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EFFECT PRODUCED BY THE TECHNOSPHERE ON THE POLLUTION OF WATER BODIES IN RECREATION AREAS OF A MEGALOPOLIS

This article contains a quantitative analysis of the content of heavy metals in soils, waters and sediments of the Verkhniy Kuz'minskiy pond in Moscow. This pond, coupled with other water bodies of the recreation area, represent a historical monument included into the UNESCO registrar. It is common practice to consider heavy metals and toxic elements as target research components. In most cases, these substances serve as the markers of the human activity. Besides, iron was also included into the list of target research components due to the possibility of the ferrocene admixture in the fuel. This decision was also substantiated by the data obtained on the basis of the analysis of samples of soil, water and benthal deposits of the Bol'shoy Troparevskiy Pond in Moscow. The quantitative analysis performed according to GOST 17.4.02—83 (State Standard 17.4.02—83) included elements of the ICP-MS technique. The variations factor was calculated for the heavy metals content in the soil, water and benthal deposits. Highly concentrated elements were found there. A comparison with the prior data on the content of the above components in the Bol'shoy Troparevskiy Pond was performed to identify patterns of distribution and accumulation of the components under research.

Key words: heavy metals, soil, benthal deposits, coefficient of variations, ICP-MS.

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