

THE EFFECTS OF BIO-MAGNETISM ON SOME ENVIRONMENTAL FACTORS OF THE WATER INHABIT BY *CYCLOCYPRIS CRUCIATA* FURTOS 1935

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ABSTRACT : Magnetically treated water is used in many researches, medical, industrial and agricultural fields and in many other fields. Some scientific research has shown remarkable results when different organisms are exposed to magnetic fields. The present study was conducted to investigate the effects of magnetically treated water (500, 1000 and 1500) Gauss on some environmental aspects of Iraqi freshwater aquatic Ostracoda *Cyclocypris cruciata* Furtos 1935, which are an important component of the food chain in these waters like *Cyclocypris cruciata* Furto 1935. The results obtained were compared to those living in normal river water (non-magnetically treated) (control). Samples of ostracoda were collected from local lakes in Baghdad city using plankton nets with a mesh size about 55 micron. The current study showed a significant change in some of the physical and chemical properties of the water inhabited by the animals under study, after treating with three magnetic fields. No significant changes were observed at pH, electrical conductivity and soluble salts in treating water compared with control. While the concentration of dissolved oxygen in the treated water increased significantly by increasing the magnetic intensity up to 1500 Gauss, which gave the highest concentration of dissolved oxygen in water compared to the control water in which the ostracoda lives. The current study indicates that there is no significant effect of the magnetic field on changing of the most parameter studies.

Key words : Environmental factors, *Cyclocypris cruciate*, magnetism.