

This study describes the concentrations of heavy metals and the basic histopathological changes in gills of *Carassius carassius*. In this research, species were provided from *Carassius carassius* located in Kovada lake. Heavy metal contents were investigated in gills tissues of *Carassius carassius*. Gill of these fish was exposed to routine histological tissue process. For metal analysis, four gill racers each sample were dissected, weighed and dried at 70 °C for 48 h until they reached a constant weight. The concentrations of metals which included Fe, Zn were determined gill tissue samples using Atomic Absorption Spectrophotometer. Fe and Zn levels had been measured as 252.28 ± 4.51 and 443.10 ± 5.68 in gill. Generally these results were above the limits for fish proposed by WHO. Histopathologic evaluation of the toxic effects of heavy metals in the nucleus changes in the cells, lamellae structure, necrosis, inflammation, hyperplasia, hypertrophy, atrophy, and amounts of mucus and epithelial cells of the parameters were examined.