

Figures

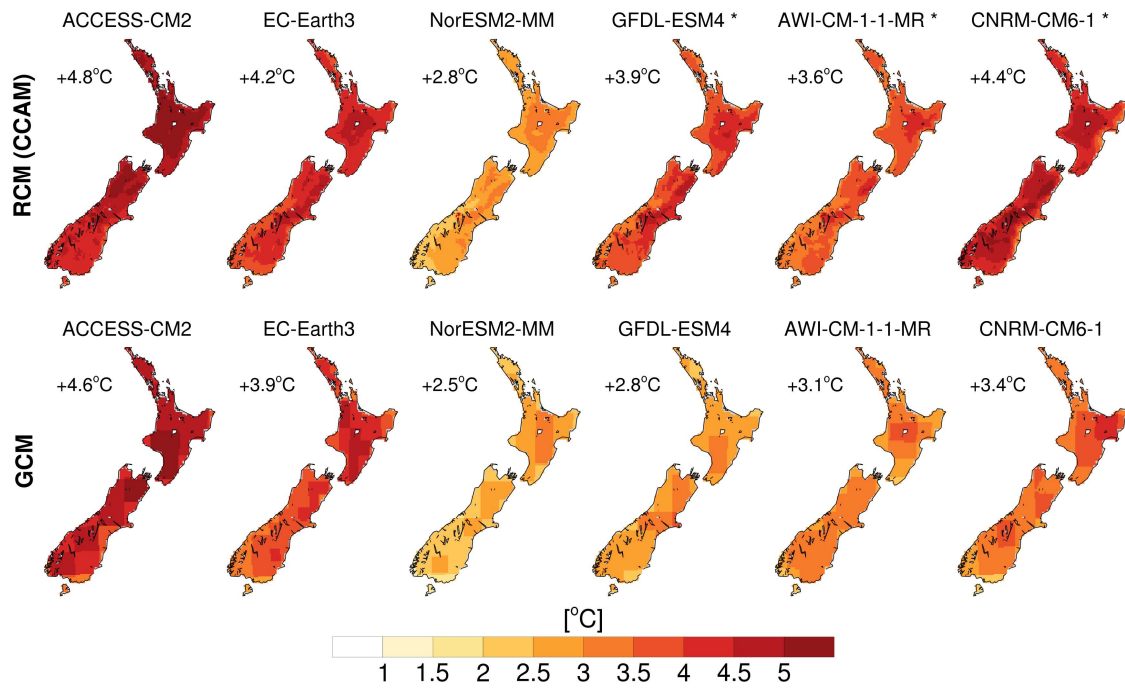


Figure S1: As in Figure 1 of main manuscript but here showing climate projections for summer (DJF) tasmax.

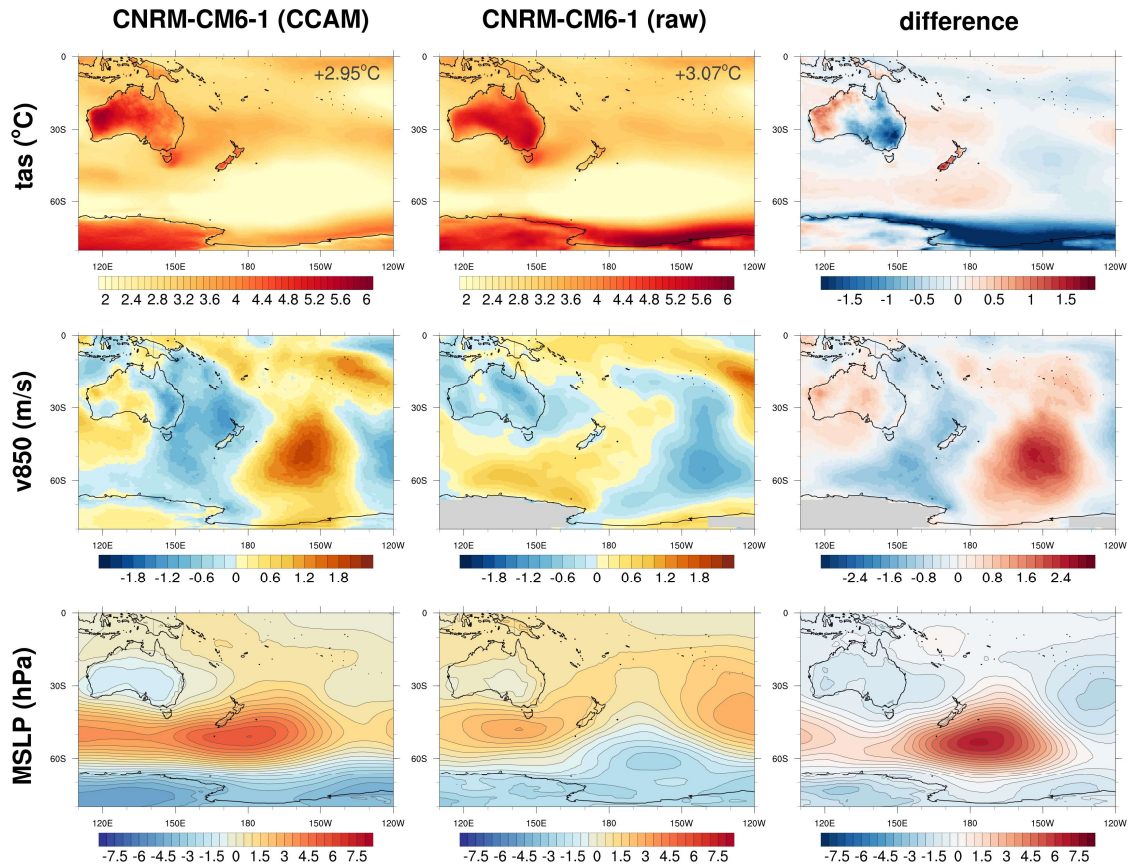


Figure S2: Climate projections (years 2080-2099 minus years 1986-2005) under SSP370 for summer (DJF) for select variables, showing how the response from the GCM is modified after downscaling in SST/SIC driven runs (here CNRM-CM6-1). For tas, the temperature change averaged over the entire plot region is indicated in the top-right. For v850, negative values indicate northerly flow conditions.

