

Acute and Sublethal Exposure of Catfish (*Clarias gariepinus*) to Cadmium Chloride: Survival, Behavioural and Physiological Responses

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Abstract.- African catfish, *Clarias gariepinus*, were exposed to different lethal concentrations (12.0, 12.5, 13.0, 13.5, 14.0 mg/l) of cadmium. The 96h LC₅₀ was computed to be 12.0 mg/l. Remarkable changes in behaviour such as rate of opercular beats, rate of surfacing, jerking movements, fast and erratic swimming of fish exposed to lethal and sublethal concentrations of cadmium were noted. High frequencies of such behaviour were recorded at high doses at the start of treatment. After more prolonged exposure the frequency of abnormal behaviour in high doses decreased but remain higher than the control. Depletion of haemoglobin content, haematocrit value and glycogen was also registered in the fish exposed to sublethal concentration of cadmium. This depletion was less marked at the lower concentrations.

Key words: Cadmium, fish behaviour, glycogen, haemoglobin, haematocrit.