Droughts increasingly reduce carbon dioxide uptake in the tropics, finds study

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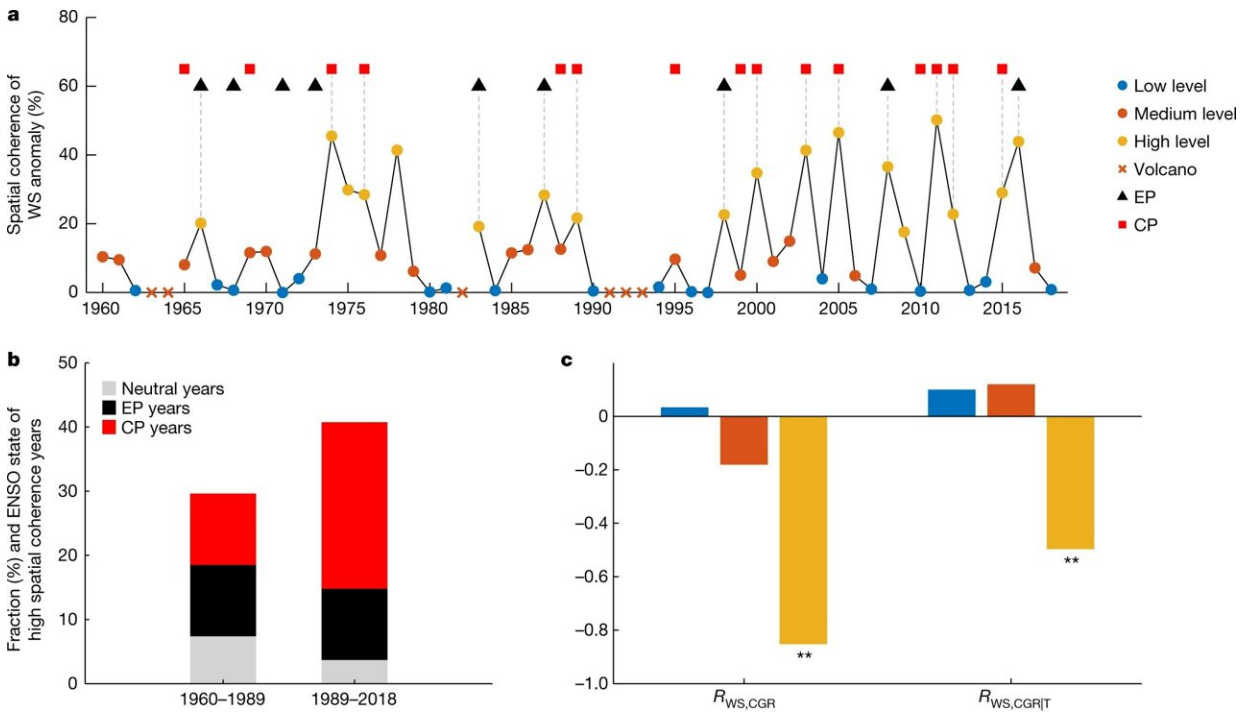

Influence of ENSO on tropical land water–carbon coupling. **a**, Year-to-year variations of spatial coherence of tropical WS anomaly and ENSO. All years are classified into three subsets according to the level of spatial coherence: low level (0th to 33.3th percentile); medium level (33.3th to 66.6th percentile); and high level (66.6th to 100th percentile). Year is considered Eastern Pacific (EP) ENSO when the largest DJF SST anomaly over the region of 2° S–2° N, 110° E–90° W lies in the Eastern Pacific (east of 150° W) and Nino3 index exceeds 1 s.d. Year is considered Central Pacific (CP) ENSO when the corresponding largest DJF SST anomaly lies in the Central Pacific (west of 150° W) and Nino4 index exceeds 1 s.d. Volcano years are excluded from analyses. Gray vertical dashed lines connect the symbols of high spatial coherence and ENSO. **b**, Fraction of

years with high spatial coherence within the first 30-yr period (1960–1989) and within the recent 30-yr period (1989–2018). Neutral years are identified as years not in the EP ENSO or CP ENSO state. **c**, Dependence of $R_{WS,CGR}$ and $R_{WS,CGRIT}$ on the spatial coherence of WS anomaly. $^{**}P$