The Chew Bahir record: half a million years of environmental history from southern Ethiopia

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Chew Bahir is a deep tectonic basin in the southern Ethiopian Rift, close to the Lower Omo valley, site of the earliest known fossils of anatomically modern humans. The Chew Bahir sediments were cored in Nov-Dec 2014 as part of the Hominin Sites and Paleolakes Drilling Project (HSPDP) and the Collaborative Research Center (CRC806) “Our Way to Europe”. Two overlapping cores (280 m and 270 m long) of mostly clayey silts cover the last 550,000 years, dated by luminescence and Ar/Ar on tephra. The composite record presented here was compiled using MSCL, XRF and lithologic data, providing a potential archive of environmental history during the evolution and dispersal of anatomically modern humans. Initial sedimentological and geochemical results show that the Chew Bahir deposits respond sensitively to changes in moisture by sediment influx, provenance, transport and diagenetic processes, evident from mineralogy, elemental concentration and physical properties. The potassium record clearly traces the African Humid Period. The Chew Bahir record will allow tests of hypotheses concerning the influence of environmental change on the origins, dispersal, and cultural development of *Homo sapiens*.