Abstract

Because the rock outcrops are inhospitable habitats with unfavorable conditions, rock outcrop plants have evolved special adaptations. Species occurring on such habitats are very often threatened or endemic. It is thus necessary to focus on this group also in terms of its life cycle and population genetics, because the size and evolution of populations and their genetic diversity are important factors for their conservation. For these purposes, we study their population demography. Based on transition matrices we can reveal the future performance of populations. Genetic analysis can help us to reveal the direction and intensity of the gene flow and genetic diversity of populations. This thesis is a literature review summarizing the current knowledge of rock outcrop plant species, their population biology, genetics and other factors influencing it. The second part outlines the research conducted on *Aurinia saxatilis* subsp. *saxatilis* and shows the first results of the future diploma thesis.