

Figure S1. Spatial and altitudinal distribution of modelled plant functional types (PFT) for Last Glacial Maximum climate conditions (LAI: leaf area index [$\text{m}^2 \text{m}^{-2}$], the altitudinal subplot represents zonal mean LAI; red line: average elevation).

- 5 PFTs: TeBE_{tm}/ TeBE_{itm} (temperate broadleaved evergreen trees; t = shade-tolerant; it = shade-intolerant; m = mesic), TeBE_{itscl} (temperate broadleaved evergreen trees; scl = sclerophyllous), TeBS_{tm}/ TeBS_{itm} (temperate broadleaved summergreen trees), TeE_s (temperate evergreen shrubs; s = shrub), TeR_s (temperate raingreen shrubs), TeNE (temperate needleleaved evergreen trees), BBS_{itm} (boreal broadleaved summergreen trees), BBE_{itm}: (boreal broadleaved evergreen trees), BE_s: (boreal evergreen shrubs), C3G (herbaceous vegetation). 1: Pan de Azúcar, 2: Sta. Gracia, 3: La Campana, 4: Nahuelbuta.
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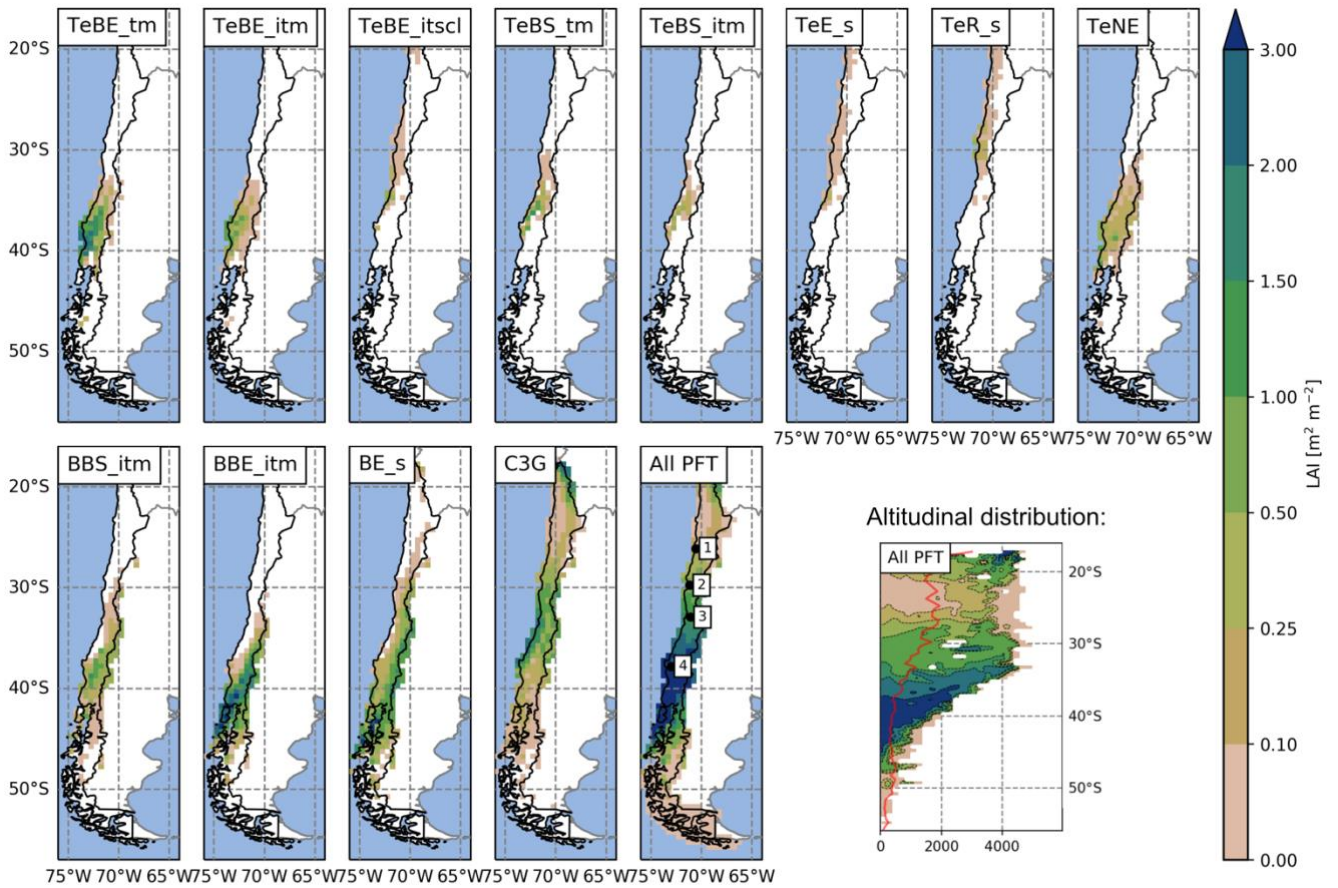


