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Effect of Thyroid Hormones on Osmoregulation (ionic regulation) in Common Carp *Cyprinus carpio L.*

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Summary :

Perfect this study under laboratory conditions to determine the impact of the use of Thyroxin hormone concentrations 10 and 25 p.p.b. and the impact of substance use Thiourea different concentrations 300, 600, 900 p.p.m. in two cases of water, the first case, the use of fresh water and the second case, the use of brine concentration of 30% sea water for the purpose of obtaining the state of Hyperthyroidism and Hypothyroidism and the impact on the regulation ion of Common Carp (Cyprinus carpio L.) we have used in this study 96 fish with a weight of 100 ± 20 g after docks adapt them in the metal before being transported to the aquarium glass treatment.

The study include measuring concentration of some ions such as sodium and chloride and potassium in fish blood serum and in the pool water containing this fishes , as well as measure thyroxin of also we blood serum for all three experiments after thirteen days from treatment .The study proved that there is a decreasing in sodium and chloride ions for the fishes treated with thyroxin in pure water and salted water with increasing thyroxin while potassium Ion was contra sodium and chloride and with linear relationship with used thyroxin . also its concentration increase with thyroxin level increasing in fish blood serum treated with thyroxin for both concentrations.

Results indicated significant increasing in significant level ($p < 0.05$) sodium and chlorides ions concentration in fishes blood serum treated with thiourea , this increasing was agreed with thiourea concentration increasing and thyroxin decreasing in blood serum . thiourea caused hypothyroidism by inhibition and stop it from its hormones.

The result showed that concentration 900 ppm thiourea in salted water caused dying all fishes in this experiment after (3 – 5) day from treatment by comparison between ions in blood serum for same thiourea concentration for pure and salted water we found sodium and chloride ions in pure water was higher than salted water and potassium was contra. In the other hand the results was same in comparison between pure and salted water for same concentration from thyroxin .