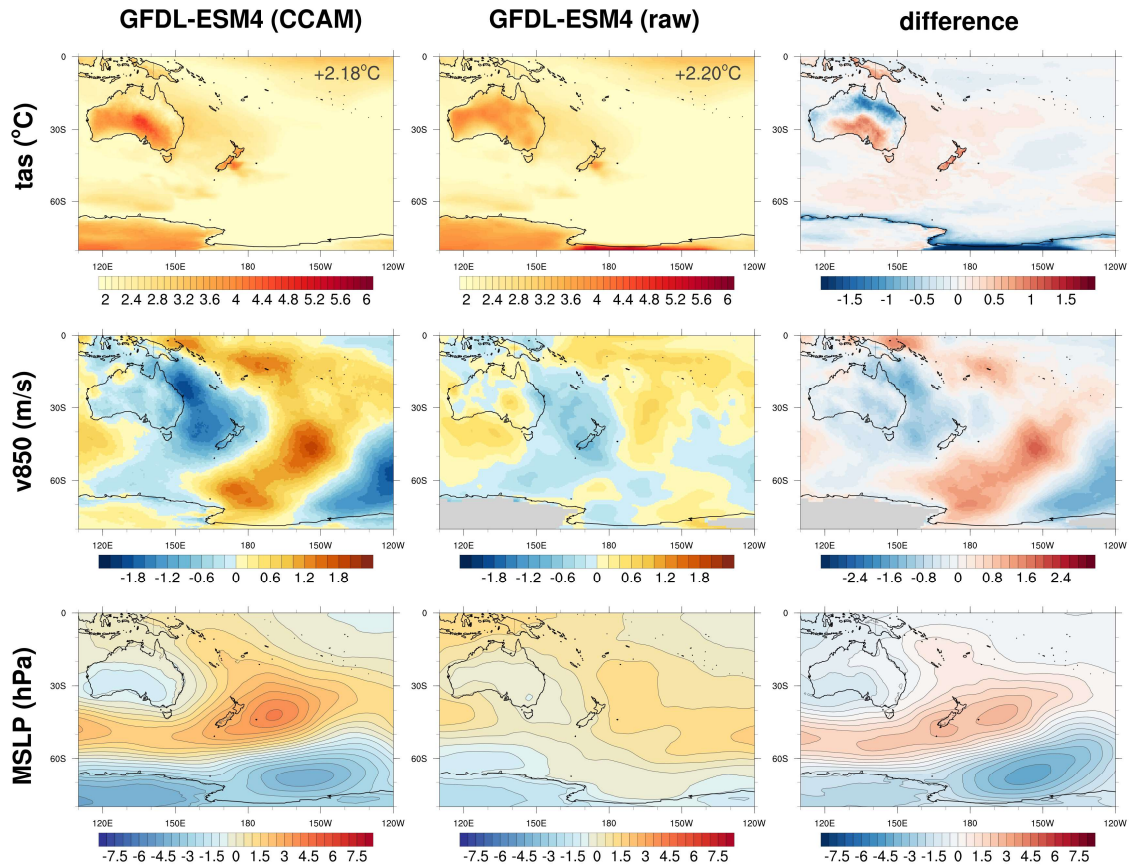


Figure S3: Climate projections (years 2080-2099 minus years 1986-2005) under SSP370 for summer (DJF) for select variables, showing how the response from the GCM is modified after downscaling in SST/SIC driven runs (here GFDL-ESM4). For tas, the temperature change averaged over the entire plot region is indicated in the top-right. For v850, negative values indicate northerly flow conditions.

