Concept and content of geoheritage diversity and its significance

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Geodiversity was proposed by Sharples, refers to all the geologic phenomenon in earth sciences system, which contains geoheritage, soil, climate and landscape etc., it is connected and interacted with natural environment and social and culture.Geoheritage diversity is a new field, an expansion of earth sciences. The significance of Geoheritage diversity is realized gradually in the process of exploring nature. Its research can provide guidance for the planning, education and protection, thus promote the sustainable development of geological relics resources. It is necessary to define the conception and content of Geoheritage diversity.Geoheritage diversity is the diversified features of the geological elements and the relationship among them, including strata, tectonics, bedrocks, palaeobios, geohazard and landscape. It is reflected in the scale and distribution, the geological background, the type, quantity and grade, primarily the diversity of geologic and geomorphic features, their formation process and relationship.We should establish the content system of Geoheritage diversity based on the following aspects:1.Geoheritage diversity is based on the composition of the following elements, strata, tectonics, bedrocks, palaeobios, geohazard and landscape features. 2.Geoheritage diversity consist of the scale and distribution, the geological background and type, the quantity and grade, the protection and utilization, which are the indicators system of the Geoheritage diversity. We should establish an evaluation system relate to the elements to evaluate the diversity index.3.Promote the evaluation of Geoheritage diversity quantitatively, applying mathematics and statistics methods to describe the properties and variability of the geological relics.