

ESTABLISHING CRITERIA FOR EVALUATING THE PORTUGUESE GEOLOGICAL HERITAGE

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Portugal presents a high geodiversity level, in spite of the relatively small area of the country. Fourteen frameworks with international relevance were recently proposed by the Portuguese group of ProGEO, as an evidence of this remarkable geodiversity. Therefore, the occurrence of relevant geosites is widespread in the Portuguese territory, but so far with no proper classification or management. The significance of the geological heritage must be evaluated with rigorous criteria. This is an essential task, as important as the common inventorying and geological characterisation activities. Geosite classification is also important for non-specialists when designing Territorial Planning Special Plans. In fact, those technical staff elements are usually more aware of the biodiversity values conceiving, therefore, special protection strategies for biotopes, but neglecting geosites protection. The Nature Conservation Institute has the prime responsibility for the design of Management Plans for the Portuguese protected areas. Due to the absence of an established methodology to assess geological heritage, many Management Plans does not integrate geoconservation strategies. The present work aims to test methodological approaches in the evaluation of the geological heritage. Procedures normally used in the assessment of biological values will be adapted for geosites evaluation. The Sintra-Cascais Natural Park, a protected area located in the Lisbon region, will be used as a case study. This work is part of a master dissertation on Territorial Management and Environmental Planning, currently under development in the University of Lisbon. This dissertation intends to contribute for the definition of a solid methodology for geosites evaluation, to be later extended to all Portuguese protected areas. Geological heritage will be evaluated according to scientific, pedagogic, cultural and economical criteria, by use of diversified parameters, such as rarity, frailty, age, potential menaces, conservation status, potential for tourism activities and geographic distribution, among others. Using a methodology similar to the ones used in Biology for evaluating fauna values, those parameters are grouped in four statutes, namely: conservation, geographic, geological and regional. These statutes will be used to create indexes, in order to mathematically calculate the specific value of each geosite. Another important indicator that will be considered is the geodiversity index, based on the Shannon-Weaver (1948) method, to produce a distribution representation of the relevant occurrences in the study region.