

The main part of my bachelor thesis is focused on treeline advance and on its spatial pattern especially. The theoretic part is consisted of a description of basic properties, hypothesis of treeline formation, current treeline movements in chosen European mountains and their potential explanations. The aim of the practical part was to discover whether the type of spatial pattern affects treeline dynamics. Namely, the western part of the Giant Mountains was taken as a surveyed territory. Ortorectified aerial photographs from years 1936 and 1964 were used when doing comparison. Spatial pattern was counted by "Ripley's K-function" and by the method of "Average Nearest Neighbour" on 110 defined squares (size 30 m) in the expanding part of the ecotone and on 110 defined squares in its stagnation part. Results don't indicate that some type of spatial pattern support treeline advance. The same spatial pattern was found both in major parts of stagnation and the expanding part of the ecotone.