



Trends, rhythms and transitions during the Late Quaternary in southern Ethiopia

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This project aims at statistically analyzing the long (~278 m) sediment record of the Chew Bahir basin, as part of the ICDP-funded Hominin Sites and Paleolakes Drilling Project (HSPDP). The aim of the project is (1) to establish a robust age-depth model for the sediment cores, (2) to correlate the Chew Bahir record with other records within and outside HSPDP, (3) to detect trends, rhythms and events in the environmental record of the basin, and (4) identify recurrent, characteristic types of climate transitions in the time series, as compared with the ones of the other HSPDP sites and climate records outside HSPDP. The work presented here will provide first results of age-depth modelling, including cyclostratigraphy, of the long Chew Bahir cores. Second, it gives an overview of the first results from evolutionary spectral analysis to detect changes in the response of the Chew Bahir to orbital forcing during the last 550 kyr. Third, the results of a change point analysis will be presented to define the amplitude and duration of past climate transitions and their possible influence on the development of early modern human cultures.