

**Effects of Lethal and Sublethal Concentrations of Lindane  
on the Behaviour and Energy Reserves of the Freshwater  
Fish, *Oreochromis niloticus***

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Abstract. The fish, *Oreochromis niloticus*, was exposed to lethal and sublethal concentrations of lindane. Lc50 was found to be 3.16 mg/l for lindane -6 and 0.074 mg/l for technical grade lindane. The fish showed remarkable changes in behaviour such as cough, yawn, fin flickering, S-and partial jerk, nudge and nip. They also showed hyperexcitation alternating with sluggishness .and occasional darting movements. Fish exposed to sublethal concentrations of lindane showed difficulty in respiration and aberrant behaviour mentioned above was also increased. It was also noted that the glycogen content of liver and muscle of lindane exposed fish depleted significantly ( $P<0.001$ ). On the otherhand the level of circulating glucose was increased in the fish exposed to lindane ( $P<0.01$ ).