The comparison of some blood biochemical parameters in Rainbow trout (*Onchorhynchus mykiss*) at different sizes

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Abstract

In this study, the comparative evaluation of some blood biochemical parameters of rainbow trout carried out in different sizes. The study was conducted in four weight categories include 5-10, 50-100, 300-500 and 600-800 g with total of 10 fish from each group. Then, blood samples were obtained through tail vein puncture and the non-heparinized blood samples were centrifuged for 5 minutes at 5000 *g,* and separated serum were used to determine with an automatic analyser machine (Persige 24 I) the levels of the factors. The results of blood biochemical factors in *Oncorhynchus mykiss* showed there were significant differences between the different size at levels of glucose, cholesterol, triglycerides, calcium, phosphorus, chloride, iron, total protein and albumin ($P < 0.05$). Also, results showed there were no significant differences at values of sodium and potassium ($P > 0.05$). The results showed that with increasing age and size of fish the levels of cholesterol, triglycerides, phosphorus, iron, total protein and albumin were increased and the levels of glucose and chloride were decreased.But, no change observed in value of sodium and potassium blood serum. The results of this study indicated that there were significant difference in the blood biochemical parametersina species of fish in at different sizes.

Keywords: *Oncorhynchus mykiss,* Blood serum biochemical factors, Size