

## The effects of cypermethrin on some biochemical parameters and recovery responses in carp (*Cyprinus carpio*)

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**ABSTRACT :** The aim of this study was to assess the effect of cypermethrin “pyrethroid” (25% EC with 100% purity) and impact of short term exposures of its below safe concentrations 1/2 (0.05µl/L) and 1/10 (0.01 µl/L) parts of safe concentration on some biochemical parameters in *C. carpio*. Live specimen (fingerlings) of *C. carpio*, average length 10.78 (range 9.0-12.5 cm) and average weight 14.73 (range 11.5-19.5g), were used for the study. During acclimation the fish were fed with conventional fish feed (rice bran and oil cake in 1:1 ratio) at the rate of 10% body weight. Physico-chemical characteristics (dissolved oxygen (DO), pH and temperature) of water were recorded three times daily. The statistical analysis was performed via SPSS 14.0 for windows. The activity of Alkaline phosphatase (ALP), Glutamate pyruvate transaminase (GPT), Glutamate oxaloacetate transaminase (GOT) and cholesterol increased significantly while significant reduction in ALP activity in muscle was observed. Total protein content showed significant reduction. After withdrawal of treatment all the parameters were reached to their normal level. These observations indicated that even vary low doses of cypermethrin was effective in influencing the fingerlings of *C. carpio* adversely. However, fish showed good recovery response within one week when kept in cypermethrin free water.

**Key Words :** Common carp (*Cyprinus carpio*), cypermethrin “pyrethroid”, biochemical parameter, Alkaline phosphatase (ALP), Glutamate pyruvate transaminase (GPT), Glutamate oxaloacetate transaminase (GOT).