APPLICATION OF ATOMIC ABSORPTION SPECTROMETRY IN ENVIRONMENTAL MONITORING BASED ON THE COMPARATIVE ANALYSIS OF ELEMENT CONTENTS IN RED FOX TISSUES

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ABSTRACT *Works are being undertaken to monitor the environment with the use of living organisms in non-invasively way. The aim of this study was a comparative evaluation of elements content in muscle tissue and hair of red fox and the analysis of correlation between them. Elemental composition of tissues has been tested using atomic absorption spectrometry (AAS) method. The average concentrations of elements in the meat tissue/hair were as follows: Ca – 81/758, Mg – 225/87, Zn – 23.7/129, Cu – 1.54/6, Fe – 36.6/31, Mn – 0.19/4.4, Pb – 0.12/0.3, Cd – 0.005/0.02, Al – 0.83/1.45, Cr – 0.34/0.42 and Ni – 0.14/0.33 (µg/g). It was found that age and body weight influence on the level of Mn, Al, and Fe. A statistically significant correlation between the Mn amount in the muscle and hair may indicate that red fox hair can be a good indicator of the content of this element in his body.*

Keywords: *atomic absorption spectrometry, elements, red fox, muscle tissue, hair*