

## CHROMIUM (CR), NICKEL (NI) AND ZINC (ZN) LEVELS IN EDIBLE MUSCLE AND SKIN TISSUES OF *CYPRINUS CARPIO* L. IN ÇAMLIGÖZE DAM LAKE, SIVAS, TURKEY

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**Abstract.** In this study, Cr, Ni and Zn levels were determined by atomic absorption spectrophotometry in edible muscle and skin tissues of *Cyprinus carpio* in Çamlığöze Dam Lake located at Central Anatolian region of Turkey. The maximum levels were found to be 0.12 (Cr), 2.15 (Ni), 0.51 (Zn) µg/g in the muscle and 0.15 (Cr), 2.07 (Ni), 1.97 (Zn) µg/g in the skin of *Cyprinus carpio*. It was determined that Ni was the highest metal in tissues. The highest Cr and Zn levels were determined in the skin of *Cyprinus carpio*, whereas the highest Ni levels were measured in the muscle. The heavy metal accumulation orders for the tissues were as follows: Ni>Zn>Cr in Çamlığöze Dam Lake. There was important statistical differences, especially at the level of zinc accumulation in tissues ( $p<0.001$ ). There was a significant and positive correlation between age, total length, weight and metal levels for Cr ( $r>0.25$ ,  $p<0.05$ ) in the muscle and skin of *Cyprinus carpio* in Çamlığöze Dam Lake. The levels of the tested Cr, Ni and Zn were within the acceptable limits of FAO.

**Keywords:** *Cyprinus carpio*, fish, Cr, Ni, Zn, metal accumulation.