Stone, J.R., Westover, K.S., Brindle, M.D., and Mohan J., (2015) Plio-Pleistocene diatoms from three East African Rift lakes, North American Diatom Symposium (Beaver Island)

PLIO-PLEISTOCENE DIATOMS FROM THREE EAST AFRICAN RIFT LAKES

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Over 2,000 meters of drill-core records from East African paleo-lakes have been collected in the past two years as part of the HSPDP collaborative research initiative. The sites for these drill-core materials were carefully selected to match the age and locations of world-class paleo-anthropologic sites where thick lacustrine deposits have been noted. The objectives of this research project include the assembly of high-resolution paleoclimatological and paleo-environmental records spanning the past ~4 million years in Eastern Africa and to use this information to test hypotheses linking climate change to evolutionary adaptations. Diatom analyses are a pivotal component of this research, providing much of the fundamental framework for reconstructing paleo-limnological responses. Here we present some of our initial observations on the diatom taxonomy and paleo-ecological inferences, including those from three lakes: the Northern Awash River Valley in Northern Ethiopia (Middle Pliocene), Tugen Hills in Central Ethiopia (Late Pliocene), and the western edge of Lake Turkana in Northern Kenya (Late Pliocene-Early Pleistocene).