In the present investigations, the effect of mercury intoxication has been studied on a farm fish *Cirrhus mrigala*. Mercury was used in the form of HgCl₂ and toxicity was observed in different aspects i.e., serology, histology and biochemical studies.

For this purpose acute and chronic exposures were carried out after LC₅₀ determination. In acute phase four groups were made. Group A acted as control while B, C and D received different doses and sampling was done after 48 and 96 hours, in chronic phase sampling was done after 15, 30 and 45 days. In biochemical testing, there was a significant decrease in DNA, RNA and Protein. The serum enzyme activity was also altered. Muscles showed longitudinal splitting, degeneration and loss of striations while liver and kidney also undergoes severe damages. The changes were proportionate to dose and time of exposure.