

# **Effect of different levels of salinity on some hematological and Biochemical Factors of Blood Serum in rainbow trout (*Oncorhynchus mykiss*)**

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## **Abstract**

The present investigation aim was to study the hematological and blood serum biochemical factors changes under increased saline in the fresh, brackish and salt water in *Oncorhynchus mykiss* fry with the mean weight of 50 g. For this purpose, *O. mykiss* fry to exposure the different salinity for a period of five month reared. After the termination of exposure to different saline medium, the fish blood was collected from 180 *O. mykiss* fry were apparently healthy at the average weight of 250 g and proceeded for hematological and serum biochemical studies. The result showed that there was a significant change in the blood hemoglobin,

hematocrit, albumin, total protein and cortisol levels in different environment ( $p < 0.05$ ). So we could claim that *O. mykiss* fry can't be acclimated to the salt water medium due to showing health disturbance and stress response in long-term.

**Keywords:** Salinity, Stress, Blood, Serum, *Oncorhynchus mykiss*