fish. aquat. Sci.* 59: 503-513.
- Polukonova, N. V. and Belyanina, S. I. 2002a. On the possibility of hybridogenesis in the origin of midge *Chironomus usenicus* Loginova et Beljanina (Chironomidae, Diptera). - *Genetika* 38: 1635-1640. [also in: *Russ. J. Genet.* 38: 1385-1390.]
- Porinchu, D. F. and Cwynar, L. C. 2002a. Late-Quaternary history of midge communities and climate from a tundra site near the lower Lena River, Northeast Siberia. - *J. Paleolimnol.* 27: 59-69.
- Porinchu, D. F., MacDonald, G. M., Bloom, A. M. and Moser, K. A. 2002a. The modern distribution of chironomid sub-fossils (Insecta: Diptera) in the Sierra Nevada, California: Potential for paleoclimatic reconstructions. - *J. Paleolimnol.* 28: 355-375.
- Postma, J. F., de Valk, S., Dubbeldam, M., Maas, J. L., Tonkes, M., Schipper, C. A. and Kater, B. J. 2002a. Confounding factors in bioassays with

- freshwater and marine organisms. - *Ecotoxic. envir. Saf.* 53: 226-237.
- Powers, S. P., Bishop, M. A., Grabowski, J. H. and Peterson, C. H. 2002a. Intertidal benthic resources of the Copper River Delta, Alaska, USA. - *J. Sea Res.* 47: 13-23.
- Progar, R. A. and Moldenke, A. R. 2002a. Insect production from temporary and perennially flowing headwater streams in Western Oregon. - *J. Freshwat. Ecol.* 17: 391-407.
- Quinlan, R. and Smol, J. P. 2002a. Regional assessment of long-term hypolimnetic oxygen changes in Ontario (Canada) shield lakes using subfossil chironomids. - *J. Paleolimnol.* 27: 249-260.
- Quinlan, R., Leavitt, P. R., Dixit, A. S., Hall, R. I. and Smol, J. P. 2002a. Landscape effects of climate, agriculture, and urbanization on benthic invertebrate communities of Canadian prairie lakes. - *Limnol. Oceanogr.* 47: 378-391.
- Quist, M. C., Guy, C. S., Bernot, R. J. and Stephen, J. L. 2002a. Efficiency of removing food items from walleyes using acrylic tubes. - *J. Freshwat. Ecol.* 17: 179-184.
- Quist, M. C., Guy, C. S., Bernot, R. J. and Stephen, J. L. 2002b. Seasonal variation in condition, growth and food habits of walleye in a Great Plains reservoir and simulated effects of an altered thermal regime. - *J. Fish Biol.* 61: 1329-1344.
- Reynolds, S. K. Jr. and Ferrington, L. C. Jr. 2002a. Differential morphological responses of chironomid larvae to severe heavy metal exposure (Diptera: Chironomidae). - *J. Kans. ent. Soc.* 75: 172-184.
- Richardson, S. M., Hanson, J. M. and Locke, A. 2002a. Effects of impoundment and water-level fluctuations on macrophyte and macroinvertebrate communities of a dammed tidal river. - *Aquat. Ecol.* 36: 493-510.
- Rikardsen, A. H., Amundsen, P.-A. and Bodin, P. J. 2002a. Foraging behaviour changes of Arctic charr during smolt migration in northern Norway. - *J. Fish Biol.* 60: 489-491.
- Robinson, C. T., Tockner, K. and Burgherr, P. 2002a. Seasonal patterns in macroinvertebrate drift and seston transport in streams of an alpine glacial flood plain. - *Freshwat. Biol.* 47: 985-993.
- Rodrigues, G. G. and Hartz, S. M. (2001) 2002a.. Food dynamics of fish and the interaction with macroinvertebrates from a shallow lake in southern Brasil. - *Verh. int. Verein. Limnol.* 27: 3309-3314.
- Rosemond, A. D., Pringle, C. M., Ramírez, A., Paul, M. J. and Meyer, J. L. 2002a. Landscape variation in phosphorus concentration and effects on detritus-based tropical streams. - *Limnol. Oceanogr.* 47: 278-289.
- Rosén, M. and Edström, J.-E. 2002a. Chromosome ends in *Chironomus tentans* do not have long single-stranded overhangs characterizing canonical telomeres. - *Chromosome Res.* 10: 21-31.
- Rosén, M., Castillejo-López, C. and Edström, J.-E. 2002a. Telomere terminating with centromere-specific repeats is closely associated with a transposon derived gene in *Chironomus pallidivittatus*. - *Chromosoma* 110: 532-541.
- Rosén, M., Kamnert, I. and Edström, J.-E. 2002a. Extrachromosomal RNA-DNA complex containing long telomeric repeats in chironomids. - *Insect molec. Biol.* 11: 167-174.