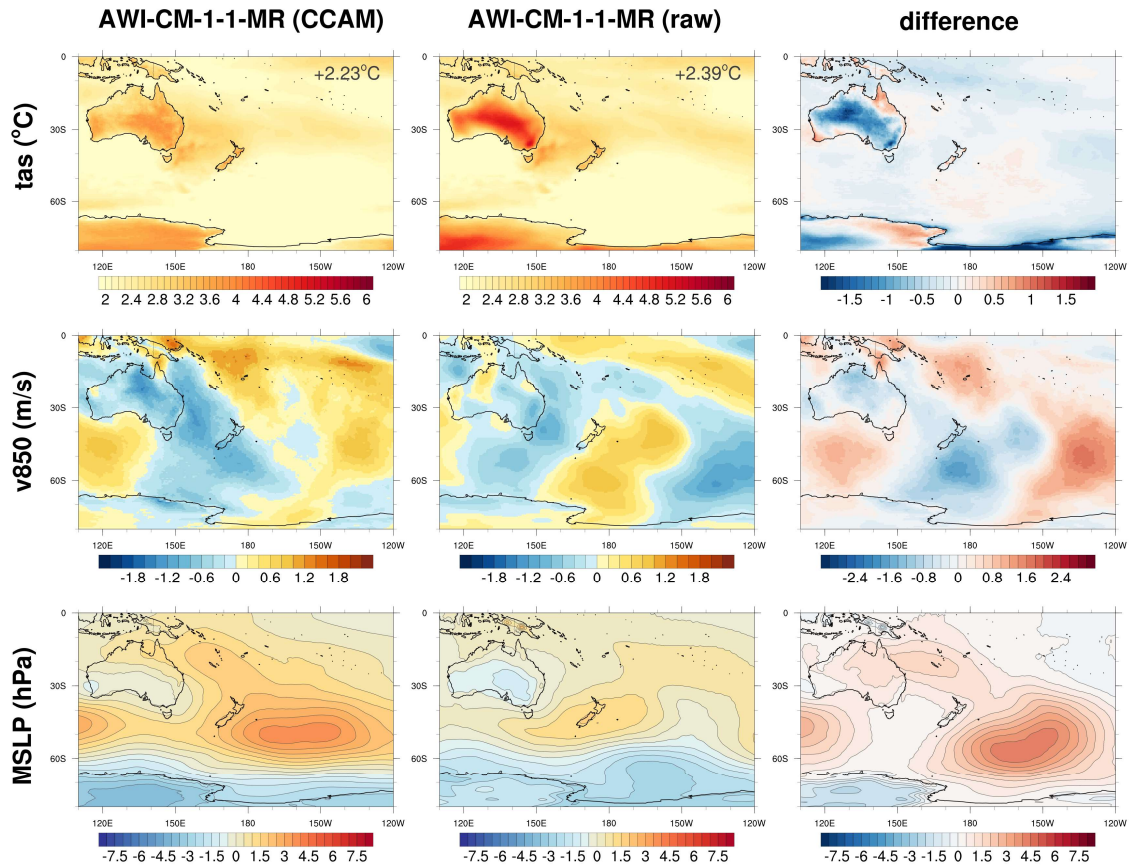


Figure S4: Climate projections (years 2080-2099 minus years 1986-2005) under SSP370 for summer (DJF) for select variables, showing how the response from the GCM is modified after downscaling in SST/SIC driven runs (here AWI-CM-1-1-MR). For tas, the temperature change averaged over the entire plot region is indicated in the top-right. For v850, negative values indicate northerly flow conditions.

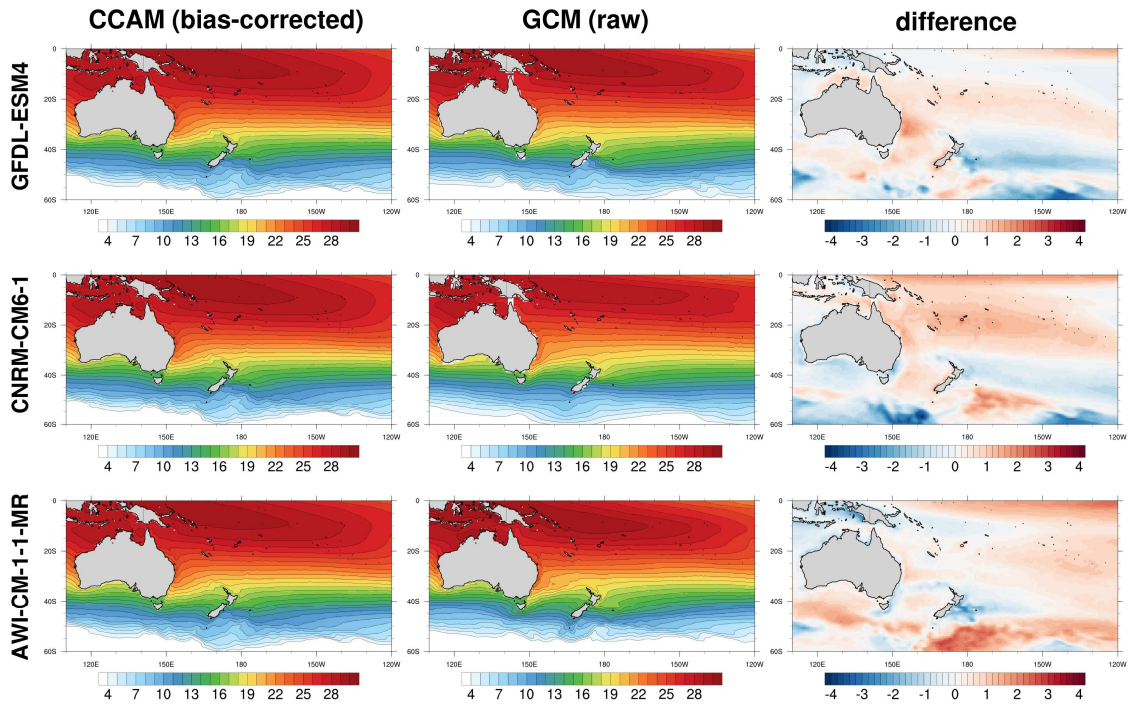


Figure S5: Annual SST climatology (units: degrees Celsius) for the historical period (years 1986-2005). Left panels show SST climatology after bias correction to input data, middle panels show SST climatology in each GCM without bias correction, right panels show differences (bias-corrected minus raw).

