

Klimawandel ist hier und jetzt

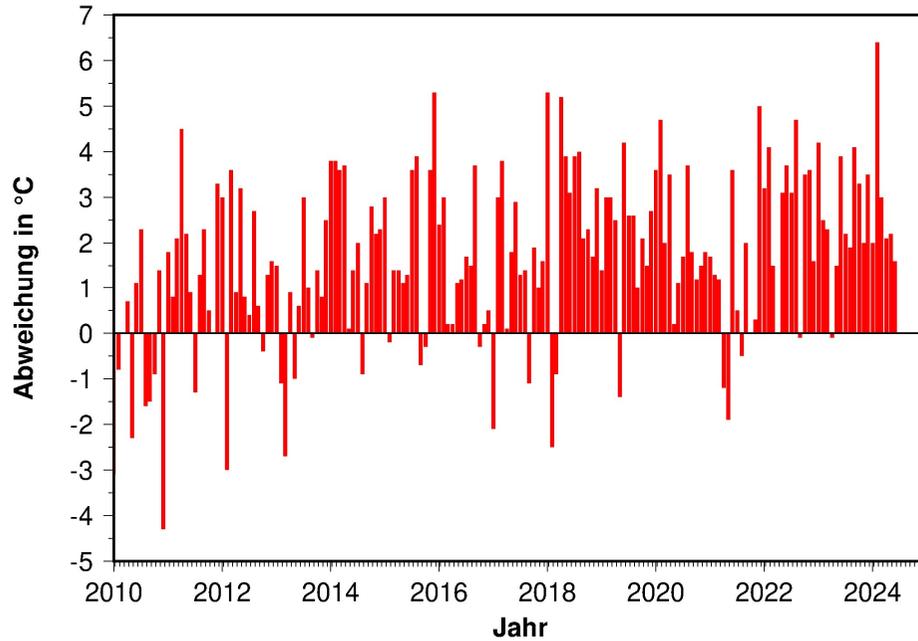
Prof. Dr. Heiko Paeth
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und Geologie
Universität Würzburg*

Gliederung

- I. Klimawandel in Unterfranken
- II. Folgen des Klimawandels
- III. Stadtklima von Würzburg
- IV. Folgen des Stadtklimas
- V. Blick über den Tellerrand

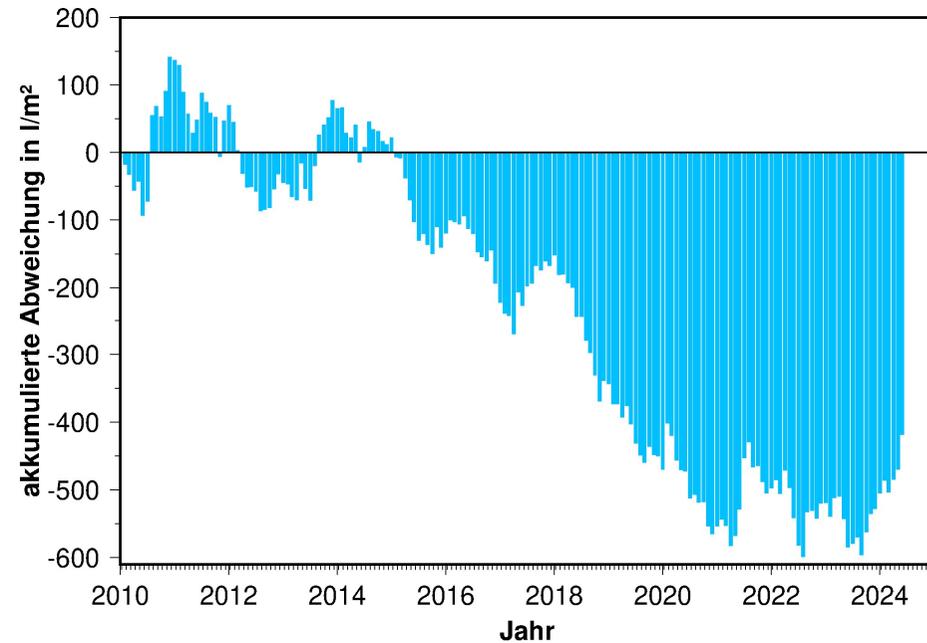
Klimawandel in Unterfranken

Temperaturanomalie in Würzburg ggü. 1961-1990



viel zu warm ...

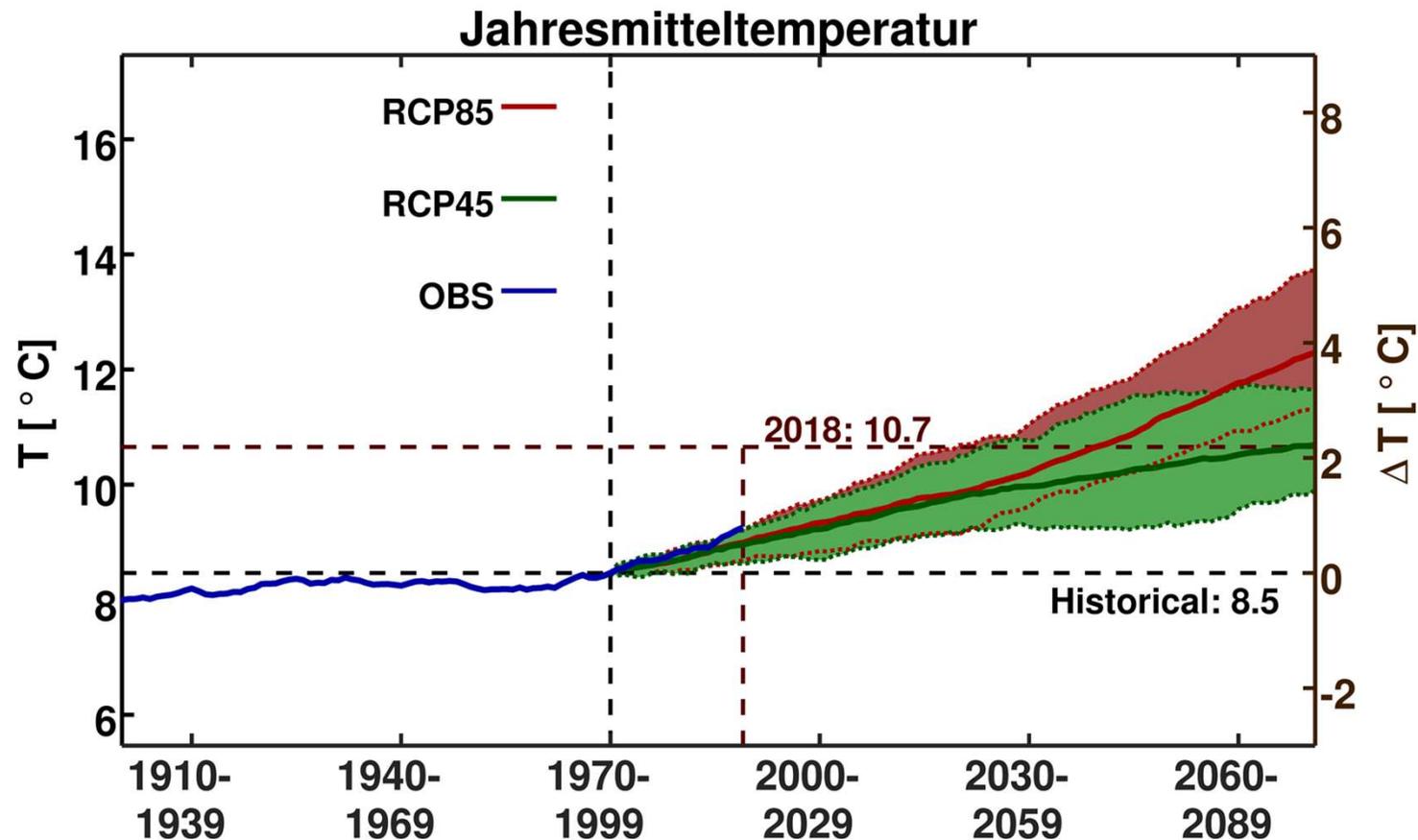
Niederschlagsanomalie in Würzburg ggü. 1961-1990



