

عنوان مقاله:

Bioaccumulation of heavy metals in organs of two freshwater fishes

محل انتشار:

اولین کنگره بین المللی مدیریت بهداشتی و بیماریهای آبزیان (سال: 1387)

تعداد صفحات اصل مقاله: 1

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خلاصه مقاله:

Objective: In the present study, some heavy metals (Hg, Pb, Cd and As) were determined by Induction Coupled Plasma (ICP) in water and some tissues of two species of cyprinid fishes, *Cyprinus carpio* and *Capoeta* spp. from three sections of the upper, middle and lower parts of the Kor River in Fars Province which is an important waterway and a water source for irrigation and drinking. **Method & Materials:** Heavy metals concentration in muscles, liver, kidney, brain and gonad tissues of two cyprinid fishes, *Cyprinus carpio* and *Capoeta* spp., from three sections of the upper, middle and lower parts of the Kor River was evaluated in 2006. Totally 225 specimens were caught for this purpose (75 specimens from each zone). Tissue samples were digested in acid and their lead concentrations were assayed by ICP method. **Results & Conclusion:** Statistical analysis of data showed significantly ($P < 0.05$) higher concentrations of heavy metals in the mid zone than the two other zones. No significant differences ($P > 0.05$) were seen between sexes and species. The same pattern of contamination was also observed in water and sediment samples from three sampling zones. The maximum amount of mercury, lead, arsenic and cadmium measured in this study were 0.99mg/kg, 1.85mg/kg, 1.175mg/kg and 0.172mg/kg, respectively. This study showed that industrial activities around the Kor River have already polluted the River and Pb residues in fish tissues and its water is higher than the upstream and terminal parts. The contamination, nevertheless, is still lower than the maximum allowed for those heavy metals in water and fish tissues but this is still worrisome.

کلمات کلیدی:

heavy metals, fish, safety, contamination; the Kor River, Fars, IRAN

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