- Rossaro, B., Casalegno, C. and Lencioni, V. 2002a. West Palaearctic species belonging to the subgenus *Orthocladius* s. str. (Diptera, Chironomidae). - *Boll. Zool. agr. Bachic., Ser. II*, 34: 227-233.
- Rueda, J., Camacho, A., Mezquita, F., Hernández, R. and Roca, J. R. 2002a Effect of episodic and regular sewage discharges on the water chemistry and macroinvertebrate fauna of a Mediterranean stream. - *Wat. Air Soil Pollut.* 140: 425-444.
- Ruetz, C. R. III, Newman, R. M. and Vondracek, B. 2002a. Top-down control in a detritus-based food web: fish, shredders, and leaf breakdown. - *Oecologia* 132: 307-315.
- Ruse, L. 2002a. Chironomid pupal exuviae as indicators of lake status. - *Arch. Hydrobiol.* 153: 367-390.
- Ruse, L. 2002b. Colonisation of gravel lakes by Chironomidae. - *Arch. Hydrobiol.* 153: 391-407.
- Sabri, N., Östlund Farrants, A.-K., Hellman, U. and Visa, N. 2002a. Evidence for a posttranscriptional role of a TFIICa-like protein in *Chironomus tentans*. - *Molec. Biol. Cell* 13: 1765-1777.
- Sæther, O. A. and Ekrem, T. 2002a. Biogeography of Afrotropical Chironomidae (Diptera). - In: Yeates, D. (ed.): *Abstr. 5<sup>th</sup> Int. Congr. Dipterol., Brisbane*: 208.
- Ságová-Marecková, M. 2002a. Interactions between crayfish, benthic invertebrates, macrophyte roots and sediment in a littoral zone. - *Arch. Hydrobiol.* 155: 645-665.
- Ságová-Marecková, M. 2002b. Distribution of benthic macroinvertebrates in relationship to plant roots, sediment type and spatial scale in

- fishponds and slow streams. - *Arch. Hydrobiol.* 156: 63-81.
- Ságová-Marecková, M. and Kvet, J. 2002a. Impact of oxygen released by the roots of aquatic macrophytes and distribution of benthic invertebrates in a mesocosm experiment. - *Arch. Hydrobiol.* 155: 567-584.
- Sánchez, P. and Tarazona, J.V. 2002a. Development of a multispecies system for testing reproductive effects on aquatic invertebrates. Experience with *Daphnia magna*, *Chironomus prasinus* and *Lymnaea peregra*. - *Aquat. Toxic.* 60: 249-256.
- Sanseverino, A. M., Wiedenbrug, S. and Fittkau, E. J. 2002a. *Marauia* group: a new species group in the genus *Tanytarsus* VAN DER WULP, 1874, from the Neotropics (Diptera, Chironomidae). - *Studia dipterol.* 9: 453-468.
- Sasa, M., Sumita, M. and Tanaka, H. 2002a. The chironomid species collected with light traps at the side of lakes, Ishikawa Prefecture. - *Bull. Jap. Sea Res. Inst. Kanazawa Univ.* 33: 229-232.
- Scarsbrook, M. R. and Halliday, J. 2002a. Detecting patterns in hyporheic community structure: does sampling method alter the story? - *N. Z. J. mar. Freshwat. Res.* 36: 443-453.
- Scheibe, M. A. 2002a. Beitrag zur Artenliste der aquatischen Zuckmücken (Diptera: Chironomidae) des Taunus. - *Lauterbornia* 44: 99-107.
- Schellenberg, E. T., Hartmann, U., Zah, R. and Meyer, E. I. (2001) 2002a. Response of the epibenthic and hyporheic invertebrates to stream drying in a prealpine river. - *Verh. int. Verein. Limnol.* 27: 3733-3737.
- Schmid-Araya, J. M., Hildrew, A. G., Robertson, A., Schmid, P. E. and Winterbottom, J. 2002a. The importance of meiofauna in food webs: evidence from an acid stream. - *Ecology* 83: 1271-1285.
- Schmidt, T. S., Soucek, D. J. and Cherry, D. S. 2002a. Modification of an ecotoxicological rating to bioassess small acid mine drainage-impacted watersheds exclusive of benthic macroinvertebrate analysis. - *Envir. Toxic. Chem.* 21: 1091-1097.
- Schöll, F. (ed.) 2002a. Das Makrozoobenthos des Rheins 2000. - *Ber. 128-d.doc.* IKSr [Int. Komm. Schutz Rheins/Commn Int. Protect. Rhin], Koblenz. 47 pp.