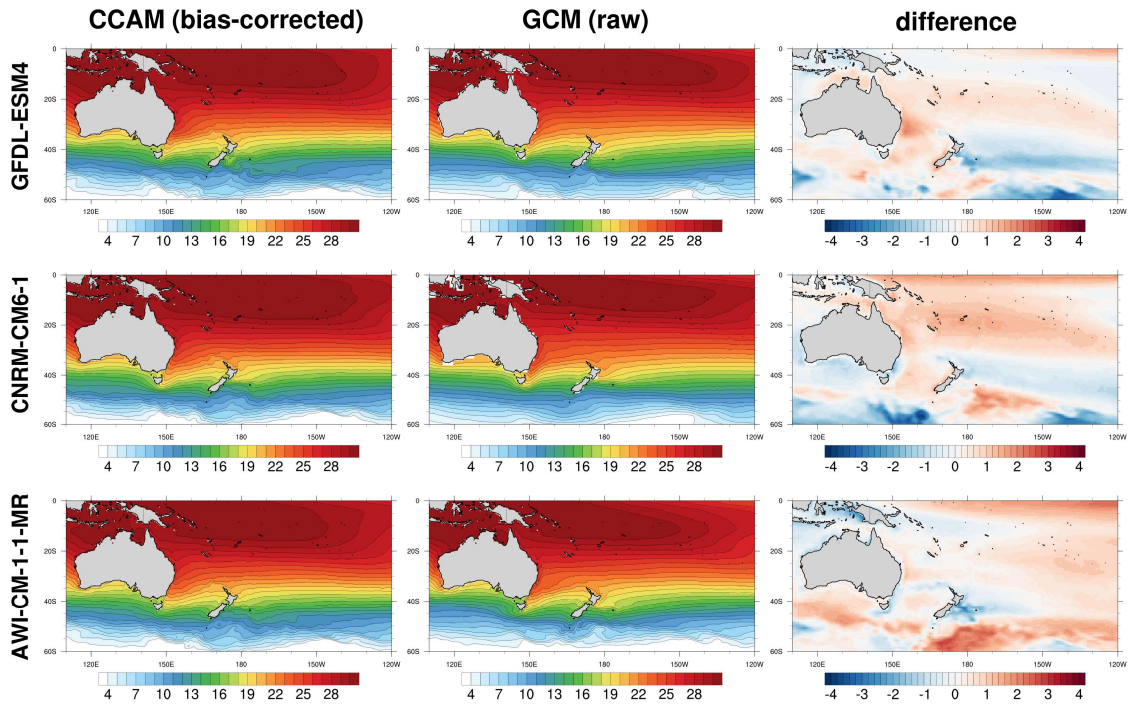


Figure S6: As in Figure S5 but here for annual SST climatology in SSP370 (years 2080-2099).

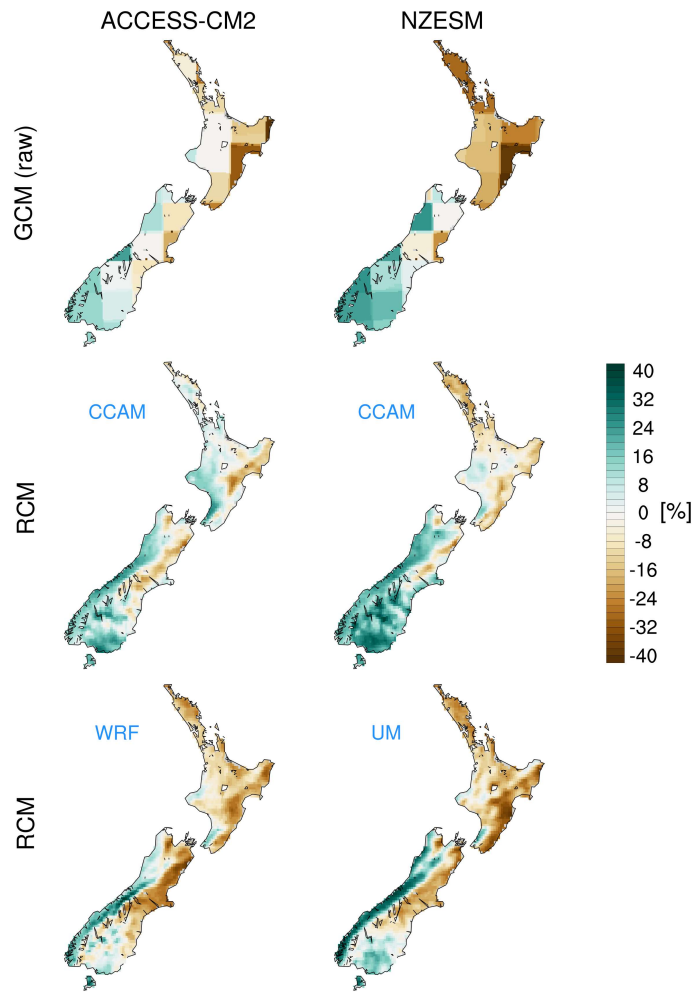


Figure S7: As in Figure 5 of main manuscript but here showing precipitation projections for spring (SON).

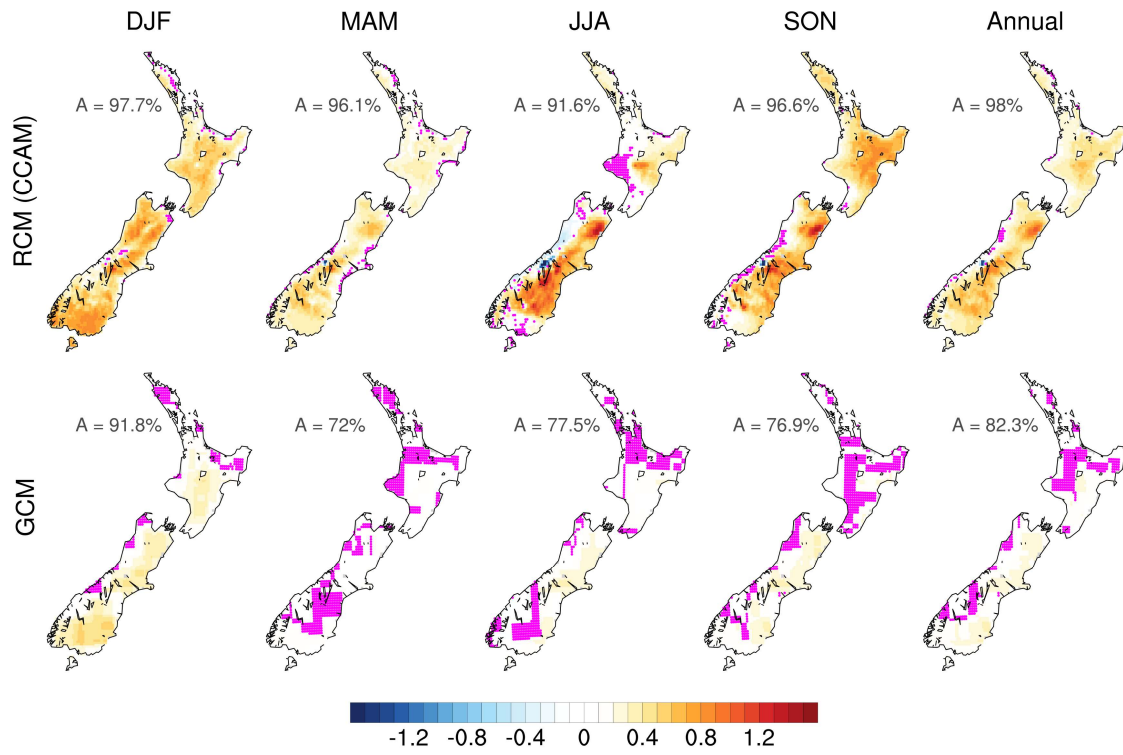


Figure S8: As in Figure 4 of main manuscript but here showing DTR projections separated by season.

