



*Paleoceanography and Paleoclimatology*

**Supporting Information for**

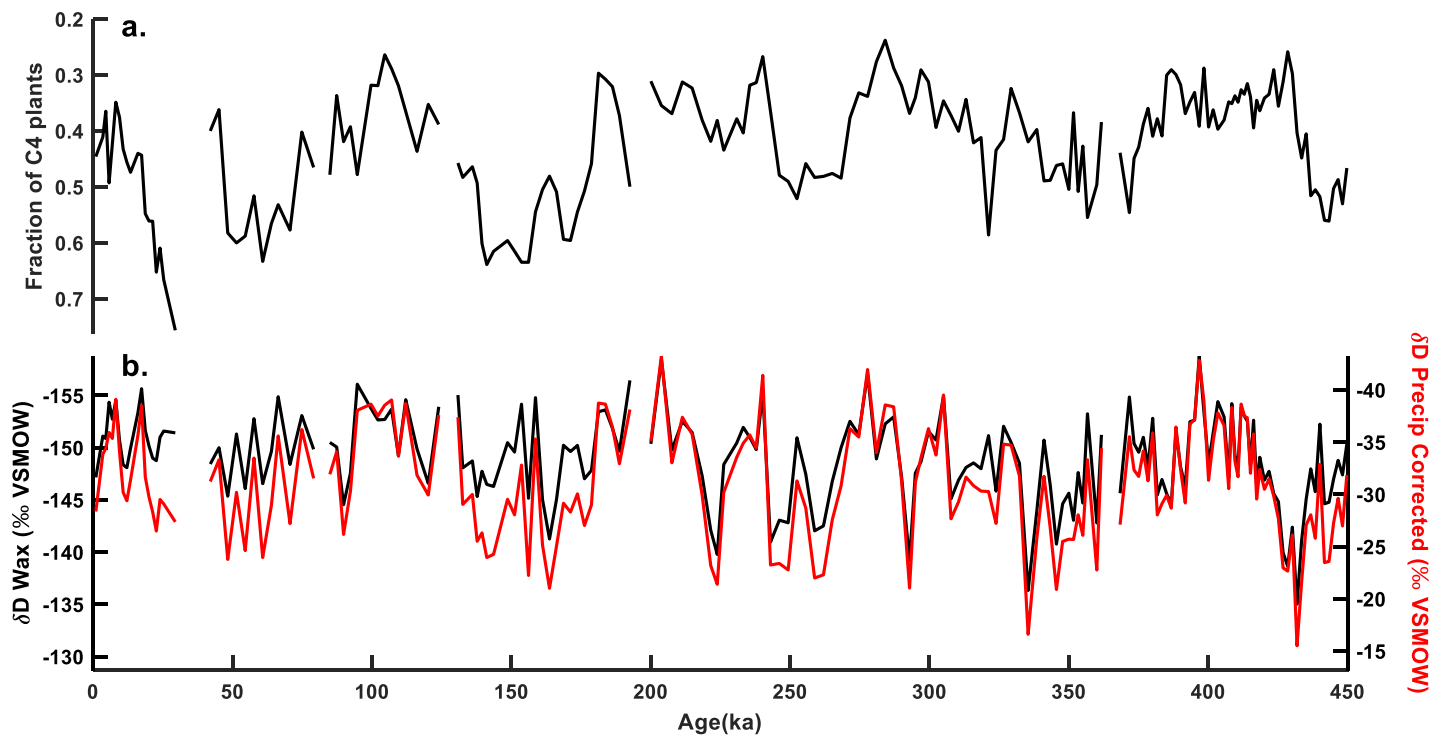
**Unravelling glacial hydroclimate in the Indo-Pacific Warm Pool: perspectives from water isotopes**

