



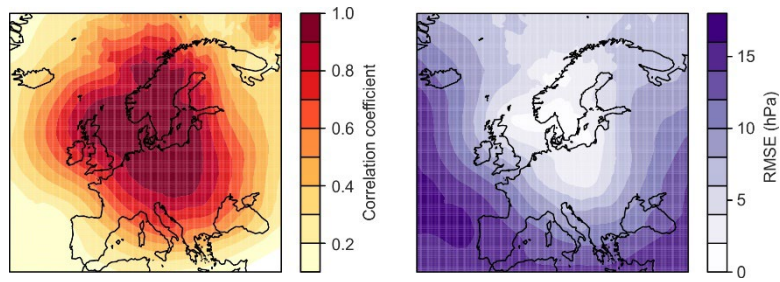
*Supplement of*

## **The weather of 1740, the coldest year in central Europe in 600 years**

**Stefan Brönnimann et al.**

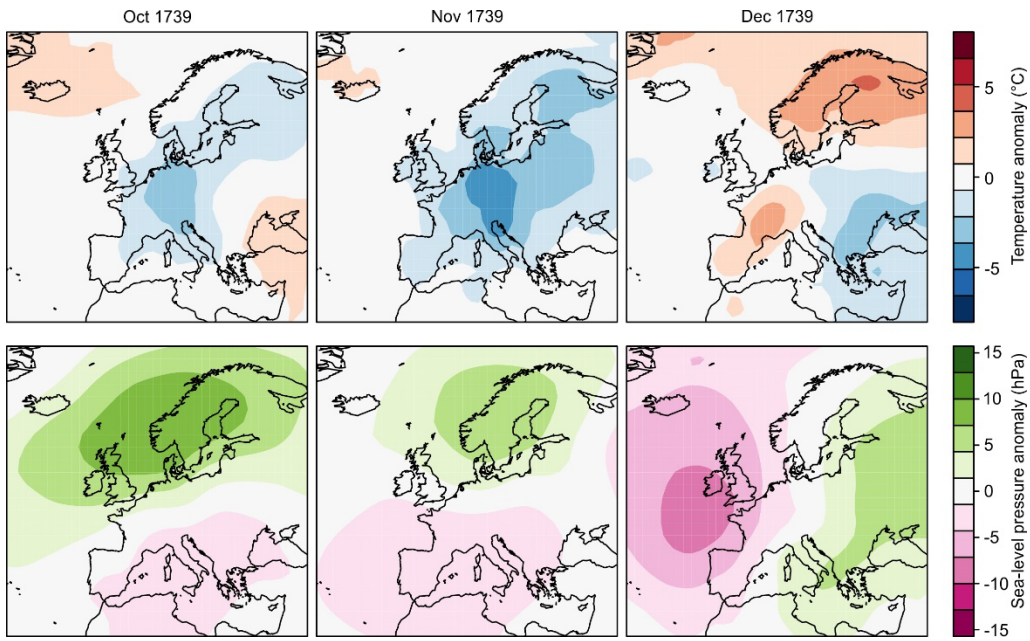
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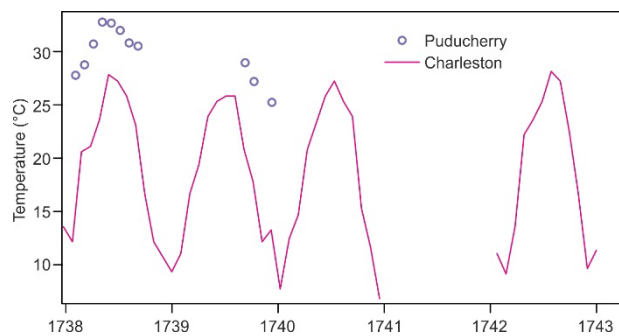
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**Fig. S1.** Cross-validation of analog sea-level pressure reconstruction within ERA5. The year 1940 was reconstructed based on the years 1941-2022 in ERA5. Left: Correlation coefficient, right: root mean squared error.



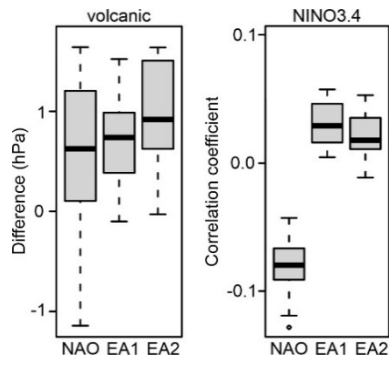
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**Fig. S2.** Monthly anomalies (with respect to 1710-1739) of (top) temperature and (bottom) sea-level pressure in Oct-Dec 1739 in the ModE-RA ensemble mean.



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**Fig. S3.** The only two available non-European temperature series that cover the boreal winter 1739/40



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11 **Fig. S4.** Left: Averaged NAO and EA indices in ModE-RA following volcanic eruptions in 1710-2000  
 12 (expressed as anomalies from the average of all years). Right: Correlations between NINO3.4 (Sep-Feb) and  
 13 indices of NAO (Jan-Feb) and EA1 and EA2 (Mar-May) in ModE-RA in 1710-2000. The box plots show the  
 14 distribution of the ModE-RA members.