

## Abstract

The primary aim of this thesis was to examine variables that explain species variety of dry basic biotopes in forest areas of Doksy landscape. The most important variables are geology, history of biotopes, existence of rock, amount of solar radiation, existence of land disturbance, declination and area of biotopy. By the PCNM methodology The thesis has examined also area related variables. Primary goal was to examine history related variable that explain 1,2% of the whole species diversity. The thesis distinguished special species with high inclination to historically stable biotopes and those, that are highly correlated with specific land use. The area covered with species-poor acidophilous pine forests on sandstone with isolated patches of basic bedrock with a species-rich flora. In total, 149 localities differing in history were studied. Some anthropogenic disturbances and local history. Main questions: What is the distribution pattern of patches with basiphilous flora and which environmental factors drive their species composition? How the historical land-use since the half of 19th century can influence the current species composition? How is the historical impact detected by functional species traits?

**Keywords:** Secondary habitats, dry calcareous habitats, *Pinus sylvestris*, abandoned pastures, secondary succession, PCNM, variation partitioning, species composition, land-use change, history, sandstone landscape