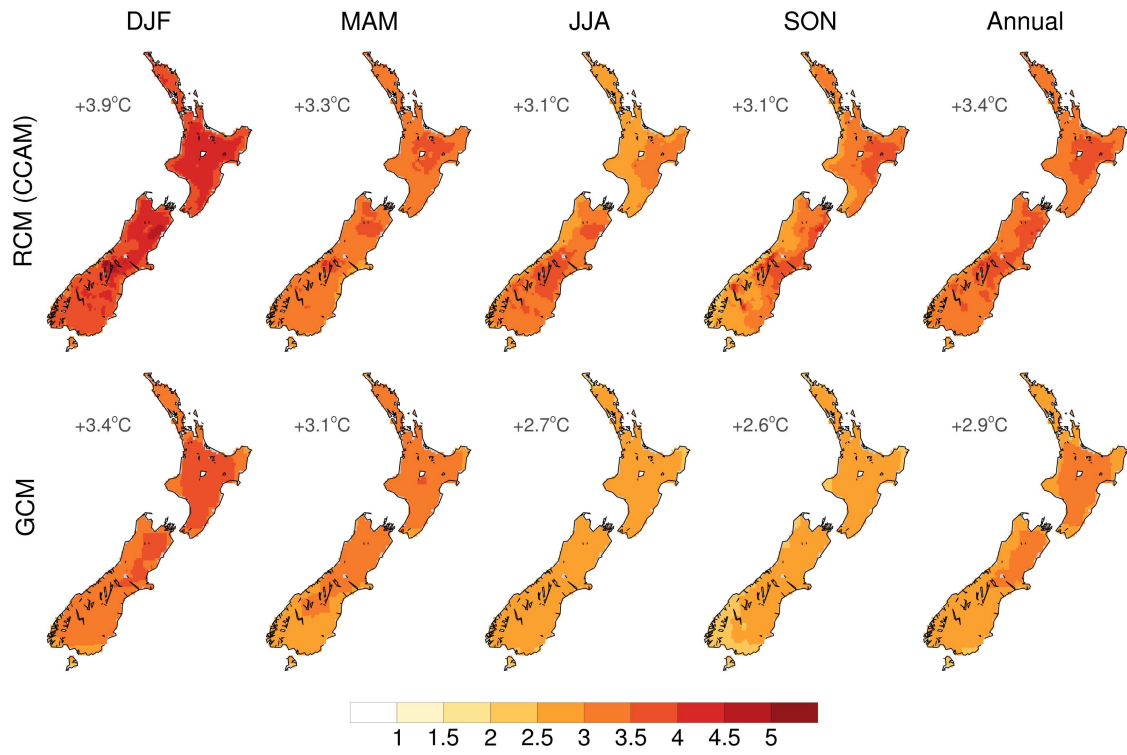


Figure S9: As in Figure 4 of main manuscript but here showing tasmax projections separated by season.

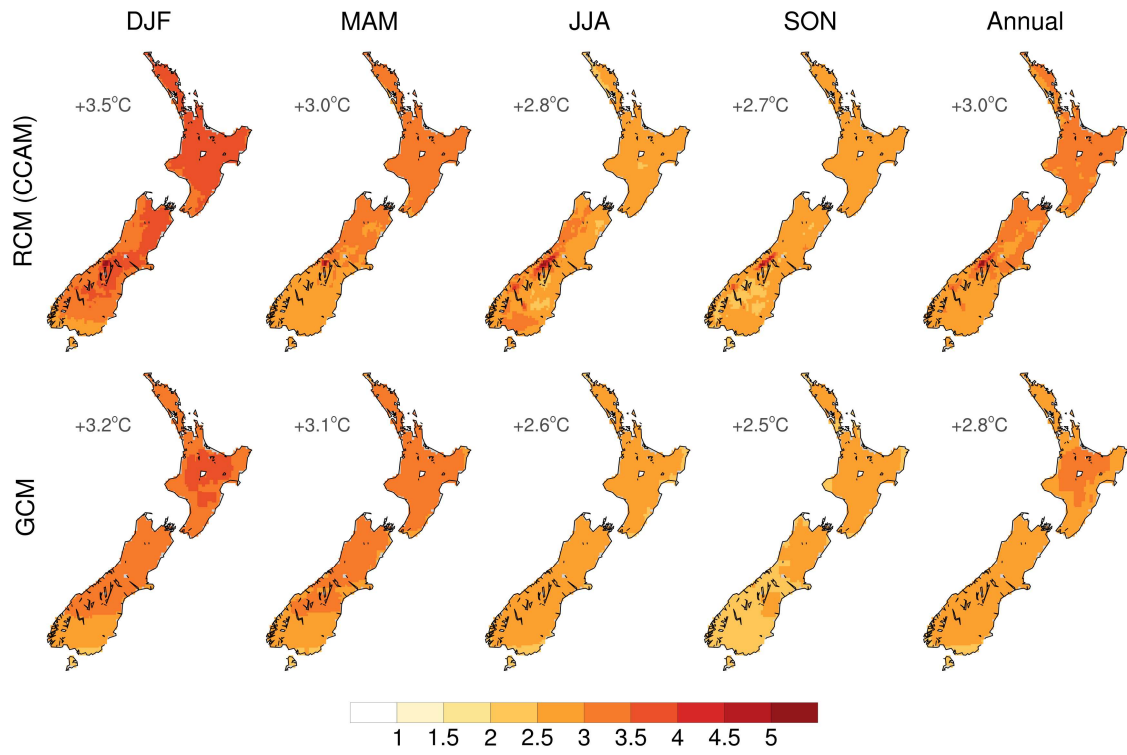


Figure S10: As in Figure 4 of main manuscript but here showing tasmin projections separated by season.

