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Supplementary Information of

The role of stratosphere-troposphere coupling in the occurrence of wintertime extreme temperature events over the eastern part of the Baltic Sea region

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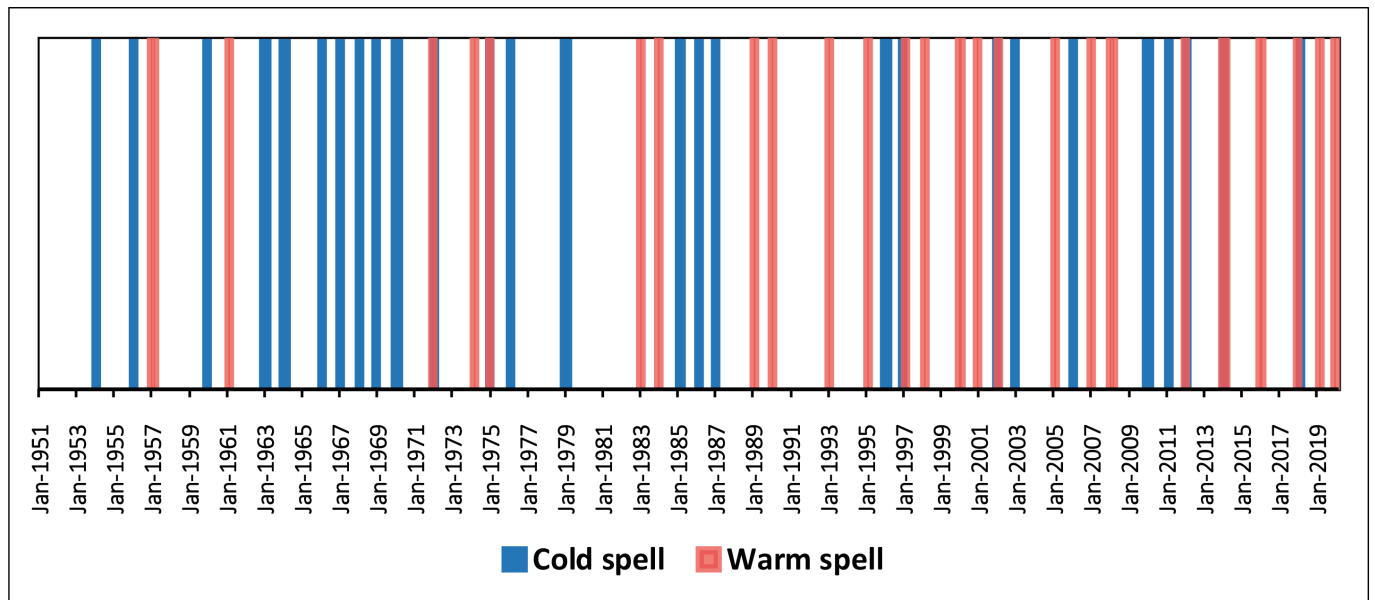


Fig. S1. CSs and WSs in the eastern part of the Baltic Sea region from 1951–2020 which were analysed in this study.

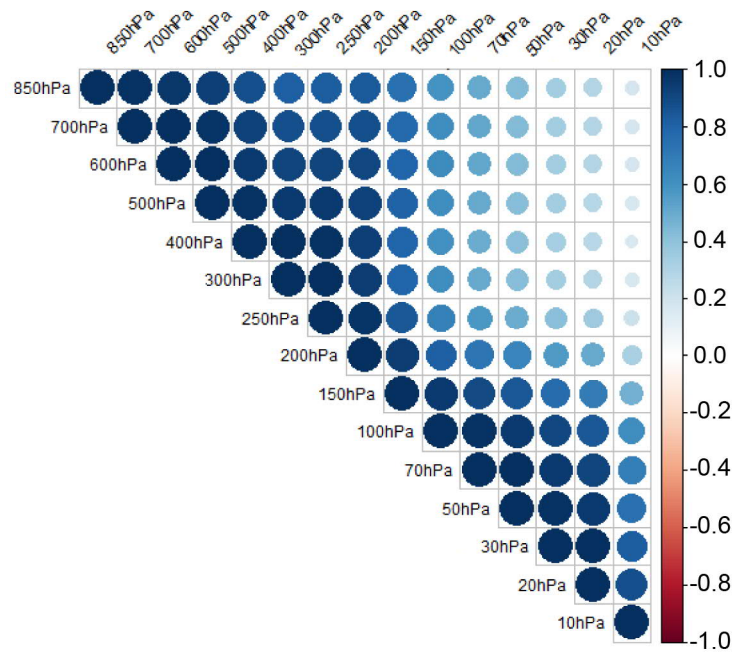


Fig. S2. Correlation coefficients showing the linear relationship between the daily December-February (DJF) NAM indices (number of values, $n = 6318$) at the different pressure levels from 850 hPa to 10 hPa, $p < 0.00001$.

