

PECULIARITIES OF THE EDAPHIC MESOFAUNA IN SOME CULTIVATED SOILS FROM THE CENTRAL MOLDAVIAN PLATEAU

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Abstract

The present study is a part of some ecological researches aiming investigation of the structure and functioning of the main ecosystem types from the Central Moldavian Plateau, being devoted to the agro-ecosystems that have a high share in the considered zone. Investigations on edaphic mesofauna evidenced increased weight of insects in most agro-ecosystems taken into study; among mites, gamasids or oribatids are the dominant group, or the abundance is similar between these two groups. Ratio between oribatid mites and collembolans, the major detritomicrophytophagous groups is clearly favorable to the latter, indicating the predominance of mineralization processes compared to those of humification. Analysis of ratio between the main trophic groups shows that in most cultures zoophages starkly dominate detritomicrophytophagous group, a situation rarely encountered in grassland or forest ecosystems.

Qualitative and cantitative study of oribatid mites (*Acari: Oribatida*), a representative group of edaphic mesofauna, showed that both the abundance and the number of taxa is lower in the analyzed crops compared to grassland soils in this zone. The oribatid communities are simple structured, with low specific diversity, that indicate a poor stability and reduced self-regulation capacity.

In this context four species have been recorded for the first time in Romanian fauna: *Ramusella (R.) sengbuschi* Hammer, 1968, *Rhinoppia tridentata* (Subias et Minguez, 1985), *Lauroppia fallax* (Paoli, 1908) and *Quadroppia (C.) monstruosa* Hammer, 1979.

Key words: soil microarthropods, agro-ecosystems, oribatid mites.