... und viel zu trocken

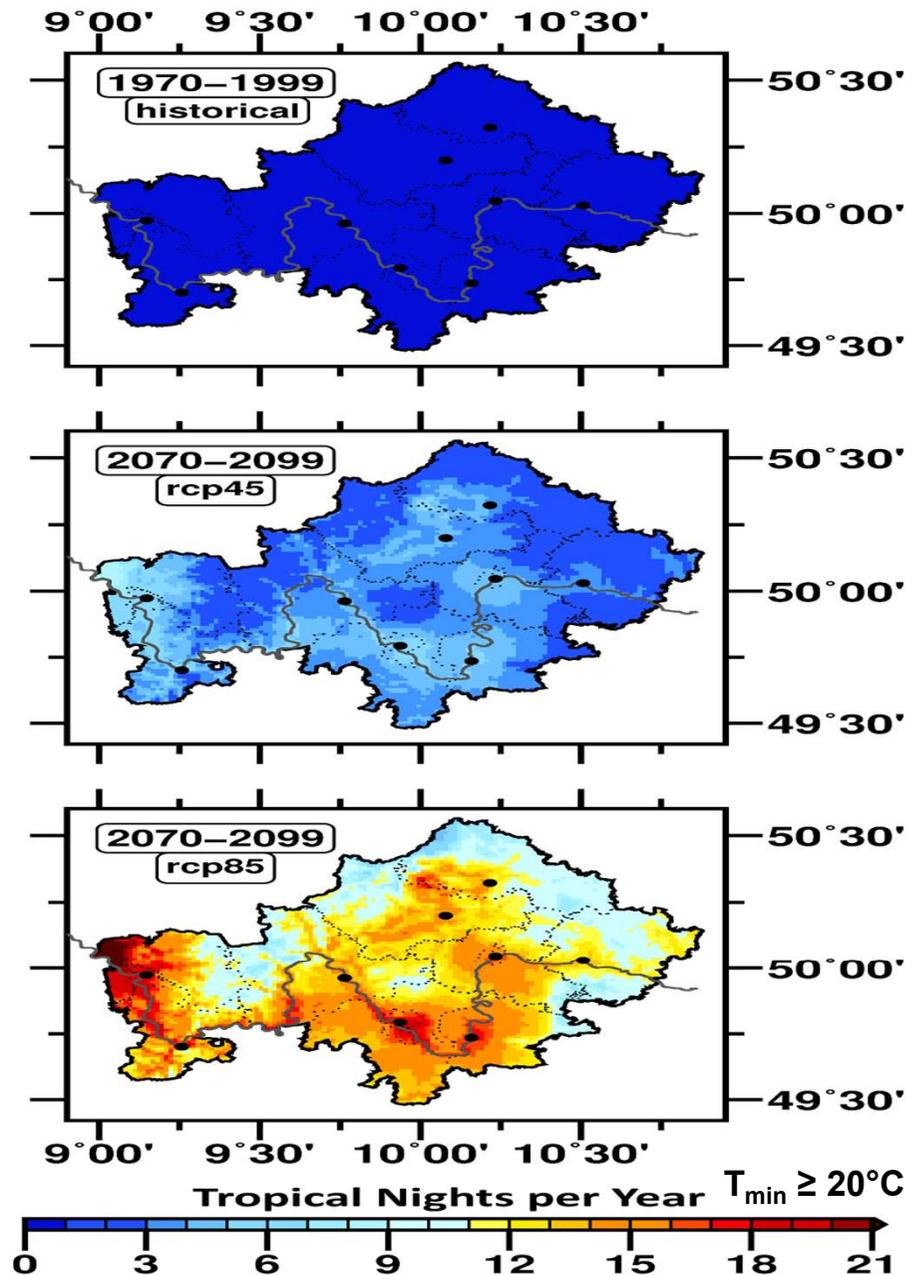
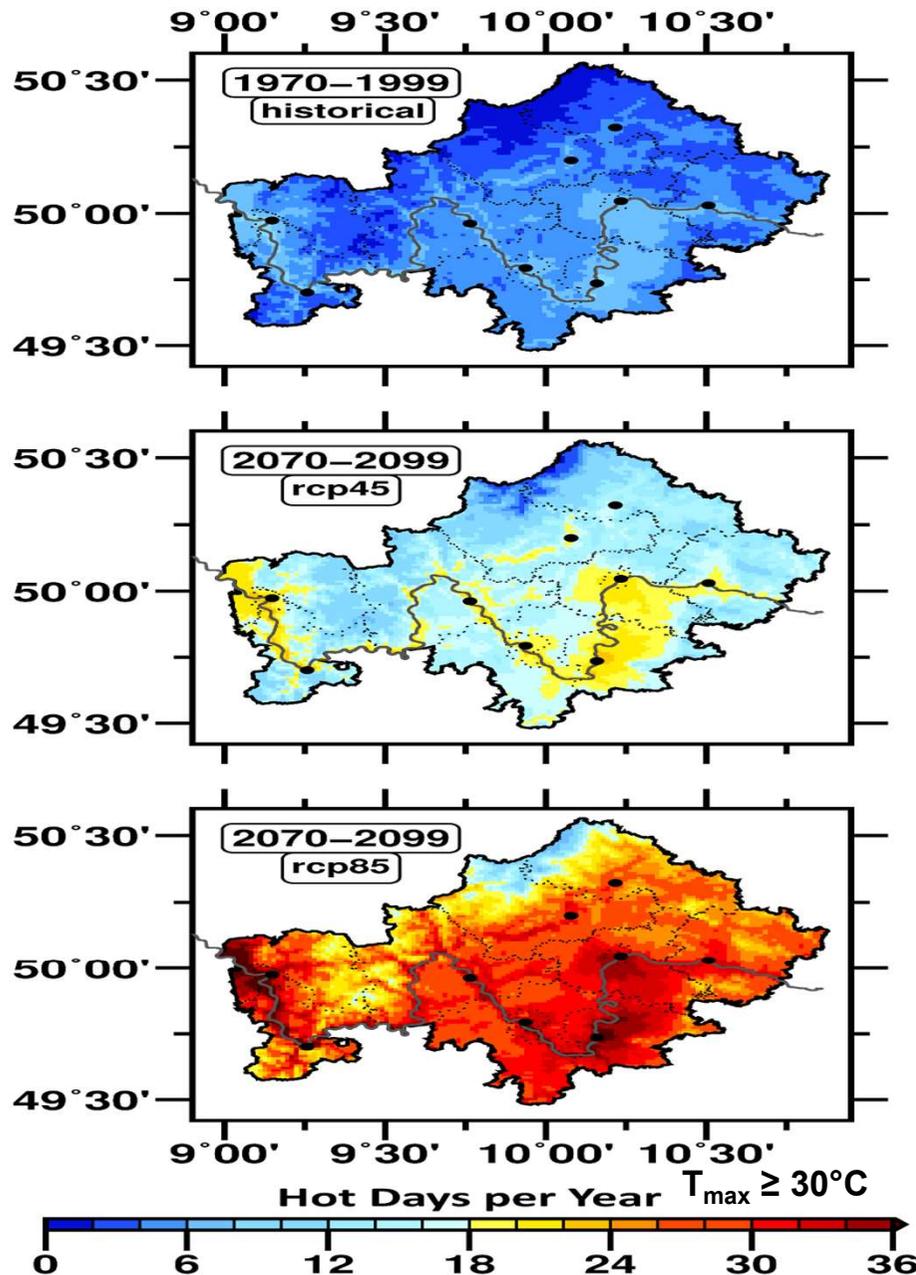
[Paeth et al. 2023]

Zukunft Temperatur

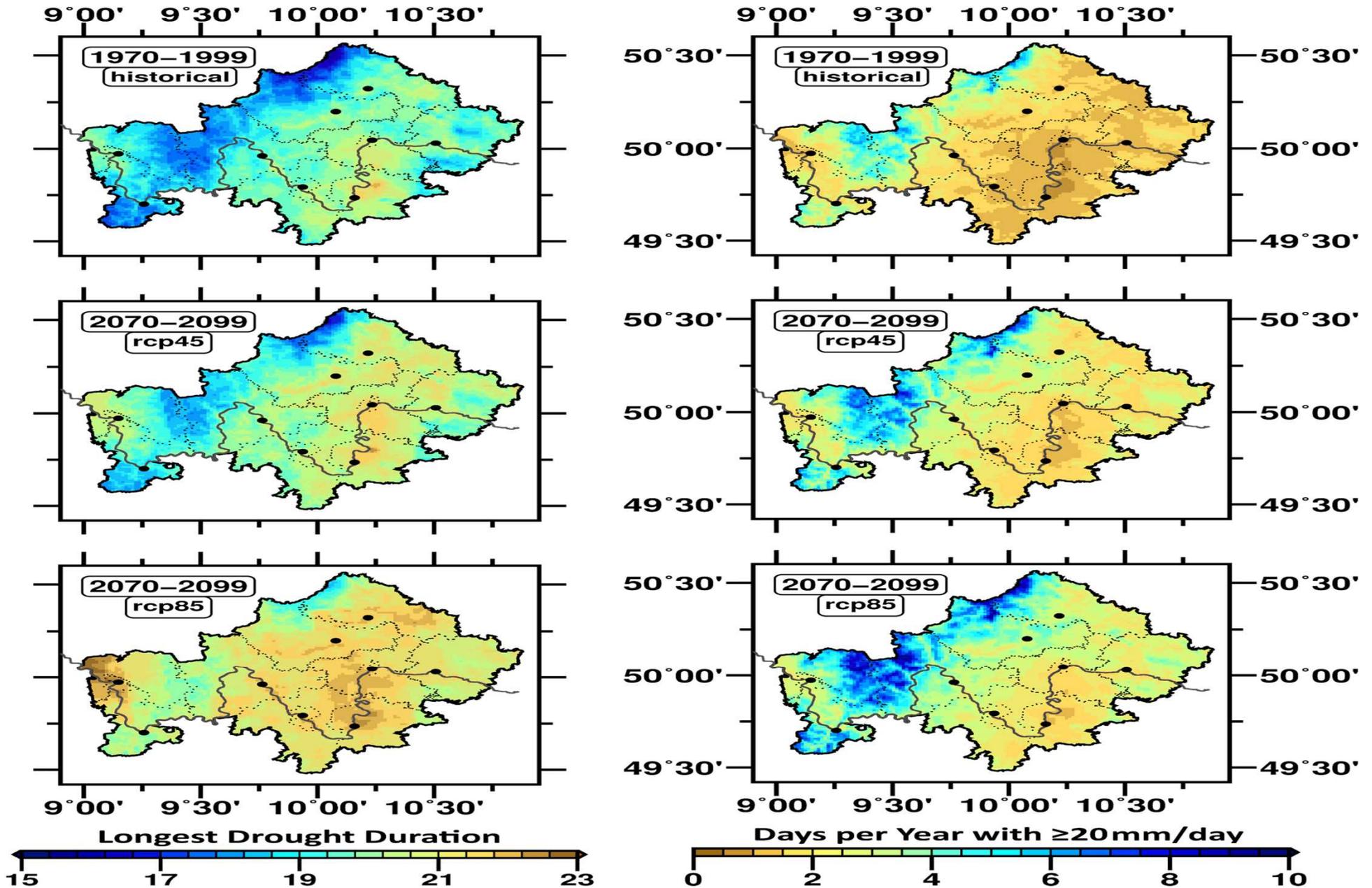


- bei business-as-usual bis 2100 4,4°C wärmer
- bei etwas Klimaschutz bis 2100 2,7°C wärmer
- Beobachtungen am Oberrand

