

Abstract

Sperm motility is one of the indicators that is used in sperm quality assessment. Thus This study was conducted to determine the sensitivity ratio of *Schizothorax zarudnyi* spermatozoa at different concentrations of heavy metals such as copper and lead. To this purpose, Wild broods of snow trout (males 1150.0 ± 19.57 g) were caught in the broods pond and transported to Zahak hatchery for artificial spawning. Then were selected 4 snow trout and their Spermatozoa were exposed to 0, 0.01, 0.1, 1, 10 and 100 mg/L of $PbCl_2$ and $CuCl_2$ and sperm motility percentage and total duration times were compared. Sperm motility parameters decreased significantly with increase of pollutant concentration. But even lethal effects were not at a concentration until 100 mg/L. No significant differences were observed in effect of copper and lead with same concentration. Although the results obtained showed that lead caused a more significant decrease in sperm mortality to compared of the copper. Over time, with decrease of percentage of motile spermatozoa, they were still sensitive to low concentration. So that the time in which only 10% or 40% of the sperm are motile, in contact with the concentration of 0.01 mg /L copper and lead were significantly different from the control group. While the time in which 80% of sperm is moving, the difference was less than the control group .

Key words : *Schizothorax zarudnyi*, Heavy metal, Sperm motility, Copper and Lead.



University of Zabol

Graduate school

Faculty of Natural Resources

Department of Sciences in Fisheries

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**Effect of copper and lead on sperm
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*Schizothorax zarudnyi***

Supervisors:

Dr. Ahmad Gharaei

Dr. Mostafa Ghaffari

By:

Masume Naghibi

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