- Schreiber, E. S. G., Lake, P. S. and Quinn, G. P. 2002a. Facilitation of native stream fauna by an invading species? Experimental investigations of the interaction of the snail, *Potamopyrgus antipodarum* (Hydrobiidae) with native benthic fauna in Australia. - *Biol. Invasions* 4: 317-325.
- Schuler, L. J., Heagler, M. G. and Lydy, M. J. 2002a. Bioavailability of sediment-associated benzo(a)pyrene within single- versus multiple-species systems. - *Archs envir. Contam. Toxic.* 42: 199-204.
- Schulz, R., Thiere, G. and Dabrowski, J. M. 2002a. A combined microcosm and field approach to evaluate the aquatic toxicity of azinphosmethyl to stream communities. - *Envir. Toxic. Chem.* 21: 2172-2178.
- Schuster, C., Bellstedt, R., Göring, M., Müller, U. und Samietz, R. 2002a. Die Flora und Fauna des Flächennaturdenkmales "Gewässerschutzgebiet Hörssel" im Landkreis Gotha mit Anmerkungen zu Pflege- und Entwicklung. - *Abh. Ber. Mus. Nat. Gotha* 22: 59-80.
- Seppä, H., Nyman, M., Korhola, A. and Weckström, J. 2002a. Changes of treelines and alpine vegetation in relation to post-glacial climate dynamics in northern Fennoscandia based on pollen and chironomid records. - *J. Quat. Sci.* 17: 287-301.
- Seredszus, F. und Wichard, W. 2002a. Buchonomyiinae (Diptera, Chironomidae) im Baltischen Bernstein. - *Studia dipterol.* 9: 393-402.
- Servia, M. J. 2002a. El estudio de las deformidades en macroinvertebrados acuáticos. - *Boln Asoc. esp. Ent.* 26: 165-176.
- Servia, M. J., Cobo, F. and González, M. A. 2002a. Monitoring deformities of *Chironomus riparius* MEIGEN, 1804 (Diptera, Chironomidae) larvae from first to fourth instar: a potential tool for investigating their origin. - *Arch. Hydrobiol.* 154: 447-460.
- Servia, M. J., Cobo, F. and González, M. A. 2002b. Ontogeny of individual asymmetries in several traits of larval *Chironomus riparius* Meigen, 1804 (Diptera, Chironomidae). - *Can. J. Zool.* 80: 1470-1479.
- Shieh, S.-H., Ward, J. V. and Kondratieff, B. C. 2002a. Energy flow through macroinvertebrates in a polluted plains stream. - *J. N. Am. benthol. Soc.* 21: 660-675.
- Shobanov, N. A. 2002a. Evolyutsiya roda *Chironomus* (Diptera, Chironomidae). 1. Predkovaya forma i osnovnye napravleniya filogeneza. (Evolution of the genus *Chironomus* (Diptera, Chironomidae). 1. Ancestral form and major lines of phylogenesis.) - *Zool. Zh.* 81: 463-468.
- Shobanov, N. A. 2002b. Evolyutsiya roda *Chironomus* (Diptera, Chironomidae). 2. Filogeneticheskaya model'. (Evolution of the

- genus *Chironomus* (Diptera, Chironomidae). 2. Phylogenetic model.) - *Zool. Zh.* 81: 711-718.
- Shobanov, N. A., Wuelker, W. F. and Kiknadze, I. I. 2002a. *Chironomus albimaculatus* sp. n. and *C. trubicola* sp. n. (Diptera, Chironomidae) from Polar Russia. - *Aquat. Insects* 24: 169-188.
- Siirin, M. T., Kiknadze, I. I. i Istomina, A. G. 2002a. Tsitogeneticheskaya differentsiatsiya populyatsii u vidov *Chironomus heterodentatus* i *Ch. sokolovae* iz gruppy *obtusidens* (Diptera, Chironomidae). (Cytogenetic differentiation of populations in *Chironomus heterodentatus* and *Ch. sokolovae* species of the *obtusidens* group (Diptera, Chironomidae).) - *Zool. Zh.* 81: 1476-1486.
- Singh, R. P., Gupta, N., Singh, S., Singh, A., Suman, R. and Annie, K. 2002a. Toxicity of ionic and nonionic surfactants to six macrobes found in Agra, India. - *Bull. envir. Contam. Toxic.* 69: 265-270.
- Smagghe, G., Dhadialla, T. S. and Lezzi, M. 2002a. Comparative toxicity and ecdysone receptor affinity of non-steroidal ecdysone agonists and 20-hydroxyecdysone in *Chironomus tentans*. - *Insect Biochem. molec. Biol.* 32: 187-192.
