



## **Contribution of geodiversity, climate and spatial variables for biodiversity across a gradient of human influence**

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Implementation of geodiversity may provide new perspectives for nature conservation. The relation between geodiversity and biodiversity has been established in recent studies but remains underexplored in environments with high human pressure. In this study, we explored the effect of geodiversity (i.e. geological, hydrological and geomorphological diversity), climate and spatial variables on biodiversity (vascular plant species richness) in environments with different human impact. The study area ranged through the boreal vegetation zone in Finland and included altogether 1401 1-km<sup>2</sup> grid cells from urban, rural and natural environments. The contribution of environmental variable groups for species diversity in different environments was statistically analyzed with variation partitioning method. According to the results, the contribution of geodiversity decreased and the contribution of climate and spatial variables increased as the land use became more human-induced. Hence, the connection between geodiversity and species richness was most pronounced in natural state environments.