



Evaluation of Trophic and Saprobic Diatom Index in Albanian Rivers[#]

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Abstract: This paper aims to evaluate the efficacy of a bio-monitoring approach to monitor the water quality in some important Albanian Rivers. Monitoring period was from May 2002 to March 2004. Monitoring of water quality was based on calculation of Shannon Diversity Index (H'), Trophic Diatom Index (TI_{DIA}), Saprobe diatom Index (SI), using benthic diatoms. The Shannon Index gave evidence of biodiversity variations over the seasons and some differences between sampling sites. Results show that cleanest stations, upstream part of Mati (Ma1, respectively 1.4, oligo-mesotrophic) and upstream of Tirana river (Is1), which are populated by many species. The poorest stations in species were Lana (Is2) and Ishmi (Is3). The water quality in rivers was classified from meso-eutroph to eutroph, showing a certain pollution level. Trophic index of Mati and Fani water is mainly lower (mesotroph), other stations had low value of trophic index, which oscillated from eutroph (Tirana and Shkumbini in Labinot-Fushë) to polytroph (Lanë and Ishëm). Most of other station (downstream of Shkumbini, Osum, Gjanicë, Seman) are eu-polytroph. After the Saprobic Index (SI), the saprobic state and the water quality of most of the rivers was limited to oligo-beta-mesosaprobic (class I-II) to beta-mesosaprobic (class II). Only in the river sites of Lana, Ishmi and Gjanica, the saprobic values were high, corresponding to the quality class III-IV, characterized by very strong organic pollution (alfa-mesosaprobic to polisaprobic). To provide more information and increase public awareness for the protection of these aquatic ecosystems, monitoring of the water quality is of highest priority.

Key words: Rivers, Biomonitoring, Trophic Diatom Index, Saprobic diatom Index.

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