- Smart, A. C., Harper, D. M., Malaisse, F., Schmitz, S., Coley, S. and Gouder de Beauregard, A.-C. 2002a. Feeding of the exotic Louisiana red swamp crayfish, *Procambarus clarkii* (Crustacea, Decapoda), in an African tropical lake: Lake Naivasha, Kenya. - *Hydrobiologia* 488: 129-142.
- Smidt, S. and Oswood, M. W. 2002a. Landscape patterns and stream reaches in the Alaskan taiga forest: potential roles of permafrost in differentiating macroinvertebrate communities. - *Hydrobiologia* 468: 95-105.
- Smith, D. G., Werle, S. F. and Klekowski, E. 2002a. The rapid colonization and emerging biology of *Cordylophora caspia* (Pallas, 1771) (Cnidaria: Clavidae) in the Connecticut River. - *J. Freshwat. Ecol.* 17: 423-430.
- Smith, H. and Wood, P. J. 2002a. Flow permanence and macroinvertebrate community variability in limestone spring systems. - *Hydrobiologia* 487: 45-58.
- Snook, D. L. and Milner, A. M. 2002a. Biological traits of macroinvertebrates and hydraulic conditions in a glacier-fed catchment (French Pyrénées). - *Arch. Hydrobiol.* 153: 245-271.
- Snyder, C. D., Young, J. A., Lemarié, D. P. and Smith, D. R. 2002a. Influence of eastern hemlock (*Tsuga canadensis*) forests on aquatic invertebrate assemblages in headwater streams. - *Can. J. Fish. aquat. Sci.* 59: 262-275.
- Spies, M., Sublette, J. E., Sublette, M. F., Wülker, W. F., Martin, J., Hille, A., Miller, M. A. and Witt, K. 2002a. Pan-American *Chironomus calligraphus* Goeldi, 1905 (Diptera, Chironomidae): species or complex? Evidence from external morphology, karyology and DNA sequencing. - *Aquat. Insects* 24: 91-113.
- Šporka, F., Štefková, E., Bitušík, P., Thompson, A. R., Agustí-Panareda, A., Appleby, P. G., Grytnes, J. A., Kamenik, C., Krno, I., Lami, A., Rose, N. and Shilland, N. E. 2002a. The paleolimnological analysis of sediments from high mountain lake Nižné Terianske pleso in the High Tatras (Slovakia). - *J. Paleolimnol.* 28: 95-109.
- Stagliano, D. M. and Whiles, M. R. 2002a. Macroinvertebrate production and trophic structure in a tallgrass prairie headwater stream. - *J. N. Am. benthol. Soc.* 21: 97-113.
- Ståhl-Delbanco, A. and Hansson, L.-A. 2002a. Effects of bioturbation on recruitment of algal cells from the "seed bank" of lake sediments. - *Limnol. Oceanogr.* 47: 1836-1843.
- Staiber, W. 2002a. Isolation of a new germ line-specific repetitive DNA family in *Acricotopus* by microdissection of polytenized germ line-limited chromosome sections from a permanent larval salivary gland preparation. - *Cytogenet. Genome Res.* 98: 210-215.
- Staiber, W. and Wahl, S. 2002a. Painting analysis of meiotic metaphase I configurations of the germ line-limited chromosomes in *Acricotopus*. - *Chromosome Res.* 10: 101-108.
- Stevens, J. A., Duke, B. M., Lotufo, G. R. and Bridges, T. S. 2002a. Toxicity of the explosives 2,4,6-trinitrotoluene, hexahydro-1,3,5-trinitro-1,3,5-triazine, and octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine in sediments to *Chironomus tentans* and *Hyaella azteca*: low-dose hormesis and high-dose mortality. - *Envir. Toxic. Chem.* 21: 1475-1482.
- Steingrímsson, S. O. and Gíslason, G. M. 2002a. Body size, diet and growth of landlocked brown trout, *Salmo trutta*, in the subarctic River Laxá, North-East Iceland. - *Envir. Biol. Fish.* 63: 417-426.
- Stevens, M. M. and Braysher, B. D. 2002a. Chemical cues regulate oviposition site selection in the midge *Chironomus tepperi* Skuse (Chironomidae). - In: Yeates, D. (ed.): *Abstr. 5<sup>th</sup> Int. Congr. Dipterol., Brisbane*: 226.
- Stevens, M. M., Ali, A., Helliwell, S., Schiller, L. J. and Hansen, S. 2002a. Comparison of two bioassay techniques for assessing the acute toxicity of pesticides to chironomid larvae (Diptera: Chironomidae). - *J. Am. Mosquito Control Ass.* 18: 119-125.

- Stief, P. and de Beer, D. 2002a. Bioturbation effects of *Chironomus riparius* on the benthic N-cycle as measured using microsensors and microbiological assays. - *Aquat. microb. Ecol.* 27: 175-185.
