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The Hominid Sites and Paleolakes Drilling Project (HSPDP) seeks to understand the paleoclimatic and paleoenvironmental context of human evolution and development by analysis of paleolacustrine cores taken near key hominin fossil and artifact localities in Kenya and Ethiopia. Here, we present biomarker data from both drill core and modern sediments from Lake Magadi, Kenya, located 20 km from the Koora Plain in the southern Kenya Rift, and adjacent to the Olorgesailie basin, one of the richest Early-Late Pleistocene archaeological localities in Africa, a region that has been key in debates about the relationship between climate and evolution (Potts et al., 1999). To provide context for the paleolacustrine biomarker data, samples were taken from modern Lake Magadi. Present-day Lake Magadi is a saline pan, a descendant of a series of paleolakes that have occupied its drainage basin for approximately one million years (Cohen et al, 2016). The alkaline (pH ~10) hypersaline lake is currently precipitating trona, which is common in the sediments along with zeolitic mud, Na carbonate minerals and chert (Lowenstein et al., 2015), suggesting an unusual microbial community that may produce unique biomarker assemblages.

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