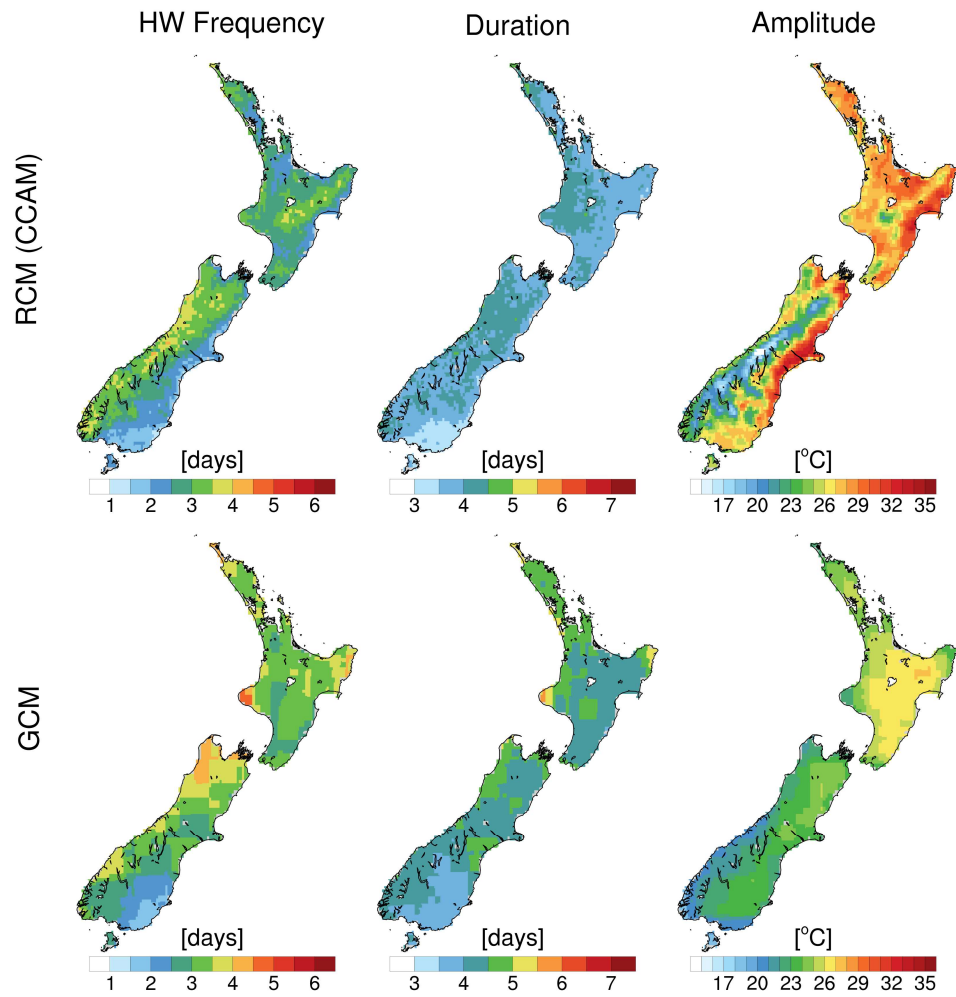


Figure S11: Heatwave metrics for the extended summer (months NDJFM) averaged over the historical period only (years 1986-2005).

