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MICROMORPHOLOGY AS A METHOD OF ASSESSING THE MOUNTAIN SOIL SENSITIVITY IN ORDER TO ELABORATE THE MELIORATIVE TECHNOLOGY FRIENDLY TO ENVIRONMENT AND BIODIVERSITY

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*In the current context of the global climate changes, in the Carpathians exercises strong pressure on mountain ecosystems due to the massive and uncontrolled deforestation, expansion of the urban areas and land restitution (followed, mostly by land use changing). In these circumstances, the sensitivity of the mountain soils underposed on their existing precarious balance with the environment. The paper emphasized the sensitivity of the mountain soils from a catena, consisting of five soil profiles, located on a slope of the Padurea Craiului Mountains of the Romanian Western Carpathians. The data show a very low pH of the studied soils, ranging from 4.45 to 5.76, as a result the vegetation is acidophilus, dominated by species as *Luzula luzuloides* and *Nardus stricta*. The organic matter content is low in all the studied profiles, as well as the N, P, K values. The soils from the lower part of the slope are strongly affects by stagnogleyization and mobilization of the plasmic material, which generated many types of redoximorphic features and depleted pedofeatures. In order to remove or mitigate the negative effects of the land restrictions and according either to the limiting factors generated by relief and soil conditions, the meliorative works are complexes, while the applied technologies must be friendly with the environment and biodiversity. In conclusion, the melioration will modify the present soil status. Thus, the soil biodiversity, which is currently limited and specialized, being adapted to hard environmental conditions, will be also strongly modify.*