Applicant UNESCO Global Geopark

Majella, Italy

detailed information

geographical and geological summary

Map of central Italy with the location of the Aspiring UNESCO Geopark (red boundaries), namely the Majella National Park. Other elements are: the Abruzzo Region parks, main cities and towns. An overview map of Italy is shown in the lower left corner.
1. Physical and human geography - 1500 characters

The proposed Geopark corresponds to Majella National Park, which covers 740 km\(^2\) in the central Apennines (Italy) comprises between other 2 national parks. It is made up predominantly of carbonate reliefs separated by valleys and karst plateaus and presents a wide altitudinal range (130–2793 m a.s.l.). The Majella Massif has more than sixty peaks, half of them exceeding 2000 m, like Mt. Amaro (2793 m) the second highest peak of Apennines. The other mountains are: Morrone, Porrara, Rotella, Pizzalto, Pizzi and Secine mts. The main watercourses are: the Orta, the Orfento, the Gizio and the Vella rivers (Pescara River basin); the Aventino and the Verde rivers (Sangro River basin); the Foro and the Alento rivers. The eastern Majella is carved by a series of canyons, among the longest in Italy, such as the Mandrelle-Santo Spirito and the Taranta valleys. Noteworthy are the so called “quarti” (i.e. Quarto Santa Chiara), karstic highlands which extend towards south-west at an elevation of 1250 m. Small and few, but important for wildlife, are the perennial water bodies: the Ticino, the Battista and the Pietra Cernaia lakes. The aspiring Geopark is featured by a typical mountain and high-mountain climate with abundant snowfalls. Autumn is the most stable season thanks to the nearby Adriatic Sea (just 30 km). 39 are the municipalities, 4 of which have their historical centre within the aspiring Geopark. The estimate resident population is around 25,300 inhabitants.

2. Geological features and geology of international significance – 1500 characters

The aspiring Geopark is made mostly by fossil-bearing limestones, recording a long-lasting period of sedimentation in warm, shallow-marine environments: from 140 to 7 Ma ago the Majella Massif looked like the present-day Bahamas archipelago. The orogeny involved the platform during the Pliocene, taking Majella to be one of the youngest relief of the Apennines. Hence, a still active Quaternary normal fault system is responsible for the recent and historical seismicity of the area. The presence of other lithologies as gypsum and clays, representing a changing in the depositional system, and landforms resultant from the combination of karst, glacial and fluvial processes increase the geodiversity. The Majella hydrogeological system is one of the most prominent in Italy. Italian and worldwide researchers visit the area every year to study the well-preserved platform-to-basin carbonate depositional system that represents a hydrocarbon genesis and oil migration model. The geosites currently identified in the area are 95 (No. 22 are international), about a half are geomorphosites while around twenty have stratigraphic or structural-tectonic interest. The greater part of them have educational and/or geo-touristic value, as the site of Capo di Fiume opened to the public in 2001. Geology influenced the natural and cultural inheritance. The first human presence, dating back to the Lower Paleolithic (600,000 years ago), makes Valle Giumentina one of the oldest archeogeosite in Europe.