

Pedologic study of the the serpentinite hills in the Eastern Alps
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The Bernstein is the most characteristic serpentine site of the Carpathian basin. Serpentine is a rare rock on the Earth's surface, and due to its unfavourable chemical composition, plant communities exhibit the *serpentine syndrome*, by their restricted growth and cover, morphological alterations, floristic composition, drought stress markers, element (e.g. Nickel) accumulation or hyperaccumulation. In this study we demonstrated the following geological and edaphic stress factors in the Bernstein soils (*Ranker*, USDA: *Magnesian nonacid mesic lithic udorthents*, WRB: *Hyperskeletal leptosol (magnesian)*): high Mg/Ca ratio, N+P deficiency, high Ni concentrations, hyperskeletal (rocky) structure. Ni-accumulating plants were also found. In the region three other, less characteristic serpentine sites (Kleine Plischa, Schwarzgraben, Elsenau) and a non-serpentine site (Kőszeg, Hungary) were chosen as control sites.

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