

Climate is one of the main selective forces in determining plant distribution and phenotype. Plant populations can cope with climate change through phenotypic plasticity or adaptive evolution or they can track their climatic optimum by migration. These mechanisms are not mutually exclusive and act probably all together. As the rate and intensity of ongoing climate change are very high, rapid adaptation could be of prime importance for many species to survive. There is now ample evidence of distributional and phenological shifts in plant populations, however, less is known about evolution in physiological and morphological traits. This bachelor project is a literature research on plant adaptation to climate change. The first part summarizes mainly theoretical findings, the second part focuses on the methods for testing plant evolution mainly on resurrection approach.