

Supplement of The Cryosphere, 15, 5765–5783, 2021
<https://doi.org/10.5194/tc-15-5765-2021-supplement>
© Author(s) 2021. CC BY 4.0 License.



Supplement of

Evidence of elevation-dependent warming from the Chinese Tian Shan

Lu Gao et al.

Correspondence to: Lu Gao (l.gao@foxmail.com)

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

Supplementary

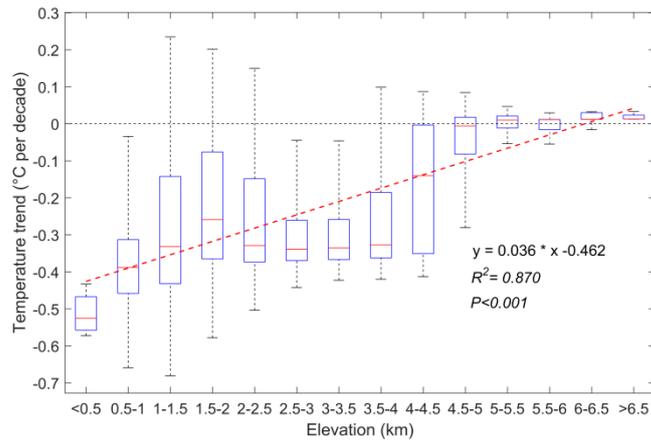
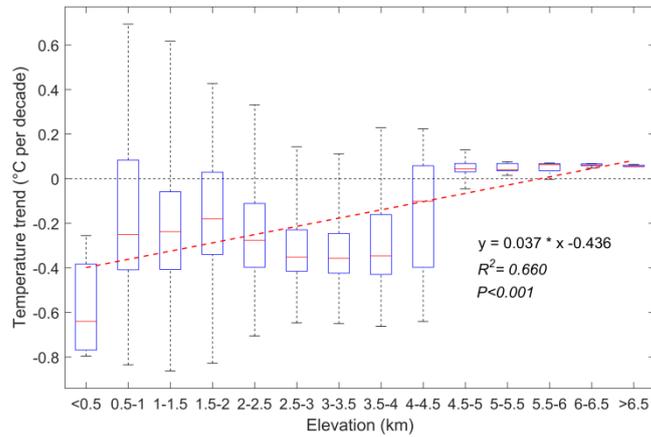
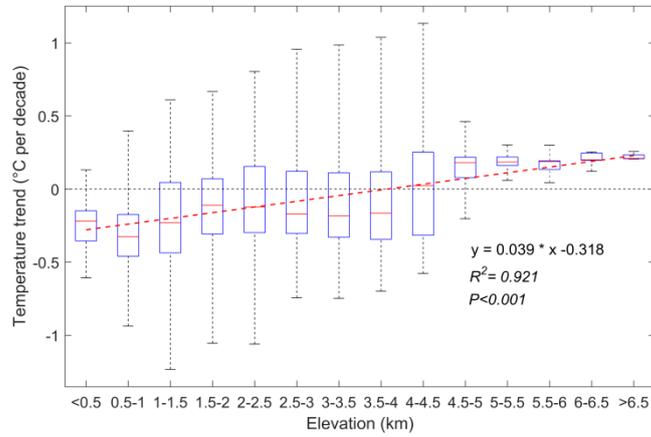


Fig. S1 Box plots of monthly temperature trends in January over different elevations from 1979–2016, minimum temperature (up), maximum temperature (middle) and mean temperature (down). Thick horizontal lines in boxes show the median values. Boxes indicate the inner-quartile range (25% to 75%) and the whiskers show the full range of the values. The red dashed lines represent the significance of EDW.

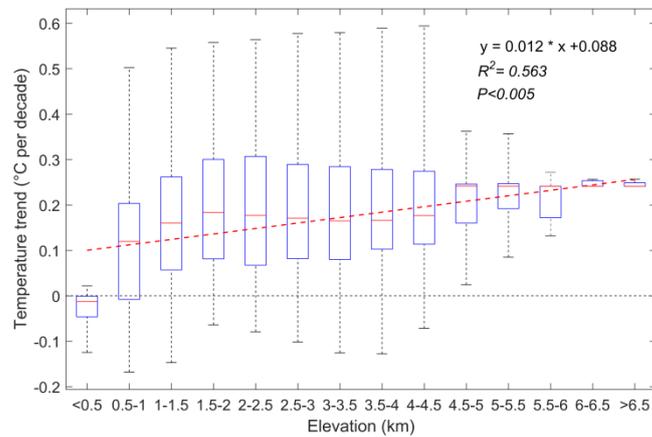
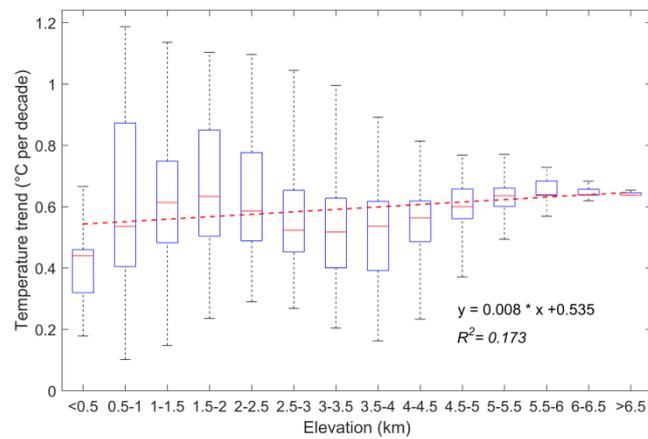
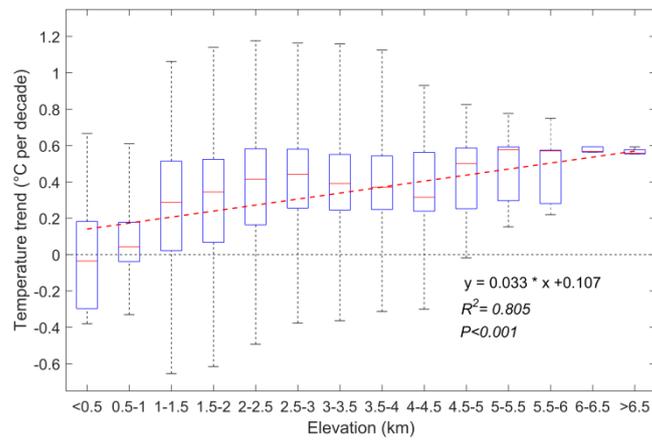


Fig. S2 Box plots of monthly temperature trends in February over different elevations from 1979–2016, minimum temperature (up), maximum temperature (middle) and mean temperature (down). Thick horizontal lines in boxes show the median values. Boxes indicate the inner-quartile range (25% to 75%) and the whiskers show the full range of the values. The red dashed lines represent the significance of EDW.

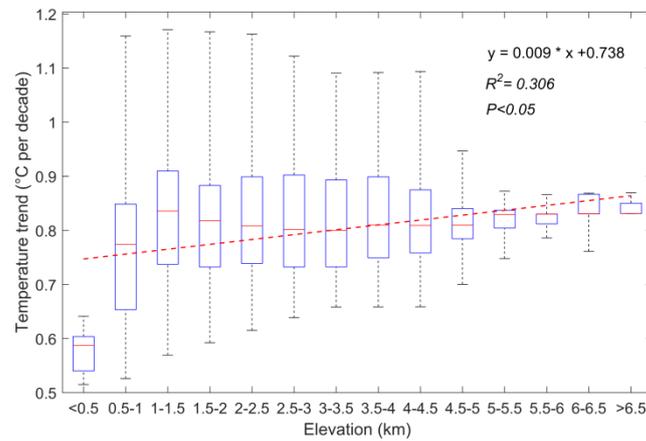
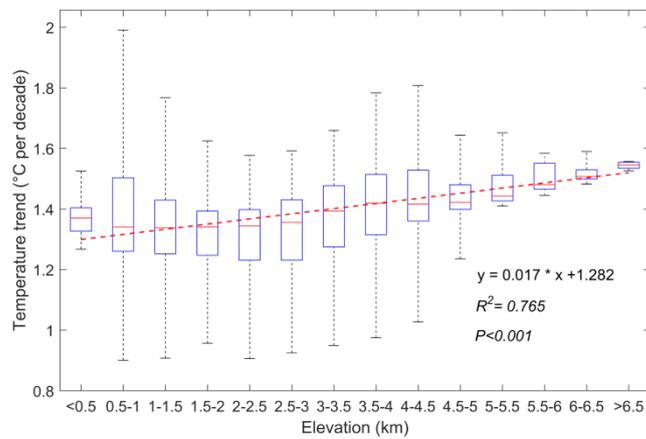
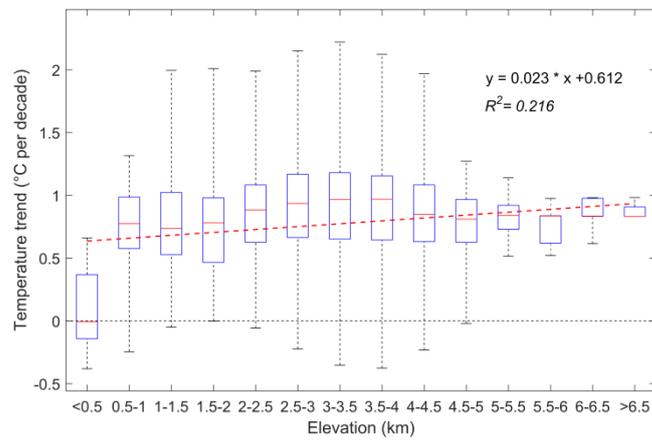


Fig. S3 Box plots of monthly temperature trends in March over different elevations from 1979–2016, minimum temperature (up), maximum temperature (middle) and mean temperature (down). Thick horizontal lines in boxes show the median values. Boxes indicate the inner-quantile range (25% to 75%) and the whiskers show the full range of the values. The red dashed lines represent the significance of EDW.

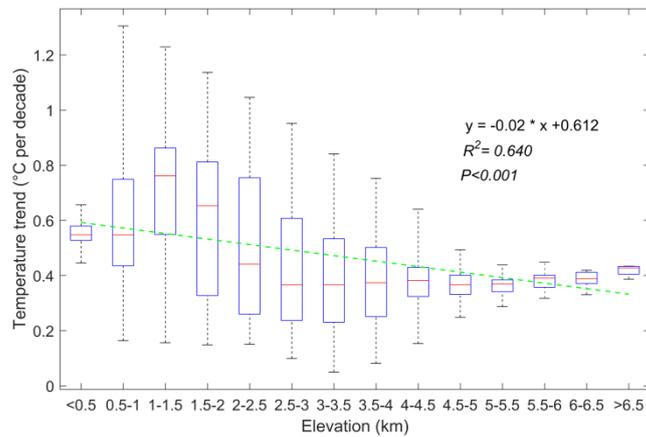
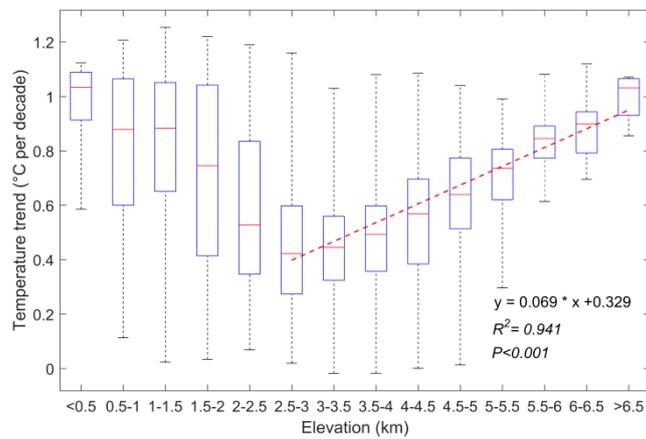
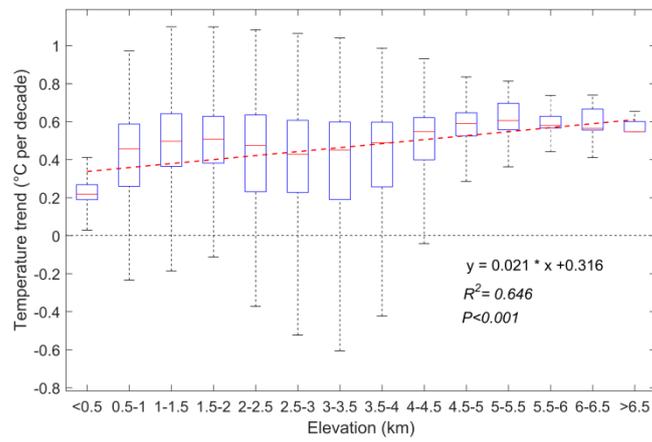


Fig. S4 Box plots of monthly temperature trends in April over different elevations from 1979–2016, minimum temperature (up), maximum temperature (middle) and mean temperature (down). Thick horizontal lines in boxes show the median values. Boxes indicate the inner-quantile range (25% to 75%) and the whiskers show the full range of the values. The red dashed lines represent the significance of EDW.

