



ABSTRACT BOOK





SEFS11 Abstract book

Editors: Mirela Sertić Perić, Marko Miliša, Romana Gračan, Marija Ivković, Ivana Buj, Vlatka Mičetić Stanković

Publisher: Croatian Association of Freshwater Ecologists, Rooseveltov trg 6, 10000 Zagreb, Croatia

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This publication should be cited as follows: Sertić Perić, M; Miliša, M; Gračan, R; Ivković, M; Buj, I,; Mičetić Stanković, V (editors). 2019. SEFS11 Abstract book. Croatian Association of Freshwater Ecologists, Zagreb, Croatia. pp. 504

Publication is available at:



th Symposium for European Freshwater Sciences, June 30–July 5, 2019, Zagreb, Croatia

 $\begin{pmatrix} 20^{th} \\ SEFS \end{pmatrix}$

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RS16_P7_The Balkan macrophyte index (BMI): a new tool for assessing the ecological status of lakes

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In Europe, macrophytes have for a long time been used as indicators of eutrophication and for the assessment of ecological status of lakes. Almost twenty assessment systems were developed in the last years, but most of them focused on lakes in Northern and Central Europe. The Mediterranean region, and especially the Balkan, lag behind, probably because of the relatively small number and high variability of natural lakes and the lack of collaboration among Balkan countries. The Balkan macrophyte index (BMI) we developed is designed to assess eutrophication in lakes in the Balkan region. The data we used were gathered in six Balkan lakes: Ohrid, Prespa, Lura, Biogradsko, Crno and Sava, located in Macedonia, Albania, Montenegro and Serbia. Submerged aquatic vegetation, water chemistry and sediment total phosphorus were analysed. Our results show that calculating a macrophyte index can be a problem in lakes with water level fluctuations of several meters, because the macrophyte vegetation may be absent or these lakes are dominated by "oligotrophic" or "eutrophic" species. Even though the number of lakes was small in our study, the BMI was loosely related to water phosphorus concentrations. If we analyse a larger number of lakes using the same methods, reference conditions and status class boundaries may be derived from the phosphorus – BMI regression.