ABSTRACT

This thesis is focused on fluvial dynamics in gravel bed mountain stream. As model basin was chosen Roklanský brook catchment in Šumava mountains, some methods was used on a part of its tributary Javoří brook. We wanted to make an analysis of Roklanský brook catchment by characteristics and course of channel, river floodplain and fluvial erosion and accumulation forms, to find context and factors natural and anthropogenic influenced character and dynamics of the fluvial system. There were used methods based on field mapping channels and fluvial forms, grain size distribution, lidar data, historical aerial photos by 1949 to 2015, bankfull discharge and study old maps and other historical documents from archives. The results show that fluvial system of Roklanský brook has high rate of dynamics. We get known that placement of accumulation and erosion forms relates with longitudinal slope of channel and geological forms. The train of channel changes often, in past according to anthropogenic intervention. In floodplain of Javoří brook is a lot of potential channels. We get known height of water level which causes significant channel changes.

Key words: gravel bed streams, fluvial dynamics, field mapping, historical aerial photos, lidar data, bankfull discharge, historical maps, Šumava mountains, Roklanský brook