- Stoichev, S. 2002a. Hydrofaunistic investigation of the Urdini Ezera glacial lakes, northwestern Rila Mountains, West Bulgaria. - *Acta zool. bulg.* 54: 63-68.
- Stolyarov, A. P., Burkovsky, I. V., Chertoprud, M. V. i Udalov, A. A. 2002a. Prostranstvenno-vremennaya struktura litoral'nogo soobshchestva makrobentosa v estuarii (Kandalakshskii zaliv, Beloe more). (Spatial-temporal structure of littoral macrobenthos community in the Estuary (Kandalaksha Bay, White Sea).) - *Usp. sovrem. Biol.* 122: 537-547.
- Stripari, N. de L. and Henry, R. 2002a. The invertebrate colonization during decomposition of *Eichhornia azurea* Kunth in a lateral lake in the mouth zone of Paranapanema River into Jurumirim Reservoir (São Paulo, Brazil). - *Braz. J. Biol.* 62: 293-310.
- Stuchlík, E., Appleby, P., Bitušík, P., Curtis, C., Fott, J., Kopáček, J., Pražáková, M., Rose, N., Strunecký, O. and Wright, R. F. 2002a. Reconstruction of long-term changes in lake water chemistry, zooplankton and benthos of a small, acidified high-mountain lake: magic modelling and palaeolimnological analysis. - *Wat. Air Soil Pollut. Focus* 2,2: 127-138.
- Stur, E., Wiedenbrug, S. and Franz, H. 2002a. Chironomid communities (Diptera, Chironomidae) in cold Alpine springs. Prospect for a long-term biomonitoring. - In: Yeates, D. (ed.): *Abstr. 5<sup>th</sup> Int. Congr. Dipterol., Brisbane*: 230.
- Sun, X., Zhao, J., Jin, S., Palka, K., Visa, N., Aissouni, Y., Daneholt, B. and Alzhanova-Ericsson, A. T. 2002a. A novel protein localized to the fibrillar compartment of the nucleolus and to the brush border of a secretory cell. - *Eur. J. Cell Biol.* 81: 125-137.
- Sundermann, A. und Dettinger-Klemm, P.-M. A. 2002a. Autökologische Untersuchungen an *Stempellina* spec. nov. (Diptera: Chironomidae) - eine köcherbauende Chironomidae aus Sumpfqüellen (Helokrenen). - *Tag.ber. dt. Ges. Limnol.* 2001: 703-708.
- Swansburg, E. O., Fairchild, W. L., Fryer, B. J. and Ciborowski, J. J. H. 2002a. Mouthpart deformities and community composition of Chironomidae (Diptera) larvae downstream of metal mines in New Brunswick, Canada. - *Envir. Toxic. Chem.* 21: 2675-2684.
- Swift, M. C. 2002a. Stream ecosystem response to, and recovery from, experimental exposure to selenium. - *J. aquat. Ecosyst. Stress Recovery* 9: 159-184.
- Szécsei, M., Przibilla, S. and Spindler-Barth, M. 2002a. Expression and affinity purification of ecdysteroid receptor and ultraspiracle. - [Online publication at: <http://www.insectscience.org/>] *J. Insect Sci.* 2.16: 22.
- Tanaka, H. 2002a. List of publications on Chironomidae (Diptera) by Manabu Sasa. - *Med. Ent. Zool.* 53: 285-299.
- Thompson, J. E. and Ankney, C. D. 2002a. Role of food in territoriality and egg production of Buffleheads (*Bucephala albeola*) and Barrow's Goldeneyes (*Bucephala islandica*). - *Auk* 119: 1075-1090.
- Thomson, J. R., Lake, P. S. and Downes, B. J. 2002a. The effect of hydrological disturbance on the impact of a benthic invertebrate predator. - *Ecology* 83: 628-642.
- Touabay, M., Aouad, N. et Mathieu, J. 2002a. Etude hydrobiologique d'un cours d'eau du Moyen-Atlas: l'oued Tizguit (Maroc). - *Annls Limnol.* 38: 65-80.
- Tudorancea, C. 2002a. Zoobenthic and weed-bed faunas. - In: Tudorancea, C. and Taylor, W. D. (eds.): *Ethiopian Rift Valley lakes*, pp. 109-142. Backhuys Pubs, Leiden.
- Tudorancea, M.-M. and Tudorancea, C. 2002a. Are chironomid larvae bioindicators of the water quality in running waters under urban impact? - *Verh. int. Verein. Limnol.* 28: 417-421.
