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HUMAN DAILY ACTIVITIES REFLECTED BY THE ECOLOGICAL STATE OF NATURAL WATER RESOURCES

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Abstract

The study aimed at a new approach for assessment of lake water quality, correlating physico-chemical analyses and spectroscopic data with pollution sources. Water quality of lakes from a major urban area was analyzed and correlated with specific degradation sources along each lake. The results showed that water quality is impacted by the antropic activities, which leave a specific mark on these systems. Strong microbial activity, resulting from the wastewater inputs in lakes was reflected by the high nutrients level and the high fluorescence intensity of protein-like components. The presence of birds and restaurants in the vicinity of the lakes can also induce bad water quality, reflected by a peak in the protein-like spectral domain, appearing at different wavelength than that associated with the wastewaters input.

Key words: chemical parameters, dissolved organic matter, fluorescence spectroscopy, lake water quality

Received: September, 2011; Revised final: February, 2012; Accepted: March, 2012

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