

Online Supplemental Material

Future changes in thermal comfort conditions over China based on multi-RegCM4 simulations

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This file includes:

Supplementary Figures S1–S4 and Table S1

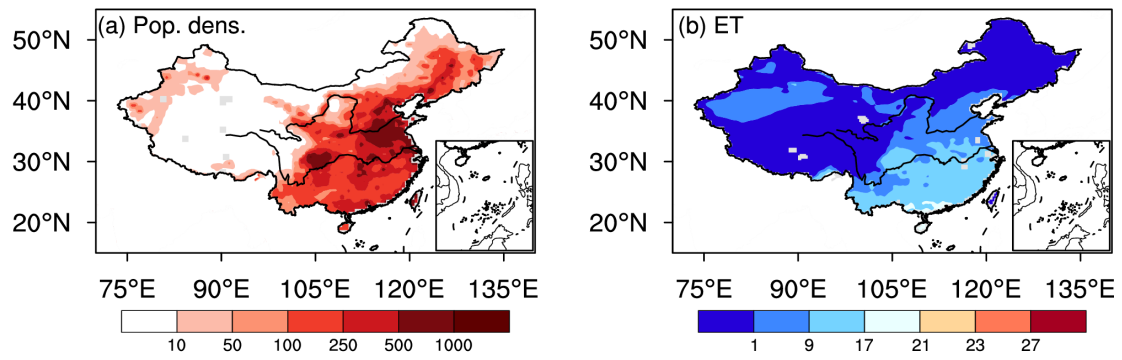


Figure S1. Spatial distribution of population density (10^3 inhabitants per square grid) (a) and ensemble average annual mean effective temperature (ET, °C) (b) over China in the present day (1981–2010). Different colors in (b) indicate the thermal comfort categories shown in Table 1.