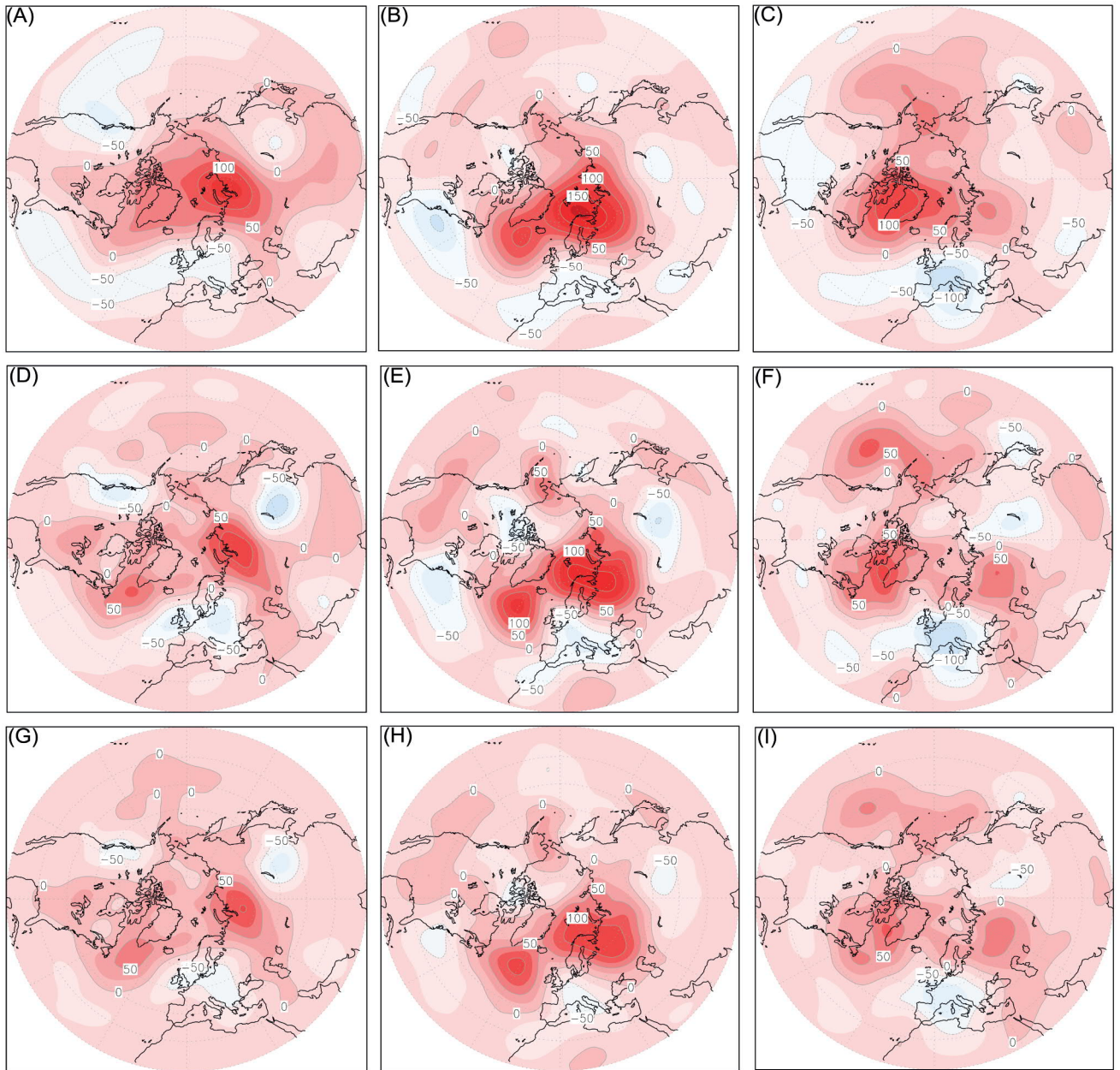


Fig. S3. Average GPH anomalies (m) for stratosphere-related CS events at the 150 hPa pressure level: (a) 30 days; (b) 20 days; (c) 10 days before the CS; at 300 hPa pressure level: (d) 30 days; (e) 20 days; (f) 10 days before the CS; and at 500 hPa pressure level: (g) 30 days; (h) 20 days (i) 10 days before the CS in the NH (20-90°N).

