ABSTRACT BOOK

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PERIPHYTON ON DIFFERENT ARTIFICIAL SUBSTRATA FROM SAVA LAKE AS BIOINDICATOR OF WATER QUALITY – FIRST REPORT

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Sava lake is the reservoir in the Belgrade region being used for recreational activities and connected to the other reservoir used for drinking water supply. The sensitivity of periphyton to environmental conditions including anthropogenic stressors makes it an important bioindicator. In this research we studied growth of periphyton on four different artificial substrata (glass and ceramic tiles, yew and willow tree tiles). Samplers with tiles were attached to floating buoy and submerged at 3 different depths (50, 80, 140 cm) in period from 11th July to 9th September 2014, and collected weekly. Qualitative and quantitative analyzes of the algae, chlorophyll a (Chl a), dry mass (DM), ash-free dry mass (AFDM) and physico-chemical variables were assessed. Finally, we analized Autotrophic Index (AI) and estimated classification of periphyton based to the index proposed by Lakatos. Maximal detected values for Chl a was 12.34 mg/m^2 (on yew tree tiles), for DM 27.83 g/m^2 and 10.04 g/m^2 for AFDM (on glass tiles). The periphyton was dominated by Chlorophyta and Cyanobacteria. Obtained AI values (>400, and higher) points to predominance of heterotrophic organisms in periphitic community, which was mainly confirmed by Lakatos index, indicating increase of organic pollution during summer period.