

Digital Soil Mapping for the Functional Analysis of Site Characteristics in Complex Terrain



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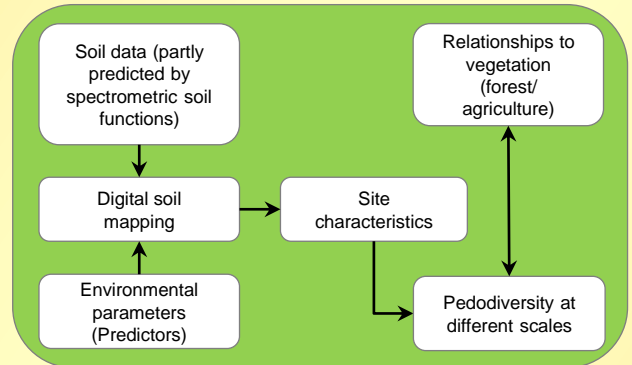
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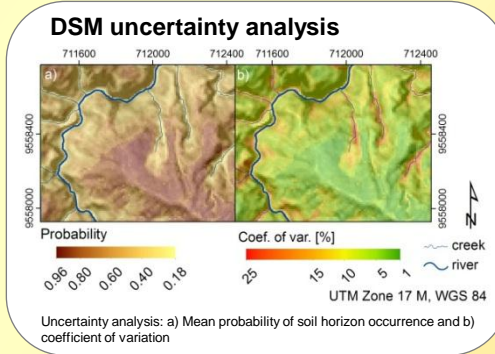
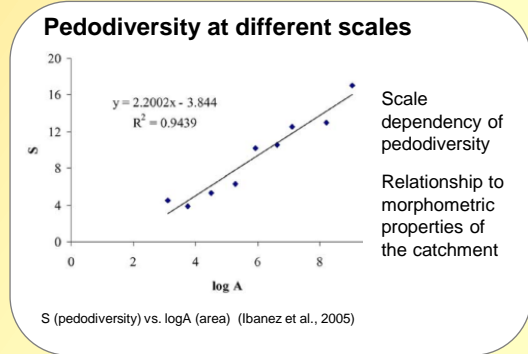
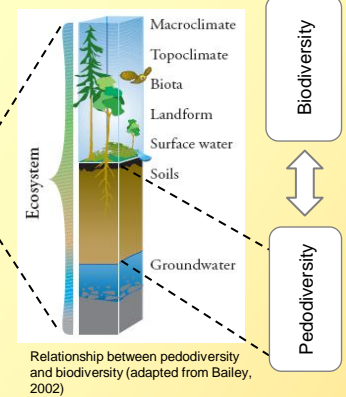
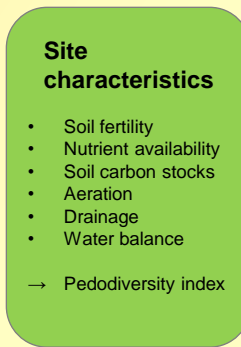
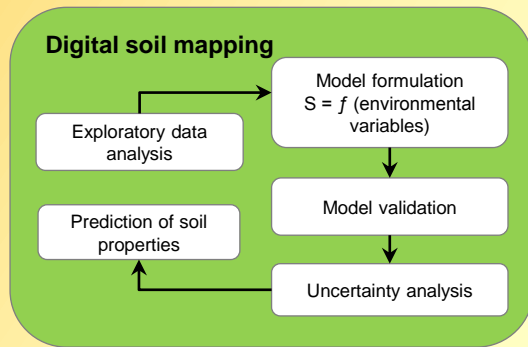
Introduction

Information on the spatial variability of soils is essential for sustainable land management. Site characteristics such as nutrient availability or drainage determine plant growth and, hence, forest growth and management as well as agricultural production. Digital soil maps (DSM) of the Soyang Lake Watershed will be developed for important chemical soil parameters by supervised learning techniques (e.g. CART, random forest, boosting) including an uncertainty analysis. Pedodiversity at different scales as well as its relation to biodiversity and forest structure will be investigated to understand landscape functions, the impact of land use on soil fertility and ecosystem services.

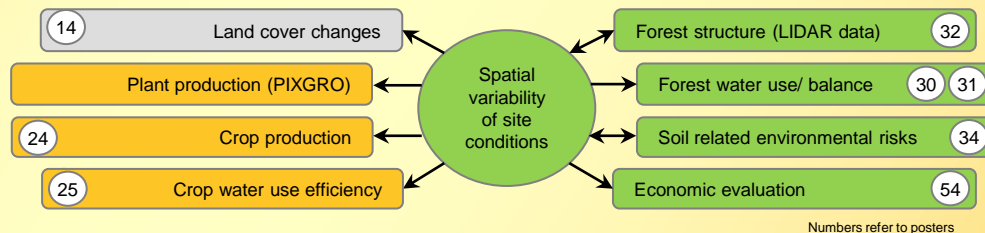
Conceptual framework



Methodology



Links to Other Project Groups



References

Bailey, R.G., 2002. Ecoregion-based design for sustainability, Springer-Verlag, New York.

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Mulder, V.L., de Bruin, S., 2012. Retrieval of composite mineralogy by VNIR spectroscopy. In: Minasny, B., Malone, B.P., McBratney, A.B., Digital Soil Assessments and Beyond, CRC Press, Boca Raton, pp. 373-380.

