

Abstract

Hybridization is an important driver of plant evolution, but it can also pose a threat to the genetic integrity of species. A specific case is gene flow induced by human activity, or "anthropogenic hybridization." In addition to theoretical knowledge about hybridization, introgression, and the protection of genetic diversity, this thesis presents its importance and impacts using the example of a model system from the *Malus* genus. By analyzing the available studies on the subject, I compare and evaluate the state of European populations of the wild species *Malus sylvestris*, which is subject to hybridization and introgression mainly with the cultivated species *Malus domestica*. The data indicate a common hybridization between these species to varying degrees, with up to 37 % of hybrid individuals in the population. The human effect is significant, particularly through the intensification of landscape utilization, which results in more frequent secondary contacts between species and subsequent gene flow. However, the available studies about hybridization between these species are mostly local, and a comprehensive view of the issue is lacking. Indeed, in the Czech Republic and Slovakia, there are presently no comparable empirical investigations utilizing genetic data. Overall, it implies that it is impossible to accurately assess the level of overall threat to the *M. sylvestris* population in Europe, and that the issue requires further investigation.