

Abstract

The aim of the diploma thesis is to present the landscape classification of the Czech hydrometeorological institute's experimental Watersheds in the Jizera Mountains. The classification was developed on the Watersheds of selected physical-geographic characteristics that can influence its rainfall-runoff process. The selected factors were geologic standards, soil cover and characteristics of the relief - inclination, exposition and vegetation types. The landscape cover represents one of the most significant factors that form the surface runoff. The method of cluster analysis, more specifically the method of K-means clustering, was used for the landscape classification. The typology was developed for the abiotic characteristics of the watersheds as well as for the landscape cover. Altogether 5 analyses with different numbers of clusters were produced while creating both classifications. Based on the analyses the watersheds with the most similar abiotic characteristics and landscape covers were defined. The annex of the thesis is the evaluation of the landscape development of the target area from the years 1953, 1986 and 2013.