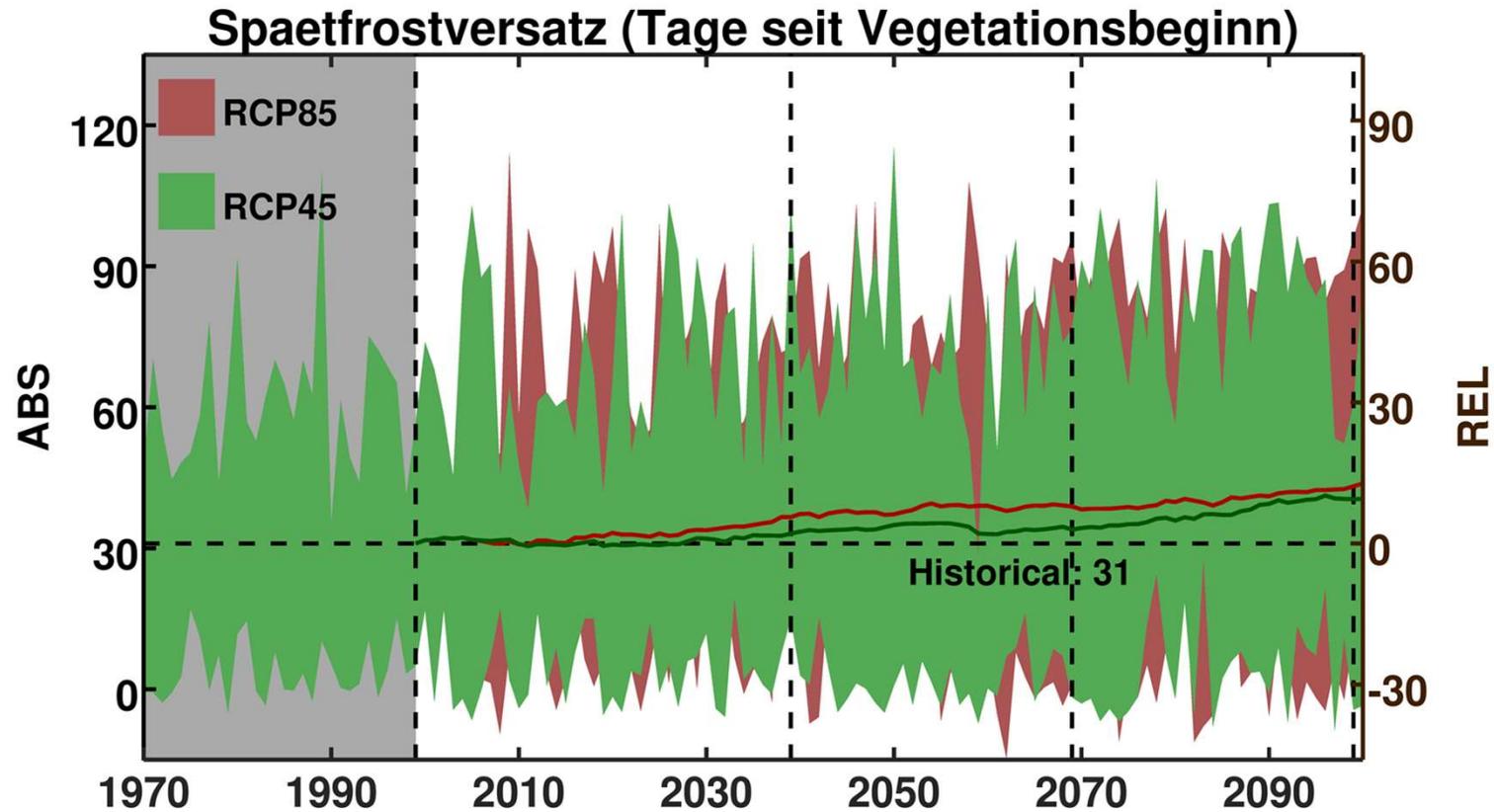
Zukunft Hitze



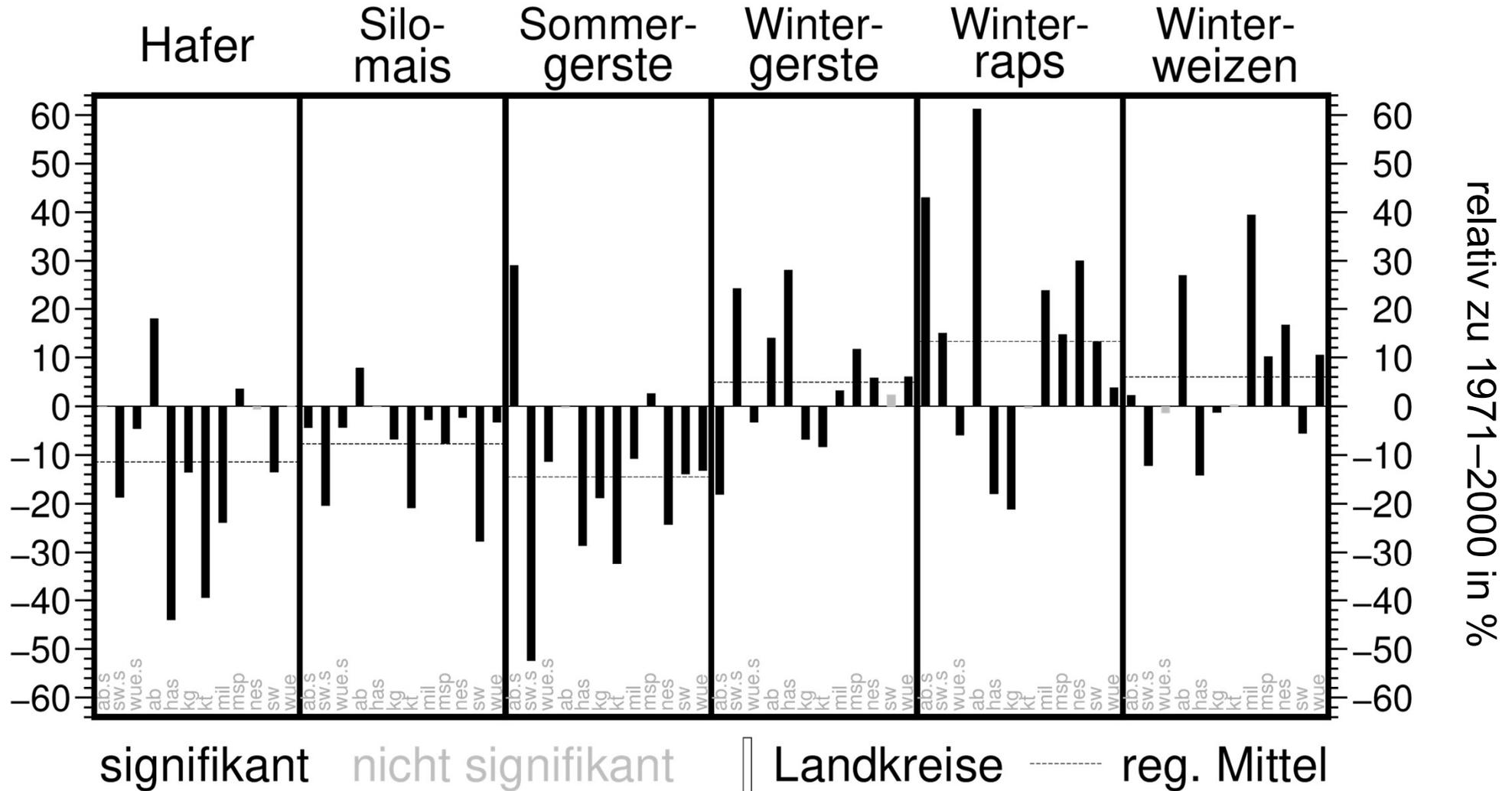
Zukunft Trockenheit



Spätfrostereignisse

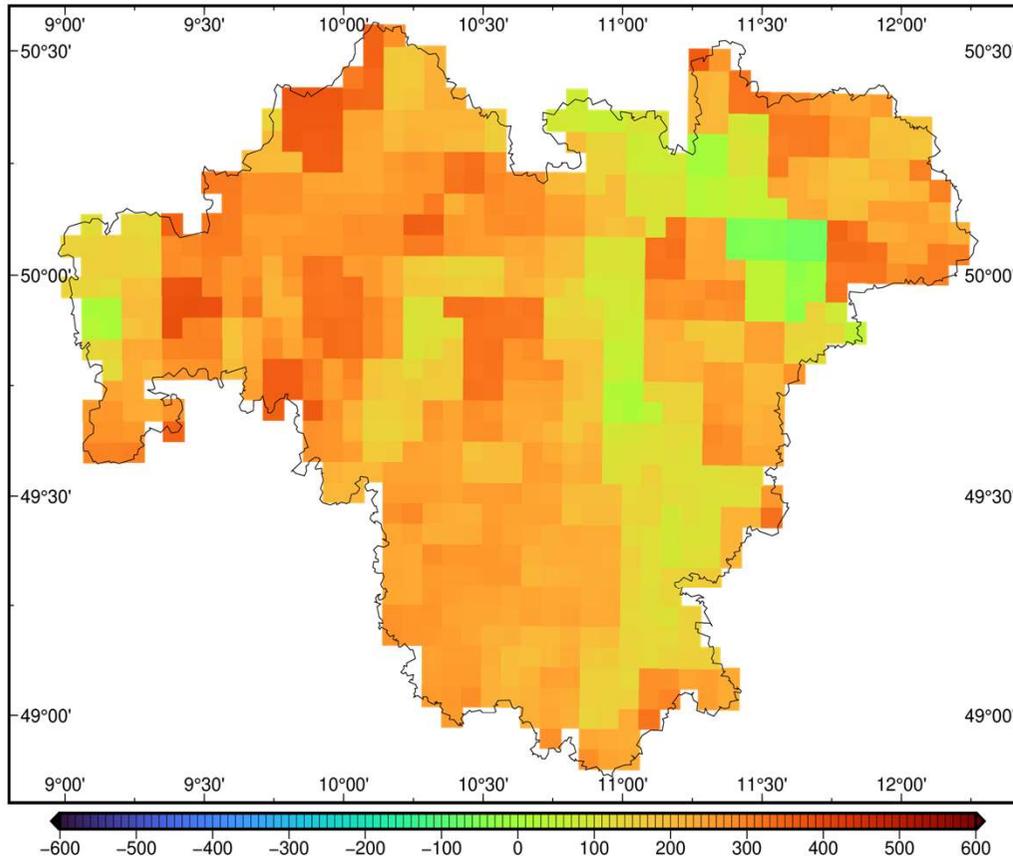


Landwirtschaftlicher Ertrag

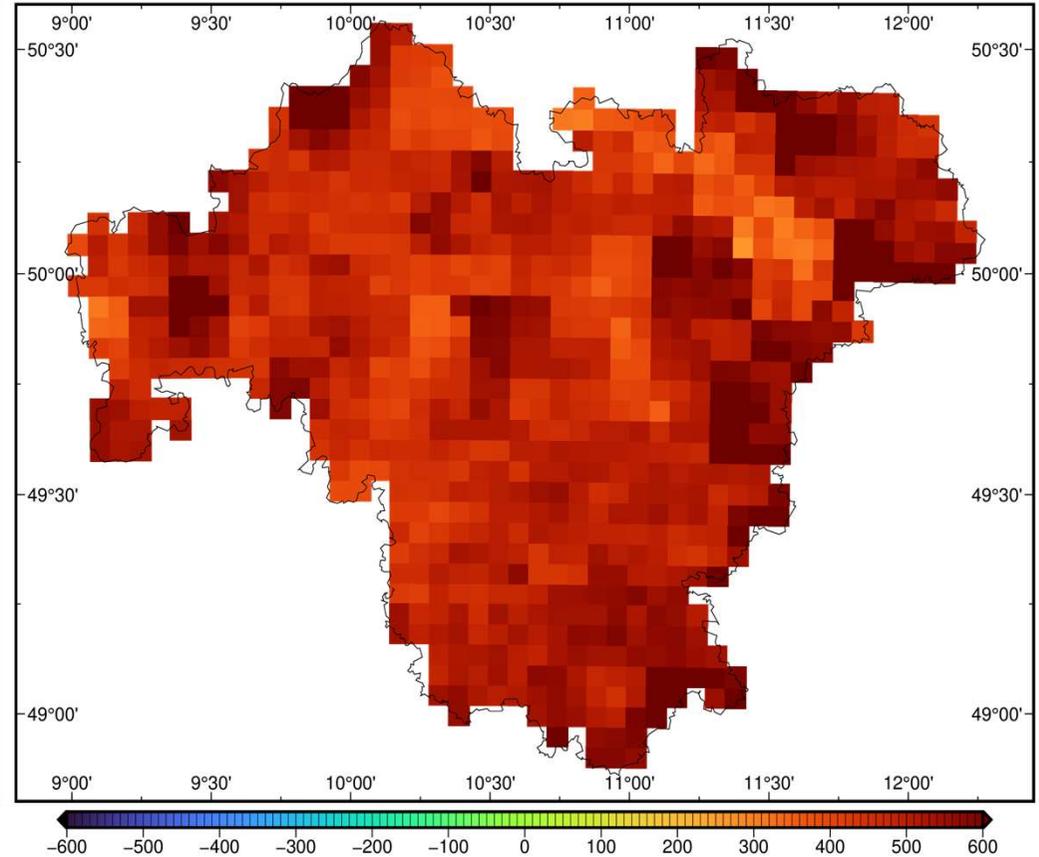


Bewässerungsbedarf