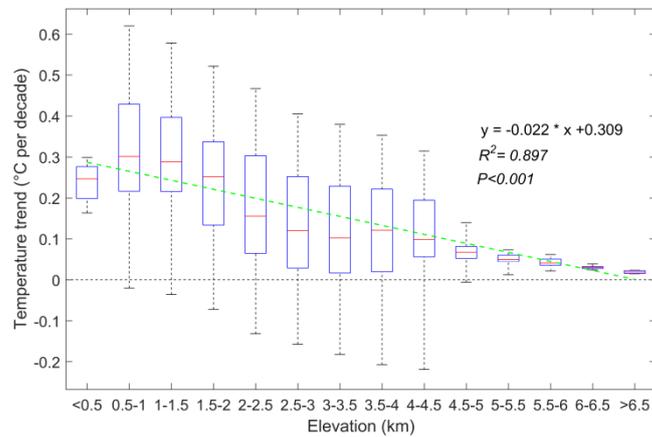
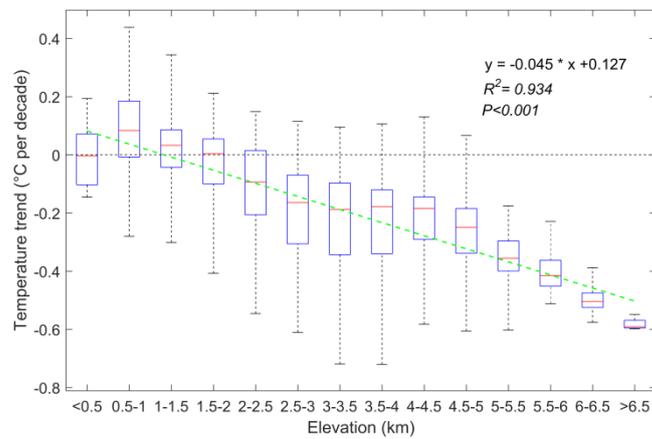
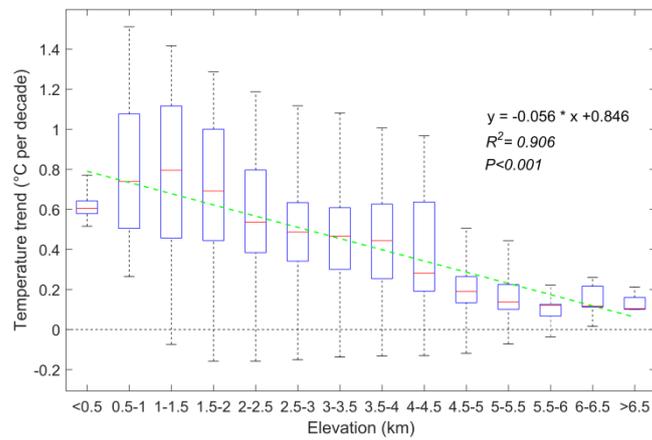


Fig. S5 Box plots of monthly temperature trends in May over different elevations from 1979–2016, minimum temperature (up), maximum temperature (middle) and mean temperature (down). Thick horizontal lines in boxes show the median values. Boxes indicate the inner-quantile range (25% to 75%) and the whiskers show the full range of the values. The red dashed lines represent the significance of EDW.

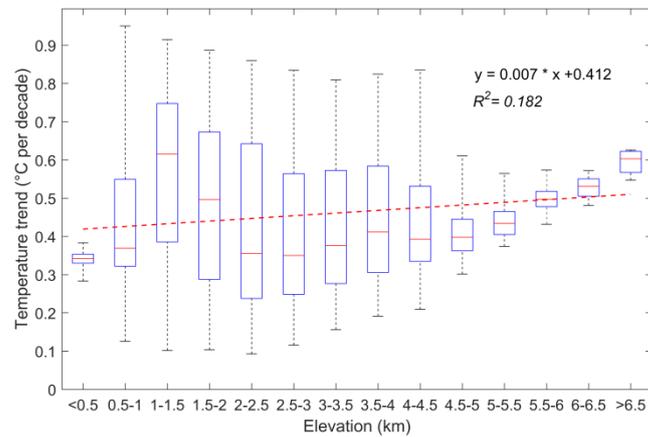
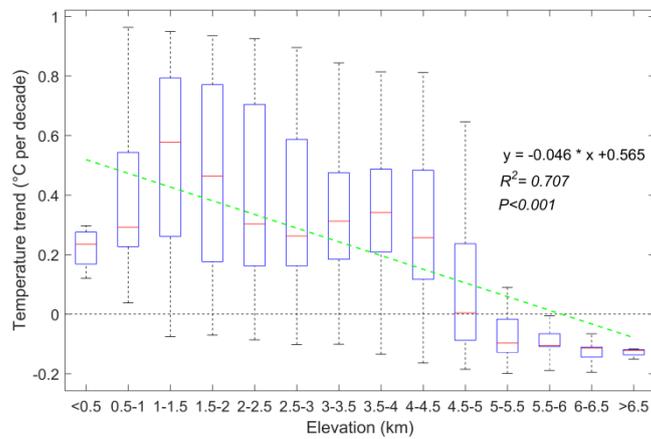
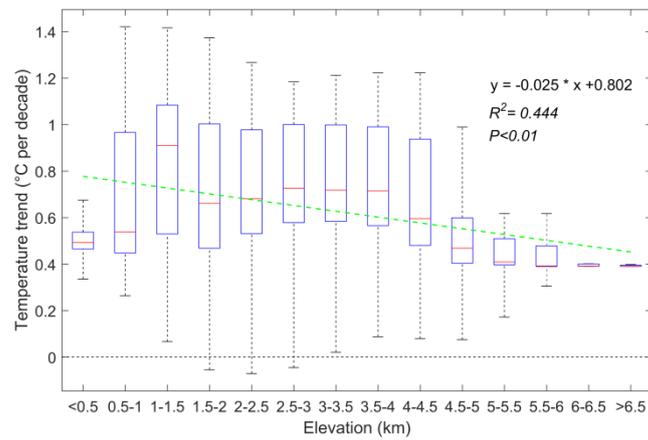


Fig. S6 Box plots of monthly temperature trends in June over different elevations from 1979–2016, minimum temperature (up), maximum temperature (middle) and mean temperature (down). Thick horizontal lines in boxes show the median values. Boxes indicate the inner-quantile range (25% to 75%) and the whiskers show the full range of the values. The red dashed lines represent the significance of EDW.

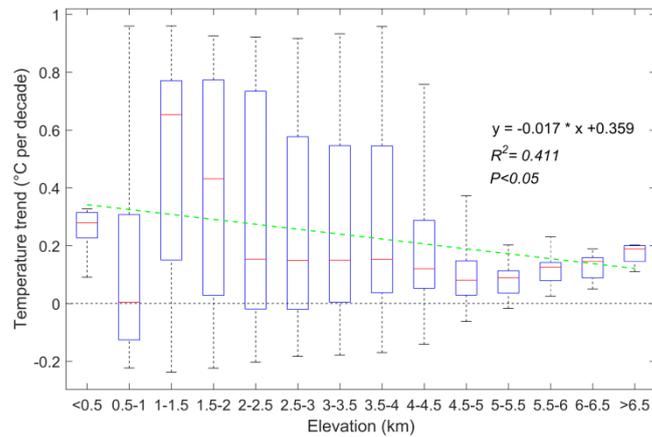
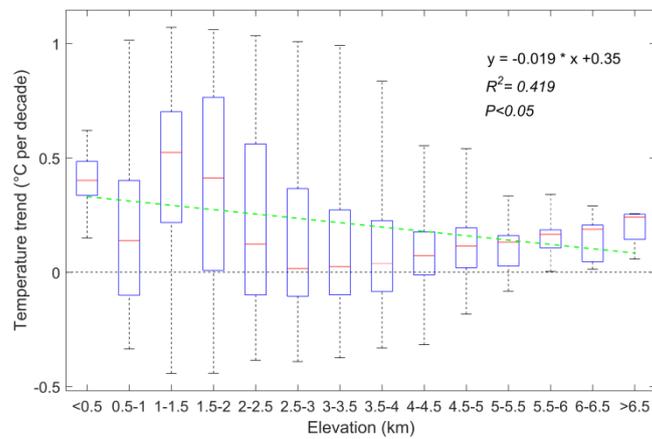
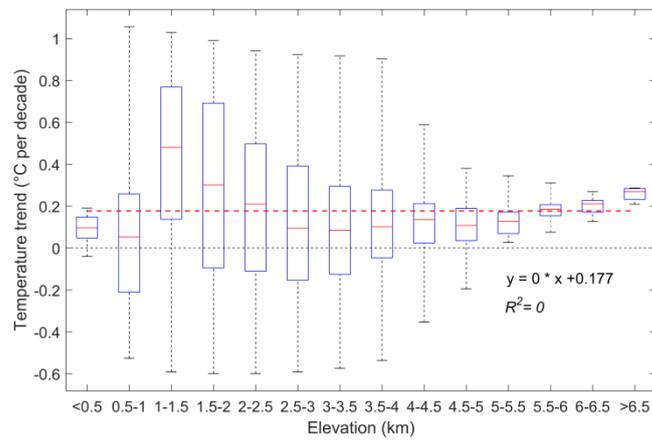


Fig. S7 Box plots of monthly temperature trends in July over different elevations from 1979–2016, minimum temperature (up), maximum temperature (middle) and mean temperature (down). Thick horizontal lines in boxes show the median values. Boxes indicate the inner-quantile range (25% to 75%) and the whiskers show the full range of the values. The red dashed lines represent the significance of EDW.

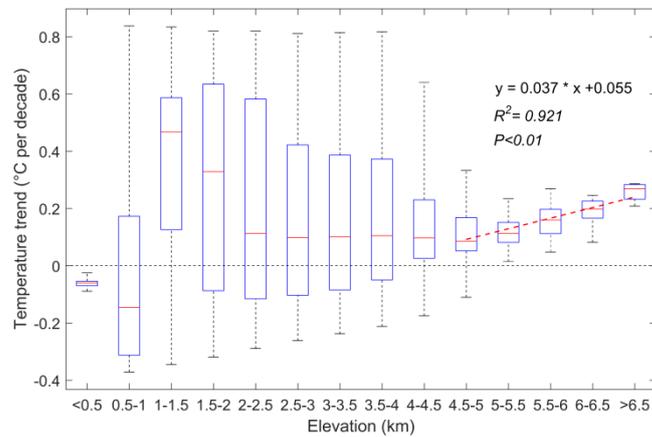
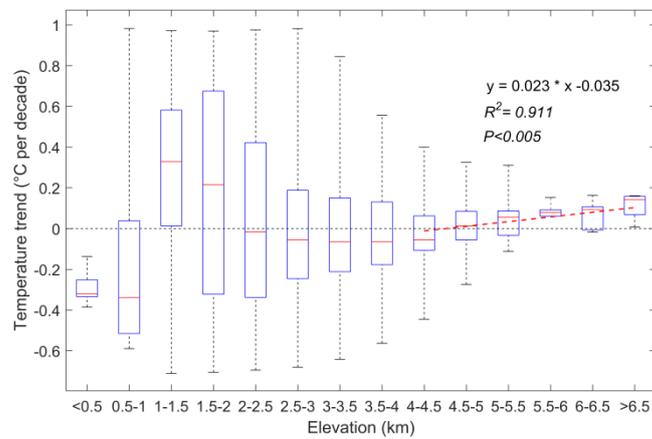
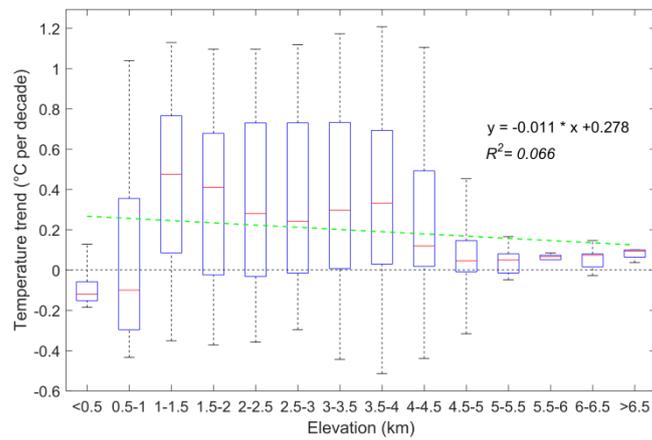


Fig. S8 Box plots of monthly temperature trends in August over different elevations from 1979–2016, minimum temperature (up), maximum temperature (middle) and mean temperature (down). Thick horizontal lines in boxes show the median values. Boxes indicate the inner-quantile range (25% to 75%) and the whiskers show the full range of the values. The red dashed lines represent the significance of EDW.

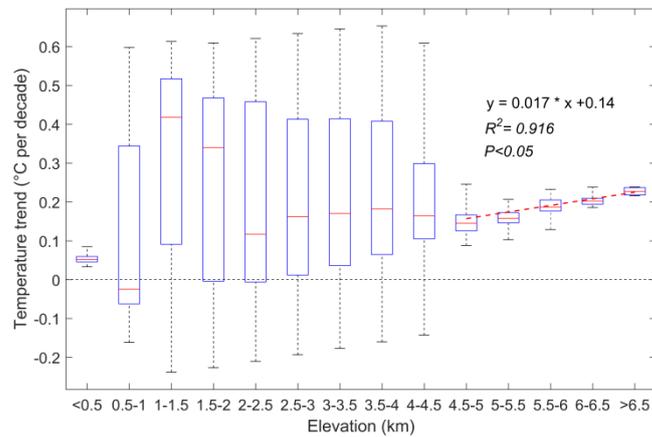
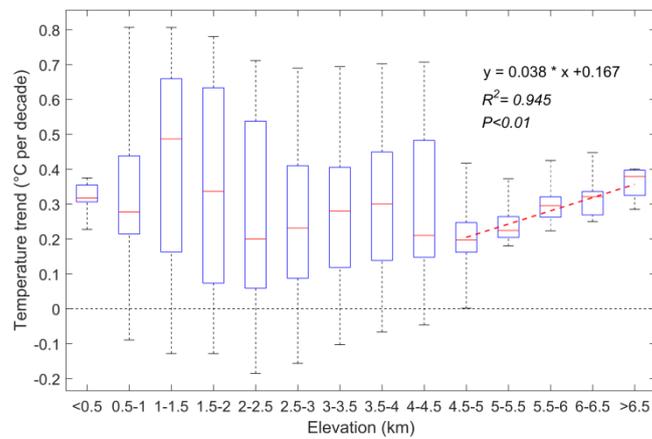
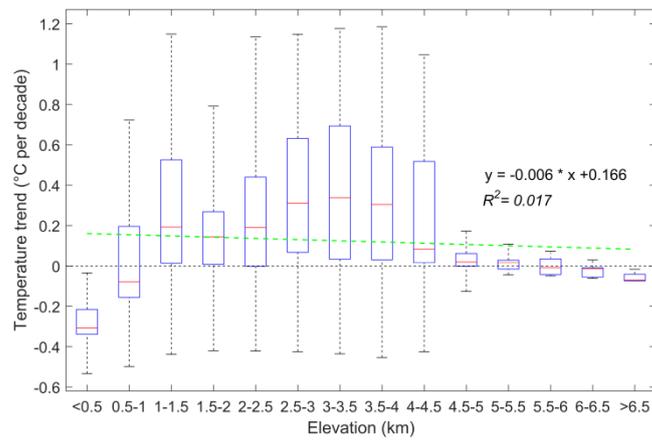


Fig. S9 Box plots of monthly temperature trends in September over different elevations from 1979–2016, minimum temperature (up), maximum temperature (middle) and mean temperature (down). Thick horizontal lines in boxes show the median values. Boxes indicate the inner-quantile range (25% to 75%) and the whiskers show the full range of the values. The red dashed lines represent the significance of EDW.

