Supplement of Clim. Past, 21, 1679–1697, 2025
https://doi.org/10.5194/cp-21-1679-2025-supplement
© Author(s) 2025. CC BY 4.0 License.

Climate of the Past
Open Access
EGU

Supplement of

Peatland trees record strong and temporally stable hydroclimate information in tree-ring δ^{13}C and δ^{18}O

Karolina Janecka et al.

Correspondence to: Karolina Janecka (karolina.janecka@wsl.ch)

The copyright of individual parts of the supplement might differ from the article licence.

Supplement

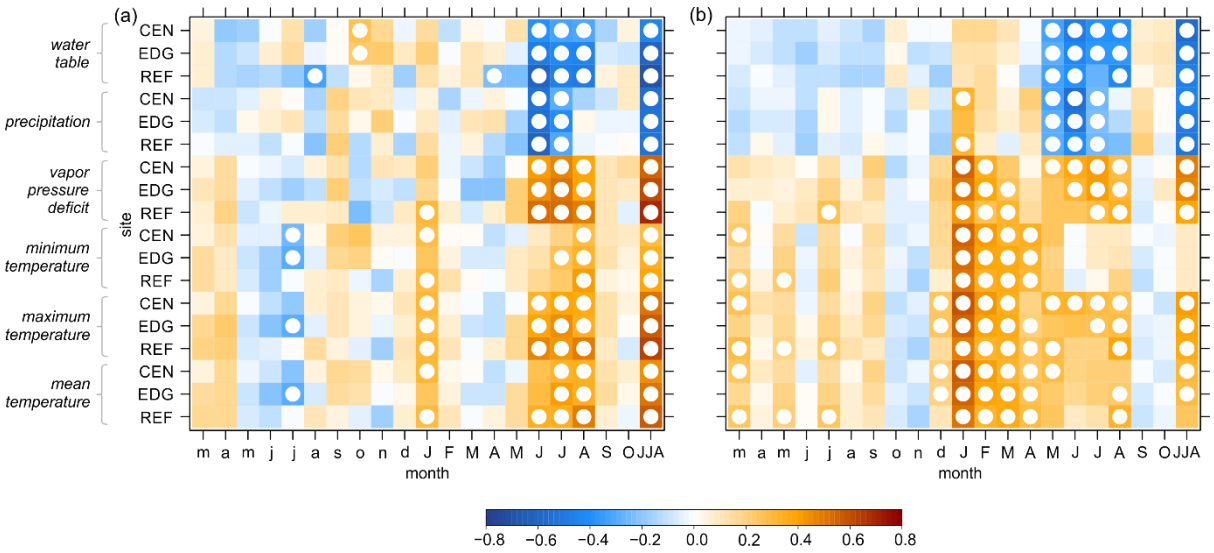

Figure S1: Pearson correlation coefficients between the detrended (a) $\delta^{13}C$ and (b) $\delta^{18}O$ site chronologies (CEN = center, EDG = edge, REF = reference) and hydroclimate variables. These variables include raw instrumental (water table) and raw gridded (precipitation, vapor pressure deficit, minimum, maximum, and mean temperatures) data. The correlations were computed for the period from March of the year preceding xylem cell formation to October of the current year and combined June-August (JJA). White circles indicate significant correlation at $p < 0.05$.

