

## **ABSTRACT**

This bachelor thesis is focused on the processes causing the changes of the river network. Among the most important processes are tectonics, landslides, headward and lateral erosion, anthropogenic activities, lithology of a stream bed, changes of the erosion base and climate, as a factor influencing the morphology of valleys. The information from the literature search is applied on finding potential valley network changes localities based on indicators of changes of the river network, which were analysed in the GIS environment. Each potential locality was chosen for a presence of an indicator, which may signify changes of the river network: sudden direction changes of a stream, wind gap, streams which flow through topographic barrier, captured stream. The main criterion for finding potential localities was elevation above the valley-floor interpolated surface, where low values indicate low water divide between valleys. These selected localities were compared with the position of the anomalies on the longitudinal profiles of the rivers. The longitudinal profiles with sudden changes of inclination (knickpoint) indicate possible changes of the river network.

**Key words:** changes of the river network, headward erosion, lateral erosion, river piracy, landslides, tectonics, anthropogenic activities, Šumava Mountains, Pošumaví