Analysis of Heavy metals in water, sediment and tissues of fresh water fish, *Catla catla* of Rampally lake, Hyderabad, Telangana state.

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Abstract: Increased anthropogenic activities and tremendous discharge of industrial effluents, pesticides and domestic sewage into fresh water lakes are deteriorating quality of aquatic ecosystems. Fish can accumulate heavy metals from food, water and sediments either by direct consumption of water, through digestive tract and the gills. Rampally lake is a fresh water lake located in the Cherlapally industrial area, Keesara mandal, Hyderabad. Quality of this lake is deteriorated drastically during past few years due to industrial and domestic sewage discharges and decrease in the growth of fish. Nearly 30,000 dead fish were found floating in this lake during May, 2017. It is essential to assess the quality of the fish bred for human consumption and to monitor the health of the aquatic ecosystems. In the present study analysis of certain heavy metals like Al, As, Cd,Co, Cr, Cu, Fe, Hg, Mg, Mn, Ni, Pb, Zn and Se is done in water, sediment and in liver and muscle tissues of commonly edible fresh water fish of this lake, *Catla catla* by ICP-OES. Higher levels of Al, Co, Cu, Cr, Fe, Hg, Mg, Mn, Pb and Zn were observed. The results will be discussed.

Key words: Rampally Lake, Industrial effluents, heavy metals, *Catla catla*, pollution.