



Geodiversity and Geoheritage of the Danakil and Afar region

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The Danakil Depression is well known for its spectacular and wild desert scenery, with volcanoes, faults and salt plains. Its northern part is thought to be the very last stage of continental rifting, before opening into an ocean. Such an area is a unique and fully representative example of the birth of an ocean, through hot-spot related rifting that should have World Heritage status. The area is however, a remote extreme environment with cultural and political issues, and a highly active geological setting, where rifting and volcanic events have the potential to change the landscape rapidly. The area is also the focus of increasing economic activity with interest in hydrothermal and resource's such as Potash being mined. In order to best sustainably develop the area, and to take into account all aspects of its environment, the geological environment needs to be fully mapped, characterised and monitored. The geodiversity and geoheritage needs to be assessed, and geosites inventoried. We present some of the first mapping, done to this purpose, by an international team focussed around Mekel'le University. We show a first order assessment of the geoheritage value of the main identified sites. We focus on the Dallol – Erta Ale segment, as a more detailed example of this work. This can be used by the local stakeholders to discuss the various options open for the future development of the area.