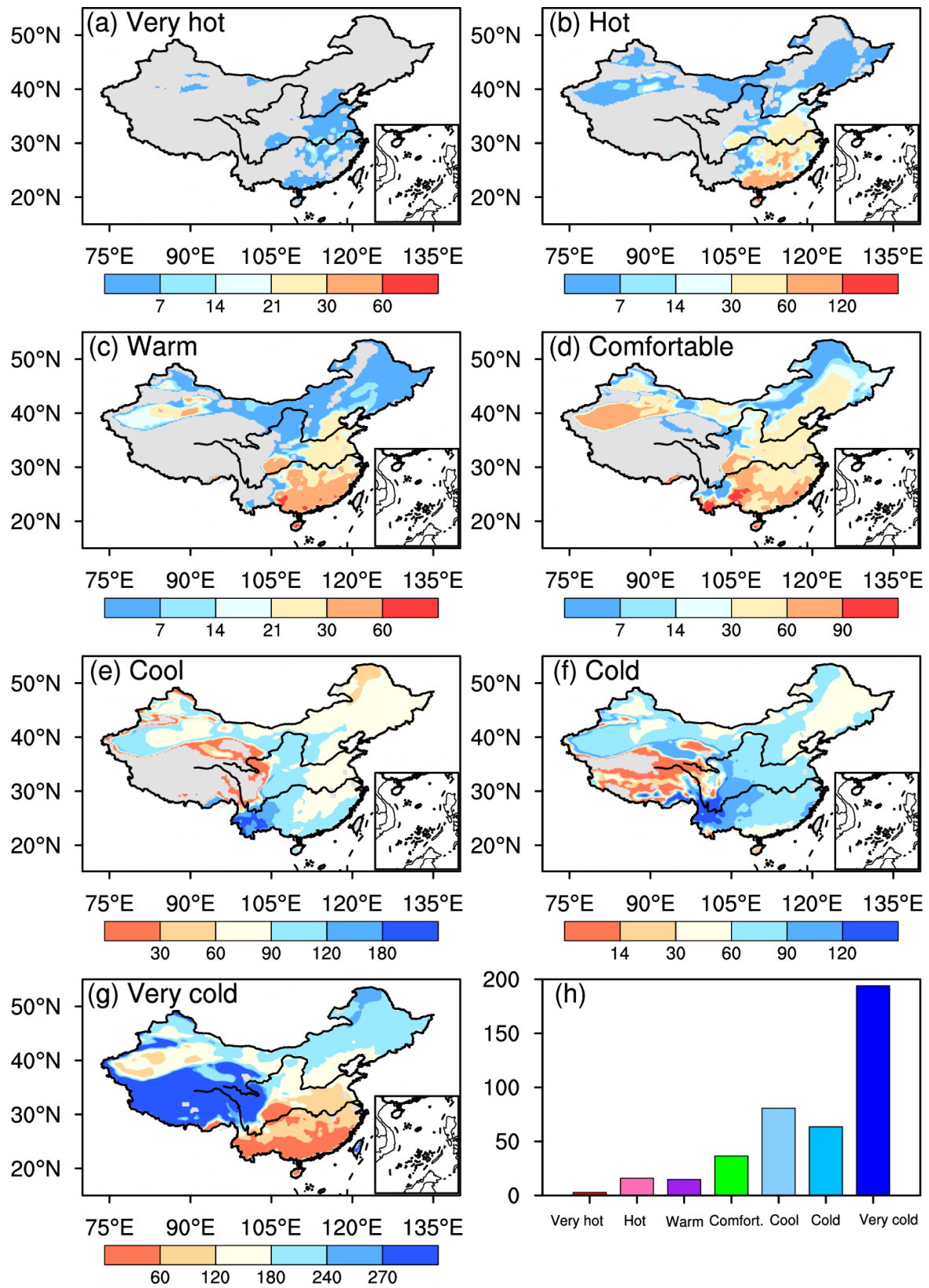


Figure S2. Ensemble average number of days of different thermal comfort categories over China in the present day (1981–2010). (a–g) Spatial distribution of (a) Very hot, (b) Hot, (c)

Warm, (d) Comfortable, (e) Cool, (f) Cold, and (g) Very cold conditions (days; gray: zero values). (h) Regional mean over China (days).

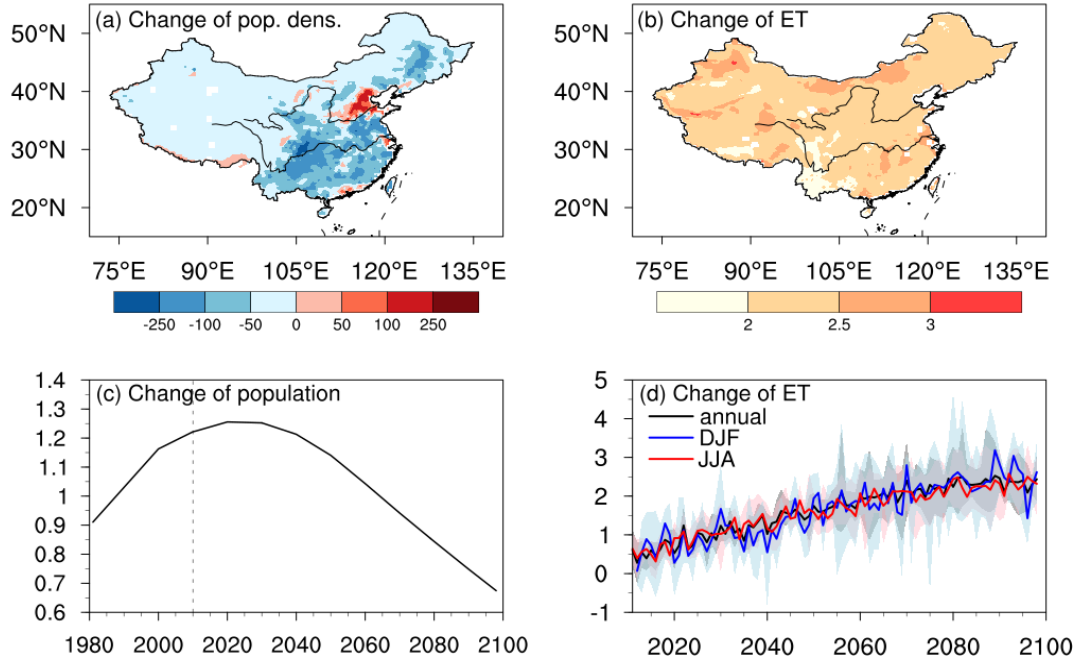


Figure S3. Change in population density (10^3 inhabitants per square grid) (a) and ensemble average annual mean ET ($^{\circ}\text{C}$) (b) over China by the end of the 21st century (2069–98 minus 1981–2010). (c) Time series of total population in China for the present day and future (10^9). (d) Change in the ensemble average annual, June–July–August (JJA), and December–January–February (DJF) mean ET ($^{\circ}\text{C}$) over China throughout the period 2011–98, along with the corresponding inter-model range (shading).

