

Abstract:

The aim of this bachelor thesis was to analyse of land cover and landscape state in the Krkonoše Mountains National Park between 1999 and 2007, using supervised classification and landscape metrics calculation. After the classification (Maximum likelihood algorithm) based on legend with 8 categories (5 types of vegetation, arable land, water areas, other areas), overlay analysis was performed by change detection and map of land cover state and changes were created. The changes of the landscape and landscape components state were evaluated using landscape metrics in software Fragstats. The overall accuracy for the image from 1999 was 81,50% and for the image from 2007 83,25%. Based on results it is possible to conclude, that the area of forests increased and as for the species composition the share of deciduous forests increased during this time period. Shift to a less diverse landscape was recorded based on landscape metrics evaluation. Coniferous forests comprised the landscape matrix in 1999 and also in 2007.

Key words: supervised classification, land cover, landscape metrics, SPOT, FRAGSTATS, The Krkonoše Mountains National Park