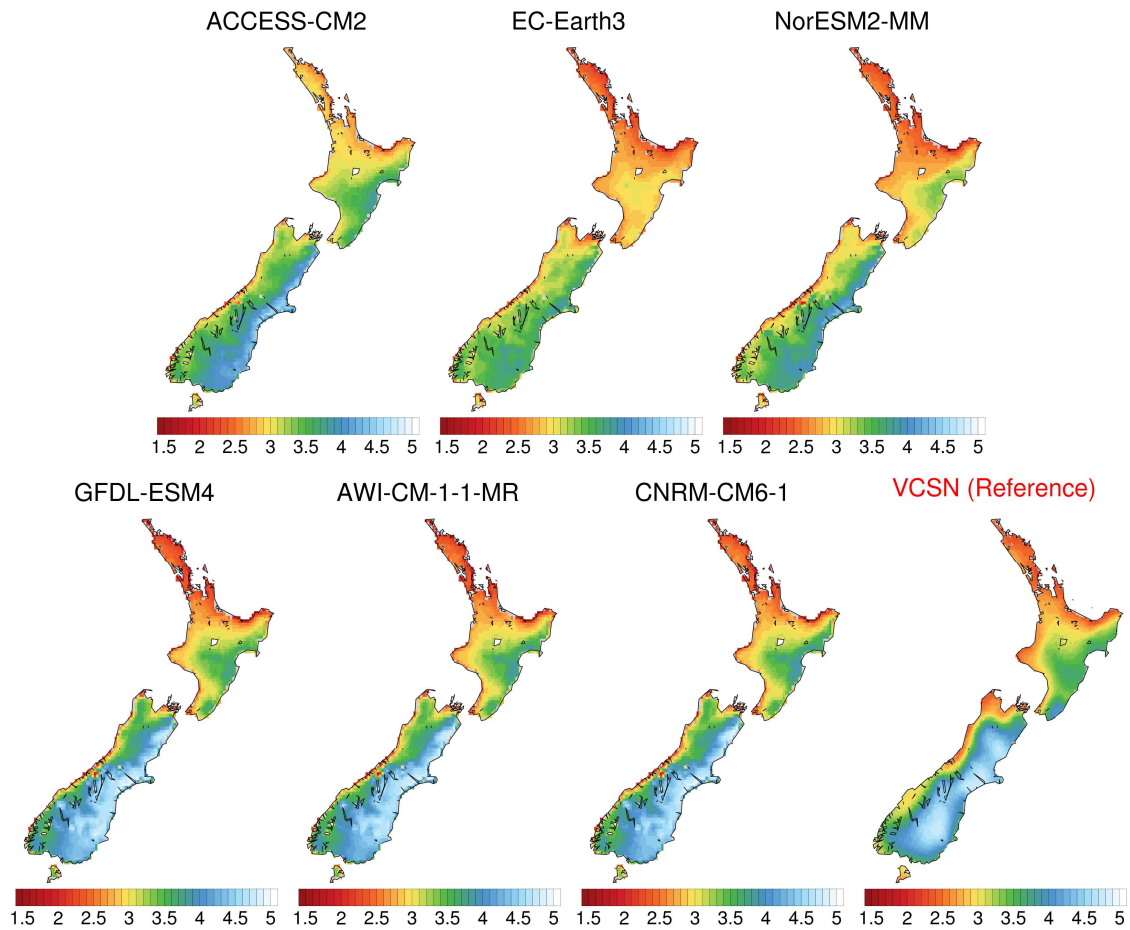


Figure S12: Temporal standard deviation in daily maximum temperature (tasmax) for the extended summer months (NDJFM) over the historical period (1986-2005). Each model shown is the downscaled simulation by CCAM. The NIWA Virtual Climate Station Network (VCSN) at 5km gridded resolution is also shown for reference (station-based).

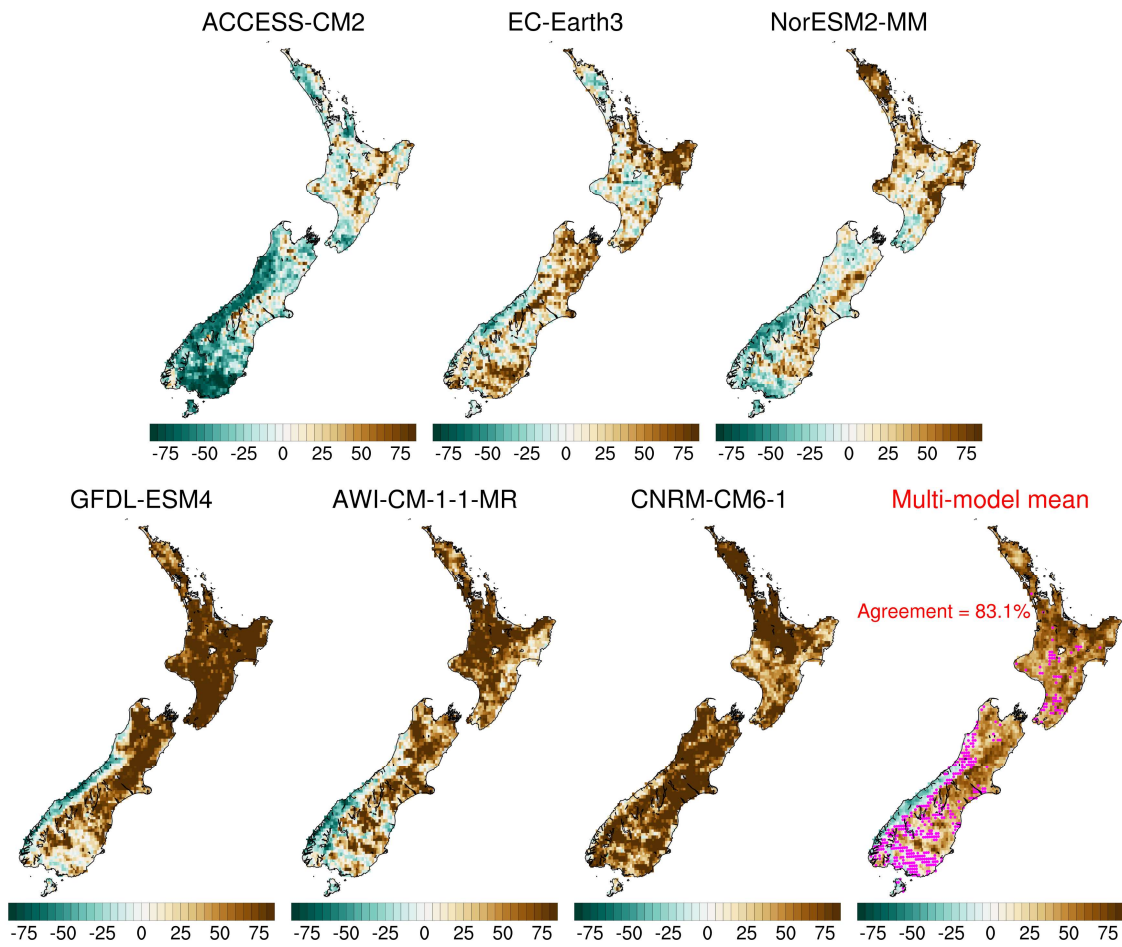


Figure S13: As in Figure 13 of the main manuscript but here showing CCAM downscaled climate projections for each GCM, for NDJFM drought frequency (units are % change).

