the massifs of the Outer Western Carpathians which are formed by anisotropic flysch rock. Detailed research of these landforms can significantly contribute to understanding to the processes transforming a relief of the medium-high mountains in the Carpathian flysch belt. Method of electrical resistivity tomography (ERT) based on various resistivity values of particular subsurface structures offers a non-invasive way to display the situation beneath the surface. Each of the commonly used electrode arrays (Wenner Alpha, Wenner-Schlumberger and Dipole-Dipole) is suitable for different type of subsurface structures. Verification of the known fissure cave systems is one of the advantages of this method. However, final 2D resistivity model often reveals new information on the subsurface structures, namely undiscovered cave chambers or spreading crevices. Using the ERT-evidence of the known cave system in the similar lithological situation, we are able to detect supposed non-revealed cave parts or individual new cave. Research focused on application of ERT on the fissure-induced structures on several sites located to the area of Czech, Slovak and Polish Carpathians during the years 2009-2010 brings a new knowledge in their detection. Method of the Wenner-Schlumberger array offers similar results as the Wenner Alpha electrode array. Both of the methods are suitable mainly for the (sub) horizontal subsurface structures and as such seemed to be less suitable for detection of rather vertical fissure-structures. According to our experience, Dipole-Dipole electrode array appears to be the best method for fissure cave detection (likely due to high total resolution). The results of Dipole-Dipole array are also the best in accuracy of location of particular cave segments in final 2D resistivity model. Nevertheless, too high sensitivity to high near-surface resistivity may sometimes be the limiting factor of the use of the Dipole-Dipole array. Understanding the genesis of gravitationally-induced discontinuities may considerably help to fully recognize their role in context of massif disintegration and overall landscape evolution. Presented study deals with detection and verification of known fissure caves and their possible prolongation with use of different electrode array, resolution and depth range. Set of the ERT results confirms an assumption that deep-seated disintegration is closely connected with development and extension of the fissure and fault systems. These forms of the massif disintegration also represent initial phase of the slope processes such as rock-slides, catastrophic rock avalanches or forms of terrain subsidence (sagging, toppling). Experimental 2D resistivity modelling has been also applied to the dealt issue. Geophysical technique of the ground penetrating radar (GPR) has been used on the one of the sites in order to confirm and specify the ERT results.

Acknowledgements: This study was funded by a project of Czech Science Foundation no. P209/10/0309: "The effect of historical climatic and hydrometeorological extremes on slope and fluvial processes in the Western Beskydy Mts. and their forefield".

Preliminary data on the crystal-chemical characteristics of beryl from Cer Mt. (Serbia)

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A beryl crystal from Cer Mt. (Serbia) studied in this paper was characterized by means of XRPD and wet-chemical analyses. It has following unit cell dimensions: a = 9.2166(8) Å, c = 9.192(1) Å, V = 676.2(1) Å^3 and ratio c/a = 0.9973. According to the calculated c/a ratio and structural formula of $(Be_{2.86}Li_{0.11})_{2.97}(Al_{1.96}Fe^{2+}_{0.05})_{2.01}Si_{5.96}O_{18}(Na_{0.09}Ca_{0.03}Mg_{0.03}K_{0.01})_{0.16} \times 0.14H_2O$ composition, this sample belongs to the "normal beryl group". The obtained characteristics prove that the host pegmatite is of Li-bearing type.