

EFFECTS OF CORTISOL ON LACTATE DEHYDROGENASE, CATALASE AND PROTEIN OF THE SNAKE HEADED FISH, *CHANNA PUNCTATUS*

H. SINGH and G. TRIPATHI*

Department of Zoology, J.N.V. University, Jodhpur (Rajasthan) India

ABSTRACT : Effects of cortisol on activity of lactate dehydrogenase (LDH), catalase (CAT) and protein content of liver, brain, gill and skeletal muscle of the freshwater *Channa punctatus* were studied. Treatment of metyrapone increased (1.4-1.7 fold) the activity of LDH and decreased (29-50%) the activity of CAT, whereas injection of cortisol to metyrapone treated fish, decreased (28-47%) the activity of LDH and increased (1.9-2.8 fold) the activity of CAT. In contrast, protein content increased (1.3-1.6 fold) in response to treatment of metyrapone and decreased (36-43%) after administration of cortisol to metyrapone exposed fish. The present study indicated cortisol associated reduction in anaerobic capacity, enhancement in antioxidative activity and protein degradation in snake headed fish, *C.punctatus*.

Key words : LDH, CAT, Protein, Fish, Cortisol.