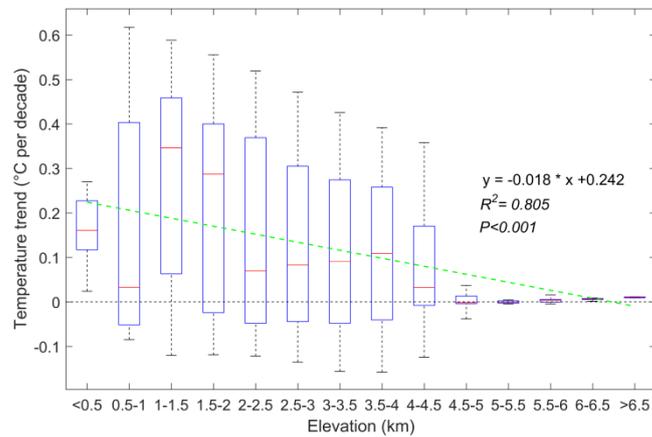
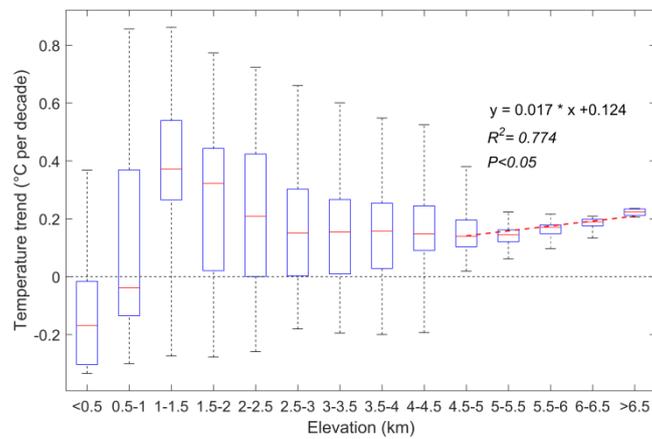
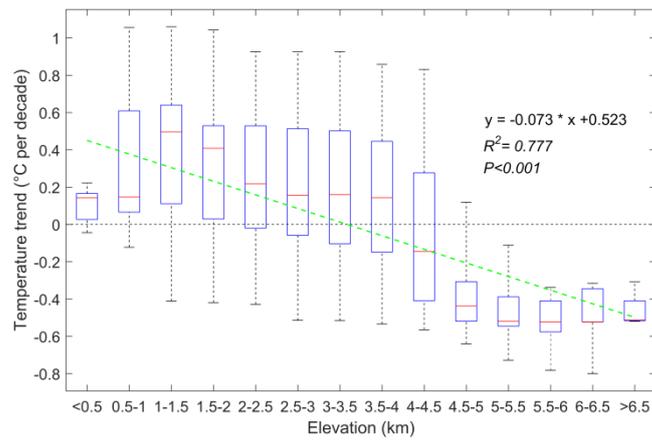


Fig. S10 Box plots of monthly temperature trends in October over different elevations from 1979–2016, minimum temperature (up), maximum temperature (middle) and mean temperature (down). Thick horizontal lines in boxes show the median values. Boxes indicate the inner-quantile range (25% to 75%) and the whiskers show the full range of the values. The red dashed lines represent the significance of EDW.

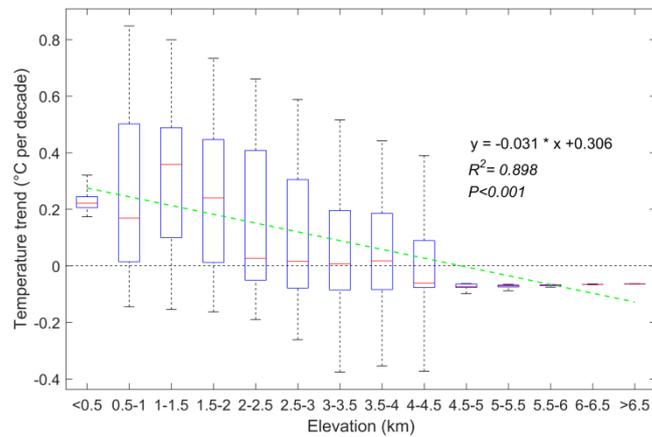
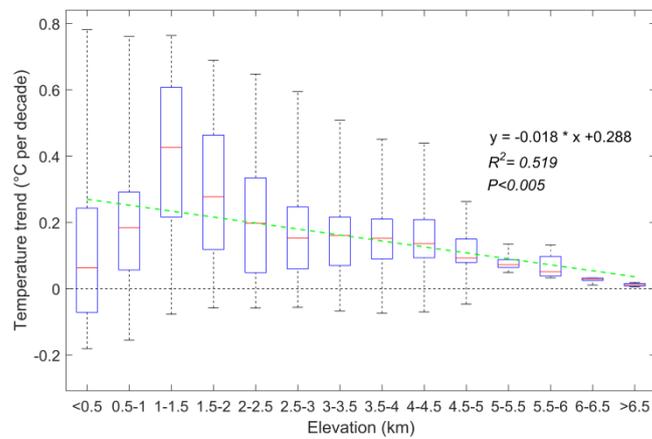
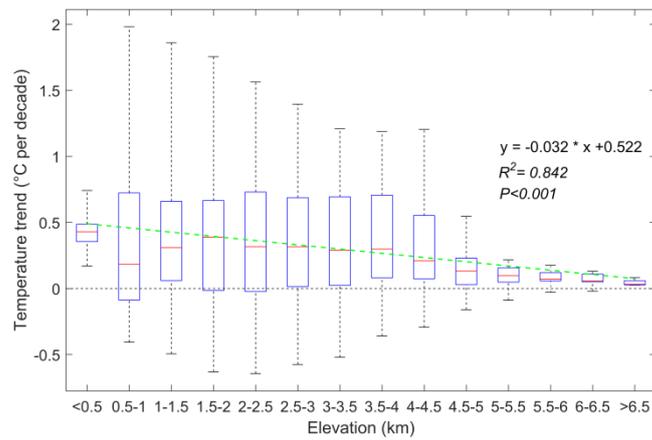


Fig. S11 Box plots of monthly temperature trends in November over different elevations from 1979–2016, minimum temperature (up), maximum temperature (middle) and mean temperature (down). Thick horizontal lines in boxes show the median values. Boxes indicate the inner-quantile range (25% to 75%) and the whiskers show the full range of the values. The red dashed lines represent the significance of EDW.

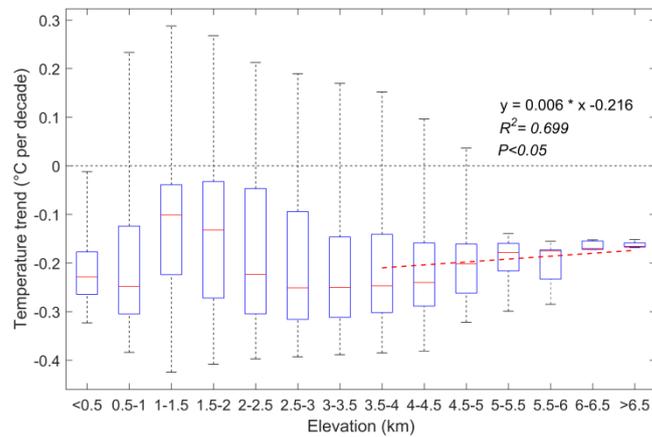
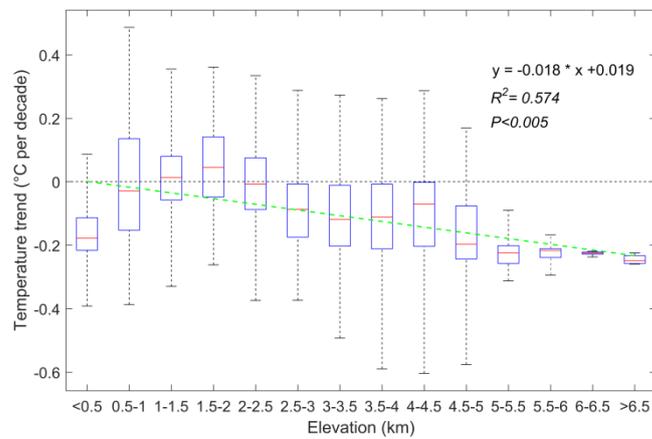
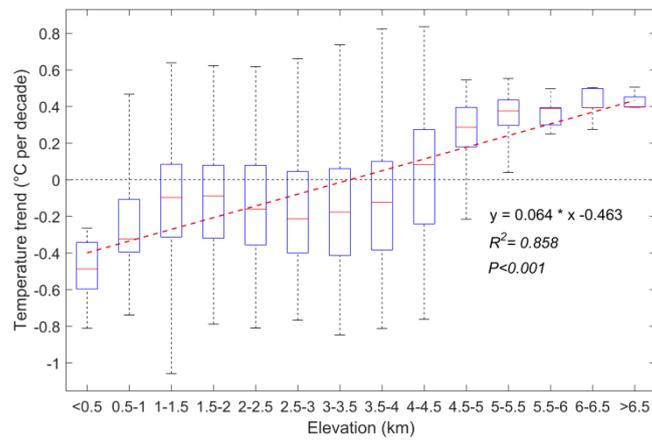


Fig. S12 Box plots of monthly temperature trends in December over different elevations from 1979–2016, minimum temperature (up), maximum temperature (middle) and mean temperature (down). Thick horizontal lines in boxes show the median values. Boxes indicate the inner-quantile range (25% to 75%) and the whiskers show the full range of the values. The red dashed lines represent the significance of EDW.

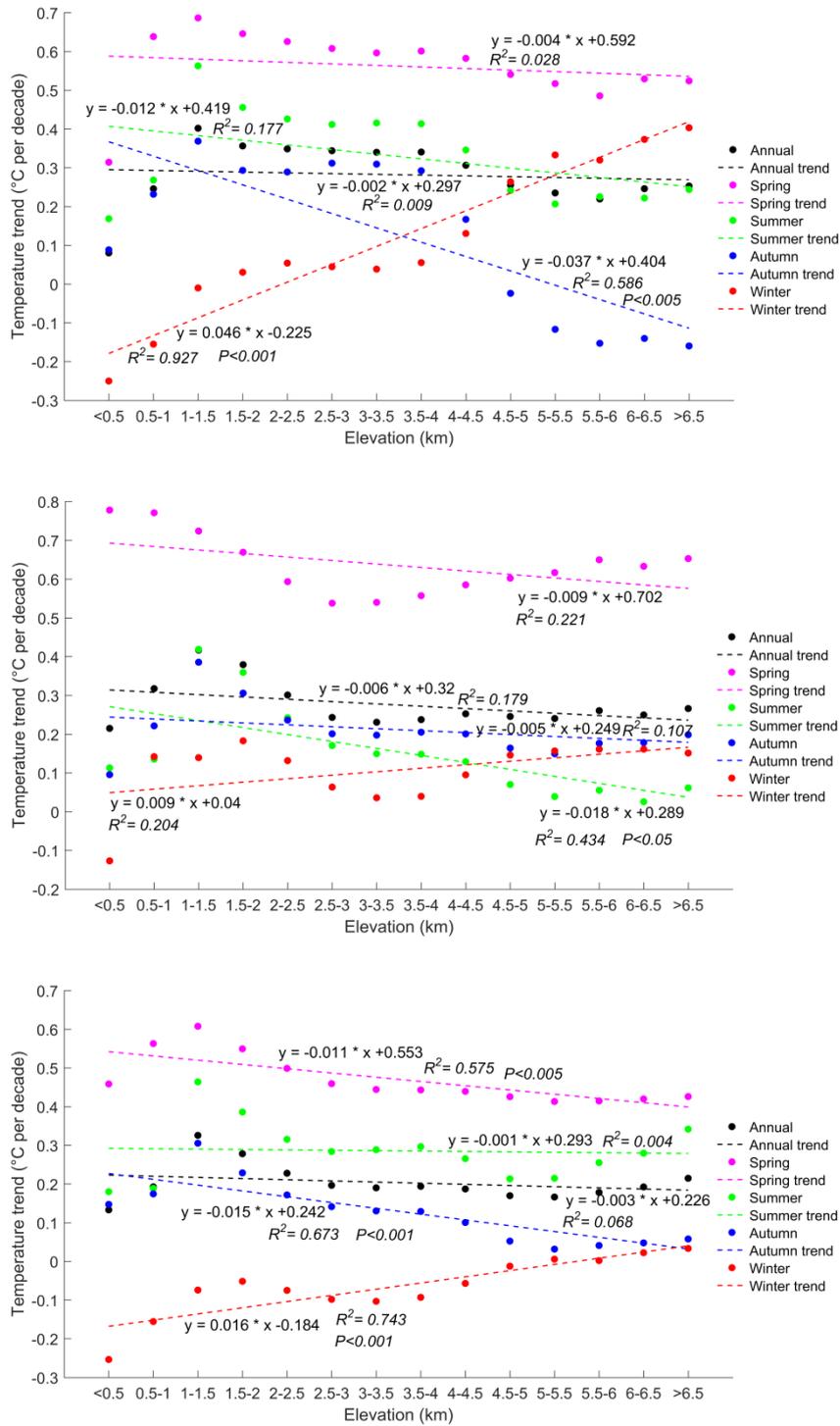


Fig. S13 Annual and seasonal temperature trends over different elevations from 1979–2016, minimum temperature (up), maximum temperature (middle) and mean temperature (down). The dashed lines represent the annual and seasonal significance of EDW.

