

ABSTRACT

The occurrence of avalanche paths is usually frequent in alpine environment, but it is also present in mid-mountains such as the High Sudetes. The submitted master thesis is focused on avalanche paths in the Eastern High Sudetes. The morphometric analysis of 8 paths was accomplished to determine their characteristics and comparison with statistical verification. The dendrogeomorphological analysis and further geomorphological mapping was performed in 2 selected paths (Sněžná kotlina and Králický Sněžník) to cover their avalanche activity frequency and to find relationship between their activity and morphology. The results of this study show that there is a strong difference between two groups of avalanche paths in the Eastern High Sudetes. The Sněžná kotlina and The Králický Sněžník avalanche paths are longer and narrower than the other paths. They also have higher elevation difference. The comparison of these two paths performed by dendrogeomorphology indicates higher avalanche activity frequency in the Sněžná kotlina path, which was strengthened after strong avalanche event in 2004. It is assumed that the Sněžná kotlina path contains advanced avalanche landform, which is a long gully, probably also affected by debris-flows in the past. On the other hand the Králický Sněžník path is rather less active and contains practically no avalanche landforms at all. The submitted master thesis presents the very first study, which is concerned with avalanche paths in the Eastern high Sudetes and their relationship between activity and morphology.

Keywords: snow avalanches, morphometry, dendrogeomorphology, Eastern High Sudetes, Altvatergebirge, Glatzer Schneeberg