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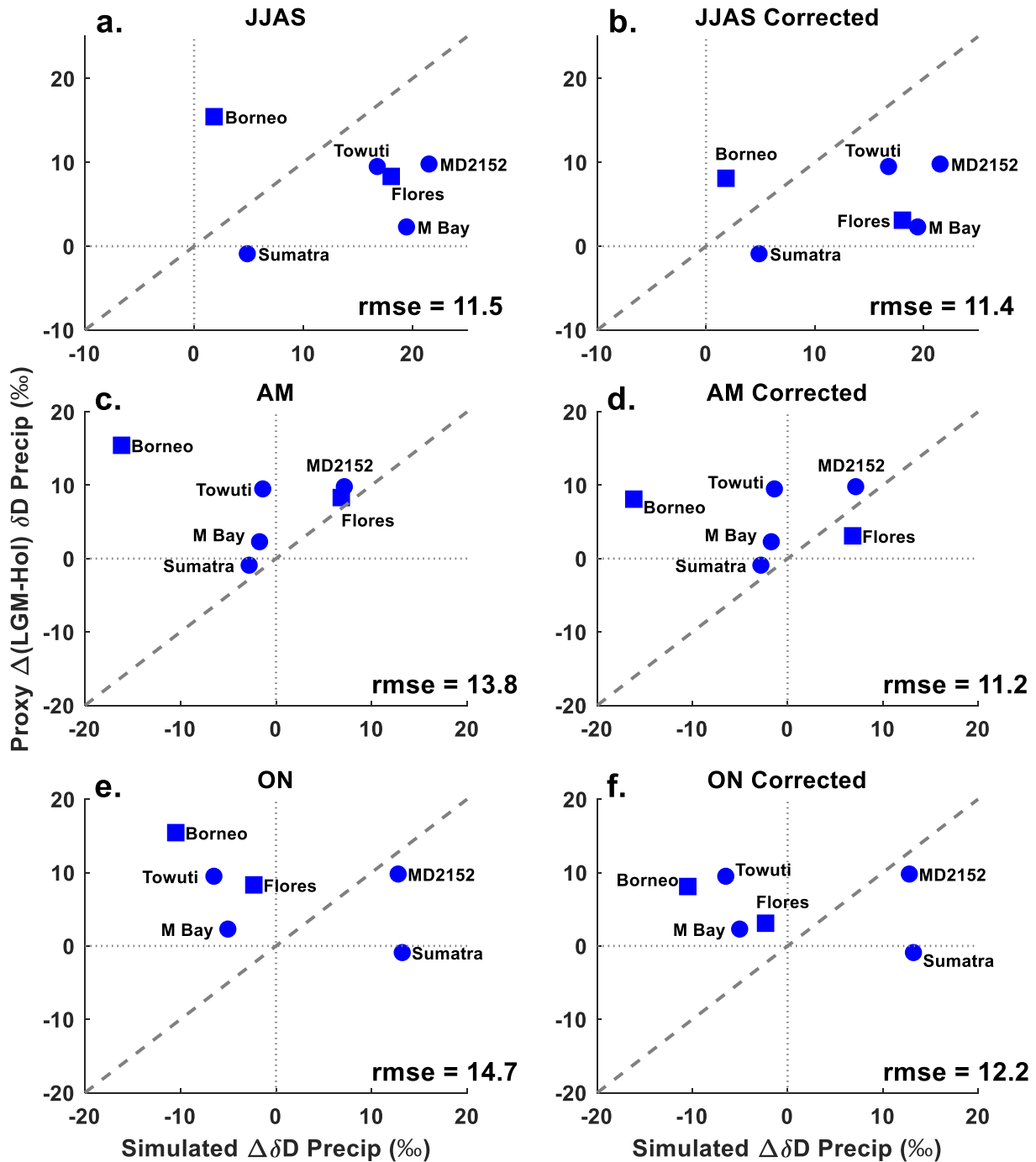
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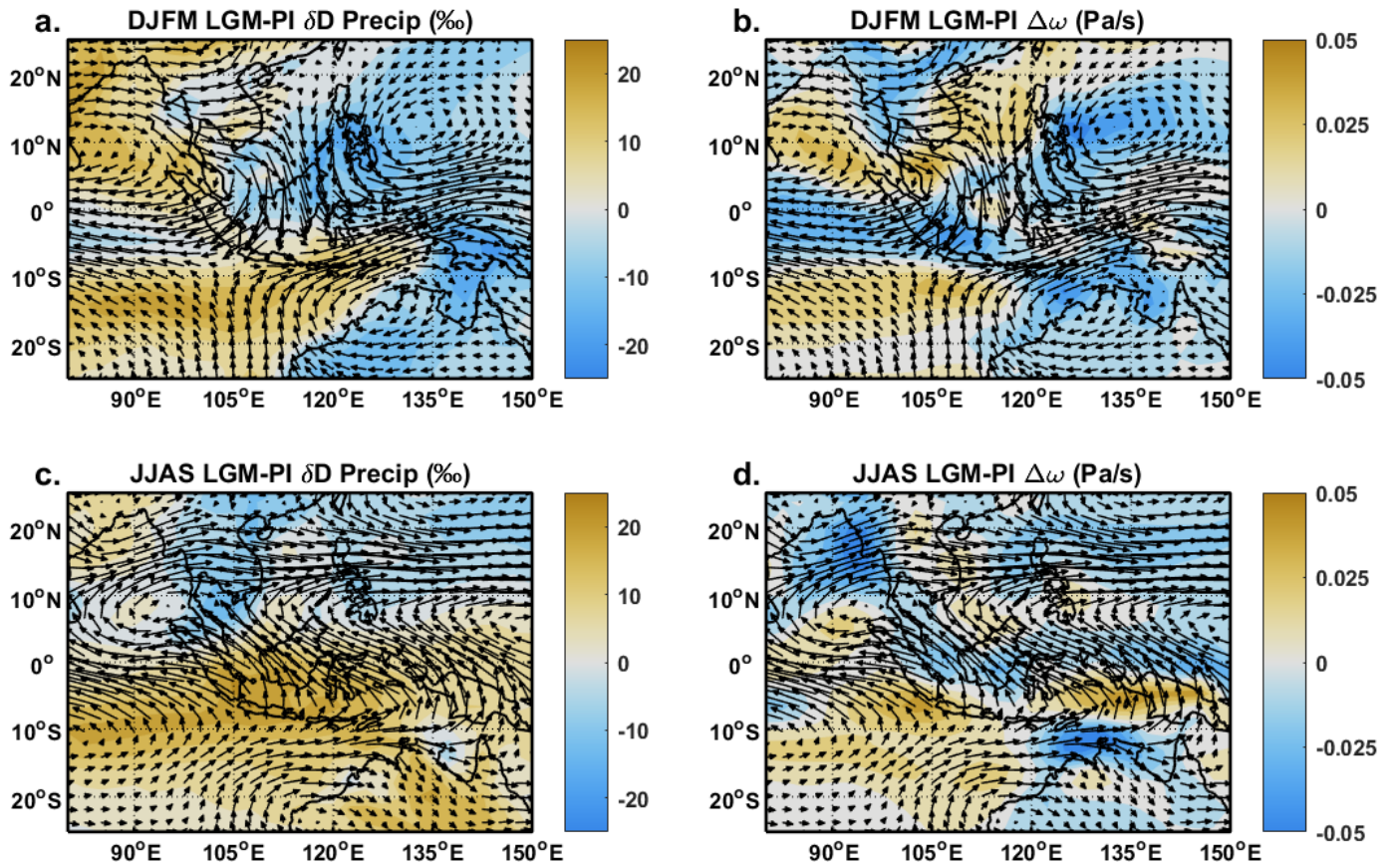
**Figures S1 to S3**



