

The effects of anticoagulants on some hematological parameters and blood cell morphology of Sterlet (*Acipenser ruthenus*)

Zarei, S.^{1,*}; Dorafshan, S.¹; Paykan Heyrati, F.¹

¹Department of Natural Resources, Isfahan University of Technology, Isfahan, Iran

*Email: sarallah.zarei@na.iut.ac.ir

Blood parameters in Sterlet (*Acipenser ruthenus*) were investigated, under the effects of 2 anticoagulants heparin (10 IU/ml) and Na₂EDTA (1mg/ml). Blood samples were collected from caudal vein of Sterlet (average weight of 500 ± 10 g) without the use of anesthetics material, and then the samples were mixed with defined anticoagulants concentration and used for standard haematological investigation. Among several haematological parameters, only red blood cell counts and hematocrit showed significant differences between the two chemicals. The other haematological parameters, such as white blood cells counts, haemoglobin, MCV, MCH and MCHC did not show any significant changes. White blood cells differential counts showed that only lymphocytes and monocytes percentages were significantly different between the groups. Focusing on the blood smears, it showed that Na₂EDTA can cause deformation, increase the volume and size of red blood cells in comparison to the heparin as anticoagulant. Based on the results, the heparin is better than Na₂EDTA for hematological studies in Sterlet.

Keywords: Sterlet, Anticoagulant, Blood parameters, White blood cells, Red blood cells.