

**THE EFFECT OF DIFFERENT FOREST MANAGEMENT TYPES ON THE
SURVIVAL RATE OF EPIXYLIC AND EPIPHYTIC BRYOPHYTES**

Epifiton és epixyl mohafajok túlélésének kísérletes vizsgálata különböző
erdészeti kezelések során

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This research investigates experimentally the effect of different forest management types on the survival of an epixylic liverwort (*Lophocolea heterophylla*) and an epiphytic-opportunistic bryophyte (*Hypnum cupressiforme*). Five different management types were applied in an 80-year-old oak-hornbeam forest: (1) Preparation cutting, (2) Gap cutting, (3) Clear-cutting, (4) Retention tree group (in the clear-cutting) and (5) Control. It was hypothesized, that the epixylic liverwort, which is more sensitive to microclimatic conditions, will show a more drastic response to the treatments than the epiphytic bryophyte. The results showed that the liverwort in the control survived moderately, poorly in the gap and preparation cutting, and became extinct in the clear-cutting and retention tree group. The survival rate of the epiphytic bryophyte showed a slight decline only in the clear-cutting, and it managed to grow larger in the retention tree group, gap and preparation cutting compared to the control. Based on our results it can be concluded that microclimate limited epixylic liverworts are very sensitive to the changes of forest canopy and therefore to the changes of air humidity. On the other hand, the survival of epiphytes, which can tolerate less humid conditions, are less threatened by forest management. The study was supported by the Hungarian Research Found (OTKA 111887).