

*Crucigeniella* spp. and others). A constant increases in the numbers of *Cyanoprokaryota* mainly *Planktothrix agardhii*, *Aphanizomenon issatschenkoii*, *A. flos-aquae* and decrease of green algae occurred during the study period. Depending on the station and years, differences in phytoplankton abundance ( $50 - 46320 \times 10^3$  .units/l), biomass (22,518 - 93,728  $\text{mg l}^{-1}$ ) and different dominant composition were observed. Higher diatom contributions in phytoplankton numbers at station close to fall into the lake compared with remaining stations were observed. This may be caused by the flow of the river Welna. Nearly 25 species were dominant, composing 25 - 80% of the total phytoplankton biomass. Each year the different accompanying taxa were recorded and the range of biodiversity index slightly decreased. Results did not indicate any changes in the water quality of Lake Legowskie. All the observed annual variation may be due to fluctuations water level and physical factors like water temperature and water turbulence.

**Mihaljević Z., M. Kerovec A. Popijač & P. Mustafić.** *Benthic macrofauna of Vrana Lake (Croatia).*

Physicochemical conditions and macroinvertebrate community structure were investigated during 2002-2003 in Vrana Lake near Biograd, Croatia. Vrana Lake is the largest natural lake in Croatia (area, 30.2  $\text{km}^2$ ; maximum depth, 4 m). The lake stretches parallel to the seacoast and it is separated from the Adriatic Sea by a limestone ridge (800-2500 m wide). Salinity of the lake varied from 0.7-1.2 ‰. Chironomidae and Oligochaeta dominated in the macrozoobenthos, but macroinvertebrate diversity and density were relatively low. During the investigated period, 12 chironomid species were recorded, and the most abundant and common species was *Procladius (Holotanytus)* sp. The only representative of Oligochaeta was *Potamothrix heuscheri* (Bretschler). This is the first record of *P. heuscheri* in lakes along the eastern Adriatic coast.

**Mracovčić M., P. Mustafić M. Caleta & Z. Dolenc.** *Structure and composition of ichthyofauna of Lake Vrana.*

Lake Vrana near Biograd (Dalmatia) is the largest natural lake in Croatia (surface area, 30.2  $\text{km}^2$ ; average depth, 2 m). Fish community in Lake Vrana was never systematically investigated. Numerous anthropogenic influence in this area seriously altered native fish communities. Fish investigation was carried out during 2002-2003. Lakes was sampled by gill nets and where possible by electro fishing. We recorded 17 species belonging to 9 families: Esocidae, Cyprinidae, Poeciliidae, Siluridae, Blennidae, Mugilidae, Atherinidae, Gobiidae, Centrarchidae and Anguillidae. The dominant families were Cyprinidae with six species and Mugilidae with three species. The fish community consists of seven euryhaline species, six species of freshwater limnophilic complex and four introduced invasive species. Dominant species in lake are *Carassius gibelio* and *Scardinius erythrophthalmus*. Waters from that area belong to Adriatic watershed, but fish community is impoverished limnophilic complex of fish introduced from Danube watershed in late fifties and small native euryhaline fish communities. From 64 freshwater fish from Dalmatian region, 26 % of fish species live in Lake Vrana. The Shannon-Wiener diversity index for the fish community is 2.67 (log e) from a maximum of 4.09 with an evenness of 65.4%. Out of 17 species, 3 are on the Bern Convention Annex III. Fish recorded from literature but not recorded in our investigation are *Tinca tinca*, *Liza aurata*, *Mugil saliens*, *Platichthys flesus*, *Solea solea*, *Sparus aurata* and *Dicentrarchus labrax*.

**Nagengast B. , T. Joniak & N. Kuczyńska-Kippen.** *The differentiation of physical-chemical features of water and macrophyte habitats of small water bodies, Poland.*

We chose 12 small water bodies, varying in area from 0.5 to 5 ha and with different catchment area characteristics. These consisted of typical mid-forest (Gazbruchy Male, Gazbruchy Wieksze, Sycyn), strongly anthropogenically modified in the urban landscape (St. George, Bajkowy, Batorowo), strongly anthropogenically modified in an agricultural area (Dabówka, Pałędzie, Piotrowo) and clay-pits (Clay-pit No. 5, Clay-pit No. 10, Mankol). The waters for analysis of physico-chemical conditions included stands located in the open water zone as well as among different ecological types of rush and water vegetation. Dissolved organic matter (DOM) and nutrients were analysed spectrophotometrically (Standard methods,