

ABSTRAKT – CHANGES OF THE VALLEY SYSTEM OF THE ŽELEZNÉ HORY MTS.

This thesis concerns the establishment of possible changes of the valley system of the Železné hory Mts. Abreast the thesis compares and verifies different methods used for the analysis of the valley system development.

The model of the valley system changes was created by the GIS whose results were continuously compared and verified through other morphostructural analysis (the comparison with the system of the tectonic breaks, the analysis of the valley system shape, the SM-index, the statistical analysis of the longitudinal profiles). The comparison of the model of the valley changes with the analysis of the longitudinal profiles which were classified by their shape was very important. The sections of the longitudinal profiles with some irregularities which indicate the possible influence of the tectonics disturbances correspond with the areas identified by the model of changes of the valley system.

All the data about the longitudinal profiles were statistically elaborated with the help of discriminant analysis. With the help of this statistical method there was proved the demonstrativeness of the analysis.

On the base of the reached results there were defined the areas with a probable change of the valley system. They are the area of the Podhradská kotlina Base, the Lichnický hřbet Ridge and the area of the catch basin of the Chrudimka River middle stream. The results of the model were verified in the erosive valleys Lovětínská rokle Gorge and Hedvičino údolí Valley. The results of the model and the other analysis confirm the theory made by Dědina (1929) about the river piracy on the Chrudimka River.