Final response for the paper “Palaeoclimate synthesis of the central Mediterranean area from pollen data” by L. d’Oliveira et al.

Egusphere-2025-1106

Figures rebuttal:

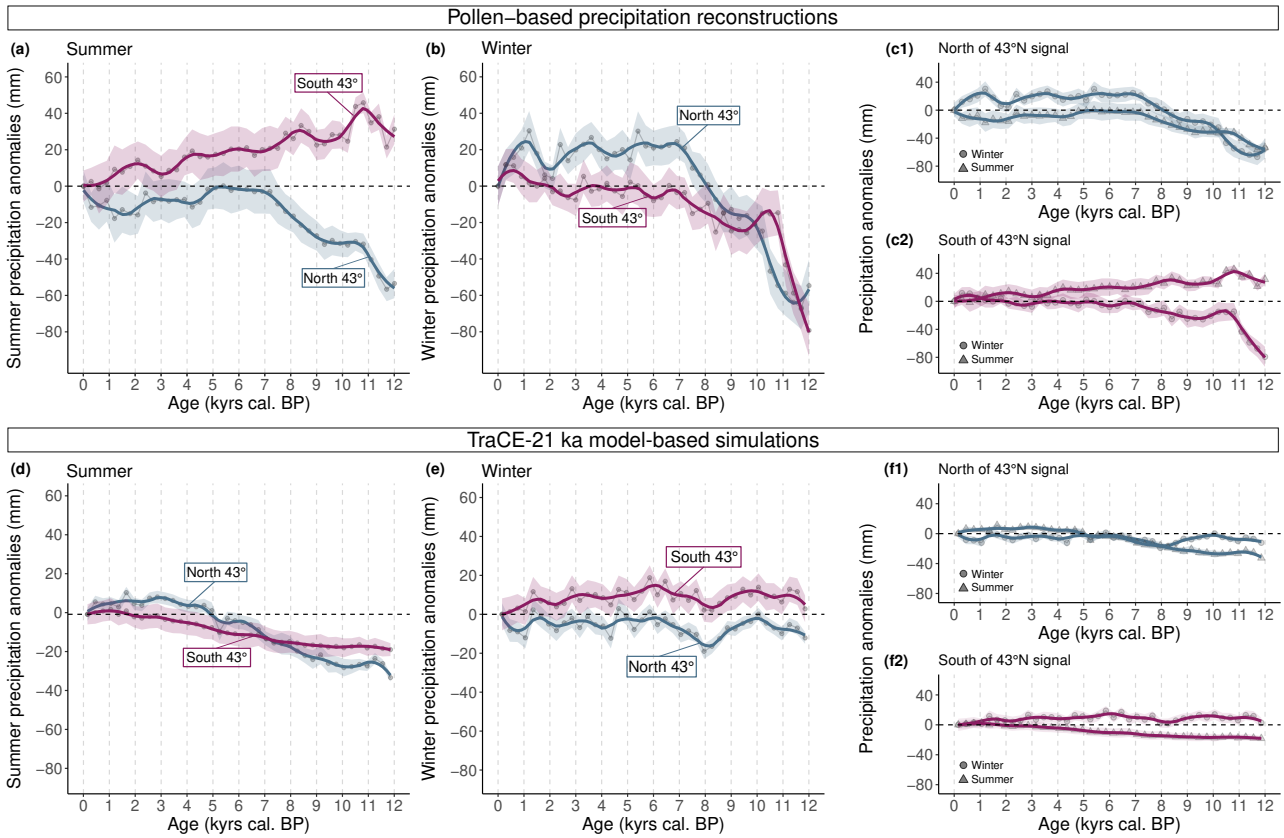

Figure 7. Reconstruction of the Holocene composite signal of the mean values across records for this study (north-central Mediterranean), using 300 years as the bin, expressed as anomalies relative to the current reconstructed values of respectively summer and winter precipitation (mm) from (a-b-c) the pollen-based signal and (d-e-f) the TraCE-21ka model-based signal. Total (convective and large-scale) precipitation rate (PRECT) was used to extract seasonal (summer and winter) precipitation simulations from the atmosphere post-processed data containing decadal mean seasonal averages. Output from the simulation was extracted for each pollen record location (Tab. 1). Composite curves were then constructed following the same process as pollen-based climate reconstruction. Shaded area corresponds to standard deviation values through a bootstrap resampling at the site level utilising 1000 iterations.

