

Abstract

The purpose of the diploma thesis is the analysis of alpine timberline shifts in the Giant Mountains between 18th and 21st century. The altitudinal position of alpine timberline is a sensitive indicator which reflects human impacts as well as the climatic changes.

Methodical approach included the reconstruction of alpine timberlines from the old maps (published in 1765, 1851-52, 1879, 1906) and their comparison with the newer data, which were evaluated from a series of aerial photographs dated 1936 and 2002 (actualized 2005; data provided by supervisor). Data obtained from the old maps and aerial photographs (1936) were compared and verified with old photos and postcards from Giant Mountains.

The average altitude of alpine timberline increased during the study period. The increase in elevation of alpine timberline is significant between 19th and first half of 20th century, e. g. in period when the human influence in Giant Mountains decreased.

It is concluded that position of alpine timberline in Giant Mountains depended on human influence.

Key words: tree line, alpine timberline, human influence, Giant Mountains