

## Abstract

This bachelor thesis is a literature review focused on plants of genus *Arabidopsis*. Despite numerous studies dealing with the model species *A. thaliana* there are only a small number of papers about its closest relatives, especially certain aspects are completely neglected in present literature. Species of the genus *Arabidopsis* can be found almost all over the world but their development center is most likely in Europe.

This thesis summarizes general information on all representatives of this genus with a focus on European territory and concentrate mainly on their reproductive systems and hybridization.

Species of the genus *Arabidopsis* frequently hybridize with each other and between different ploidy levels within these species. Due to such numerous hybridization and polyploidizations, including past and recent ones, the taxonomy of this genus is extremely complicated and has not been fully elucidated yet. This paper also includes main methods of experimental study of the reproductive systems.

This bachelor thesis is a theoretical basis for the subsequent master thesis, in which I will conduct an experimental study addressing reproductive modes and the possibilities of hybridization between different taxonomic representatives and ploidy cytotypes of group *A. arenosa*.