

EFFECT OF DOMESTIC SEWAGE ON FISH AND AQUATIC ECOSYSTEM IN EASTERN UTTAR PRADESH

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ABSTRACT : Experiments were conducted with treated domestic sewage effluents to determine their effects on a fresh water fish *Catla catla*. Static bioassay over 96 h showed LC₅ - LC₉₅ values ranging from 24.30-60.90%. Exposure to three different dilutions (5, 50, 95%) of domestic sewage effluents for 100 days resulted in significant changes ($P < 0.05$) in yield/m², maturity indices, fecundity and hatchling biomass of fish as compared to control. Among physico-chemical parameters, significant alterations were noticed in dissolved oxygen (DO), total alkalinity, total hardness, NO₂-N, NO₃-N of experimental water and organic carbon (OC) of bottom sediment. The data indicated high MPNs of faecal coliform bacteria showed higher value only in higher concentrations (95%).

Key Words : Aquatic ecosystem, biomass, pollutants, toxicity.