

Climate insights and lessons from Borneo stalagmites – 500,000 years to present

KIM M COBB

Brown University

Presenting Author: kcobb@gatech.edu

Two decades of sustained research at Gunung Mulu National Park, in northern Borneo, has yielded key new insights into tropical climate dynamics across a broad range of timescales. From glacial-interglacial variability (Meckler et al., 2013; Loland et al., submitted) to abrupt climate change (Partin et al., 2007; Carolin et al., 2013) to Holocene ENSO dynamics, Borneo stalagmite records fill a critical gap in our understanding of the drivers and consequences of West Pacific Warm Pool hydrologic variability. The reconstructions are constrained by modern-day process studies informed by rainfall and dripwater oxygen isotopes as well as cave temperature, driprates, and hydrology. In this talk, I will review some of the highlights from previously published literature, with a focus on findings uncovered in the last several years. I will also share ideas for grounding remote fieldwork and research practices in justice, equity, diversity, and inclusion, combining best practices from published literature with successes and failures in our longstanding research programs.