



Tracing the climate and anthropogenic influence on the central Kenya highlands

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Soil and sediment samples were collected from Lakes Rutundu (2500m), Sacred (2200m) and Nkunga (1800m) located on the eastern slopes of Mount Kenya. The samples were mainly composed of silty clay and clay fractions. A suite of geochemical and mineralogical analyses was carried out in order to reconstruct the climatic and anthropogenic influence on the highland ecosystem using modern and palaeodata. These analyses included total carbon (TC), Total Nitrogen (TN), Stable carbon and Nitrogen isotopes, elemental composition and organic chemistry. Indications are that the central Kenya highland ecotones have distinct responses to definite triggers of wet and dry climatic phases, which are marked alongside wide spread anthropogenic influence on a climate gradient. The changes observed provide insight into the collective influence of the biogeochemical cycle during the late Holocene in the east Africa highland where not much information has been published earlier.