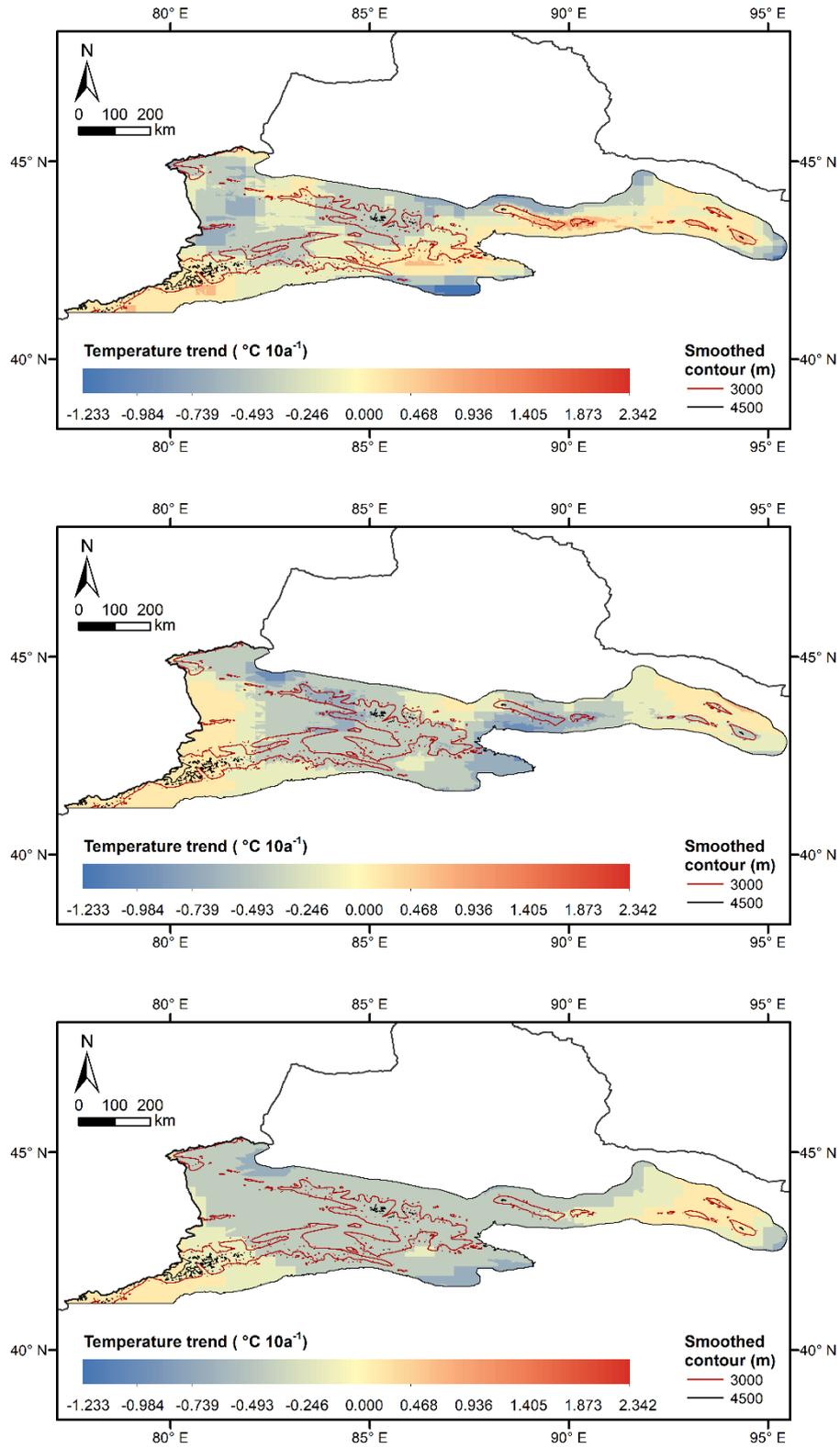


Fig. S14 Monthly temperature trends in January for the entire CTM from 1979–2016, minimum temperature (up), maximum temperature (middle) and mean temperature (down).

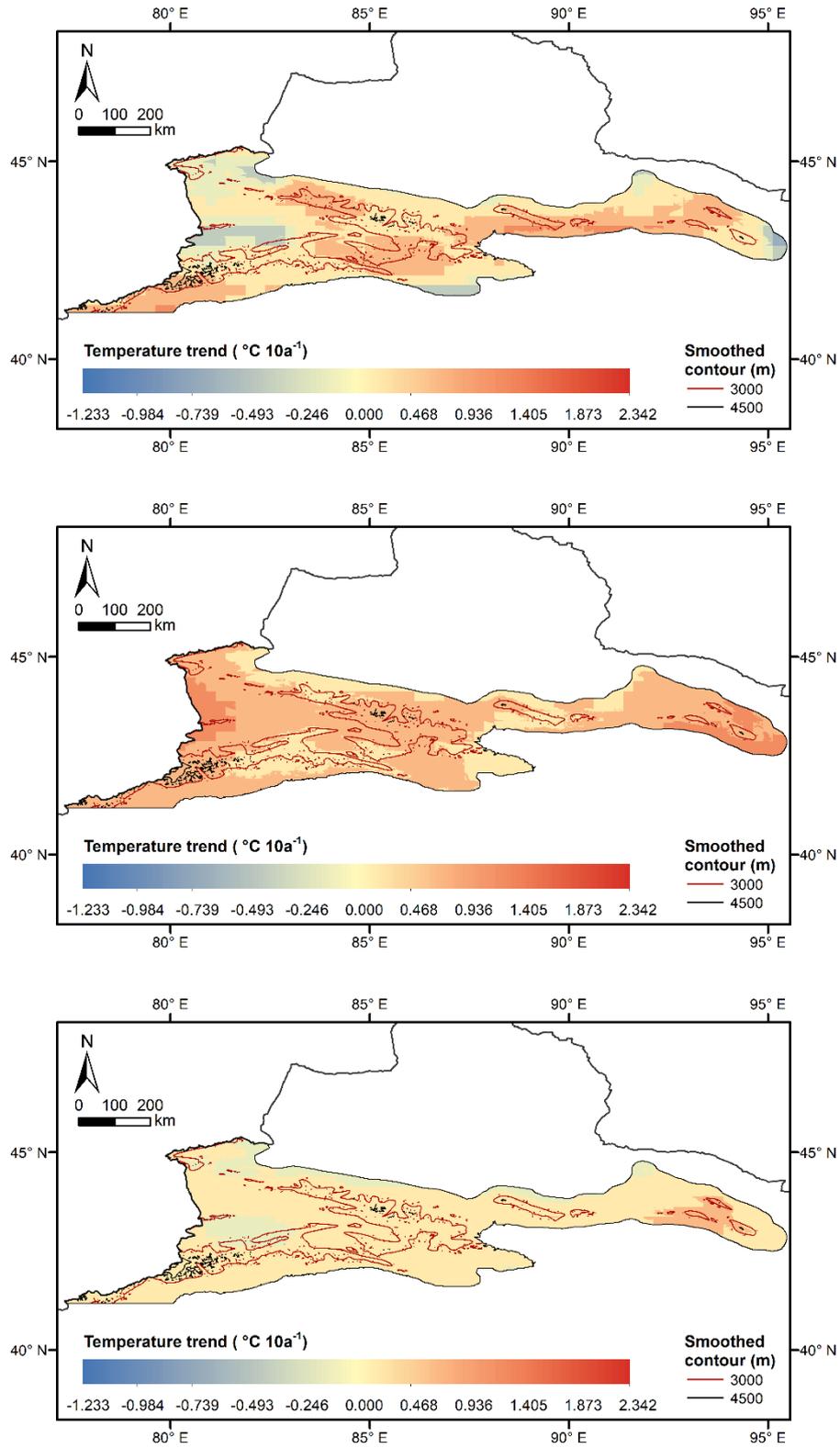


Fig. S15 Monthly temperature trends in February for the entire CTM from 1979–2016, minimum temperature (up), maximum temperature (middle) and mean temperature (down).

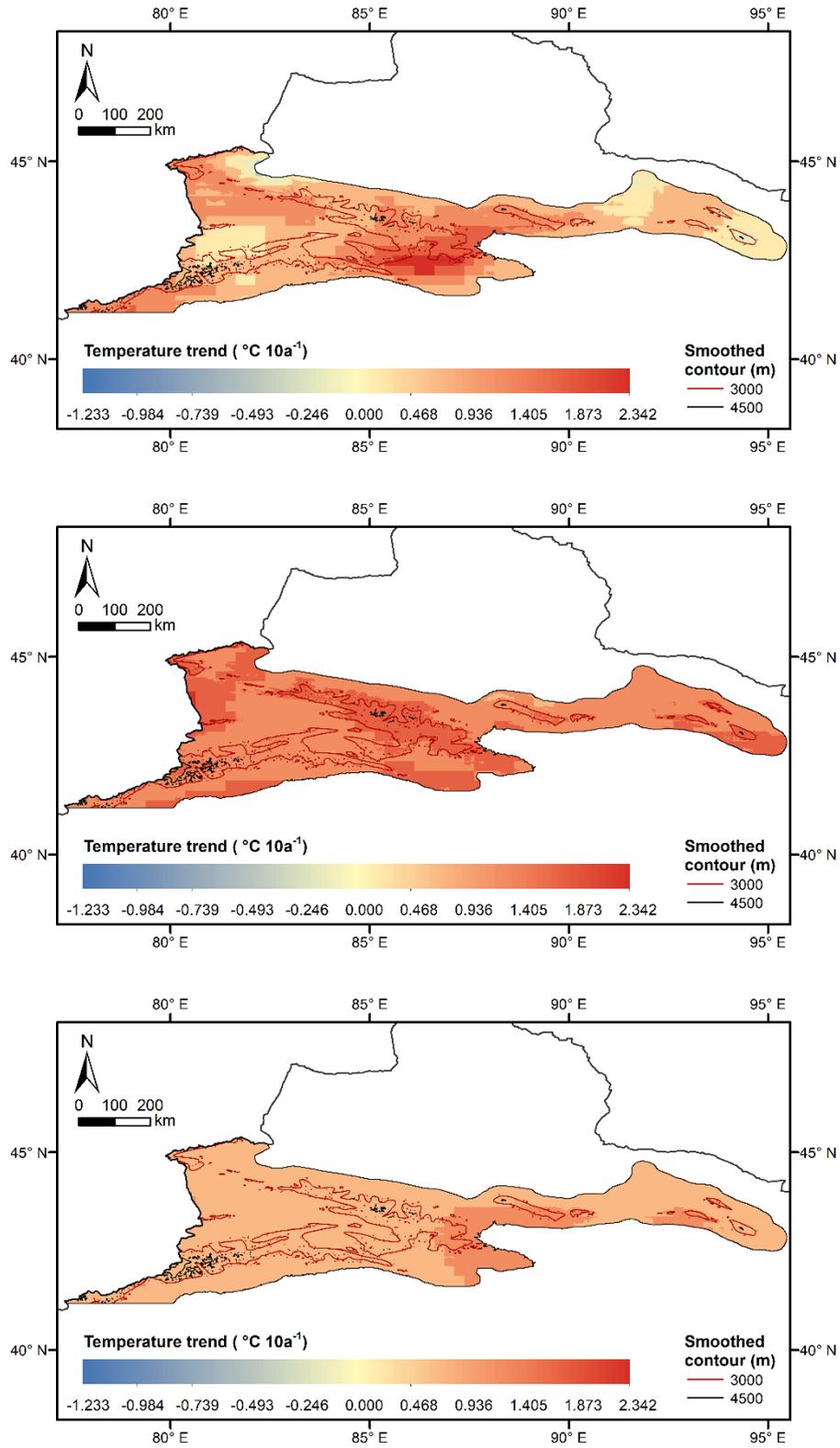


Fig. S16 Monthly temperature trends in March for the entire CTM from 1979–2016, minimum temperature (up), maximum temperature (middle) and mean temperature (down).

