Fischer, M., S. Lenggenhager, R. Auchmann, and A. Stickler (2013) Synoptic Analysis of the New York March 1888 Blizzard. In: Brönnimann, S. and O. Martius (Eds.) *Weather extremes during the past 140 years*. Geographica Bernensia G89, p. 45-52, DOI: 10.4480/GB2013.G89.05



Abstract

The meteorological circumstances that led to the Blizzard of March 1888 that hit New York are analysed in Version 2 of the "Twentieth Century Reanalysis" (20CR). The potential of this data set for studying historical extreme events has not yet been fully explored. A detailed analysis of 20CR data alongside other data sources (including historical instrumental data and weather maps) for historical extremes such as the March 1888 blizzard may give insights into the limitations of 20CR. We find that 20CR reproduces the circulation pattern as well as the temperature development very well. Regarding the absolute values of variables such as snow fall or minimum and maximum surface pressure, there is anunderestimation of the observed extremes, which may be due to the low spatial resolution of 20CR and the fact that only the ensemble mean is considered. Despite this drawback, the dataset allows us to gain new information due to its complete spatial and temporal coverage.