

Effects of soil degradation on the distribution of soil macro-arthropods in the daya of the Algerian steppe

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ABSTRACT:

The main objective of this study is to assess the soil diversity, and temporal and spatial distribution of soil macro-arthropods, on different days in Algerian steppe. We have analyzed both Degraded Daya (DD) and Non Degraded Daya (NDD) (natural) with different soil physical and chemical characteristics. In our case, the main cause for degradation is the plowing and rainfed cropping. After two years (2012-2013), the results showed a degradation of the vegetation and deterioration of the soil environment during the degradation process with significant decreases in the vegetation cover, litter, clay and silt, soil organic carbon and soil. Also, soil degradation has adverse effects on the environment. Soil degradation results in a significant decrease in the richness and density of soil macro-arthropods and changes the seasonal distribution of the soil arthropod community. Desertification has greater effects on herbivores than on omnivores in the growth season and resulted in a significant change in the seasonal pattern of the trophic structure.

Keywords:

Daya degradation, Soil, Macro-arthropods, Vegetation cover, Density.