ALPHAMETHRIN TOXICITY TO AIR BREATHING FRESHWATER FISHES

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ABSTRACT – Toxicity bioassay of alphamethrin against two freshwater fishes Channa punctatus and Clarias batrachus has been investigated. The short-term (4 and 7 days) LC$_{50}$ with 95% confidence intervals were 272.53 (260.56 – 284.62) and 201.90 (185.89 – 214.65) g x l$^{-1}$, respectively. The long term (14, 21 and 28 days) LC$_{50}$s with 95% confidence intervals were 173.77 (156.41 – 184.58), 145.57 (132.17 – 156.42) and 114.18 (98.71 – 131.23) mg x l$^{-1}$, respectively for Channa punctatus. The short-term (4 and 7 days) LC$_{50}$ values with 95% confidence intervals for Clarias batrachus were 449.32 (440.25 – 461.32) and 406.56 (395.48 – 417.48) mg x l$^{-1}$, respectively. The long term (14, 21 and 28 days) LC$_{50}$s with 95% confidence intervals were estimated as 349.93 (377.79 – 360.62), 316.63 (307.28 – 327.76) and 278.10 (264.18 – 290.04) mg x l$^{-1}$, respectively. LC$_{50}$ values of C. batrachus is approximately 1.5 – 2 times greater than C. punctatus for all duration of exposure. So it is clear that C. batrachus less sensitive against alphamethrin as compared to C. punctatus.

Key words : LC$_{50}$, alphamethrin, freshwater fish.