(093) HORIZONTAL DIURNAL MIGRATION (HDM) OF ZOOPLANKTON- A LITTORAL PELAGIC COUPLING?

Bohman, I., Hansson, M. and Herrmann, J.

Freshwater Ecology Group, Dept of Natural Science, University of Kalmar, P.O. Box 905, S-391 29 Kalmar, Sweden

Zooplankton were predicted to couple littoral and pelagic zones by transporting nutrients and energy. Diurnal migrating zooplankton on the border between the zones were sampled May–October. Special traps captured horizontally migrating zooplankton, while vertical movements were discarded. The trap design also enabled the estimation of stochastic or wind induced horizontal movements. No significant horizontal diurnal migration between littoral and pelagic zones was revealed at community level. Although some patterns were indicated for single taxa, HDM of zooplankton is suggested not to give any substantial net transportation of nutrients and energy.

(094) EFFECT OF WATER FLOW RATE ON ZOOPLANKTON OF SHALLOW RHEOLIMNIC RESERVOIRS

Bledzki, L.A. and Ellison, A.M.

Department of Biological Sciences, Mount Holyoke College, South Hadley, Massachusetts, USA

Zooplankton, biophysical, and chemical data were collected for 2-8 years from reservoirs in New England (USA) and North Poland. All reservoirs studied were eutrophic-to-hypertrophic, strongly rheolimnic, and had high zooplankton species richness, especially of Rotifera. Flow rate principally determined the dynamics of these reservoirs and dramatically altered zooplankton community structure. Refugia – areas of heterogeneous flow regimes – maintained locally high species abundance and diversity, especially of carnivorous zooplankton.

(095) HABITAT DISTRIBUTION OF ZOOPLANKTON IN RELATION TO MACROPHYTES IN AN EUTROPHIC LAKE

Bergström, S.E.[1], Svensson, J.-E.[2] and Westberg, E.[1]

[1]Animal Ecology, Dept of Zoology, University of Göteborg, Sweden; [2]Melica Environmental Consultants, Göteborg, Sweden

The diel distribution of crustacean zooplankton in relation to *Myriophyllum alterniflorum* and *Potamogeton perfoliatus* were studied in eutrophic Lake Ellenösjön, SW Sweden. High day-time densities of *Bosmina, Ceriodaphnia* and *Diaphanosoma* were recorded within clumps of *Myriophyllum. Potamogeton* had minor effects on the distribution of zooplankton. Fish density is high in the lake and *Myriophyllum* may, therefore, serve as a refuge from fish predation. A planned restoration of the lake by removal of planktivorous fish is likely to affect the distribution of macrophytes and the distribution and migration of zooplankton.

(096) DISTRIBUTION RESPONSES IN *DAPHNIA LONGISPINA* TO A FISH KAIROMONE

Åsen, C.

Department of Zoology, University of Bergen, Bergen, Norway

Various clones of *Daphnia longispina* from a sheltered mesotrophic lake was tested in a ring-shaped flow-through chamber for reactions to food and fish kairomones. The behaviour was studied both in light and in the dark. Both swimming speed and distribution pattern varied with the treatments. Variation between the clones was minor.

(097) ROTIFER FAUNA IN THE DAM RESERVOIR MODRAC, BOSNIA AND HERZEGOVINA

Erben, R., Peternel, R., Maguire, I., Klobuèar, G. and Lajtner, J.

Department of Zoology, Faculty of Science, University of Zagreb, Rooseveltov trg 6, 10000 Zagreb, Croatia

Research on the dam reservoir Modrac, relating to the appearance of mollusk *Dreissena polymorpha* Pallas, as well as water supply needs of Tuzla, included analyses of the plankton community, benthos and physico-chemical parameters. In this paper, we present only the rotifer fauna because of the great amount of data. Twenty-five species of