- Udalov, A. A. i Burkovsky, I. V. 2002a. Rol' mezobentosa v razmernoi strukture litoral'noi ekosistemy. (The role of mesobenthos in the size structure of intertidal ecosystem.) - *Okeanologiya* 42: 527-536.
- Usio, N. and Townsend, C. R. 2002a. Functional significance of crayfish in stream food webs: roles of omnivory, substrate heterogeneity and sex. - *Oikos* 98: 511-521.
- Usseglio-Polatera, P. and Beisel, J.-N. 2002a. Longitudinal changes in macroinvertebrate assemblages in the Meuse River: anthropogenic effects versus natural change. - *River Res. Applics* 18: 197-211.
- Vårdal, H., Bjørlo, A. and Sæther, O. A. 2002a. Afrotropical *Polypedilum* subgenus *Tripodura*, with a review of the subgenus (Diptera: Chironomidae). - *Zool. Scripta* 31: 331-402.
- Vedrasco, A., Lobchenko, V., Pirtu, I. and Billard, R. 2002a. The culture of live food for sturgeon juveniles, a mini review of the Russian literature. - *Int. Rev. Hydrobiol.* 87: 569-575.
- Veenstra-Quah, A. 2002a. Dragonfly nymphs with dipterian 'hitch-hikers': an example of phoresy



- found in Dandenong Creek. - *Vict. Nat.* 119: 229-231.
- Verneaux, V. and Vernaux, J. 2002a. Assessing lake functioning using the macrobenthic community with special reference to Chironomidae (Diptera). A subalpine lake (Lake Annecy) as an example. - *Arch. Hydrobiol.* 154: 61-78.
- Verrengia Guerrero, N. R., Taylor, M. G., Davies, N. A., Lawrence, M. A. M., Edwards, P. A., Simkiss, K. and Wider, E. A. 202a. Evidence of differences in the biotransformation of organic contaminants in three species of freshwater invertebrates. - *Envir. Pollut.* 117: 523-530.
- Vervliet Scheebaum, M. 2002a. *Pestizide in aquatischen Systemen: Extrapolation der chronischen Toxizität aus Messungen der akuten Toxizität am Beispiel von Chironomus riparius*. - Dipl.-Arb., Univ. Freiburg, 81 pp.
- Vivas, S. and Casas, J. J. 2002a. Macroinvertebrates colonising leaf litter of contrasting quality in a travertine Mediterranean stream. - *Arch. Hydrobiol.* 154: 225-238.
- Vos, J. H., Brink, P. J. van den, Ende, F. P. van den, Ooijevaar, M. A. G., Oosthoek, A. J. P., Postma, J. F. and Admiraal, W. 2002a. Growth response of a benthic detritivore in organic matter composition in sediments. - *J. N. Am. benthol. Soc.* 21: 443-456.
- Vos, J. H., Teunissen, M., Postma, J. F. and Ende, F. P. van den 2002a. Particle size effect on preferential settlement and growth rate of detritivorous chironomid larvae as influenced by food level. - *Arch. Hydrobiol.* 154: 103-119.
- Walsh, C. J. and Breen, P. F. (2001) 2002a. A biological approach to assessing the potential success of habitat restoration in urban streams. - *Verh. int. Verein. Limnol.* 27: 3654-3658.
- Walsh, C. J., Gooderham, J. P. R., Grace, M. R., Sdraulig, S., Rosyidi, M. I. and Lelono, A. 2002a. The relative influence of diffuse- and point-source disturbances on a small upland stream in East Java, Indonesia: a preliminary investigation. - *Hydrobiologia* 487: 183-192.
- Wang, X. and Halvorsen, G. A. 2002a. A new *Eukiefferiella* Thienemann, 1926 from Northeast China (Diptera, Chironomidae). - *Aquat. Insects* 24: 123-128.
- Wang, X. and Saether, O. A. 2002a. *Hanocladus*, a new orthoclad genus from China (Diptera: Chironomidae). - *Hydrobiologia* 468: 181-183.
- Wang, X. and Saether, O. A. 2002b. First Oriental record of the orthoclad genus *Paralimnophyes* Brundin with emendation to the diagnosis of the genus (Diptera: Chironomidae). - *Aquat. Insects* 24: 325-329.
- Wang, X., Sæther, O. A. and Andersen, T. (2001) 2002a. Afrotropical *Bryophaenocladus* Thienemann, 1934 (Diptera: Chironomidae). - *Studia dipterol.* 8: 447-462.
- Watanabe, M., Kikawada, T., Minagawa, N., Yukuhiro, F. and Okuda, T. 2002a. Mechanism allowing an insect to survive complete dehydration and extreme temperatures. - *J. exp. Biol.* 205: 2799-2802.
