

Toxicity of copper to tropical freshwater snail (*Pila ovata*)

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ABSTRACT:

The potential toxicity of copper to freshwater snail (*Pila ovata*) was investigated in a static renewal bioassay for 96 hours. Chemically pure salts of copper sulphate ($\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$) dissolved in distilled water was used as toxicant. Five copper ion concentrations with a control group were prepared. The LC_{50} at 24 h, 48 h, 72 h and 96 h was 4.67, 2.12, 1.64 and 0.59 mg/l respectively. The LT_{50} of copper concentrations of 0.05 mg/l, 0.1 mg/l, 0.5 mg/l, 1.0 mg/l and 2.0 mg/l were 123.86 h, 97.20 h, 83.33 h, 75.32 h and 60.04 h respectively. No death was recorded in the controls. Survival time decreased with increasing concentrations of copper ion. The results showed that copper is toxic to *Pila ovata* and could pose serious threat to their survival in natural environment.

Keywords:

Copper toxicity, freshwater snail, median lethal concentration, median lethal time.