Kartoffeln, 1971-2000



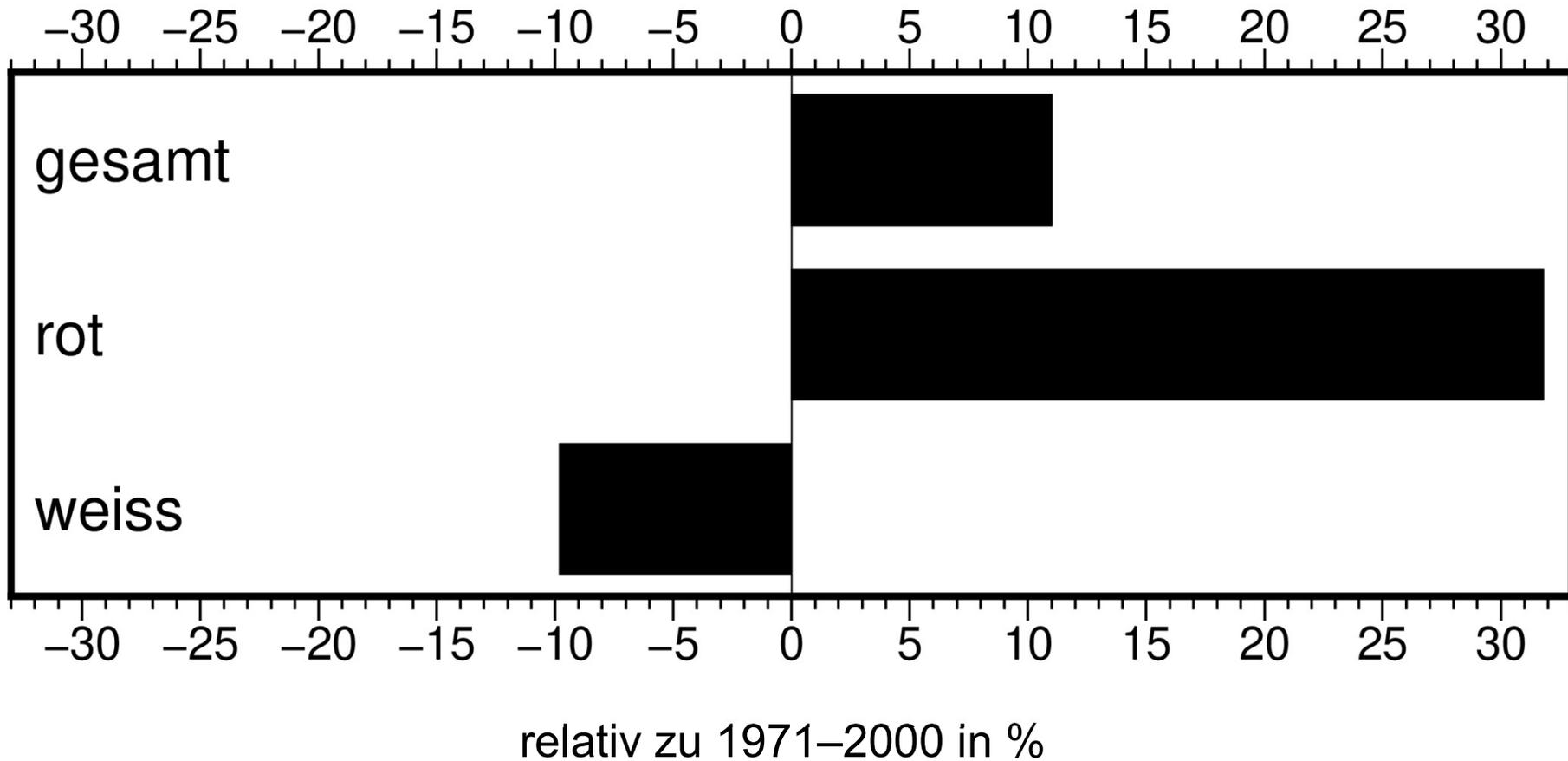
Kartoffeln, 2071-2100



Wasserbedarf in l/m^2 über alle 4 Wachstumsphasen



Weinertrag

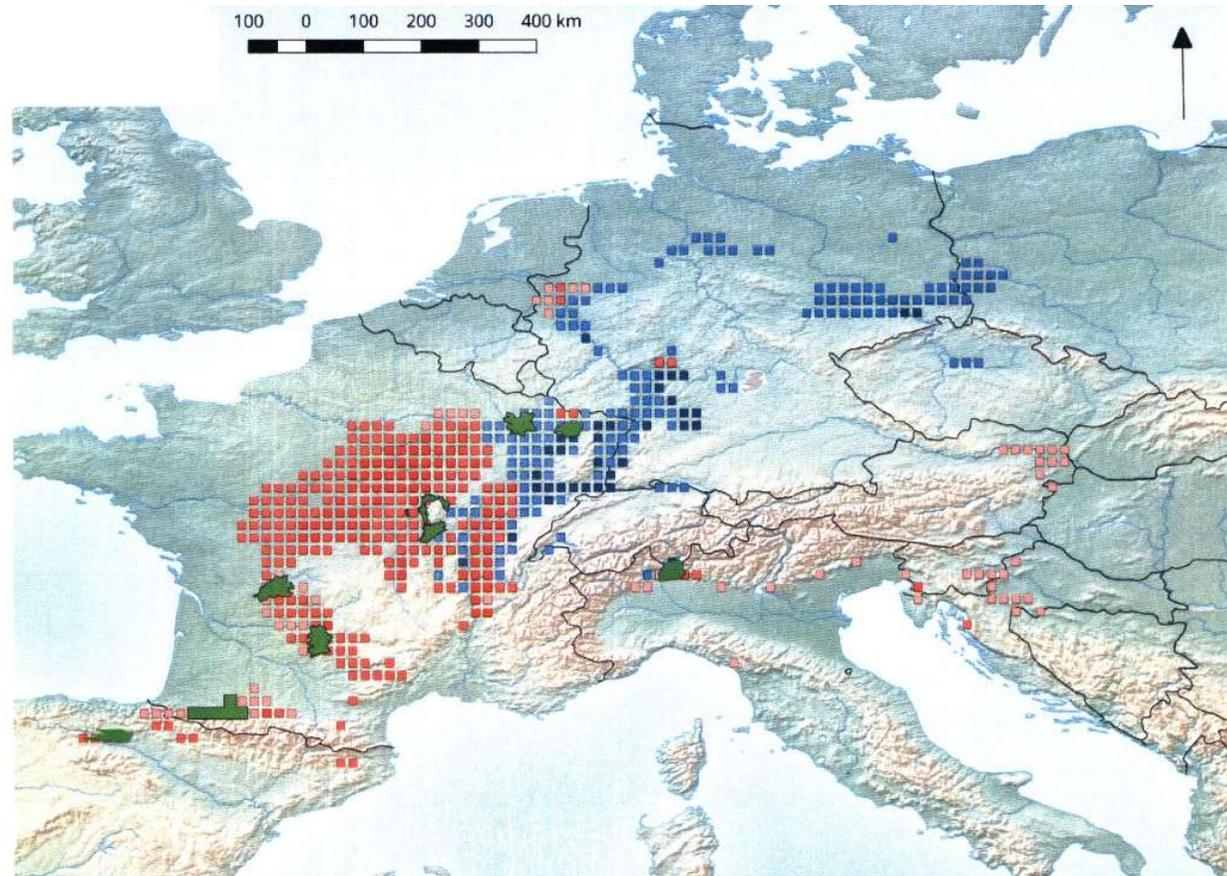


relativ zu 1971–2000 in %

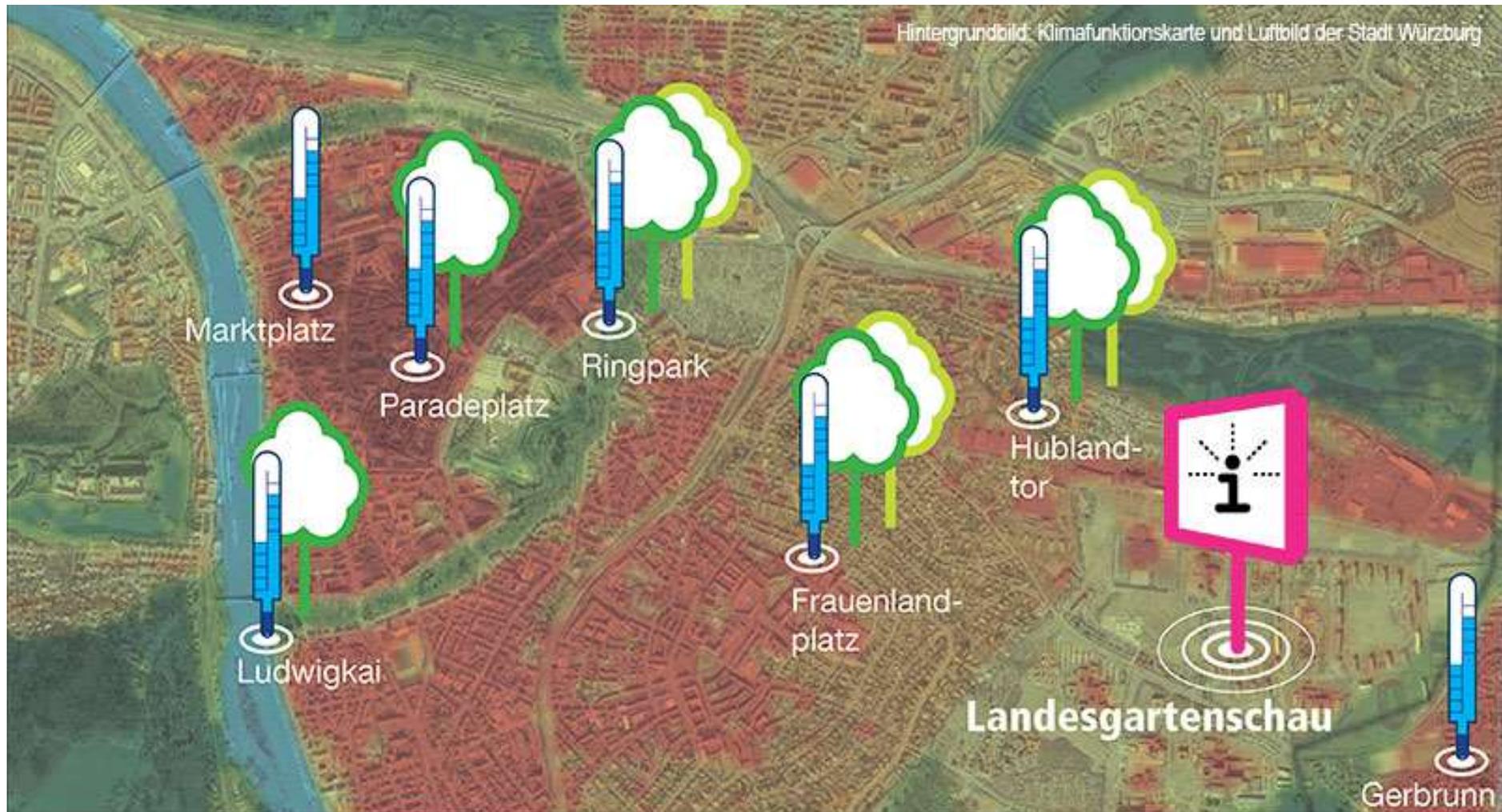
Waldumbau

