

Abstract

Willowherbs (*Epilobium*) belong to the genera whose evolution is significantly affected by interspecific hybridization. Although this process often generates evolutionary novelties and leads to speciation, it can also result in genetic erosion and extinction. This thesis is mainly focused on the Czech *Epilobium* species that are potentially endangered by interspecific hybridization. The emphasis falls on the group of rare mountain willowherbs including *E. nutans*, *E. alsinifolium* and *E. anagallidifolium*. In addition to frequent interspecific hybridization, the research of this group is also complicated by the subtlety of distinguishing morphological features.

The review also summarizes the available methods that can be used to study interspecific hybridization in the follow-up thesis.