BAKER, Andrea (Geology)

*Bulk geochemical, biomarker and leaf wax isotope records of Mfabeni peatland, KwaZulu-Natal, South Africa since the late Pleistocene*

A high-resolution geochemical proxy palaeoenvironmental reconstruction was undertaken on an 8 m Mfabeni peat core. The hydrologic reconstruction showed that substantial fluctuations occurred during both the glacial and interglacial periods and that plant assemblages responded to water levels as opposed to temperature variations. Terrestrial land plants were the major organic matter (OM) input, with the exception of elevated water levels when submerged macrophytes were dominant. A positive trend between temperature and precipitation, and definitive interchanges between C3 and C4 plants since peatland inception was observed. The dominant regional climate driver was the oscillations in Indian Ocean sea surface temperatures since the late Pleistocene.

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