heutige Analogklimate
für das zukünftige
Standortklima im Steigerwald

- 2041-2070
- 2071-2100



Stadtklima Würzburg



 Messtation mit Informationstafel

 Messpunkt Klima

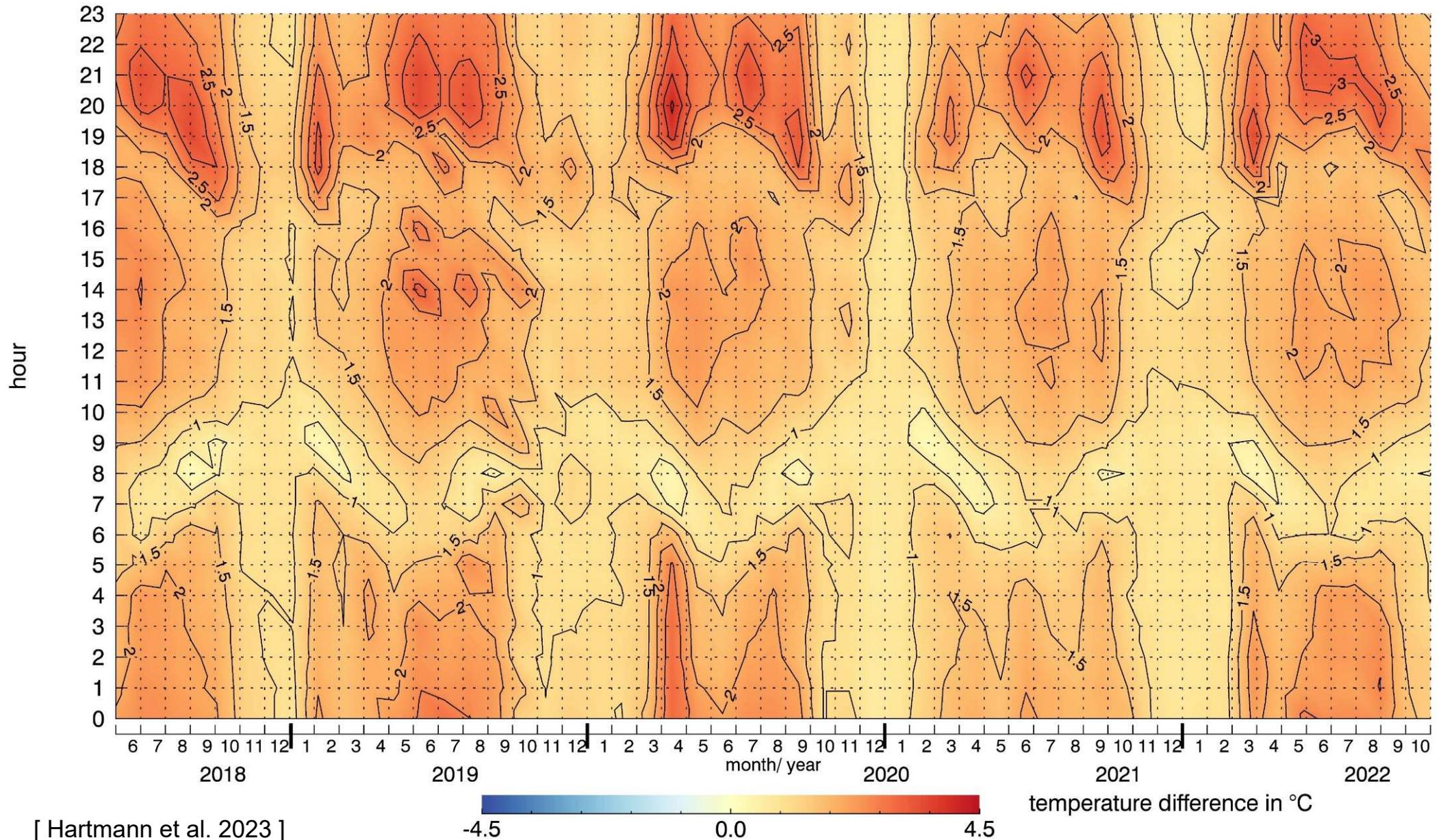
Stadtklima Überhitzung – Frischluft

 (Klimafunktionskarte Würzburg)