- Waters, N. M. and San Giovanni, C. R. 2002a. Distribution and diversity of benthic macroinvertebrates associated with aquatic macrophytes. - *J. Freshwat. Ecol.* 17: 223-232.
- Weigel, B. M., Henne, L. J. and Martínez-Rivera, L. M. 2002a. Macroinvertebrate-based index of biotic integrity for protection of streams in west-central Mexico. - *J. N. Am. benthol. Soc.* 21: 686-700.
- Wells, F., Metzeling, L. and Newall, P. 2002a. Macroinvertebrate regionalisation for use in the management of aquatic ecosystems in Victoria, Australia. - *Envir. Monit. Assess.* 75: 271-294.
- Whitaker, J. O. Jr. and Yom-Tov, Y. 2002a. The diet of some insectivorous bats from northern Israel. - *Mamm. Biol.* 67: 378-380.
- White, J. (2001) 2002a. The potential use of littoral macroinvertebrates in the assessment of lake water quality. - *Verh. int. Verein. Limnol.* 27: 3527-3532.
- Wiedenbrug, S. and Andersen, T. 2002a. New species of *Parakiefferiella* Thienemann, 1936 from South America (Chironomidae, Orthocladiinae). - *Stud. neotrop. Fauna Envir.* 37: 119-132.
- Wilkens, J. L., DeBates, T. J. and Willis, D. W. 2002a. Food habits of yellow perch, *Perca flavescens*, in West Long Lake, Nebraska. - *Trans. Neb. Acad. Sci.* 28: 49-55.
- Williams, D. D. and Hamm, T. 2002a. Insect community organisation in estuaries: the role of the physical environment. - *Ecography* 25: 372-384.
- Williams, L. R., Taylor, C. M., Warren, M. L. Jr. and Clingenpeel, J. A. 2002a. Large-scale effects of timber harvesting on stream systems in the Ouachita Mountains, Arkansas, USA. - *Envir. Mgmt* 29: 76-87.
- Winfield, I. J., Bean, C. W. and Hewitt, D. P. 2002a. The relationship between spatial distribution and diet of arctic charr, *Salvelinus alpinus*, in Loch Ness, U. K. - *Envir. Biol. Fish.* 64: 63-73.

- Wipfli, M. and Gregovich, D. P. 2002a. Export of invertebrates and detritus from fishless headwater streams in southeastern Alaska: Implications for downstream salmonid production. - *Freshwat. Biol.* 47: 957-969.
- Wolff, R. H., Brasher, A. M. and Richards, A. B. 2002a. New generic records of Hawaiian Chironomidae (Diptera). - *Bishop Mus. occ. Pap.* 69: 31.
- Wolfram, G., Kowarc, V. A., Humpesch, U. H. and Siegl, W. 2002a. Distribution pattern of benthic invertebrate communities in Traunsee (Austria) in relation to industrial tailings and trophy. - *Wat. Air Soil Pollut. Focus* 2,4: 63-91.
- Wolfram, G., Salbrechter, M., Weigand, E., Wychera, U. and Humpesch, U. H. 2002a. Variations in the epiphytic invertebrate community structure on *Potamogeton perfoliatus* L. in Traunsee (Austria): patchiness versus impacts by industrial tailings. - *Wat. Air Soil Pollut. Focus* 2,4: 117-136.
- Wolnomiejski, N. and Grygiel, I. 2002a. Food of common bream (*Abramis brama* L.) in the Szczecin Lagoon-Great Lagoon (Poland). - *Bull. Sea Fish. Inst. Gdynia* 155: 61-68.
- Wood, D. L. and Sites, R. W. 2002a. Submerged rootmats: a mesohabitat harboring a distinct insect community in Ozark streams. - *J. Freshwat. Ecol.* 17: 431-440.
- Wood, P. J., Gunn, J. and Perkins, J. 2002a. The impact of pollution on aquatic invertebrates within a subterranean ecosystem - out of sight out of mind. - *Arch. Hydrobiol.* 155: 223-237.
- Woodcock, B. A., Watt, A. D. and Leather, S. R. 2002a. Aggregation, habitat quality and coexistence: a case study on carrion fly communities in slug cadavers. - *J. Anim. Ecol.* 71: 131-140.
- Woodward, G. and Hildrew, A. G. 2002a. Body-size determinants of niche overlap and intraguild predation within a complex food web. - *J. Anim. Ecol.* 71: 1063-1074.
- Woodward, G. and Hildrew, A. G. 2002b. Differential vulnerability of prey to an invading top predator: integrating field surveys and laboratory experiments. - *Ecol. Ent.* 27: 732-744.
- Woodward, G. and Hildrew, A. G. 2002c. The impact of a sit-and-wait predator: separating consumption and prey emigration. - *Oikos* 99: 409-418.
