The effect of the altitudinal gradient on the diversity and composition of macro-invertebrates of some streams in Aures region (northeastern Algeria). Preliminary results.

Leila ZAANOUNE[a], Raouf BOULAHBAL[b], Rachid ROUAG[b], Salah TELAILIA[a]

[a]Laboratory of Agriculture and Ecosystem Functioning, Department of Agronomy, Faculty of Life and nature sciences, Chadli Bendjedid University, El Tarf, Algeria.

[b]Laboratory of Biodiversity and Pollution of Ecosystems, Department of Biology, Faculty of Life and nature sciences, Chadli Bendjedid University, El Tarf, Algeria

Email : leila.lika84@gmail.com

This study was carried out to evaluate the variation of diversity and composition of macroinvertebrate community in streams, along an altitudinal gradient in in three lotic ecosystems in northeastern Algeria in Aurès region, oued Tesserift, Oued Benifdhala and Oued Hamla. We conducted our sampling between May and June 2022. The altitudinal gradient varies between 930 m and 1260 m. We counted a total of 120 specimens of macro-invertebrates distributed over two phyla (Molluscs and Arthropods), two classes (Gasteropods and Insects), 07 orders, 16 families. Both diversity and abundance of studied macro-invertebrates vary with altitudinal gradient. The highest values of diversity were found in the altitudinal zone of Hamla (up to 1200 m, total taxa richness = 22 and Shannon index = 2.64). The number of individuals in the altitudinal zone of Tesserift is higher than in all the other altitudinal zones (individuals number = 59). The preliminary results show that the altitudinal gradient is in favour of high diversity but in disfavour of population abundance.

Keywords: Altitudinal gradient, macro-invertebrates, diversity, abundance, stream, Aures