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## **Terrestrial Records of Holocene Climate Variability from Central American Lake Sediments**

**BY**

**Dr. Robert Dull  
Assistant Professor  
Department of Geography, UT**

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**Host: Rob Scott, UTIG**

The focus of much Quaternary paleoclimate research has shifted over the past decade from centennial and millennial scale records to high-resolution records that capture interannual, annual, and even sub-annual climate variability. High-resolution marine sediment core studies - such as those focused on the anoxic Cariaco basin in Venezuela - have helped to date and characterize short term climate excursions during the Holocene that may provide analogs for current and future global climate variability. Most of the detailed Holocene climate change records that have been produced in recent years have indeed come from marine sediments and corals, as well as from ice cores. Terrestrial paleoclimate archives have yet to yield many continuous, high-resolution records of Holocene climate variability. Such records from the densely populated areas of the Neotropics have proven particularly elusive, in part because of the confounding effects of anthropogenic activities on these tropical sediment archives. Using results from several sites in Central America (El Salvador and Nicaragua), I characterize the possibilities and limitations of Holocene lake sediment records in the lowland Neotropics as high-resolution paleoclimate proxies. The paleoenvironmental data reported show changes in lake level, vegetation ecotone elevations, and fire frequency throughout the Holocene. It is suggested that while coarse changes such as the mid-Holocene climatic optimum (~8-5ka) can be readily discerned in these records, more subtle short-term climate excursions have yet to be well-documented.