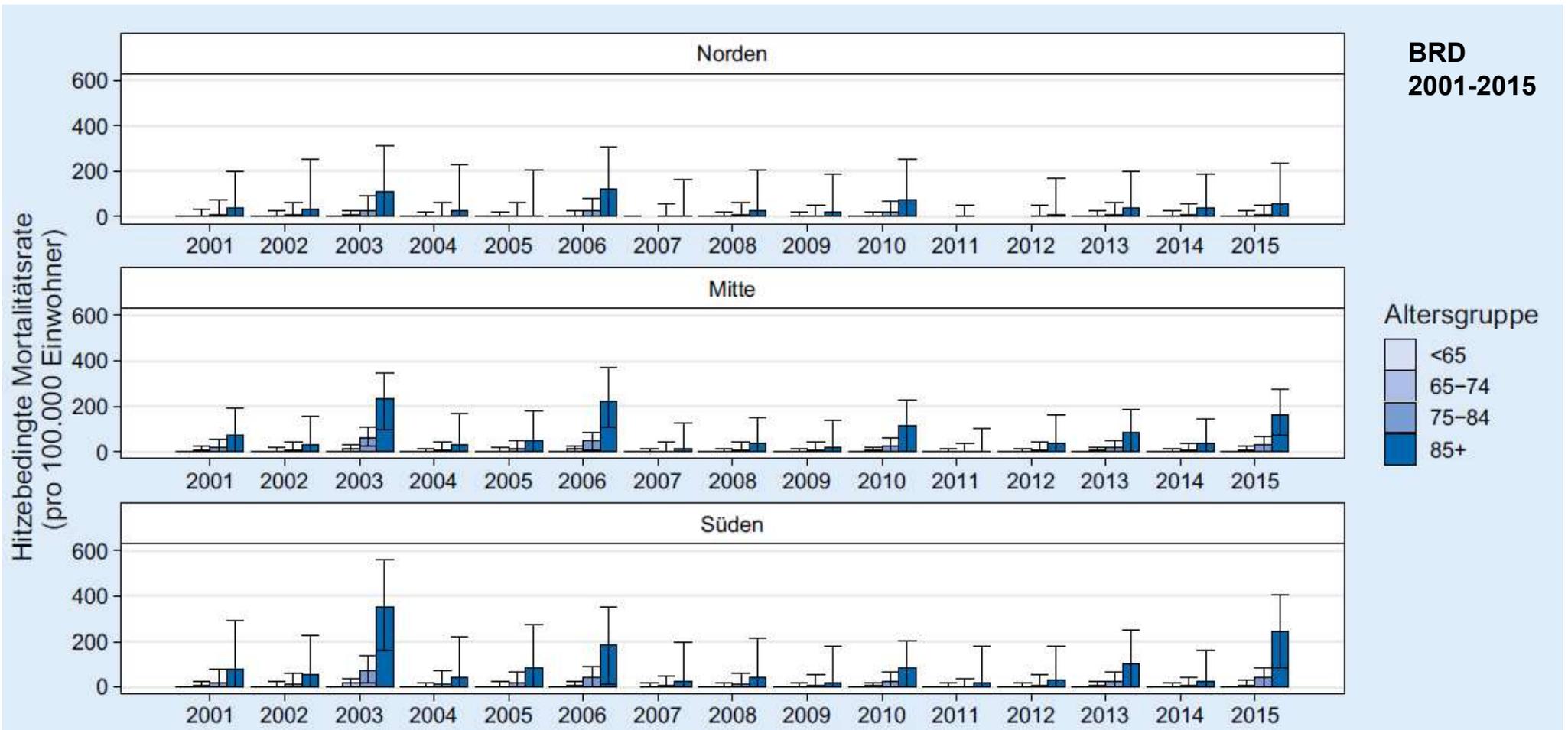
 Messpunkt Baum Robinie

 Messpunkt Baum Linde

Stadtklima Würzburg

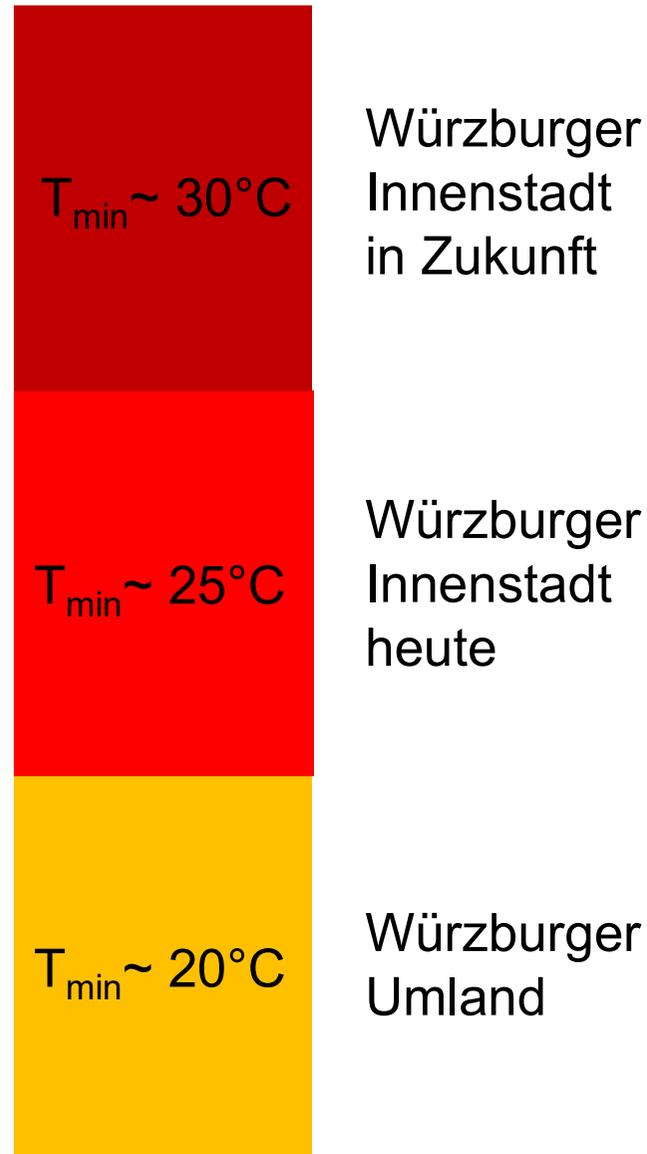


Hitzebedingte Mortalität

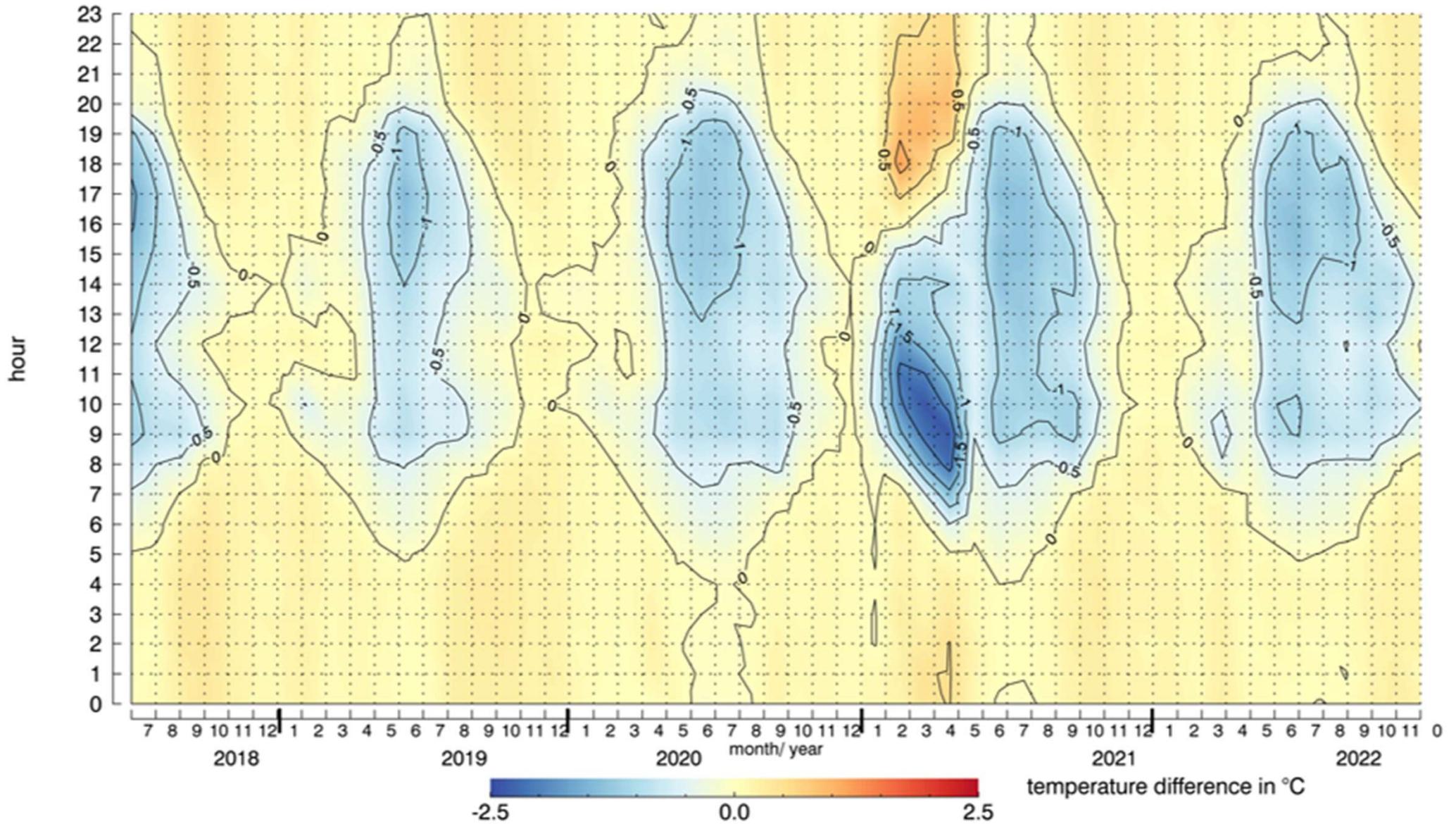


[An der Heiden et al., Bundesgesundheitsblatt, 2019]