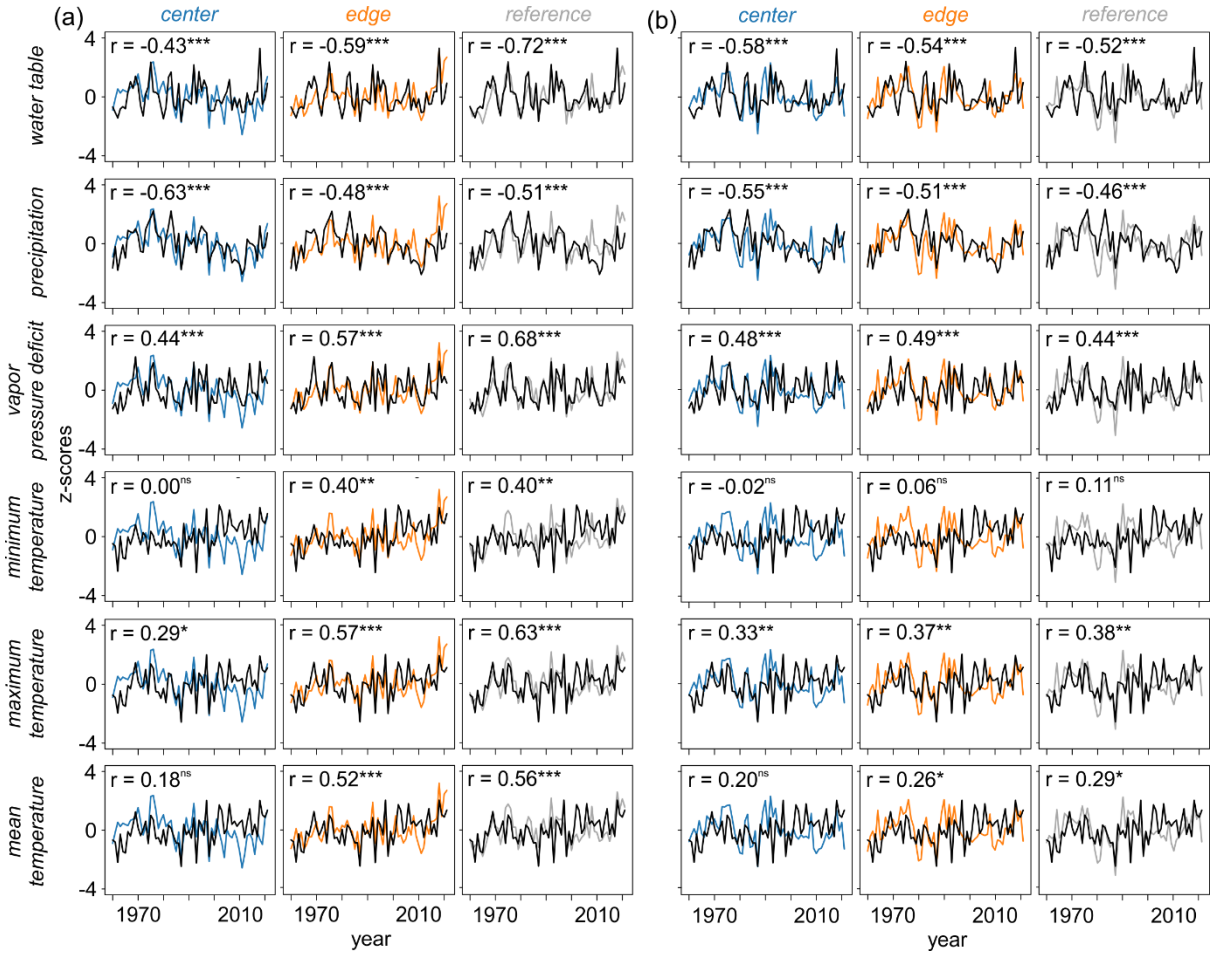

Figure S2: Relationship between raw (a) $\delta^{13}C$ and (b) $\delta^{18}O$ site chronologies and June-August instrumental (water table) and gridded (precipitation, vapor pressure deficit, minimum, maximum, and mean temperatures data) hydroclimate data (* p < 0.001, ** p < 0.001, * p < 0.05, ns = non-significant). Water table and precipitation data are presented with reversed y-axes for better clarity in interpreting the correlations.**

