

Abstract:

Lichens are, according to the latest definition considered ecosystems, which consist of a fungus, one or more photosynthesizing partners and an undefined number of additional microorganisms. The role of basidiomycete yeasts, which were shown to appear in many lichen species, has been discussed in the latest lichenological scientific papers. This bachelor thesis summarizes the knowledge about the distribution of lichen-associated yeasts and their importance in these symbioses. It also presents some of the methods newly used to study yeasts in lichen symbioses and compares the often inconsistent results based on the methods used in the papers. The topic is not sufficiently covered to draw sufficiently robust conclusions about the role of yeasts in lichen symbiosis. However, the results to date suggest that lichen yeasts do not have any significant specificity of association with mycobiont species, and there has been no support that yeasts directly enhance host fitness. A more detailed depiction of the structures that yeasts form at sites of contact with the host and a description of the mechanisms by which the participating partners communicate with each other could help to definitively determine their role in the lichen symbiosis.