

## **Possibilities of remote sensing in grassland vegetation and management interventions monitoring in the Giant Mountains**

### **Abstract**

The aim of this thesis was to evaluate suitability of WorldView-2 imagery for grassland associations classification in the model area of Giant Mountains. The classification was based both on the legend compiled by a botanist, and on the legend of Natura 2000. In order to eliminate the effects of other types of land cover on the classification accuracy, a mask of grasslands was created. Using discriminant analysis, the significance of spectral bands of WorldView-2, as well as significance of selected vegetation indices and components from Principal Component Analysis (PCA) – to distinguish particular classes of grassland vegetation were evaluated. Based on the results of discriminant analysis, classifications using neural networks method and also maximum likelihood method were performed in ENVI 4.7 version software. The results of the both method were compared

**Key words:** remote sensing, meadows association, classification, Giant mountains, WorldView 2