

- Document Type** : Thesis
- Document Title** : Effect of salinity and zinc on the coastal fish *Aphanius dispar*
الشاطئية *Aphanius dispar* تأثير الملوحة والزنك على سمكة
- Document Language** : Arabic
- Abstract** : Zinc Ions and its effect on the coastal fish, *Aphanius dispar*, was tested. Fish were exposed to different salinities (0.2 ppt, 20.1 ppt and 40 ppt) and to different concentrations of Zinc (1 ppm, 3 ppm and 5 ppm). *A. dispar* survived in all tested salinities and the L T 50 was found to be 108 hours, 79.5 hours and 36 hours respectively. The Mortality Rate was increased with the increasing of Zinc concentration and period of exposure. The behaviour of *A. dispar* was affected by both salinity and Zinc with irregular moves and less activity and loss of scales. Zinc was found to be accumulated in the bodies of samples in all tested concentrations. Histological study revealed different degrees of changes in all studied organs, (Gills, - ~dney, -Liver, Intestine and Muscles) after exposure to different salinities or Zinc concentrations. Gills had Enlarged Lamellae filled with blood and Epithelium was disintegrated and covered with Mucous. Kidney was least affected. Intestines Mucosal Epithelium was disintegrated, increased lymphatic .cells and blood cells was mixed with the mucous lining the intestines. Liver was affected, Hepatic cells lost its borders and has irregular shape and blood vessels were damaged. Muscle Fibers was disintegrated and has irregular shape and irregular light and / or dark bands.
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