MESOSTIGMATID MITES AS A PIECE OF THE BIOINDICATORS PUZZLE

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Abstract

Mites belonging to the order Mesostigmata have different types of life, those which populate soil habitats and litter being generally free living predators. Predatory mites play a leading role in biological control, but they are considered useful in bioindication, also. This study explored in a comparative way the edaphic gamasid communities from a series of forest ecosystems, meadows and agroecosystems in order to evaluate the impact of natural and anthropic factors and to highlight the bioindicator value of these mites. Both a quantitative and a qualitative analysis were performed. The degree of anthropization could be evidenced at the level of all analyzed ecosystems. A reduction of the number of species and individuals in the ecosystems marked by human interventions was observed. Generally, the phenomenon was more pronounced in forest ecosystems than in the praticolous ones. From the point of view of the ecological peculiarities of the species, a differentiation was noticed that in natural forests the silvicolous species are dominating while in plantations, meadows and agroecosystems the praticolous ones are the majority. In the case of natural forests the best represented family is *Zerconidae* with 2 genera and 8 species. In the rest of the studied ecosystems on the first place is *Hypoaspididae* with 1, 2 or 3 genera and 5 species or even more.

Key words: Acari, Mesostigmata, ecosystems, bioindication