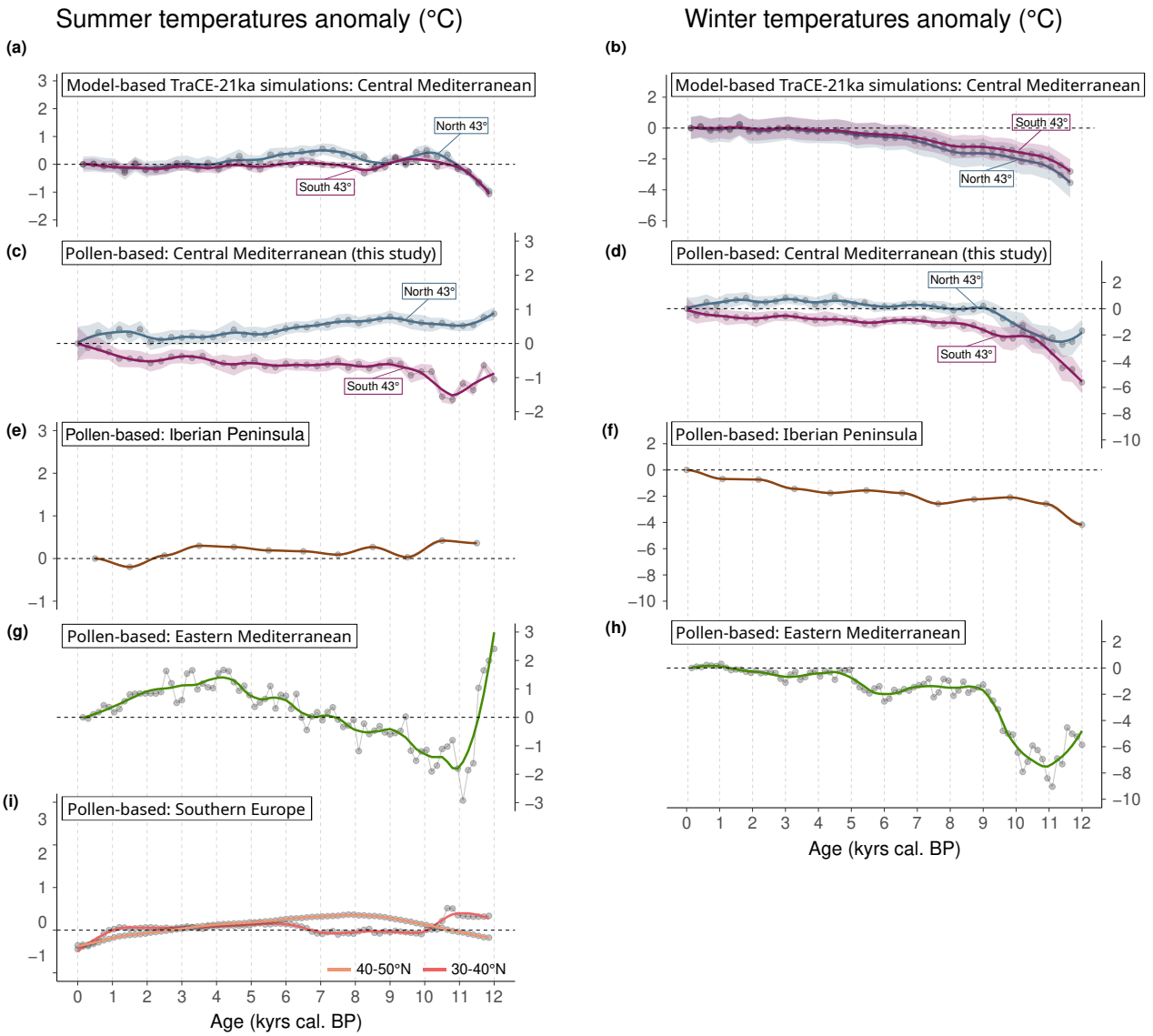

Figure 8. Reconstruction of the Holocene composite signal of the mean values across records for this study (north-central Mediterranean), using 300 years as the bin, expressed as anomalies relative to the current reconstructed values of respectively summer and winter temperatures (°C) from (a-b) the pollen-based signal and (c-d) the TraCE-21ka model-based signal. Surface temperature (TS) was used to extract seasonal (summer and winter) temperature simulations from the atmosphere post-processed data containing decadal mean seasonal averages. Output from the simulation was extracted for each pollen record location (Tab. 1). Composite curves were then constructed following the same process as pollen-based climate reconstruction. From (e) to (g), the reconstructed signal of summer temperatures for (e) the Iberian Peninsula (digitalised from Liu et al., 2023), (f) Eastern Mediterranean (Cruz-Silva et al., 2023) and (g) southern Europe (Herzschuh et al., 2023a). From (h) to (i), reconstructed signal of winter temperatures for (h) the Iberian Peninsula (digitalised from Liu et al., 2023), and (i) Eastern Mediterranean (Cruz-Silva et al., 2023). Shaded area corresponds to standard deviation values through a bootstrap resampling at the site level utilising 1000 iterations.