

EGU21-15464

<https://doi.org/10.5194/egusphere-egu21-15464>

EGU General Assembly 2021

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## Geodiversity assessment with Crowdsourced Data and Spatial Multicriteria Analysis

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The main objective of virtual PICO is to present an approach to geodiversity assessment based on spatial multicriteria analysis (MCE) with Crowdsourced Data. Geodiversity assessment usually involves an individual expert or a group of experts who assess the value of geodiversity factors to the overall geodiversity score for a study area. The biggest objection to methods used so far is subjectivism. Responding to these objections, a crowdsourcing approach that uses an online geo-questionnaire linked with an interactive map was used.

The assessment input data comprised of seven environmental factor ratings and weights were obtained from 57 Earth science researchers worldwide. These data served as the bases for a joint assessment of geodiversity. To provide more comprehensive assessment approach for aggregating factor ratings and weights to compute an overall measure of geodiversity the weighted linear combination (WLC) method and its local version L-WLC were used. Karkonosze National Park (KNP) located in south-western Poland in the border area between Poland and the Czech Republic was chosen as a research area. Karkonosze is the highest mountain range of the Sudetes, characterised by unique geological and geomorphological values. The geodiversity of the research area was valued with regards to the reliability of assessment evaluated by means of spatially explicit uncertainty analysis. Average (AVG) and standard deviation (STD) geodiversity maps (on the basis of 57 respondent data) were computed. As a result of their cross-tabulation, a bivariate maps with average geodiversity values (AVG: low, high) and standard deviation values (STD: low, high) were created. Two such maps, one for WLC results and another for L-WLC results, were compiled and evaluated, providing a more holistic visages of final geodiversity and its uncertainty. Given that L-WLC provides a realistic assessment of geodiversity and guided by its results, the areas of high geodiversity and low uncertainty have been identified within Karkonosze range.