

ABSTRACTS

In the present investigations the effects of Zinc chloride, Copper sulphate, Nickel chloride and ferrous sulphate were studied on the farmed fish Cirrhinus mrigala. For this purpose acute and chronic exposures were carried out. In acute ^{Phase} for each groups were made. Group A ^{acute} as control while group B, C and D received different doses and the fish were sampled after 48 and 96 hours. In chronic phase the fish were given the same dose and the sampling was done after ^{0,} 4, 8, 16 and 32 days. The influence of these metals were studied on DNA, RNA, protein, weight loss, total muscle contents, total moisture contents, muscle diameter and estimation of metals the histology of muscles was also observed. The decrease in DNA, RNA, protein weight, total muscle contents and increase in the total moisture contents and metal estimation was observed. The muscles showed longitudinal splitting, degeneration of muscles, dislocation of nuclei, loss of striations, cloudy swelling and hyaline degeneration. These changes were proportionate to dose and time of exposures.