

Epixylic bryophytes are mainly bound to deadwood of larger dimensions, usually at a more advanced degree of decay. In the managed forest, their occurrence is limited due to lack of suitable substrate and changed microclimatic conditions. The presence of these species may point to the nature of the habitat and preserved original forest structures. Some epixylic specialists have very specific demands on the properties of the substrate. Sometimes, however, it may be difficult to determine, which bryophytes are actually obligatory epixylic, since preference to the substrate may differ in other microclimatic conditions.

This thesis attempts to summarize the demands of epixylic bryophytes and relationships with other ecological groups of bryophytes, which are also part of the dead wood community, its composition changes during the decomposition of wood. Initially this dead wood community includes epiphytes originally growing on a living tree, later epigeic species. One of the objectives is to describe the potential competition and dynamics of this community during the decomposition of wood. Further, the impact of forest management on the microclimate and the amount of available substrates, and thus its impact on bryophytes, with emphasis on epixylic species, is summarized. There are mentioned some methods used in the field or under laboratory conditions.