

Some Metal Levels in Muscle Tissue of Seven Fish Species from the Suğla and Beyşehir Lakes, Turkey

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Abstract : Phoxinellus anatolicus, Carassius gibelio, Sander lucioperca, Vimba vimba tenella, Capoeta capoeta, Tinca tinca from Suğla Lake (Turkey) and Phoxinellus anatolicus, Scardinius erythrophthalmus, Tinca tinca from Beyşehir Lake (Turkey) are economically important fish species and these fish have been consumed as food by local people. P. anatolicus is also endangered and endemic species from Turkey. In this study, concentrations of Cd, Co, Cr, Fe, Mn, Ni, Pb and Zn were determined in muscle tissue of these fish by using atomic absorption spectrophotometer. Levels of metals in the muscle tissue of all the fish specimens were compared with results of previous studies, the tolerance levels of national and international guidelines and the levels of Provisional Tolerable Weekly Intake (PTWI) limits set by FAO/WHO. Concentrations of Cd, Cr, Ni and Pb in the muscle tissue of all the fish specimens from Suğla and Beyşehir Lakes exceeded the tolerance levels of national and international guidelines. However, concentrations of Cd, Fe, Pb and Zn were below PTWI limits. Therefore, in terms of these metal levels, consumption of fresh filet of examined seven fish species (weekly up to about 300 g/person) doesn't seem to be objectionable for human health.

Keywords : Beyşehir Lake, fish, metal levels, Suğla Lake

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