



Educational use assessment of Geomorphosites applied to the Picos de Europa National Park (Northern Spain)

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There are sites that constitute worthy places of preservation or promotion the natural heritage receiving different names according to the object of interest (biological, geological, hydrological, geomorphological, etc.). National parks are places for everybody to learn about abiotic and biotic nature and the way they rely on each other. The abiotic nature implies different parts, as geologic, hydrologic or geomorphologic. The geomorphosites are especially relevant because link geology, climate, surface processes and hydrology with landscape. Beyond the intrinsic scientific, conservation or scenic values, such sites possess a general value being the didactic use one of the aspects considered in the assessment methods. Several authors have indicated that the aim of the evaluation of sites will change if the purpose is leaning to inventories development, environmental impact assessment or divulgation (educational, tourist activities or only protection). One of the meanings of the term educational is "everything suitable to teaching or providing education" as is referred in dictionaries. With this definition, although the geomorphosites has not an educational value per se, any natural element can be used as educational object, and the teacher intention's must transform a geomorphosite in a educational resource.

The educational assessment of several methods have been analysed in this work and we have concluded that there are confusing and inaccurate for teaching purposes. The analysed methods do not specify how the geomorphosites are useful for teaching or how the teacher can develop the scholar programs. The objective is a more accuracy in the educational use of geomorphosites focused on the different educational levels as a tool by teaching and leisure activities.

Our proposal is the development of methodological sheets that emerge from the analysis of the curricular content and specific bibliography. Sheets on general geomorphology, periglacial, glacial and karst information have been applied after assess 51 geomorphosites in Picos de Europa. Applying the accessibility criteria, 15 geomorphosites have an educational value and so the educational assessment has been made. Each geomorphosite shows educational qualities for different topics and educational or leisure levels, all of them based in experiential education. The educational assessment sheets of geomorphosites allow greater accuracy of the didactic use in the National Park of the Picos de Europa and they are a tool to be used in the teaching task as well as leisure activities. The results permit to make use of the relief in educational curricula and develop leisure strategies to divulgation and interpretation of geomorphosites in NPA.