

Assessment of trace metals in surface water, sediment, some commercial fishes and crustaceans collected from coastal area, Bangladesh.

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Accumulation of trace metals in coastal ecosystem has become a prodigious problem in Bangladesh. This study was conducted to determine seven trace metals concentration (Cr, Ni, Cu, Zn, As, Cd and Pb) in water, sediment, fishes and crustaceans collected from four coastal sites of Bangladesh. Water of Cox's Bazar hatchery site showed the highest levels of Zn (1392), Cu (510) and Pb (109 µg/L), which might be due to huge discharge of different chemical compounds to the beach area. Trace metals in fish samples were in the range of Cr (0.15–2.2), Ni (0.1–0.56), Cu (1.3–1.4), Zn (31–138), As (0.76–13), Cd (0.033–0.075) and Pb (0.07–0.63 mg/kg ww) respectively. The elevated concentration of Cu (400), Zn (1480) and As (53 mg/kg ww) was observed in crabs of Cox's Bazar which was considered as discrepant aquatic species with different bioaccumulation pattern. Some metals in water, fish and crustaceans exceeded the international quality guidelines. Sediment samples of Chittagong ship breaking area showed the highest level of Cr (56), Ni (37) Cu (28) and Pb (41 mg/kg dw) which exceeded the Canadian Sediment Quality Guidelines. The elevated level of trace metals in this coastal ecosystem should not be ignored and immediate control measure is recommended.