

Homogenized air temperature series of Brno in the period 1799–2008

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Basics steps of homogenization and compilation of the Brno temperature series are presented. Systematic air temperature measurements on the territory of Brno (the second largest city of the Czech Republic) started in 1848. Before this time early temperature measurements have been preserved in various sources since 1799. A brief history of measurements and their spatial and temporal coverage in Brno is given. All available series were quality controlled and homogenized using several tests of relative homogeneity applying AnClim and ProClimDB software (www.climahom.eu). Homogenization was done for daily temperature measurements since 1848 and for monthly means before that time. Final homogenized series for Brno in 1799–2008 was compiled from several sites of temperature measurements and is related to the present position of the Brno, airport station.

Long-term variability and current trends of air temperature in Brno are analyzed. Coherency of this series with existing long Central European temperature series is discussed. Finally several characteristics of extremity were derived from the new series and their long term trends are presented.