

209. Schäbitz, Frank W.R., Asrat, Asfawossen, Lamb, Henry F. Cohen, Andrew S., Foerster, Verena, Duesing, Walter, Kaboth-Bahr, Stefanie, Opitz, Stephan, Viehberg, Finn A., Vogelsang, Ralf, Dean, Jonathan R., Leng, Melanie J., Junginger, Annett, Bronk Ramsay, Christopher, Chapot, Melissa S., Deino, Alan, Lane, Christine S., Roberts, Helen M., Vidal, Céline, Tiedemann, Ralph, and Trauth, Martin H. 2022, Hydroclimate changes in eastern Africa over the past 200,000 years may have influenced early human dispersal. PAGES 6th Open Science Meeting, Agadir, Morocco

Reconstructions of climatic and environmental conditions can contribute to our understanding of key factors driving late Pleistocene human dispersal within and beyond Africa. We present here the uppermost part of the multi-proxy paleoclimate record from Chew Bahir, covering the last 200,000 years in the southern Ethiopian Rift. Our record reveals two modes of climate change, both associated temporally and regionally with specific human behaviours. The first is a long-term trend towards greater aridity between 200,000 and 60,000 years ago, modulated by precession-driven wet-dry cycles. Here, favourable wetter environmental conditions may have facilitated long-range human expansion into new territory, while less favourable dry periods may have led to spatial constriction and isolation of local human populations. The second mode of climate change observed after 60,000 years ago has similarities to millennial to centennial-scale Dansgaard-Oeschger cycles and Heinrich events. We hypothesize that human populations responded to these relatively abrupt climate fluctuations by selectively shifting between montane and lowland habitats.