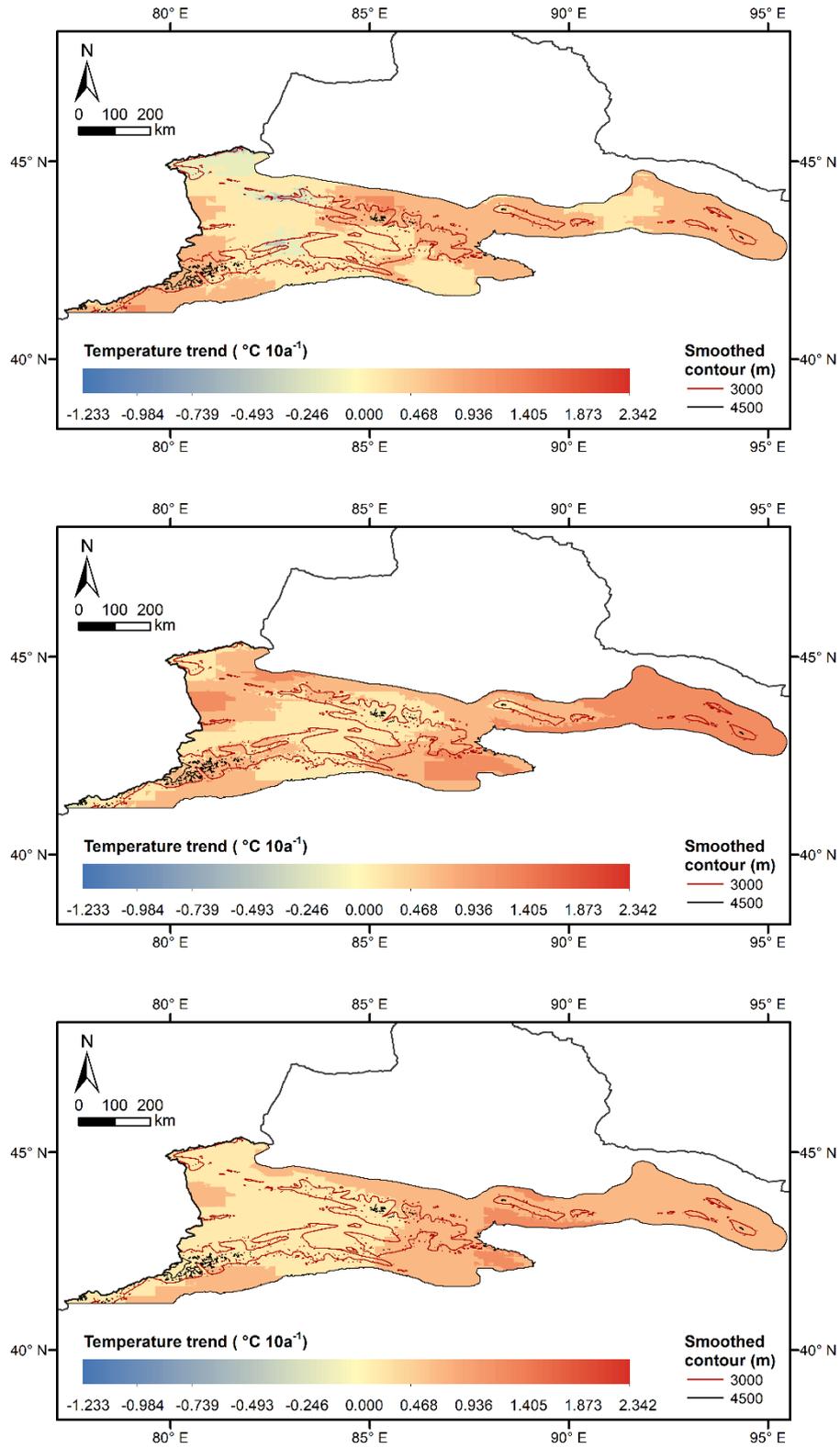


Fig. S17 Monthly temperature trends in April for the entire CTM from 1979–2016, minimum temperature (up), maximum temperature (middle) and mean temperature (down).

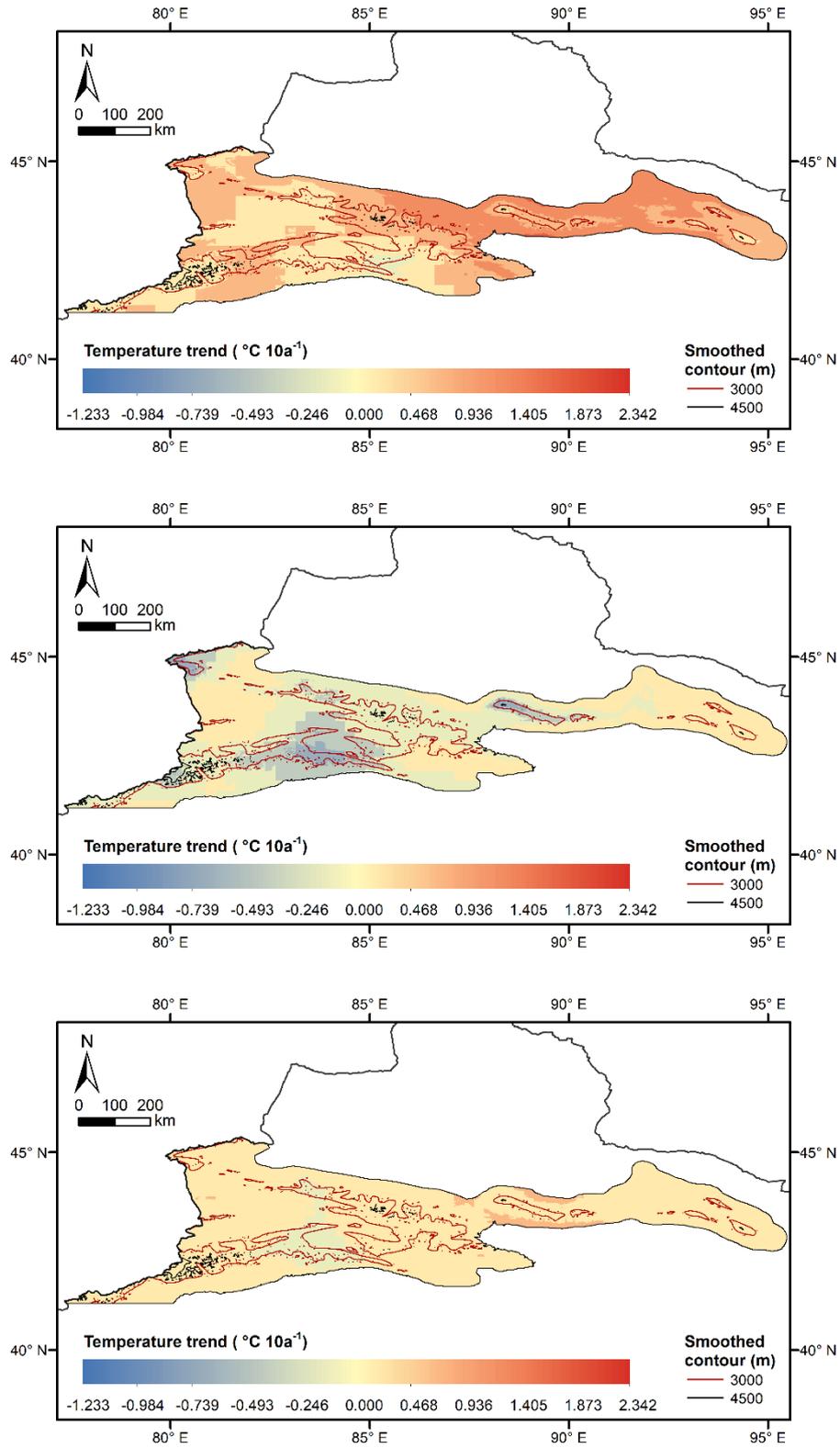


Fig. S18 Monthly temperature trends in May for the entire CTM from 1979–2016, minimum temperature (up), maximum temperature (middle) and mean temperature (down).

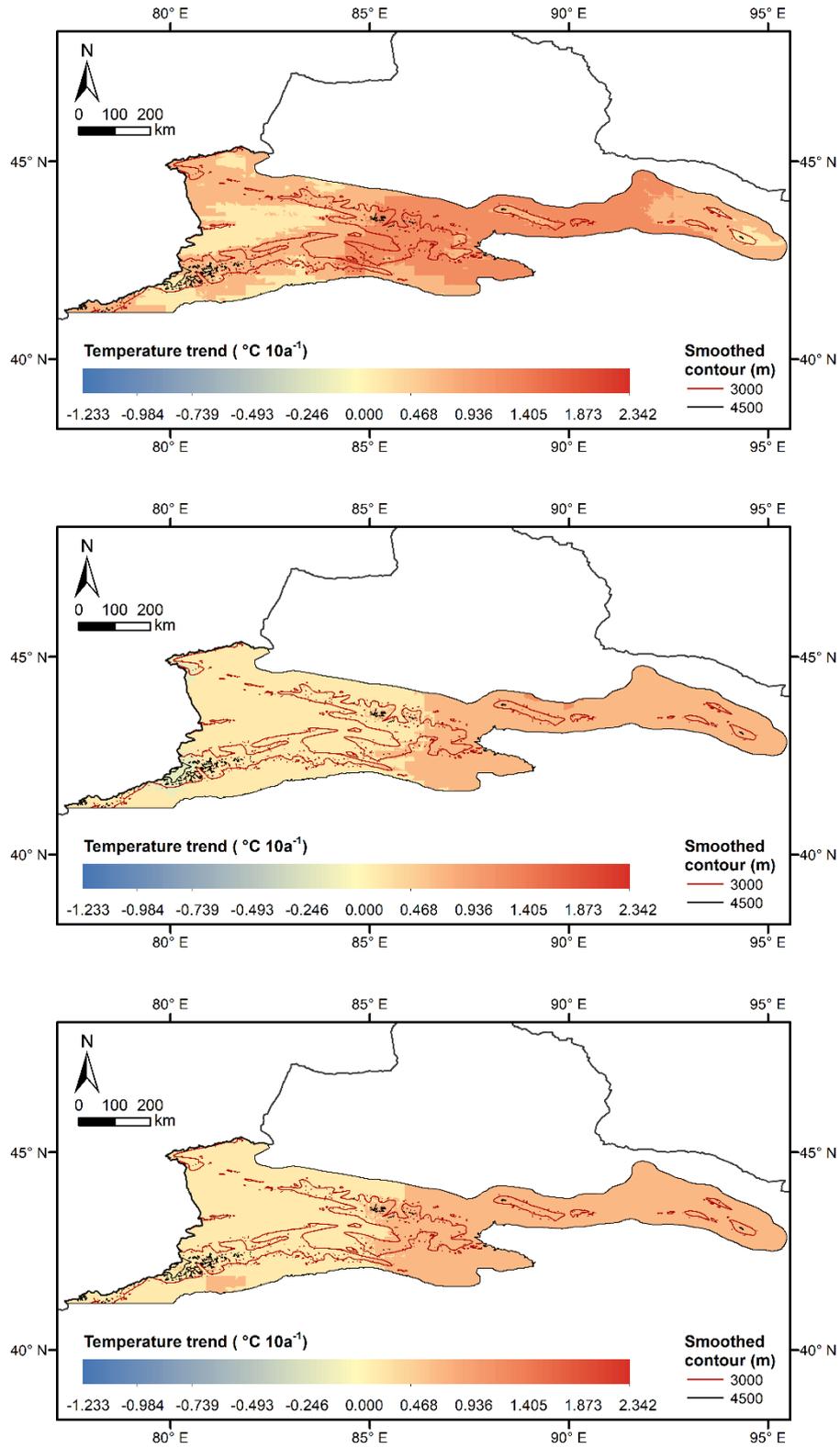


Fig. S19 Monthly temperature trends in June for the entire CTM from 1979–2016, minimum temperature (up), maximum temperature (middle) and mean temperature (down).

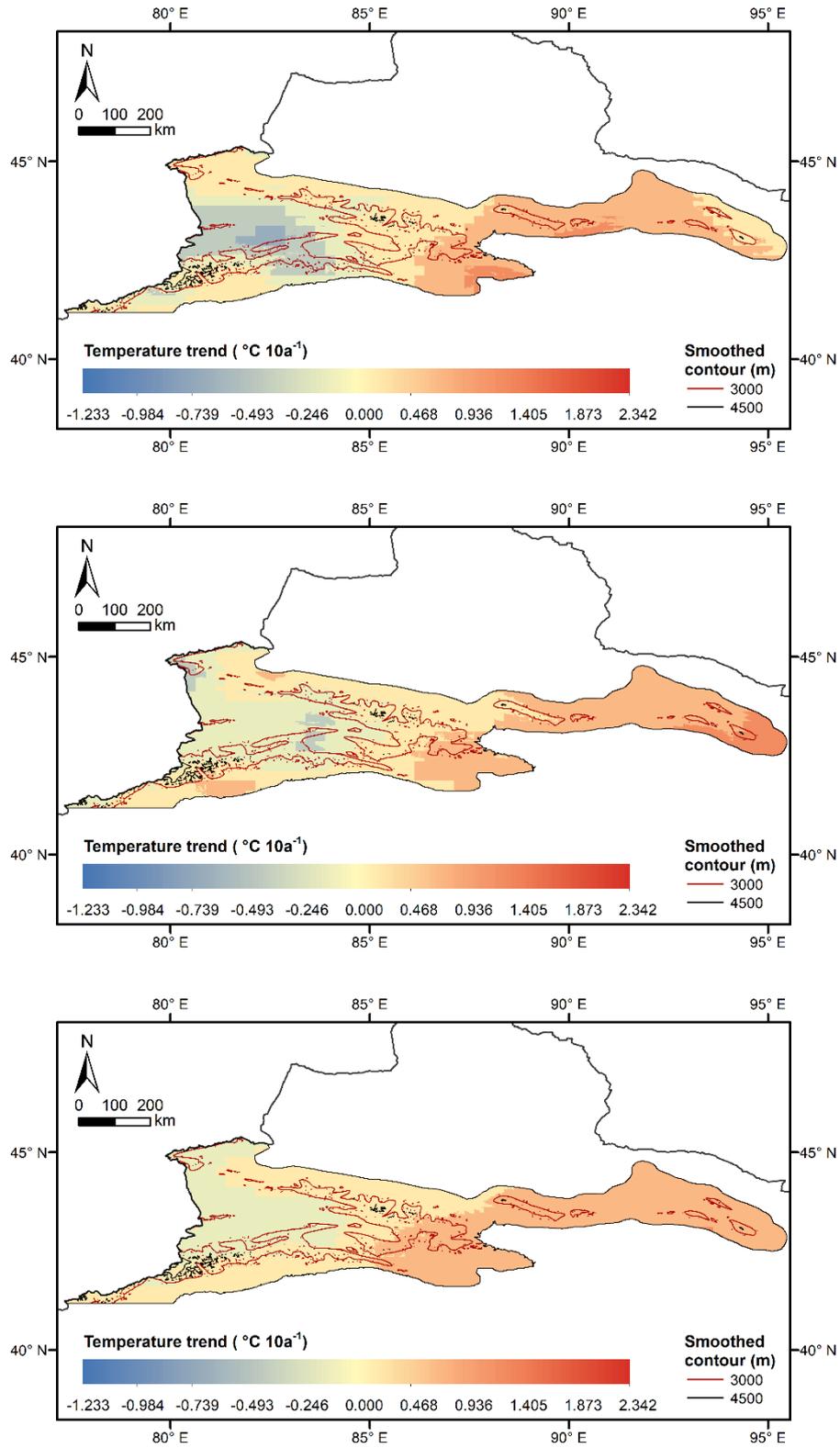


Fig. S20 Monthly temperature trends in July for the entire CTM from 1979–2016, minimum temperature (up), maximum temperature (middle) and mean temperature (down).

