



The effect of water pollution on the rate of uptake of heavy elements by aquatic animals

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Abstract

For this purpose, water samples and 5 types of fish were collected from 14 different stations and the concentration of metal ions in water and fish muscle was measured. After normalizing the data, Non carcinogenic Hazard Quotient (NHQ) was used to determine the amount of heavy metal contamination in water and fish muscle. Finally, to determine the spatial distribution of heavy elements around the South Pars power plant (water and fish muscle), the Geostatistic kriging method was used. The results show that the highest values of NHQI index in *P. kaakan* and *B. orientalis* were 1.036 and 1.046, respectively. While the lowest value of the NHQI index is for *S. commerson* with value of 0.394, the use of this fish is not dangerous for health.

Keywords: Heavy metals, Water quality, Absorption rate, Fish muscle, Non carcinogenic Hazard Quotient (NHQI)