



## TWO DECADES OF THE BRYOPHYTE BIODIVERSITY MONITORING SYSTEM IN HUNGARY

A Nemzeti Biodiverzitás-monitorozó rendszer keretében végzett  
mohamonitorozás két évtizede

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Monitoring of bryophyte species and bryophyte vegetation is an ongoing activity started in 2000 in the frame of the National Biodiversity Monitoring System. In the course of species monitoring, the sizes of extant populations of species listed in EU Habitat Directive (*Buxbaumia viridis*, *Dicranum viride*, *Mannia triandra*, *Pyramidula tetragona*) have been traced. In bryophyte vegetation monitoring, 49 sampling plots in habitats rich in bryophytes have been investigated. The sampling is done every 4th year in forests, 3rd year in wetlands, 2nd year in dry grasslands, yearly in saline grasslands. The size of the permanent plots is 10 x 10 m in wetlands, dry grasslands, and saline areas, while in forests quadrates of 16 x 16 m are used. In forests sampling of epiphytic bryophyte vegetation has also been carried out in three levels: at 10 cm, 70 cm and 140 cm upwards from the base of the tree. According to the protocols changes in species composition (species pool, frequency, distribution), distribution of functional groups (distribution of ecological indicator values, life strategies), characteristic variables of assemblages (e. g. diversity) have been analysed. In this presentation we give a methodological overview and some results obtained.

There are no trend-like changes in population size of *Dicranum viride*, *Mannia triandra*, *Pyramidula tetragona*. In vegetation monitoring, changes based on species composition in dry grasslands, wetlands, and saline grasslands will be presented. Significant changes may occur in the bryophyte levels of sampling plots in two decades. Despite intensive dynamics, trend-like successional changes are rare in dry grasslands, but they are more frequent in wetlands. The bryophyte level can quickly regenerate after minor natural disturbances (e.g. burning, low-intensity or short flooding).