

Abstract:

The aim of this bachelor thesis is to summarize recent knowledge about Species Distribution Modelling in botany, focusing on bryophytes. Species Distribution Modelling is used to explain the relationship between species occurrences and environmental conditions of their habitats. This method has unused potential in bryophytes compared to vascular plants. The distribution of bryophytes is influenced by their dispersal and ecological characteristics. The most important factor is a close association between bryophytes and microclimatic conditions of their habitats. This association is studied, but is not yet incorporated in the modelling process along with using data in an appropriate scale.

Currently there is an increased interest in bryophytes distribution modelling. In Europe, there are some studies using this method for bryophytes mainly in Iberian Peninsula, Italy and northern Europe. There are approximately 25 articles focused on bryophytes distribution modelling worldwide. This method can be used for ecological niche modelling, in biogeography and for prediction of distribution in future climate. The use of bryophytes distribution modelling for their conservation is also significant. Bryophytes distribution models can successfully predict potential distribution of rare or endangered species and can be used to gain more precise knowledge about their ecology, to assess the threats and to predict new occurrence localities.

Key words: bryophytes, species distribution modelling, prediction, ecological niche