ECOTOXICOLOGICAL EVALUATION OF RIVER SEDIMENTS IN SELECTED LOCALITIES OF THE ODRA RIVER BASIN

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The paper deals with the issue of pollution of river (bottom) sediments in the Odra river basin, which is located in one of the most anthropogenically polluted areas of the Czech Republic. The presented results are based on the evaluation of river sediments collected on eight selected profiles of water bodies belonging to the Odra river basin using a battery of five ecotoxicological tests including indicator organisms of different trophic levels. Ecotoxicological evaluation of sediments was performed by contact tests and on aqueous extracts of sediments using aquatic tests. For determination of acute toxicity, test using *Folsomia candida*, germination and growth inhibition test using seeds of *Sinapis alba*, growth inhibition test using *Lactuca sativa*, luminescence test using bacteria *Vibrio fischeri* and potential nitrification and inhibition of nitrification determination were used. Monitoring was supplemented by quantitative analysis of major and heavy metals from stabilized aqueous extracts of bottom sediment samples using the method of atomic absorption spectrometry. As part of the evaluation, the sensitivity of individual tests was compared and an analysis of the toxic load of sediments from individual monitored localities was performed. Based on the achieved results, it can be stated that the sediments taken from the Bohumínská stružka and the Lučina river showed the highest toxic load. It has also been confirmed that the predictive value of aquatic ecotoxicological tests is very low and contact ecotoxicological tests are appropriate for sediment testing.