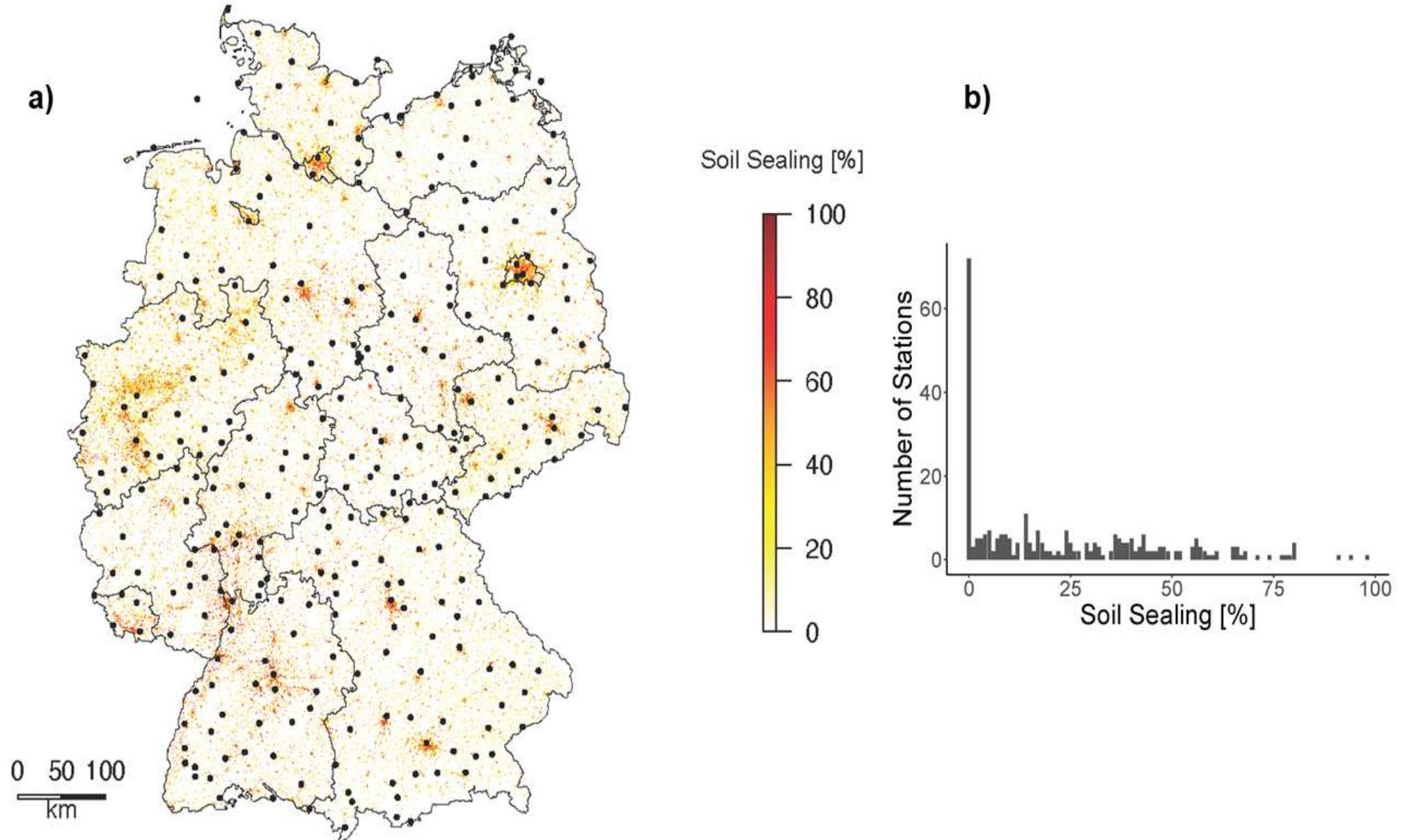
Schlafkomfort in Würzburg



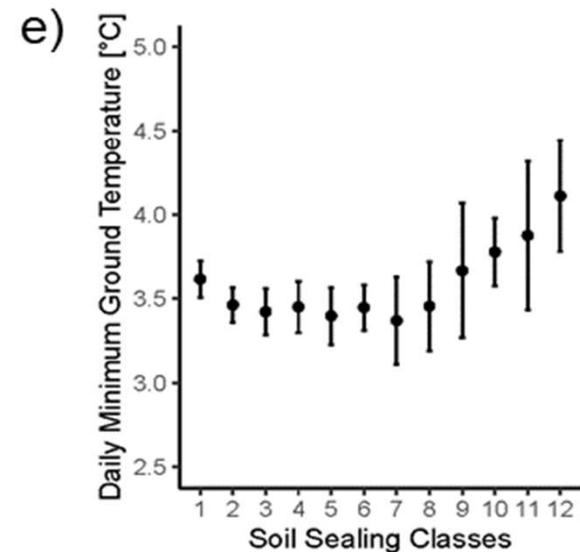
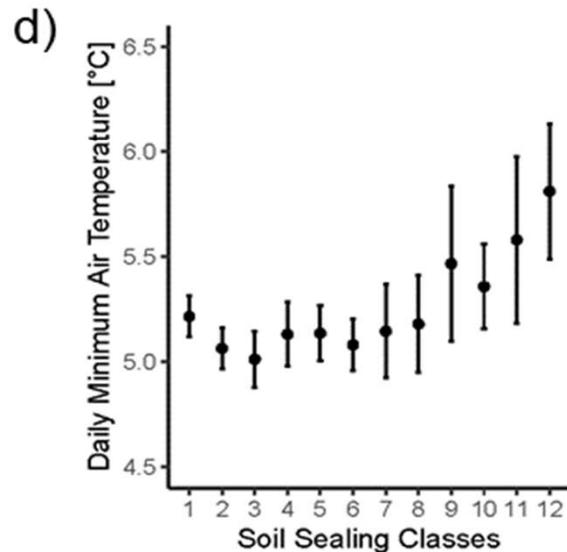
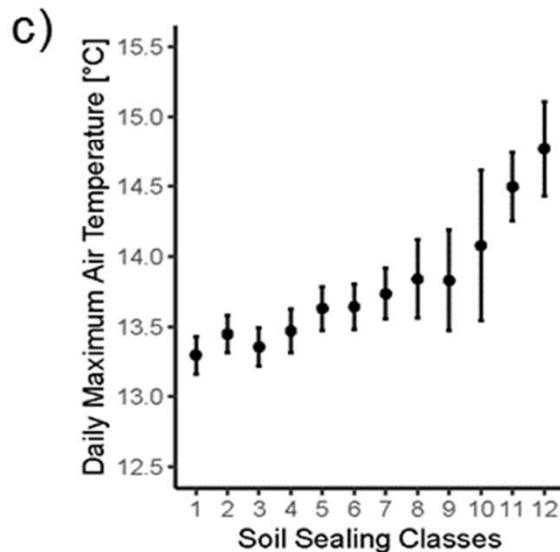
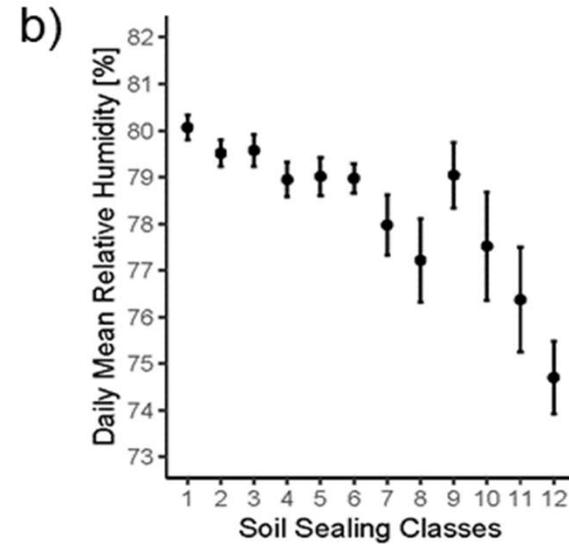
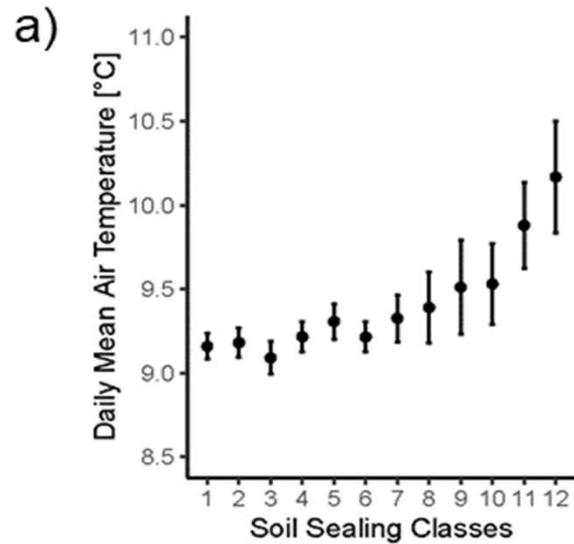
Stadtklima Würzburg



