



## **The structural and environmental history of the Northern Kenya Rift: The Suguta Valley Project**

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In June 2007, we conducted a two-week helicopter expedition to investigate the late Cenozoic structural inventory and lacustrine history of the Suguta Valley, northern Kenya. The first objective of this study is the mapping and analysis of faults to better understand the structural evolution, spatiotemporal trends in depositional environments, and drainage networks in the Northern Kenya Rift. The second objective is to map paleo-lake shorelines, sample lacustrine strata and paleosoils, datable tephras, and volcanic flows to reconstruct the environmental history of the region. This study will close a crucial 200-km-long gap in the tectonic and sedimentary record of East Africa. This new information will provide data needed for a better understanding of environmental changes in the course of the volcano-tectonic evolution and superposed climate fluctuations during the last five million years. Ultimately, new data from the Northern Kenya Rift is thought to help provide new insights into: (1) the role of volcano-tectonic processes along the rift axis in generating accommodation space for sediments; (2) the spatial and temporal synchronicity of the Early Holocene climate optimum in East Africa; (3) the role of the tropics in glacial-interglacial transitions during the Pleistocene; and (4) the linkages between Plio-Pleistocene climate changes and hominin evolution in East Africa.