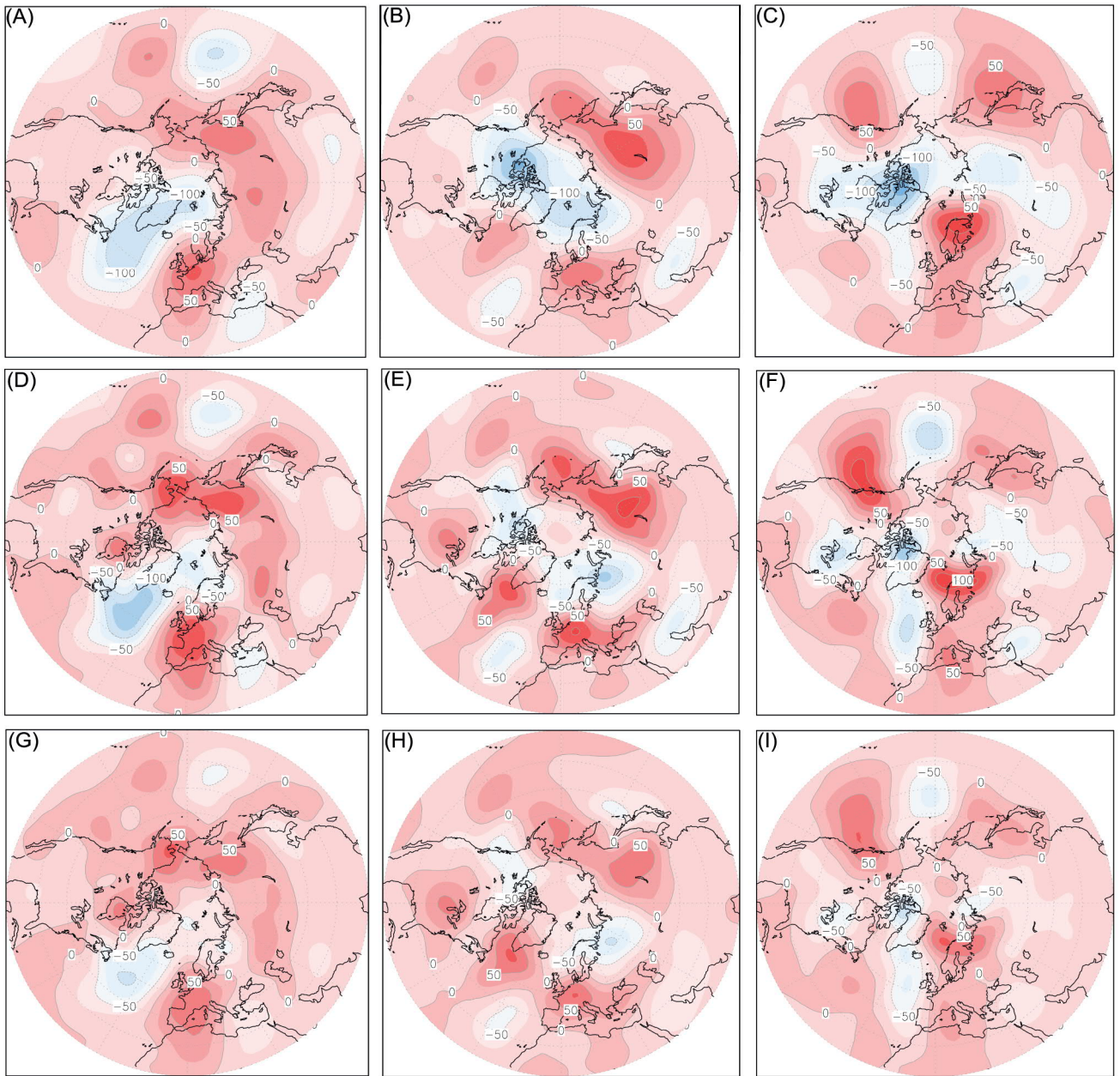


Fig. S4. Average GPH anomalies (m) for non-stratospheric CS events at the 150 hPa pressure level: (a) 30 days; (b) 20 days; (c) 10 days before the CS; at 300 hPa pressure level: (d) 30 days; (e) 20 days; (f) 10 days before the CS; and at 500 hPa pressure level: (g) 30 days; (h) 20 days before the CS; and (i) 10 days before the CS in the NH (20-90°N).