Investigation on Genetic Diversity of *Baetis sp.* Affected by Trout Farms Effluent (case study: Gamasiab River)

Abstract

This study was conducted to determine the the effect of trout farm effluents on *Baetis sp*. haplotypic diversity on Gamasiab River. The sampling was done from four stations ranged source of the river downward, about 500 meters from each other, in four seasons, with three replications from the middle and riverside by the Surber sampler. After isolation and fixation of the Baetis sp., the DNA extraction steps were performed by Macrogean Kit and their quality was investigated on electrophoresis gel. After gene amplification, PCR products were sent for sequencing and sequencing was performed with MEGA 6 software. Molecular investigations indicated that the reduction of haplotype diversity at station 2 exposed to wastewater effluents of trout farm.

Keywords: Haplotype diversity, *Baetis sp*., Sequensing, Gamasiab River, Effluents.