

## **Abstract**

The bachelor thesis is concerned with the use of the Schmidt Hammer as a relative age dating tool of glacial landforms. The Schmidt Hammer test is based on the assumption that there is a mutual relation between the degree of weathering of a particular surface and the duration of its exposure. Information about the degree of weathering is expressed by the rebound value (R value). With increasing weathering of a surface the mean R value decreases. Relationship between the R value and the absolute age of a tested surface obtained by numerical dating methods is expressed by the age calibration curve.

Principles, conditions and limitations of the Schmidt Hammer test in glacial environment were characterized according to the literature. The majority of tested sites were localized in Europe, especially in Scandes. According to the results of statistical analyses, the R value significantly correlates with the altitude and climatic characteristics (mean annual air temperature, mean annual amount of precipitation). For the moraines built-up by granitic material, R value increases with increasing altitude. On the contrary, the R value decreases with the increasing amount of precipitation and mean annual air temperature. Granite proven to be the most suitable material for testing due to small standard deviation of measured R values and also due to its large spatial extent.

Key words: the Schmidt Hammer test, glacial landforms, relative dating methods, weathering