Diversity and structure of edaphic mesofauna in relation of culture system

Adina CĂLUGĂR, Otilia IVAN - Institute of Biological Researches, Iaşi

The aim of the present work is to evidence the effects of the various cultural practices (greenhouses and field, ecological and conventional) on the edaphic mesofauna. The investigations concerning edaphic mesofauna consist in inventory and analyze of the mites belonging to Oribatida, Gamasida, Actinedida and Acaridida orders, of the Collembola, as well as other insects and other groups of microarthropods. In the analyzed cultures the edaphic mesofauna have relatively low abundances excepting those with organic fertilizers. The horizontal distribution of the effectives is unequal; therefore the standard deviation and the variation coefficient are so much higher as the density is lower. Irrespective of the culture system (ecological and conventional) it was established that the edaphic mesofauna depends on humidity factor. In the protected cultures from greenhouses ratio between oribatids and collemboans - the main detritomicrophytophagous groups – is mostly under unit, so we can appreciate that the mineralization processes are predominant in the detriment of the humification ones.