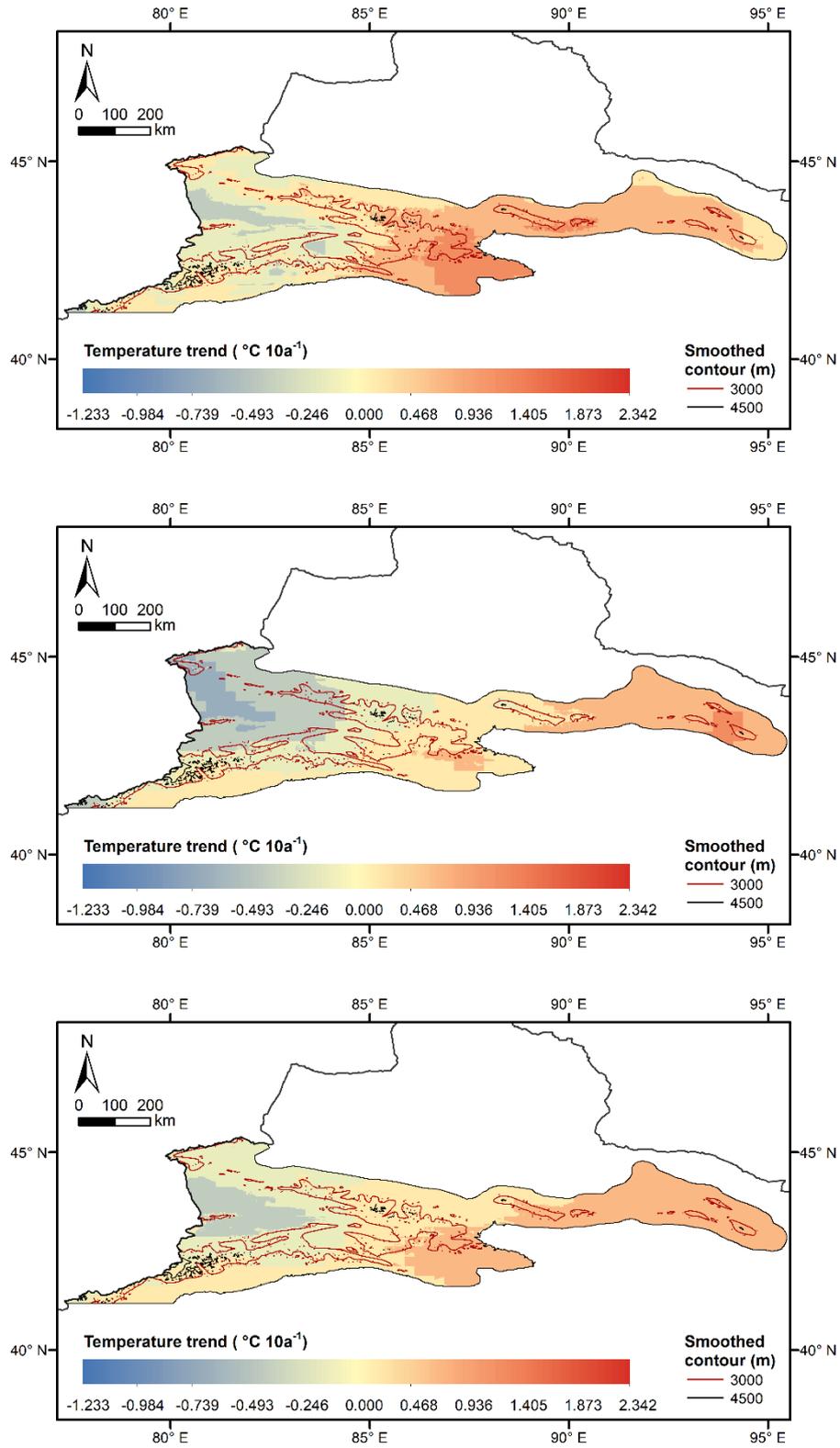


Fig. S21 Monthly temperature trends in August for the entire CTM from 1979–2016, minimum temperature (up), maximum temperature (middle) and mean temperature (down).

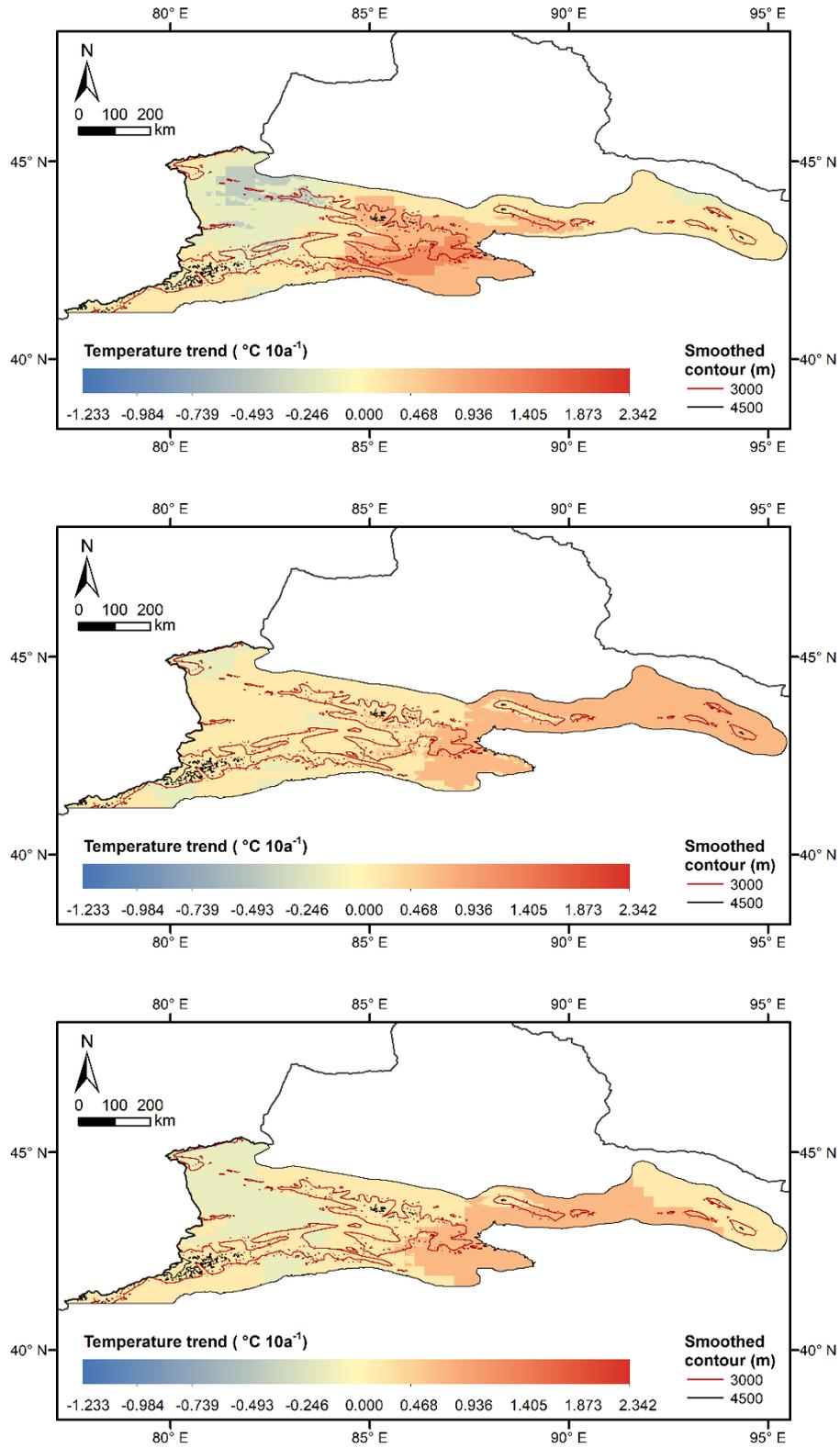


Fig. S22 Monthly temperature trends in September for the entire CTM from 1979–2016, minimum temperature (up), maximum temperature (middle) and mean temperature (down).

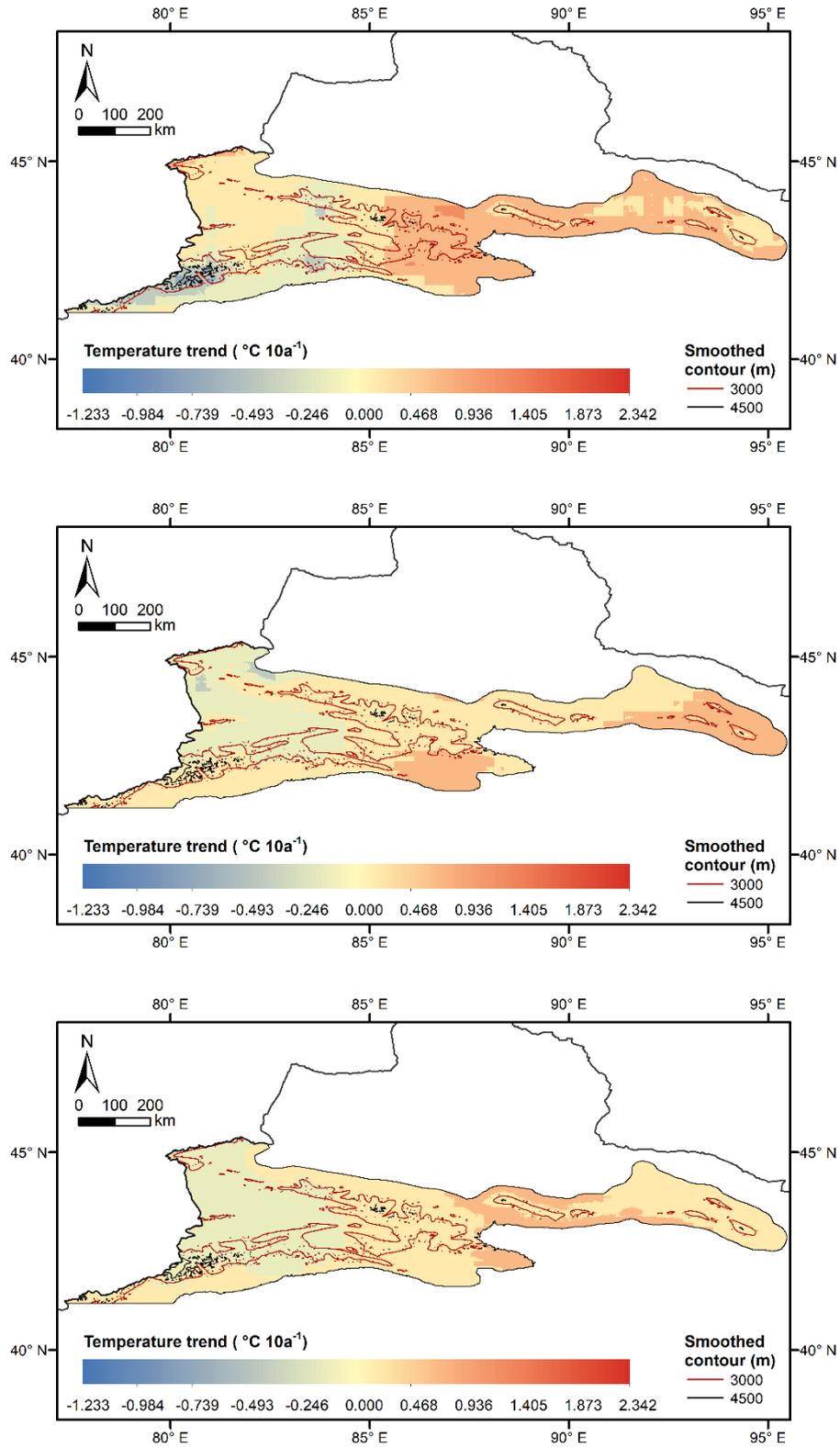


Fig. S23 Monthly temperature trends in October for the entire CTM from 1979–2016, minimum temperature (up), maximum temperature (middle) and mean temperature (down).

