

Landscapes and Landforms in the Toplica region (Southern Serbia)

Aleksandar Valjarević, Natalija Batoćanin, Danica Srećković-Batoćanin, Tin Lukić



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Landscapes and Landforms in the Toplica Region (Southern Serbia)

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Abstract: In the Toplica region (Southern Serbia), the given study identified eleven prominent landforms, worthy to be called geosites. In this research, the genesis of the main geosites is given along with their existing or not yet recognized importance related to geoconservation actions. A long geological history, particularly the intensive volcanism during Oligocene, and subsequent geomorphological processes, such as differential and fluvial erosion, were responsible for their origin. With the help of remote sensing techniques, fieldwork observations, and Geographical Information Systems (GIS), the position of geosites is estimated and distributed within zones of different tourist interest. With the help of GIS, numerical and statistical and satellite detection methods the position of geosite location and value were analyzed. Specific algorithms derived from QGIS 3.16 software and SAGA 0.9 such as Triangulated Irregular Network (TIN), Buffer, zonal statistics and kriging's were used in order to assess the value of geosites touristic importance in this region.

Keywords: GIS, Analysis, Landscape, Landforms, Geology, Geosites, Toplica region