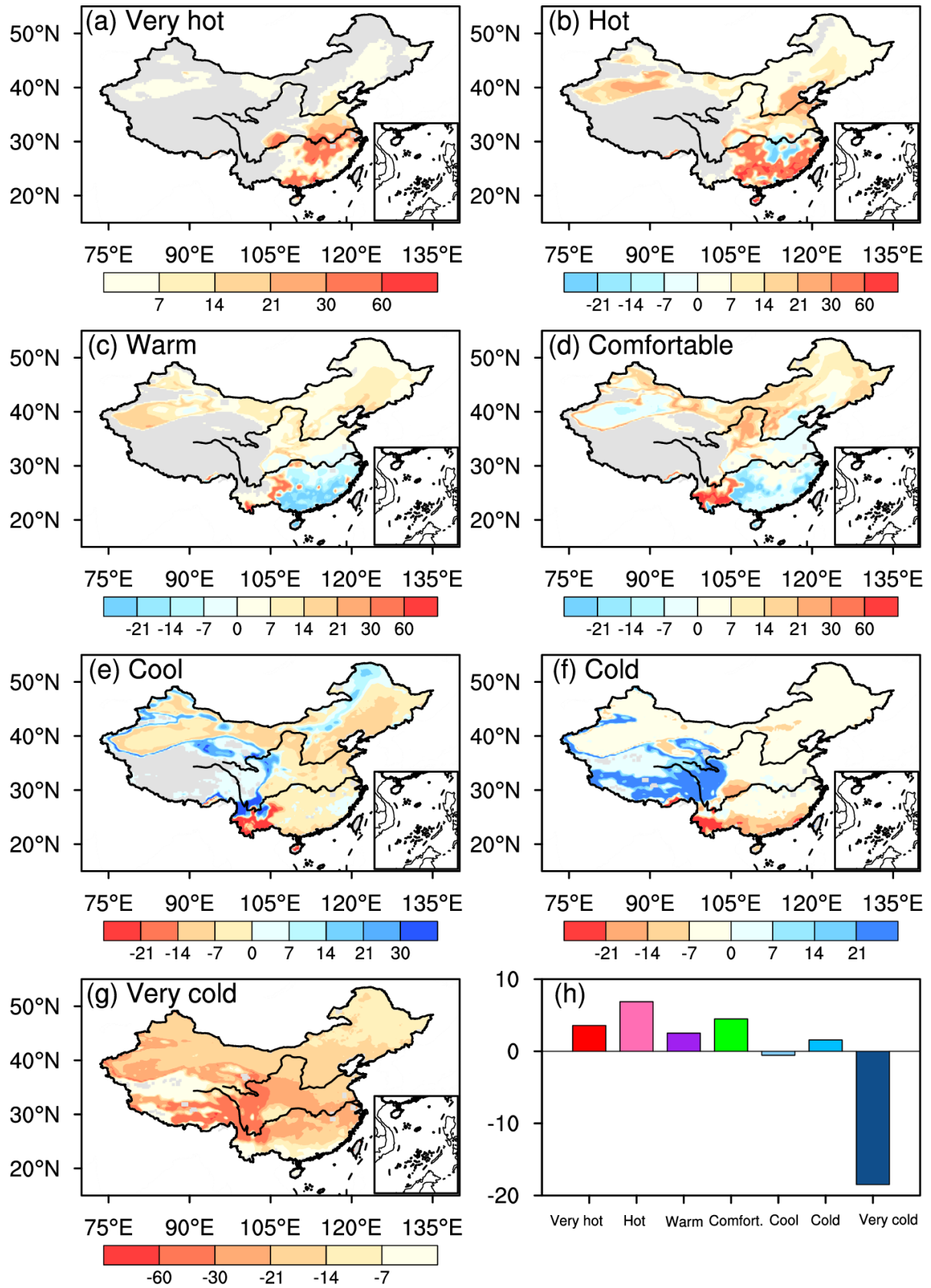


Figure S4. Projected ensemble average changes in days of different thermal comfort categories over China by the end of the 21st century, relative to the present day (2069–98)

minus 1981–2010). (a–g) spatial distribution of (a) Very hot, (b) Hot, (c) Warm, (d) Comfortable, (e) Cool, (f) Cold, and (g) Very cold conditions (days; gray: zero values). (h) Regional mean over China (days).

Table S1. Information on the four CMIP5 driving GCMs.

Model name	Horizontal resolution (longitude $\times$ latitude)	References
CSIRO Mk3.6.0	192 $\times$ 96	Rotstayn et al. (2010)
EC-EARTH	320 $\times$ 160	Hazeleger et al. (2010)
HadGEM2-ES	192 $\times$ 145	Johns et al. (2006); Martin et al. (2006); Ringer et al. (2006)
MPI-ESM-MR	192 $\times$ 96	Marsland et al. (2003); Raddatz et al. (2007)

References

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