The geodiversity of the Abruzzo, Lazio, and Molise National Park (Central Italy)

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The Abruzzo, Lazio, and Molise National Park is located in the Central Apennines (Italy), in a vast mountainous area of about 1300 km². It was founded in 1922, and it is renowned for conserving some of the most important Italian fauna species. Moreover, it is an international open-air laboratory for its geological-geomorphological heritage related to various paleogeographical and morphogenetic environments. Great geodiversity examples are still reflected today by the main mountain chains, offering scientists and tourists imaginary journeys through ancient coral atolls and deep blue seas. Valleys of glacial or fluvial origin, alluvial fans, paleolandslides, karst morphologies, and present-day landscapes still preserve the memory of these ancient environments. Here, we report on the methods, initiatives, and activities to improve and valorize Abruzzo, Lazio, and Molise National Park geodiversity. In detail, the enhancement of geoheritage has been widely pursued through a stepwise approach which involved (i) literature data analysis, (ii) census and harmonization of geosites and geomorphosites, (iii) design of thematic maps and visual legends, (iv) geological-geomorphological field surveys. The resulting data allowed us to produce, in strict collaboration with the park managers, innovative tools, such as geoturistic maps and itineraries. These tools are targeted at various potential users (i.e., tourists, residents, young people, schools, and other interested stakeholders) with the final aim to provide the landscape’s observers with a perception of the geological and geomorphological processes within their spatial and temporal scale. The geological heritage, deeply rooted in the area and to date only accessible to a limited number of experts, now needs to be introduced to a broader audience, sensitive to earth and environmental dynamics, and interested in protecting and preserving the territory. The correct classification of geodiversity in the form of geosites and geomorphosites and the evaluation of their vulnerability are fundamental issues in analyzing the relationship between human activity and natural processes involving the landscape.