

# Monitoring and Preservation of Active Geomorphological Sites: Instructive Cases from European Protected Areas

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This paper provides a synthesis of active geomorphological site management and conservation from a selected examples of such sites in Europe. Currently in most geoparks geoconservation tends to simply conserve particular 'landmarks' that have high economic value, this helps little in preserving the earth heritage and associated benefits for the longer term. In contrast, active geomorphosite preservation implies preservation of the dynamic earth processes such as denudation and transport, that give rise to new landmarks, landscapes and habitat patches. Especially for many active geosites/geomorphosites that are located within protected areas, there is still scope for relatively unimpeded range of natural processes. In the Anthropocene era of sweeping human-induced change in the geo-biosphere, these sites offer a critical challenge for conservation: failure to protect the integrity of natural processes would result in swift deterioration of the site itself as well as irreversible deterioration of the many ecosystemic and other services derived from them. Monitoring for multi-scale process evidence is considered an important tool for addressing conservation issues of these active geomorphosites. The paper presents instructive examples from the Italian part of Mont Blanc Massif (Miage glacier) and the Sobrarbe Geopark in Spain to highlight the fragility of active geomorphosites and the urgent need for their protection.

Keywords: Active geomorphosite , Multi-scale process, Natural process preservation