Figure S2. Spatial and altitudinal distribution of modelled plant functional types (PFT) for Mid Holocene climate conditions (LAI: leaf area index [$\text{m}^2 \text{m}^{-2}$], the altitudinal subplot represents zonal mean LAI; red line: average elevation). PFTs: TeBE_{tm}/TeBE_{itm} (temperate broadleaved evergreen trees; t = shade-tolerant; it = shade-intolerant; m = mesic), TeBE_{itscl} (temperate broadleaved evergreen trees; scl = sclerophyllous), TeBS_{tm}/TeBS_{itm} (temperate broadleaved summergreen trees), TeE_s (temperate evergreen shrubs; s = shrub), TeR_s (temperate raingreen shrubs), TeNE (temperate needleleaved evergreen trees), BBS_{itm} (boreal broadleaved summergreen trees), BBE_{itm}: (boreal broadleaved evergreen trees), BE_s: (boreal evergreen shrubs), C3G (herbaceous vegetation). 1: Pan de Azúcar, 2: Sta. Gracia, 3: La Campana, 4: Nahuelbuta.

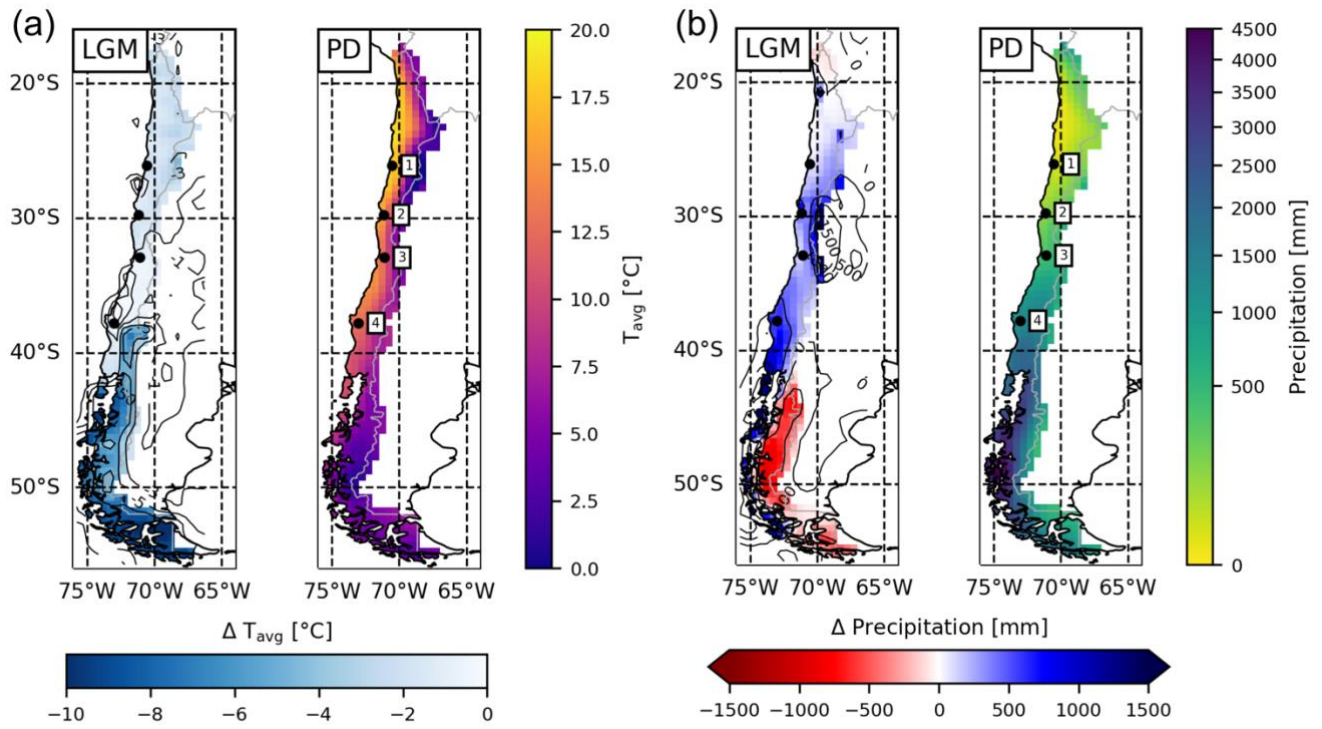


Figure S3. (a) Average annual temperature and (b) precipitation conditions derived from the downscaled and bias-corrected ECHAM5 paleoclimate dataset (Mutz et al., 2017) for the Last Glacial Maximum (LGM) and present day (PD) time-slices (data: avg. of 10-yr monthly data; 1: Pan de Azúcar, 2: Sta. Gracia, 3: La Campana, 4: Nahuelbuta).