



Effects of Different Intensities of Magnetic Fields on Sterlet, *Acipenser ruthenus*: Physiological and Biochemical Responses

Charmi A. ^{1*}; Bahmani M. ²; Movahedinia A. ³; Yousefi Jourdehi A. ²; Agha Koochaki M. ⁴

1-Department of Marine Biology, Faculty of Marine Sciences, Khorramshahr University of Marine Sciences and Technology, Iran

2-International Sturgeon Research Institute, Agricultural Research, Education and Extension Organization (AREEO), Rasht, Iran

3-Department of Marine Biology, Faculty of Marine Sciences, University of Mazandaran, Babolsar, Iran

4-Master Graduated of Aquatic Breeding and Aquaculture, Azad University of Science and Research Branch, Guilan

*Corresponding autor's Email: Charmi_arezoo@yahoo.com

Abstract

To study of magnetic fields effects on physiological, biochemical and growth factors of Sterlet, *Acipenser ruthenus*, different intensities of magnetic fields (5, 15 and 25 mT) was used. In this research, sampling of sturgeons that affected by magnetized water was done after 1 and 2 months. So, blood sampling and biometry was carried out in two steps. Based on the statistical analysis, stress parameters did not show any significant differences ($p > 0.05$) in control and treatment groups but there was significant difference in some biochemical factors like triglycerides level ($p < 0.05$). Also, there was significant difference in final weight and obesity ratio between control and treatment groups ($p < 0.05$). Based on our study, magnetized water could be effective on physiological parameters and growth factors in sturgeons, so, these data are useful in aquaculture and fish farming.

Keywords: Magnetic field, Magnetized water, Growth Factor, Obesity Ratio, *Acipenser ruthenus*