

TOXICITY BIOASSAY OF AMMONIA IN AN AIR-BREATHING FRESHWATER CATFISH, *CLARIAS BATRACHUS*

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ABSTRACT – Toxicity bioassay test is important for assessment of ammonia toxicity in aquatic organisms including fish. Therefore, the median lethal concentrations (LC_{50} s) of ammonium chloride (NH_4Cl) for a short (4,7,14 days) and long (21,28,35,42 days) term exposures to the air-breathing freshwater catfish, *Clarias batrachus* were estimated. The LC_{50} values were 735, 699, 602, 518, 446, 384 and 330 $mg \times L^{-1}$ for 4, 7, 14, 21, 28, 35 and 42 days, respectively. The toxicity decreased with the increase in duration of exposure of ammonium chloride to the fish. The gradual reductions in ammonia toxicity as a function of time were greater during short term exposure as compared to long term treatment. High LC_{50} values of ammonia in the freshwater catfish *C. batrachus* may be due to tendency of the fish for conversion of ammonia into urea.

Keywords : Toxicity bioassay, ammonia, *Clarias batrachus*.