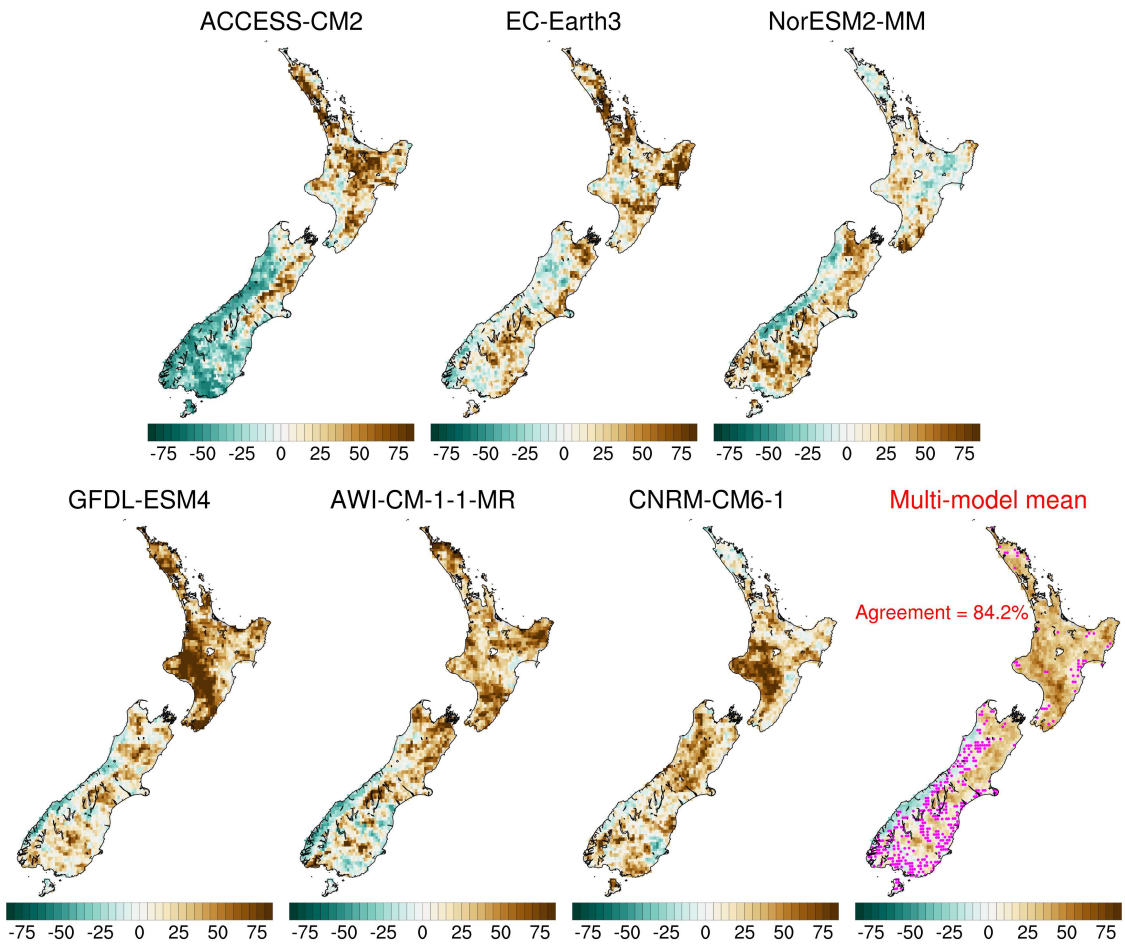


Figure S14: As in Figure 13 of the main manuscript but here showing the CCAM downscaled climate projections for each GCM, for NDJFM drought duration (units are % change).

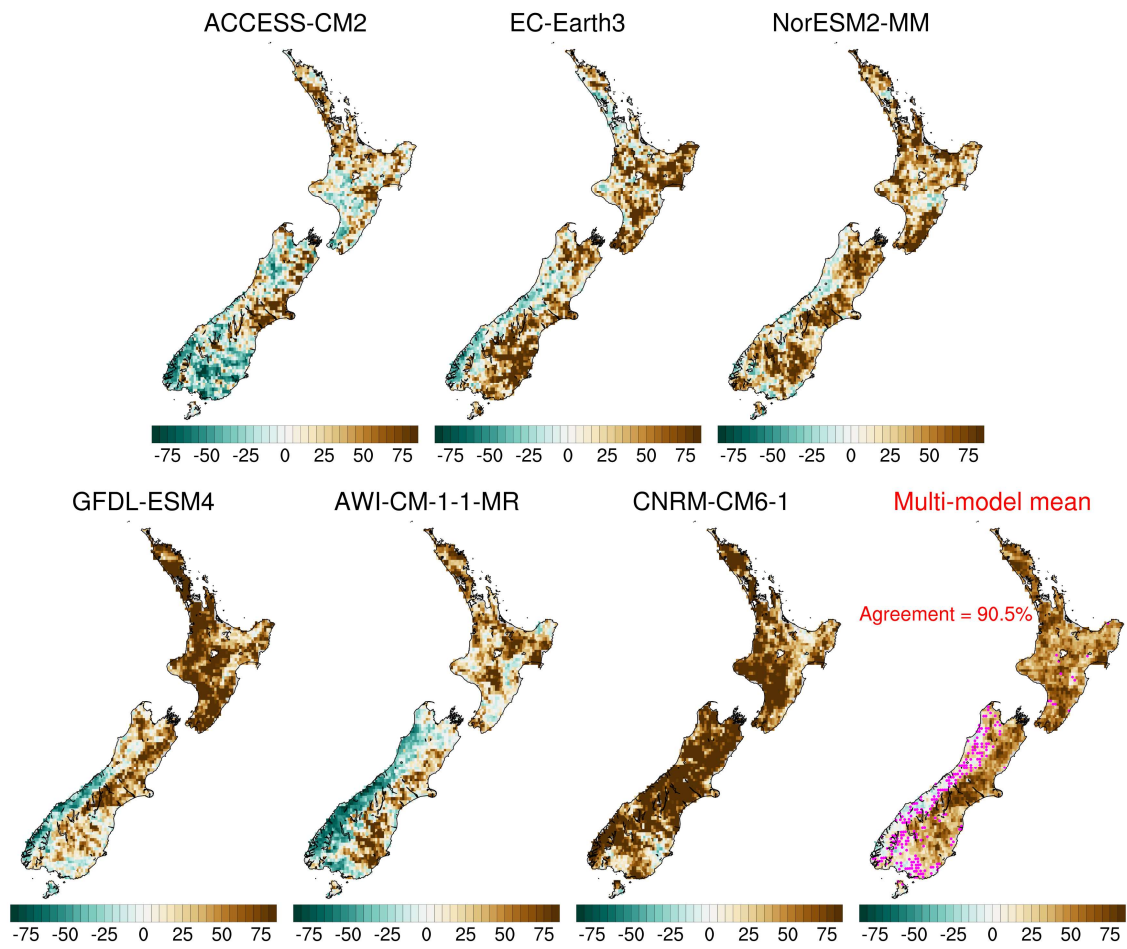


Figure S15: As in Figure 13 of the main manuscript but here showing the CCAM downscaled climate projections for each GCM, for NDJFM drought intensity (units are % change).