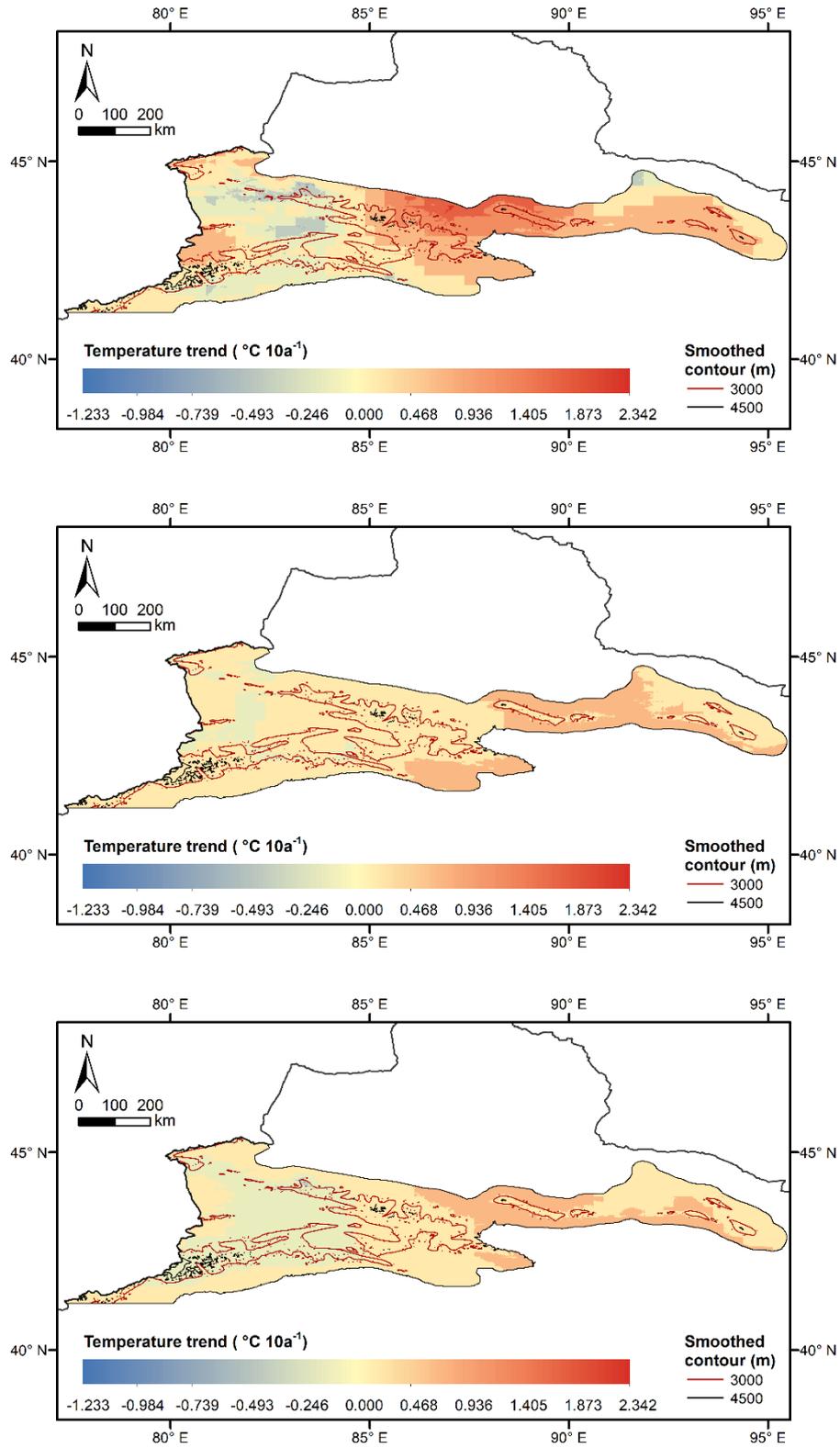


Fig. S24 Monthly temperature trends in November for the entire CTM from 1979–2016, minimum temperature (up), maximum temperature (middle) and mean temperature (down).

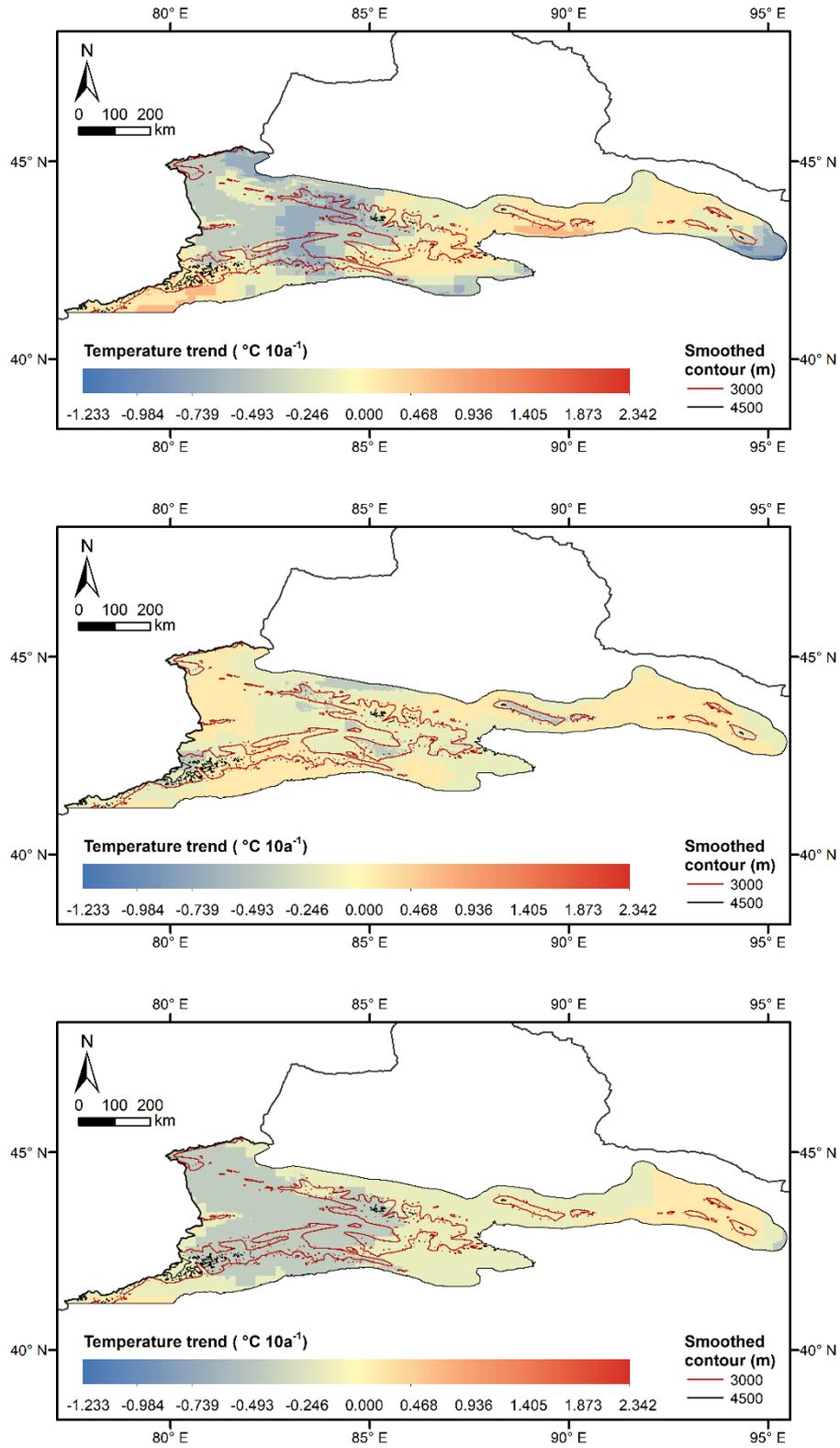


Fig. S25 Monthly temperature trends in December for the entire CTM from 1979–2016, minimum temperature (up), maximum temperature (middle) and mean temperature (down).

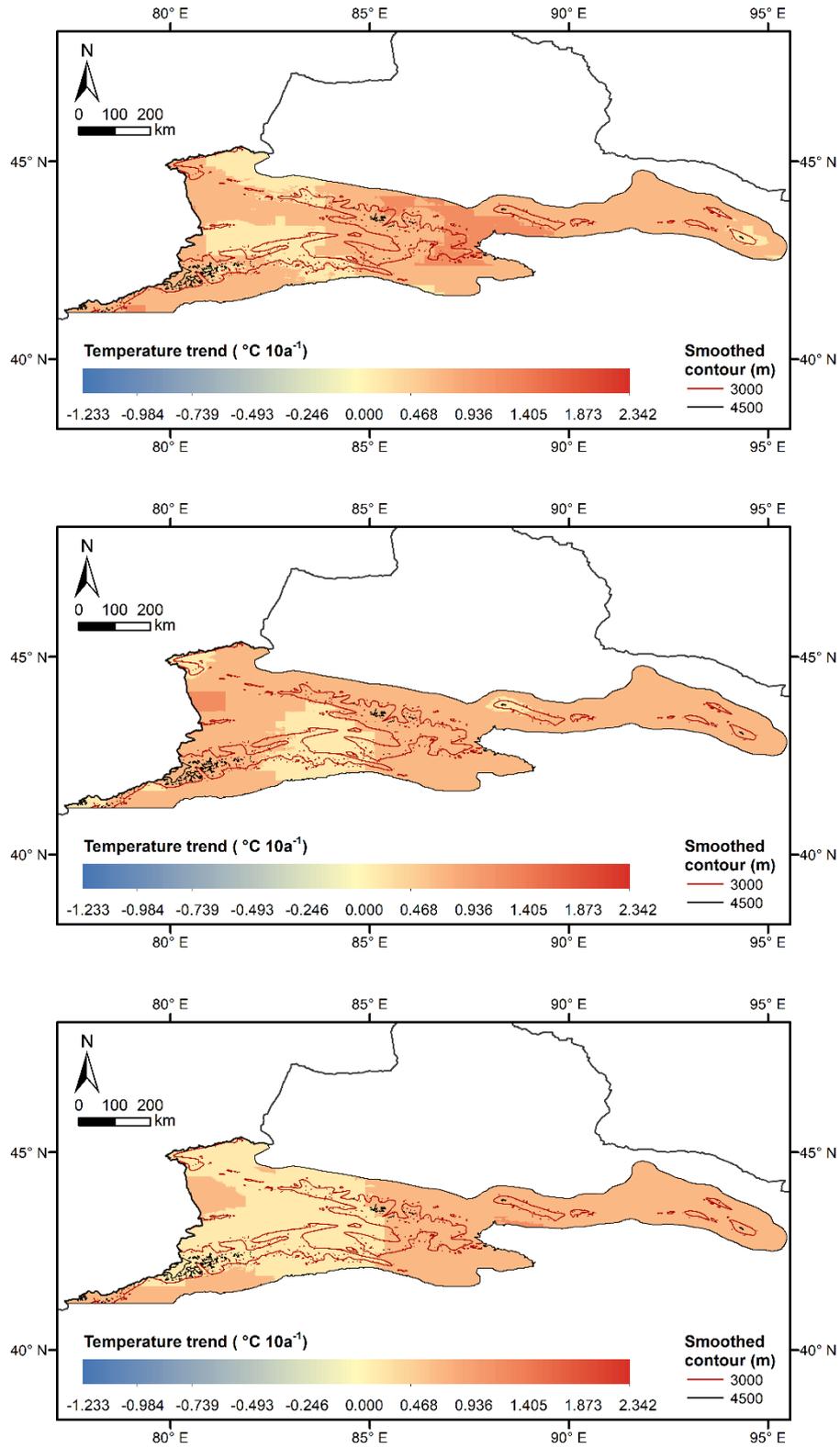


Fig. S26 Temperature trends in spring for the entire CTM from 1979–2016, minimum temperature (up), maximum temperature (middle) and mean temperature (down).

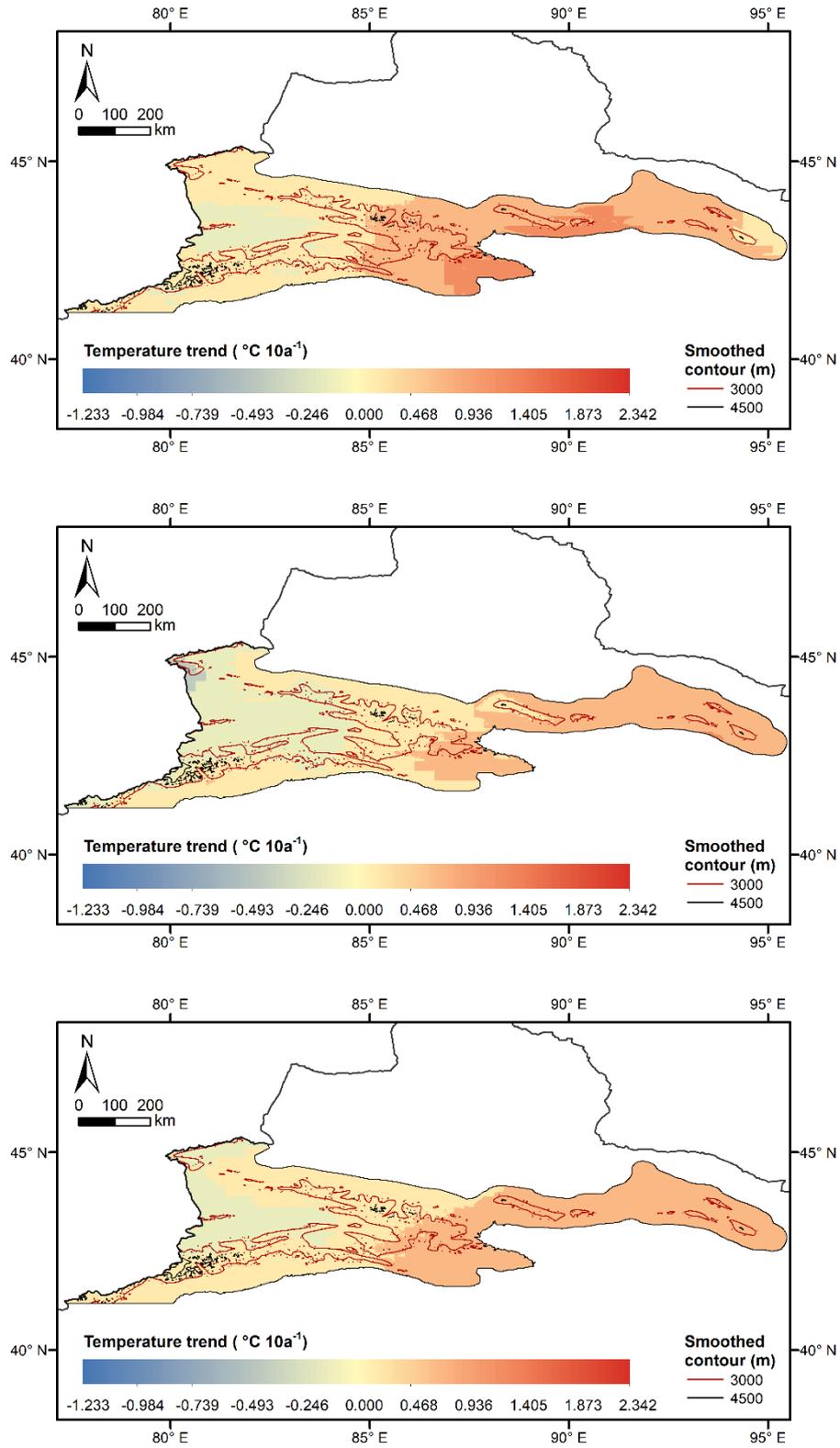


Fig. S27 Temperature trends in summer for the entire CTM from 1979–2016, minimum temperature (up), maximum temperature (middle) and mean temperature (down).

