

RIZIKO VPLYVU ŤAŽKÝCH KOVOV MEDI A ZINKU V ŽIVOTNOM PROSTREDÍ ŽIARSKEJ KOTLINY

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ABSTRACT

Urminská J., Porhajašová J., Ondrišík P. & Petřvalský V. **The Risk of An Influence of Heavy Metals Copper and Zinc in The Environment of Žiar Basin Territory**

The problematic of an heavy metals effect to the environment is high actual. In the upon time have been this term closely associated with these elements, which are inducing undesirable toxic effects and contaminating the environment. By our observation one of the most contaminated areas of the Slovak republic – Žiar basin territory was observed dependency among as contents of heavy metals – copper and zinc in the Žiar basin soils and its occurrence of children morbidity according to ICD–10. By reason of high elements concentrations, which were measured in the soil Žiar basin territory (for copper – maximum concentration to 265,0 mg.kg⁻¹, for zinc max. to 1 790,0 mg.kg⁻¹) their potential negative effect to the public health of Žiar basin territory might be strictly situated especially to areas of river Hron and its fluvial flats and their adjacent alluvium. From statistical processing of pedological data we had ascertained, that dependency of Cu : Zn relation is very high positive and result is, where is increase of copper concentration in the environment, there is spotted also high accumulation of zincs contents. Contamination of heavy metals is corresponding to load of environment on full areas. We had not observed the expressive effect of these elements to the increased incidence of individual affection for children population of this monitored territory.

Key words: copper, environment, potential risk to health, soils, zinc, Žiar basin territory