

SOIL MESOSTIGMATID MITES (ARACHNIDA, ACARI) AS A GOOD INDICATOR OF SUCCESSION STAGES ON DUMPS

S u m m a r y

The present paper considers possible mites community indicators. They are based on the following characteristics: species abundance, dominance structure, life histories, trophic types, morphotypes and habitat preferences. In the early stages of succession, predominantly small fast developing pioneer nematophagous species from open habitats were found. The proportion of species with parthenogenetic reproduction decreased during later stages of succession. From ecological point of view the reproduction by parthenogenesis is extremely important in

scanty soils, where the abundance of mite populations is low. The dominant species of a pioneer stage are adapted to life in unfavourable conditions of scanty soils. The species are characterized by the „r” strategy type. The oldest dumps were dominated by polyphagous and microarthropod feeders typical of forest and „open” habitats. The proportion of euedaphic/hemiedaphic life-forms may be a good indicator of soil quality dumps.