

Determination of Heavy Metals Concentration (Lead, Copper, Nickel and Cadmium) in Fish Tissue Longtail Tuna (*Thunnus Tonggol*) from Coastal Waters of Qeshm Island

Dehghani, M.^{(1)*}; Farzin, M.⁽¹⁾

dehghani933@gmail.com

1-Department of Environmental Science and Engineering. Islamic Azad University, Bandarabbas Branch

Abstract

Marine environmental pollution due to toxic effects of heavy metals could be causing problems. On the other hand the possibility of biological magnification and progression of these metals through the food chain threatens the health of aquatic animals and humans. In this study, the concentration of four heavy metals: lead, copper, nickel and cadmium were measured in muscle tissue Long tuna fish that were caught off the coast of the island. The samples were analyzed by digestion method and measuring the accumulation of heavy metals was carried out by atomic absorption. The results showed that the highest concentrations of heavy metals associated with copper with 3.05 mg per kg of dry weight and the least amount of nickel with an average concentration is 0.45 mg per kg of dry weight. The average concentration of lead, nickel, cadmium and copper were determined, respectively; 1.01 ± 0.31 , 1.15 ± 0.34 , 0.63 ± 0.29 and 2.16 ± 1.08 mg per kg of dry weight. Although some of the heavy metals concentration is measured less in comparison with health standards, at the same time increasing pollution of the Persian Gulf could be considered a threat to aquatic organisms.

Keywords: *Thunnus tonggol*, *Thunnus tonggol*, biomagnification, heavy metals

* Corresponding author