

Abstract

This thesis deals with land use and land cover changes in two geographically close areas – “Milovicko” and “Rožďalovicko”. The thesis’s main goal was to analyze land use / land cover changes between years 1836 and 2019 in the surroundings of Milovice town, where the military area called “Milovice – Mladá” was established in 1904 and dissolved in 1991, and in intensively-used agricultural area around small town Rožďalovice. The evaluation was mainly based on vectorized maps of so called Stable cadastre and on the data of current cadastre. Another goal was to analyze the development of landscape structure in surroundings of Rožďalovice, also between years 1836 and 2019. We aimed also to answer the question, if parcels of arable land in the stable cadastre could be considered as patches in the landscape mosaic. Based on three types of satellite data (PlanetScope, Sentinel-2 and Landsat 8) it was analyzed, how much landscape metrics and a description of landscape structure change in dependency on spatial resolution of remote sensing data. Satellite images from June 2019 were classified and then the landscape metrics, which characterized landscape structure, were calculated. Development of land use in Milovice surroundings differs from the trends of development of other (post)military areas as classes of grasslands and forests decreased in size. Landscape development of “Rožďalovicko” on the other hand is tracing the trend of development in other intensively-used agricultural areas. The same can be said about Rožďalovice landscape structure. The fragmentation of landscape, number of patches, length and density of edges grow with the increase of remote sensing data spatial resolution. Maps of landscape land use / land cover and tables, which show changes of LU/LC classes, are presented on the website of the project NAKI: Heritage of the lost landscapes: identification, reconstruction and representation (www.zaniklekrajiny.cz).

Keywords: land use, land cover, landscape structure, landscape change, driving forces, relation of landscape structure to spatial resolution of remote sensing data