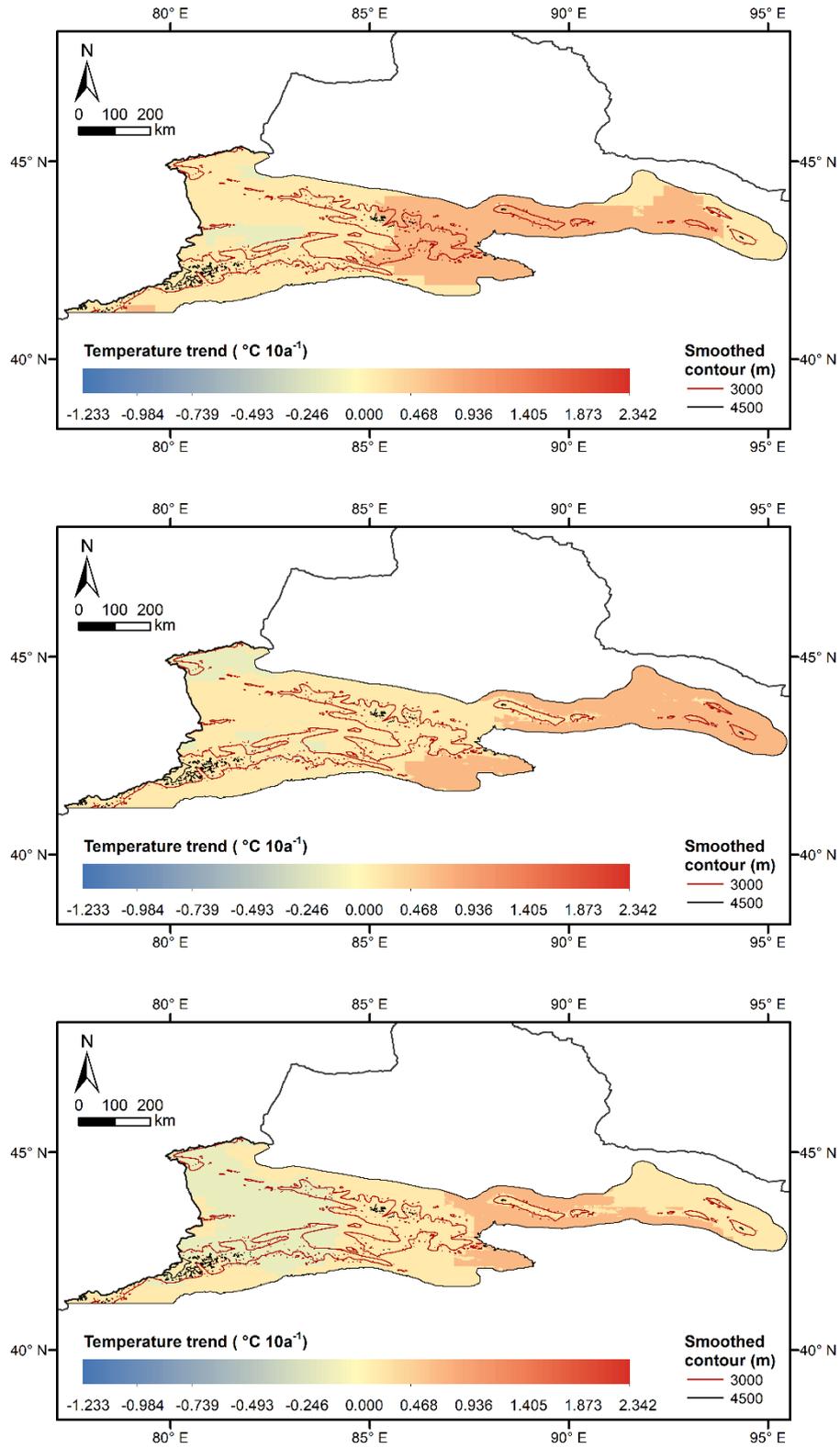


Fig. S28 Temperature trends in autumn for the entire CTM from 1979–2016, minimum temperature (up), maximum temperature (middle) and mean temperature (down).

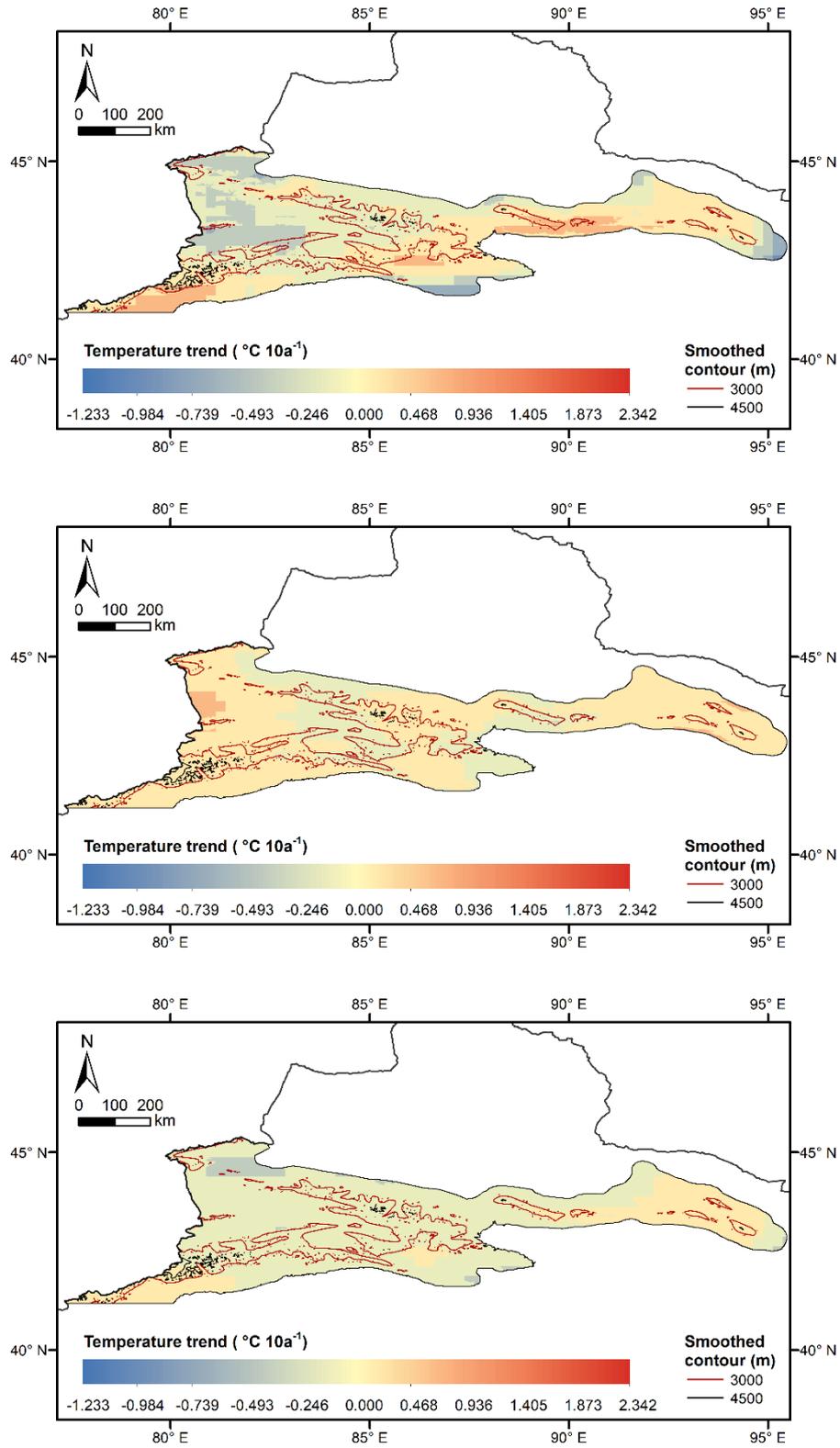


Fig. S29 Temperature trends in winter for the entire CTM from 1979–2016, minimum temperature (up), maximum temperature (middle) and mean temperature (down).

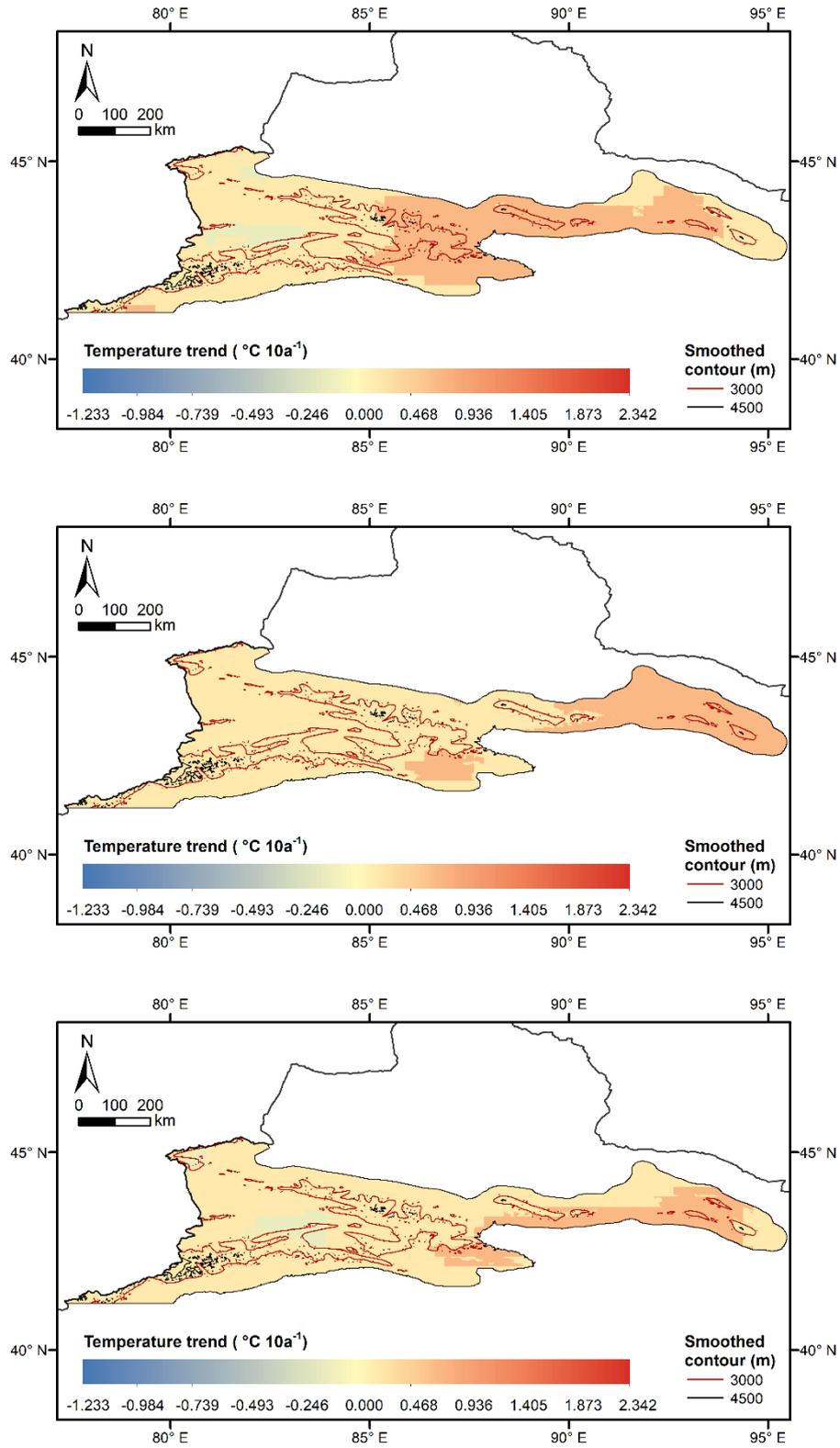


Fig. S30 Annual temperature trends for the entire CTM from 1979–2016, minimum temperature (up), maximum temperature (middle) and mean temperature (down).

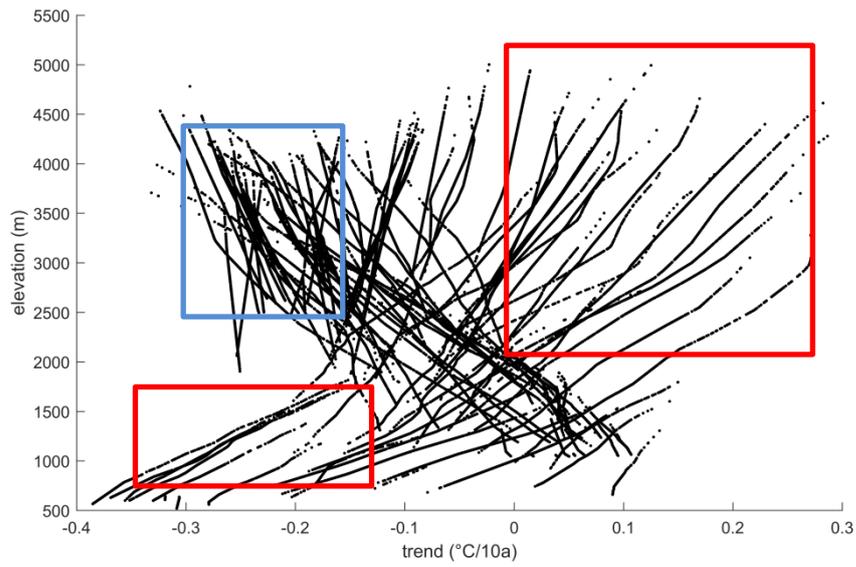


Fig. S31 Scatter of December minimum temperature trend and elevation in Zone 2. The grids in the red rectangle show the elevation-dependent warming while the grids in the blue rectangle show the elevation-dependent cooling.