**Figure S1. Uncorrected vs. corrected  $\delta D$  of the C30-alkanoic acid in MD98-2152. a) The median estimated fraction of C4 plant contribution of leaf waxes through time, derived from  $\delta^{13}C_{wax}$  endmember values (see Methods section 3.2). b) Uncorrected  $\delta D_{wax}$  values (black line) plotted with the median  $\delta D_{precip}$  values (red line) that have been corrected for vegetation effects. Note that all y-axes have been reversed.**



**Figure S2. Scatterplots of proxy-calculated vs. iCESM simulated  $\delta D_{\text{precip}}$  change. Comparison of a) JJAS change at each location with uncorrected speleothem data, b) JJAS change with temperature corrected speleothem data, c) AM change with uncorrected data, d) AM change with corrected data, e) ON change with uncorrected data, and f) ON change with corrected data. All data points are labeled by location. Calculated root mean square error (RMSE) is listed in each panel. Dashed gray lines indicate 1:1 line. Note the different axes in panels a and b. Dotted crosshairs at point (0,0) are shown in each panel.**



**Figure S3. Simulated seasonal LGM-PI changes for DJFM and JJAS  $\delta D_{\text{precip}}$  (panels a and c) and DJFM and JJAS  $\omega$  at 850 hPa (panels b and d). Wind vector anomalies at 850 hPa are plotted in each panel.**