

Interactive comment on “Daily temperature records from a mesonet in the foothills of the Canadian Rocky Mountains, 2005–2010” by Wendy H. Wood et al.

Anonymous Referee #1

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GENERAL COMMENTS This study presents a unique daily multi-year temperature dataset obtained from a terrain with heterogeneous topography and strong climatic gradients. The setup of a grid of automatic weather stations is complex and required very heavy work, and the resulting dataset is very valuable, designed to cover the approximate area of one cell in a Global Circulation Model, and hence providing crucial information for downscaling in such types of terrain.

Data quality procedures, from calibration of the instrumentation before installing it in the field to data processing, are rich and well explained. The overall dataset has multiple applications, one of them – the calculation of monthly and seasonal distributions

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of minimum, maximum, and mean daily temperature lapse rates for the region – is presented in the present manuscript.

The manuscript itself is well written and structured, containing adequate information and presented proficiently.

The data has been made freely available online.

SPECIFIC COMMENTS Why are rainfall and relative humidity not presented within the manuscript? Is it because, if presented, the manuscript would become too long, or due to the fact that it was not possible to produce reliable datasets with these other variables?

Figure 3 is of very poor quality and needs improving.

Page 12, line 16: Mountain pine beetle is not an invasive species in Western Alberta, but endemic. It is however able to cause outbreaks, and hence the comment is relevant, but needs being corrected.

Interactive comment on Earth Syst. Sci. Data Discuss., <https://doi.org/10.5194/essd-2017-107>, 2017.

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