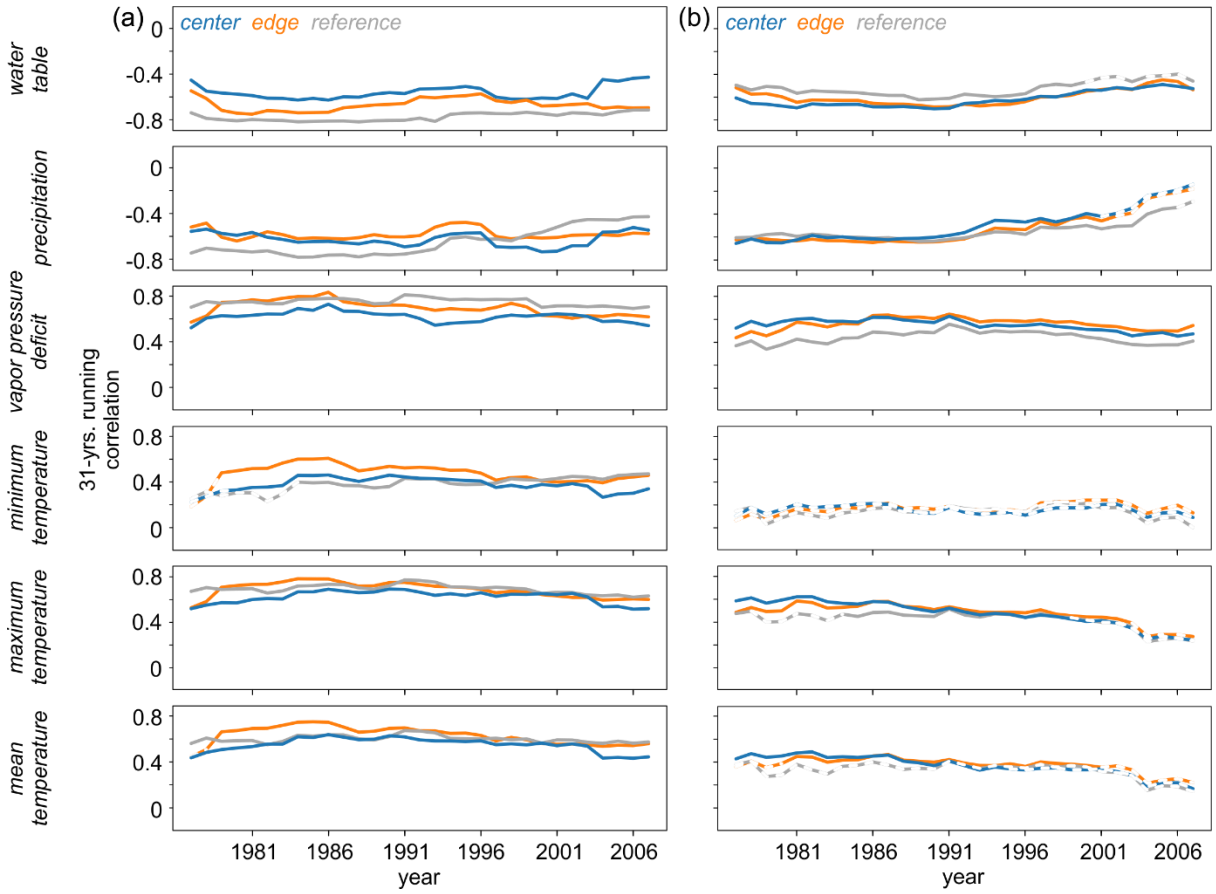

Figure S3: Temporal stability of the detrended (a) $\delta^{13}C$ and (b) $\delta^{18}O$ site chronologies and hydroclimate data (water table, precipitation, vapor pressure deficit, minimum, maximum, and mean temperatures), calculated using a 31-year moving correlation. Solid lines indicate statistically significant correlations at $p < 0.05$.

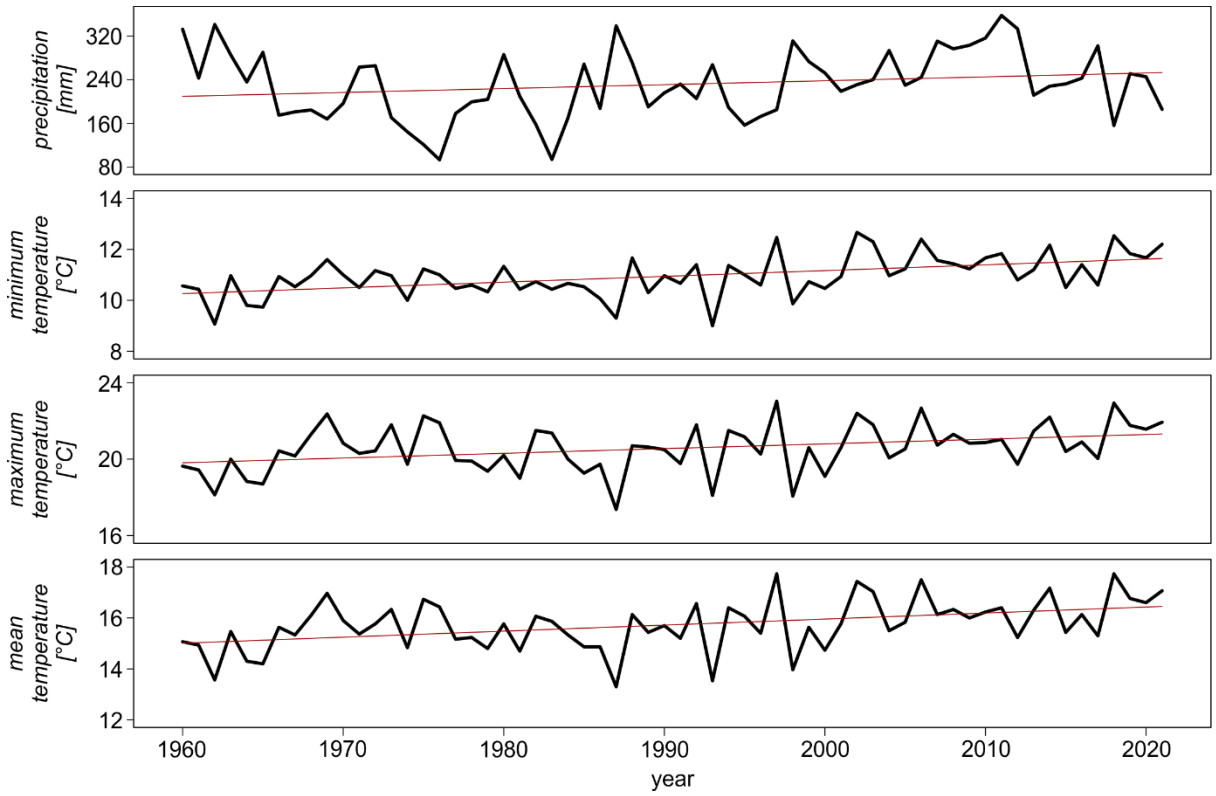

Figure S4: June-August gridded precipitation sums, and minimum, maximum, and mean temperatures (black lines) with their linear trends (red lines).