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## **Study of concentrations of the copper and cobalt in the edible muscle tissue of Pike perch in (*Esox lucius*) International Anzali Wetland**

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### **Abstract**

Pike (*Esox lucius*) is a native species in Anzali wetland and because of its flesh it has been interested to people for a long time. This study was done to compare the rate of accumulation and concentration of pollutants, heavy metals such as copper and cobalt in edible muscle tissue of pike at three stations (West, Central and East) of Anzali wetland in 2015. In this study, fishes were randomly caught in the number of 10 from each station in standard weights by gill nets. Heavy metal concentrations were measured using flame atomic absorption spectrophotometer. The results showed that the average concentration of copper metal in the pike in western, central and eastern wetland were 4.45, 5.09 and 1.2  $\mu\text{g/g}$  dry weight, respectively and the average concentration of cobalt metal 0.02 and 0.04  $\mu\text{g/g}$  dry weight were observed for Center and East of Wetland, respectively, this was not distinguishable in the east wetland by set. In this study, concentrations of lead and chromium in edible muscle tissue pike did not show significant difference among stations ( $P>0.05$ ). Currently no source has been found for comparing cobalt metal concentration in fish edible tissues with standards. The average concentration of copper with standard World Health Organization (WHO) was compared and determined that the concentration of copper in muscle tissue was lower than the limit.

**Keywords:** Anzali Wetland, Edible Tissue, Heavy Metals, Pike