



SPACE GEODIVERSITY REVIEW: A CASE STUDY IN THE SOUTHWESTERN REGION OF PARANÁ STATE, BRAZIL.

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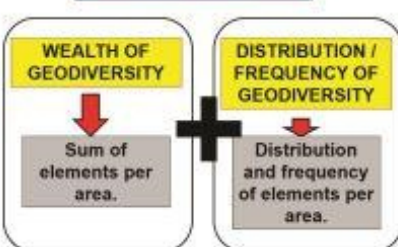
ABSTRACT

Geodiversity refers to the diverse set of abiotic elements in a region. The work was based on through research and theoretical and conceptual literature review of geomorphological elements, climatic, structural, geological, hydrological and pedological Paraná state together gave the survey of cartographic data from the state Southwest region. We carried out the georeferencing and thematic mapping database using ArcMap 10.1 program. Then, we performed a cross between the attribute tables, generating a file named geodiversity which was used to generate a map of the geodiversity index. The geodiversity index was quantified from 0 to 47 for better visualization and identification of hot spots areas. The quantification, characterization and mapping of the elements related to geodiversity are highly relevant to the environmental issue in conservation, the preservation of these areas more geodiversity index.

OBJECTIVES

- quantify the geodiversity of the elements in the region of Paraná State, Brazil;
- present the spatial wealth of geodiversity based on the sum of the mapped elements;
- test and improve the efficiency of spatial analysis method of geodiversity;
- highlight the importance of geodiversity and its variation for planning and management of territory.

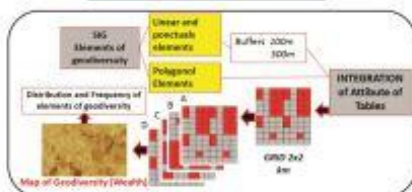
CONCEPTS



- variety or diversity of abiotic nature;
- rocks, landforms, soils, water, climate, fossils, process, minerals.

Gray (2004), Carcavilla *et al* (2008), Katerina and Dušan (2008), Serrano *et al* (2007; 2009), Żwoliński and Stachowiak (2012), Hjort and Luoto (2010; 2012), Pellitero *et al* (2014), and Silva (2014).

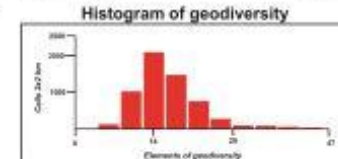
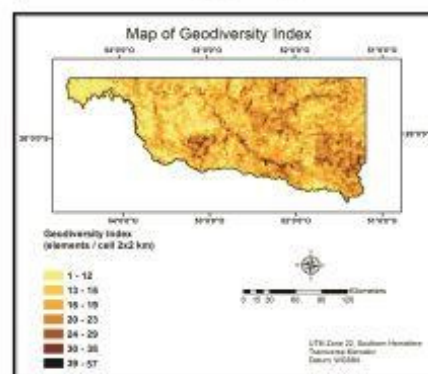
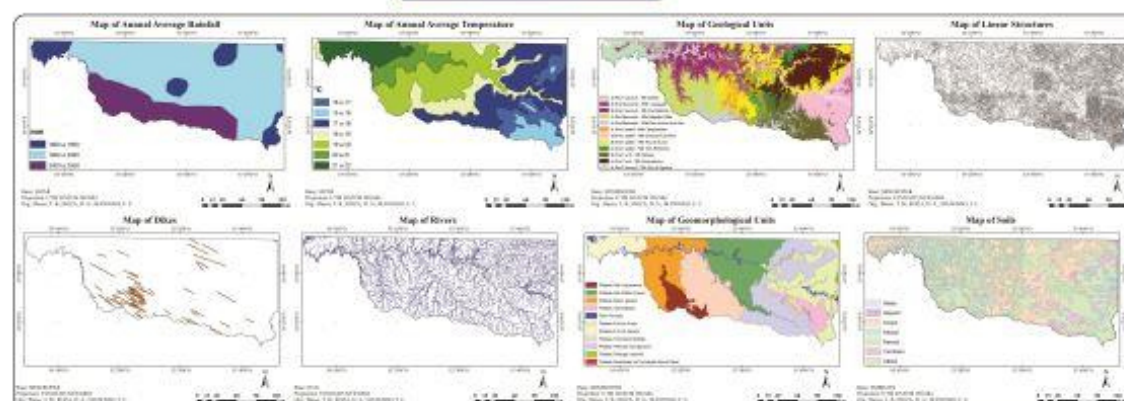
METHODOLOGY



Elements used to characterize the geodiversity

Elements	Attributes	Font
Geomorphological	Geomorphological Concomitants	MINEROPAR – Geological Paraná Service
Climatic	Temperature, precipitation, humidity	IAPAR – Agronomic Institute of Paraná
Ecological	Dikes and e linear strabants	MINEROPAR – Geological Paraná Service
Geological	Facies and Comcomitants	MINEROPAR – Geological Paraná Service
Hydrological	Water masses, Hydrocorch	IFCG – Institute of Land and Cartography of Paraná state
Pedological	First level of classification	EMBRAPA – Brazilian Agricultural Research Corporation

RESULTS



CONCLUSIONS

These results, as well as adjustments and efficiency of the method seem to indicate an important tool for area management, especially regarding the selection of priority areas for nature conservation. The quantification, characterization and mapping of the elements related to geodiversity are highly relevant to the environmental issue in conservation, the preservation of these areas with greater geodiversity index, as well as scientific, tourist and educational values. However, the organization and preparation of the base map can be used to further study and may relate to geo-diversity biodiversity in a statistical analysis, for example.

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