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# The effect of sublethal concentrations of cadmium on some biochemical parameters in the blood of Silver Carp *(Hypophthalmichthys molitrix)*

Keykhosravi, Ali Reza[1]; Atabati, Azadeh[1]; Vatandoost, Jafar[1];
shams, Hadi[1]; Jalili, Mahshid[2]; Rooki, Hassan[1]

*1- Tarbiat Moallem University of Sabzevar*
*2- Iranian National Institute for Oceanography*



## Abstract

Cadmium is a non-essential heavy metal so it is lethal at low concentrations and it is the most toxic pollutant in aquatic environments. Cadmium cans directly affect the physiological and biochemical parameters of aquatic animals blood. The aim of the present study is to determine the effect of sub lethal concentration of cadmium on Silver Carp (Hypophthalmichthys molitrix) using a two biochemical parameter. Twenty specimens of silver carp were exposed to various concentrations of cadmium (0, 0/5, 1/0 and 1/5 milligram per liter) for a period of 96 hours. In this study the, level of protein and glucose of plasma were chosen as biomarkers. Results of this study showed that sub lethal concentrations of cadmium affected the levels of plasma protein and glucose in fish significantly, With increasing cadmium concentration, the level of protein decreased and the level of glucose was increased ($P \leq 0/005$). Common reasons for decreasing and increasing the amount of serum protein and glucose are changing in the level of the livers glycogen and preventing protein synthesis respectively.

Keywords: *Cadmium, Silver Carp (Hypophthalmichthys molitrix), Protein, Glucose*