THE IMPACT OF DROUGHT AND ANTHROPOGENIC ACTIVITIES ON EDAPHIC MESOFAUNA COMMUNITIES IN CERTAIN NATURA 2000 STEPPE GRASSLAND HABITATS

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Abstract

The mites from the orders Parasitiformes, Trombidiformes, and Sarcoptiformes, as well as microarthropods from the Entognatha class (Collembola), insects, and other groups, were analyzed. The mites which belong to suborder Oribatida were identified at the species level. The analysis was conducted both quantitatively and qualitatively in Natura 2000 steppe meadows. The vulnerability of these sites, including susceptibility to drought and the impact of grazing, influenced the structure of the microarthropod communities. The density of individuals was higher in strictly protected areas; however, there was no significant qualitative difference compared to the buffer zones. Humidity deficiency and grazing negatively affected the mesofauna, particularly species sensitive to drought. Oribatids exhibited a rich diversity, indicating good habitat conservation. Continuous monitoring of the impact of natural and anthropogenic factors is necessary, especially in buffer zones.

Key words: Soil biodiversity, microarthropods, meso-xerophilous meadow, protected areas.