

ASSESSING THE GEOSYSTEM SERVICES OFFERED BY GEOSITES IN THE MONTE ROSA (SESIA VAL GRANDE UGGP, W-ALPS) TO UNDERSTAND RELATIONSHIPS BETWEEN GEODIVERSITY AND GEOHERITAGE IN HIGH MOUNTAINS

Khoso Rasool Bux¹, Guerini Michele¹, Giardino Marco^{1,2}

¹ Department of Earth Sciences, University of Torino

² Sesia-Val Grande UNESCO Global Geopark

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The concept of geosystem services has emerged in last few decades and its importance for geodiversity and geoheritage have been studied poorly (Ree et al., 2017). It is essential to recognize how abiotic and biotic processes contribute to human well-being through the ecosystem function and service provision (Fox et al., 2020). This research is conducted to identify and categorize geosites to improve and preserve sites with significant geology, geomorphology, culture, history, and artistic value. We identified 8 geosites within Sesia Val Grande UNESCO Global Geopark, in Monte Rosa (Alagna Valsesia, Italy), performed the quantitative assessment and evaluated how high mountain geosites contribute to different geosystem services. These services were classified into regulating, supporting, provisioning, cultural and knowledge services encompassing multiple evolutionary scenarios of human and nature interactions. The result shows various benefits offered by geosites and key role it plays for rich geodiversity and geoheritage of the study area. This approach lays groundwork for comprehending the threats to geodiversity posed by both natural and human-caused factors. Additionally, it aids in creation of efficient planning and management strategies for Sesia Val Grande UGG and sustainable development of its environmentally vulnerable and susceptible mountains.

Reference section

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Contact section

Giardino Marco: marco.giardino@unito.it
Guerini Michele: michele.guerini@unito.it
Khoso Rasool Bux: rasoolbux.khoso@unito.it