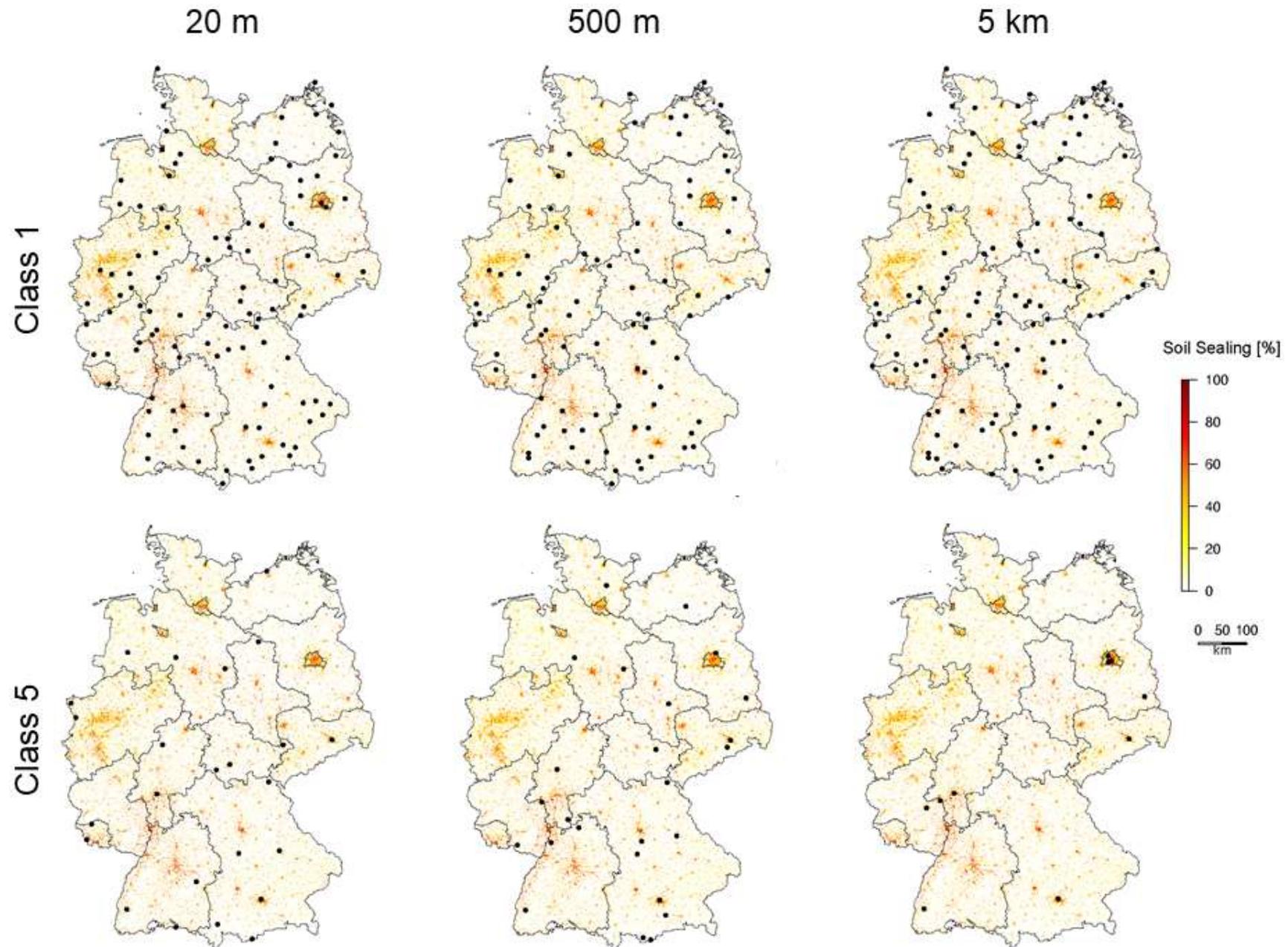
Bodenversiegelung in der BRD



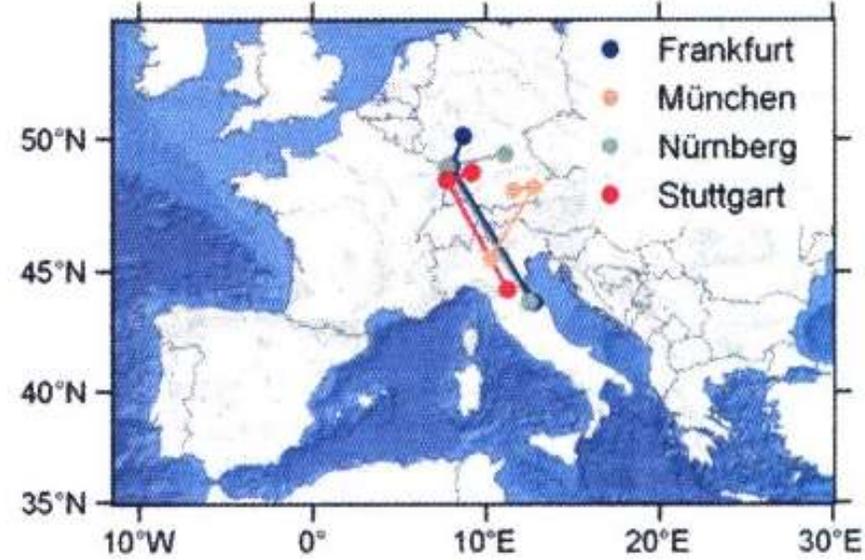
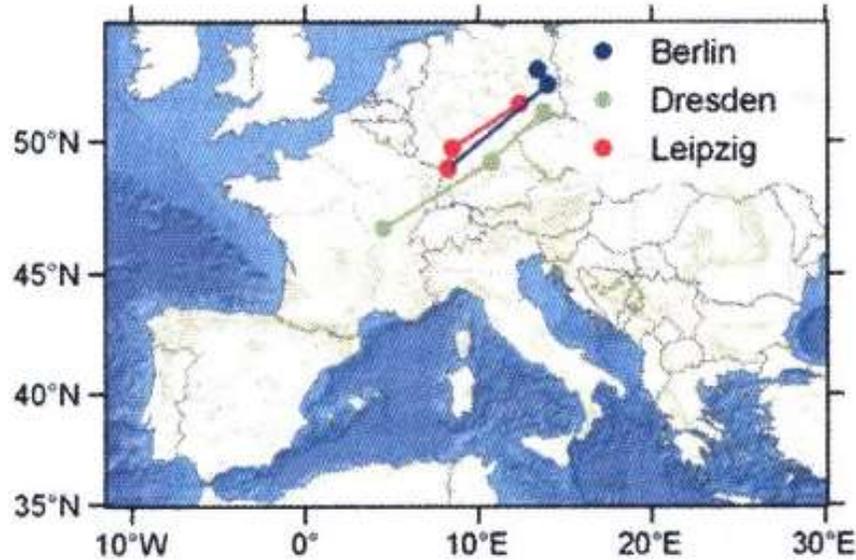
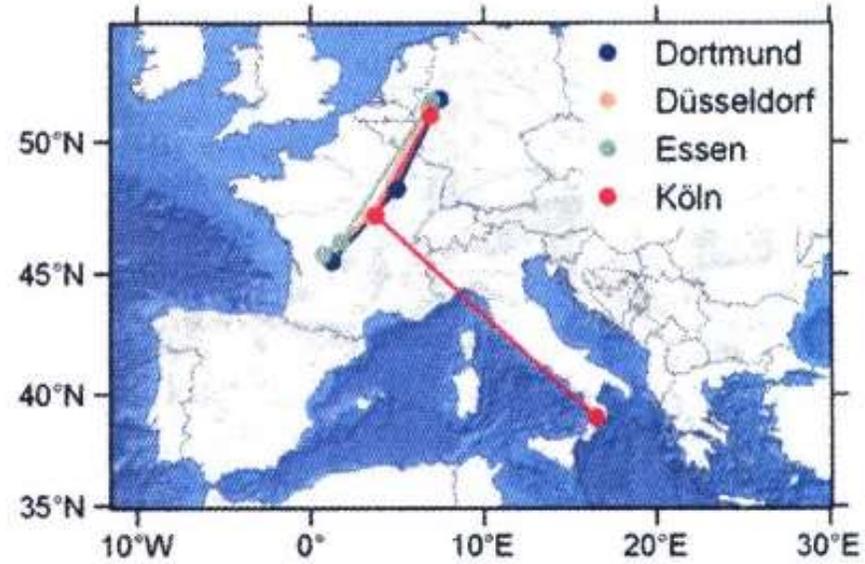
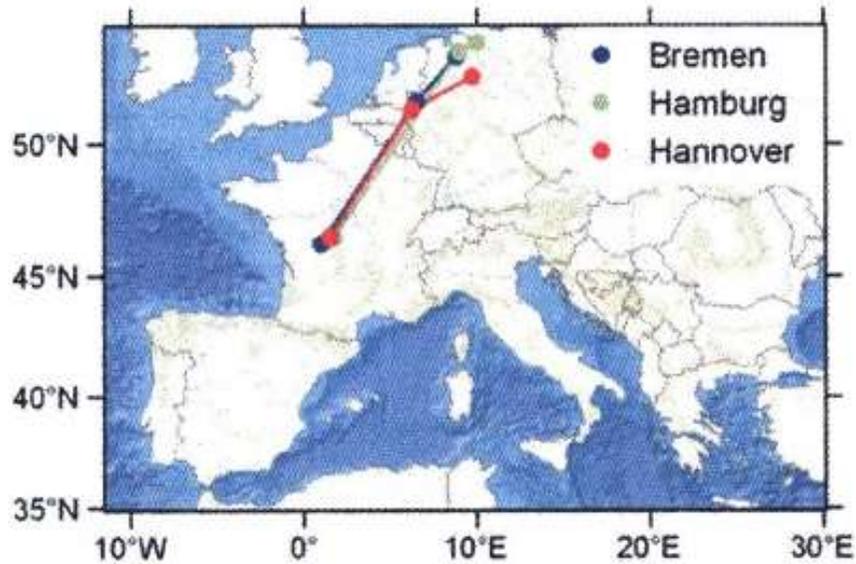
Bodenversiegelung & Klimawandel



Bodenversiegelung & Klimawandel



Analogklimate deutscher Großstädte



1989-2018

2041-2070

2071-2100

Vielen Dank für Ihre Aufmerksamkeit !