Indian Summer Monsoon paleohydrology reconstruction from U1446 δD leaf wax

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Here we present ongoing work examining the paleohydrology of the Indian Monsoon system by analyzing sediments from Site U1446 (19°5.0'N, 85°44.0'E, 1430 m water depth) recovered from the northeast Indian Margin, Bay of Bengal. This site mainly captures terrestrial freshwater input from the Mahanadi Basin and Ganga-Brahmaputra rivers as well as direct precipitation, with 98% of modern rainfall occuring during the Indian summer monsoon. Hydrogen isotopic ratos of higher plant leaf waxes ($\delta D_{leaf\ wax}$) will be analyzed over the past 600 kyrs at a resolution of 1 sample every 30 cm, about 2 kyr. $\delta D_{leaf\ wax}$ is a proxy for isotopic compostion of terrestrial rainfall and is influenced by local and regional processes such as the amount effect. The $\delta D_{leaf\ wax}$ orbital scale variance and phase will be compared to Arbian Sea monsoon winds proxies and East Asain spelothems. Discussion will examine the coupling of Arabian Sea summer monsoon winds and moisture transport.