- Xie, Z. and Zhou, Y. 2002a. (Zoobenthos in inland saline waters from autonomous region northern parts of China.) - *Dalian Shuichan Xueyuan Xuebao* (= *J. Dalian Fish. Univ.*) 17: 176-186.
- Yafe, A., Loureiro, M., Scasso, F. and Quintans, F. 2002a. Feeding of two Cichlidae species (Perciformes) in an hypertrophic urban lake. - *Iheringia, Ser. Zool.* 92: 73-79.
- Yakovlev, V. A. 2002a. Vozdeistvie tyazhelykh metallov na presnovodnyi zoobentos: 1. Bionakoplenie. (The effect of heavy metals on freshwater zoobenthos: 1. Bioaccumulation.) - *Ekol. Khim.* 11: 27-39.
- Yakovlev, V. A. 2002b. Vozdeistvie tyazhelykh metallov na presnovodnyi zoobentos: 2. Posledstviya dlya soobshchestv. (The effect of heavy metals on freshwater zoobenthos: 2. Consequences for associations). - *Ekol. Khim.* 11: 117-132.
- Yamamoto, M. 2002a. *Austrochironomus*, a subgenus of *Chironomus* Meigen (Diptera: Chironomidae). - In: Yeates, D. (ed.): *Abstr.* 5<sup>th</sup> Int. Congr. Dipterol., Brisbane: 275.
- Yoshimi, T., Minowa, K., Karouna-Renier, N. K., Watanabe, C., Sugaya, Y. and Miura, T. 2002a. Activation of a stress-induced gene by insecticides in the midge, *Chironomus yoshimatsui*. - *J. biochem. molec. Toxic.* 16: 10-17.
- Younes, Y., Garcia, X. F. et Gagneur, J. 2002a. Étude de l'impact des activités touristiques sur la qualité de l'eau et l'organisation des peuplements macrobenthiques au sein des cours d'eau de la Principauté d'Andorre. - *Révue Sci. Eau* 15: 421-424.
- Young, J. O. 2002a. A long-term, ecological study of leeches in the stony, littoral zone of British lakes. - *Arch. Hydrobiol. Suppl.* 139: 139-201.
- Zhang, S.-p., Zhang, X.-j., Wang, M.-x., Chen, C.-y. and He, R.-g. 2002a. (A study of *Monopterus albus* feeding on mosquito larvae.) - *Acta hydrobiol. sin.* 26: 568-570.
- Zhao, J., Jin, S.-B., Björkroth, B., Wieslander, L. and Daneholt, B. 2002a. The mRNA export factor Dbp5 is associated with Balbiani ring mRNP from gene to cytoplasm. - *EMBO J.* 21: 1177-1187.
- Ziemann, H. 2002a. Veränderungen der Besiedlungsstrukturen in einem Flussabschnitt der Gera nach der Abwasserlastsenkung durch den Neubau der Verbandskläranlage Arnstadt. - *Abh. Ber. Mus. Nat. Gotha* 22: 81-88.
- Zimmermann, E. M. and Death, R. G. 2002a. Effect of substrate stability and canopy cover on stream invertebrate communities. - *N. Z. Jl mar. Freshwat. Res.* 36: 537-545.
- Zinchenko, T. D. 2002a. *Khironomidy poverkhnostnykh vod basseina Srednei i Nizhnei Volgi (Samarskaya oblast')*. *Ekologo-faunisticheskii obzor. (Chironomids of surface*

- waters in the Mid and Lower Volga basin (Samara district). *Ecological and faunal review.*) - Inst. Ekol. Volzh. Bass. Ross. Akad. Nauk, Tol'yatti. 174 pp.
- Zrum, L. and Hann, B. J. 2002a. Invertebrates associated with submersed macrophytes in a prairie wetland: Effects of organophosphorus insecticide and inorganic nutrients. - *Arch. Hydrobiol.* 154: 413-445.
- Zuellig, R. E., Kondratieff, B. C. and Rhodes, H. A. 2002a. Benthos recovery after an episodic sediment release into a Colorado Rocky Mountain river. - *West. N. Am. Nat.* 62: 59-72.
- Zuikova, E. I., Yadryonkina, E. N. i Zuikov, A. A. 2002a. Faktory, obuslovlivayushchie vybor zhertv molod'yu gol'yana, *Phoxinus phoxinus*, v Teletskom ozere. (Ontogenetic diet shift and prey selection by the young minnow, *Phoxinus phoxinus*, from Teletskoe Lake.) - *Zool. Zh.* 81: 469-479.
- Zurek, R. 2002a. Upper Vistula River: Response of aquatic communities to pollution and impoundment. VIII. Zooseston. - *Pol. J. Ecol.* 50: 201-221.