

Heavy Metals and Pesticides Induced Toxicity in Fishes: A Review [†]

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Abstract: Heavy metals (Arsenic, Lead, Cadmium, Mercury, etc.) and Pesticides (organochlorines—OC), polycyclic aromatic hydrocarbons (PAH) and are toxic to fishes. Heavy Metals and pesticides have been associated with many fish deformities in natural populations. Increasing groundwater and surface water pollution from various industrial, municipal, and agricultural sources has seriously contaminated water quality by adding harmful chemicals to them. These heavy metals and pesticides enter and accumulate in fish bodies through gills, body surfaces, and the digestive tract. Chemicals like Ammonia, phenols, cyanide, and salts of metals are harmful to the life of fishes. Because of their toxicity, heavy metals, metalloids, and pesticides, when occurring in higher concentrations, become poisonous for fishes in the aquatic system and causes issues like deterioration of health, slow metabolic process, changes in reproductive behavior, etc. which affects survival, growth rates, welfare and external image of fishes. In this review, we try to draw a spotlight on the severe damage caused by heavy metals and pesticides in fishes and potential suggestions to reduce their pollution for sustainability.

Keywords: heavy metals; pesticides; deterioration; metalloids; sustainability.

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Conflicts of Interest

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