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A numerical study of the impact of the Last Glacial Cycle on Late-Holocene temperature and energy reconstructions from terrestrial borehole temperatures in North America: Supplementary material

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In this supplement we present some a additional figures, which extend the results shown in the main text for the uppermost 600 m to depths of 2000 m. Figure 1 shows the spatial distribution of the perturbation of the heat flux over the full domain. Each panel in this Figure shows heat flux perturbations for the depth ranges 30-500 m, 500-1000 m,1000-1500 m, and 1500-2000 m, respectively, while Figure 2 plots the widths of the 75% confidence intervals for the heat flux perturbations. Most of the mean heat flux perturbations are restricted to the first kilometer of the subsurface. This depth range spans the typical depth of BTPs used for borehole paleoclimatic studies. It is therefore important to estimate the impact of the LGC perturbations on GST and heat flow estimates from boreholes.

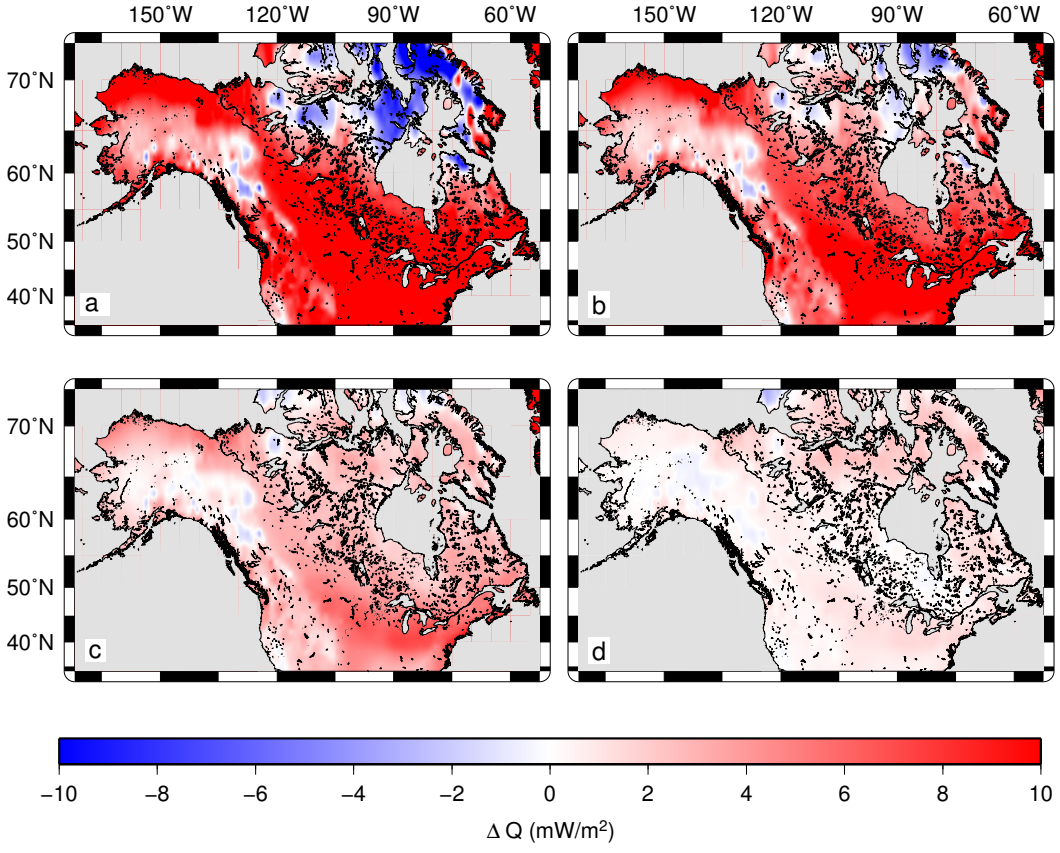

Fig. 1. Spatial distribution of the average perturbation of the heat flux for depth intervals ranging from (a) 30 m–500 m, (b) 500 m–1000 m, (c) 1000 m–1500 m, and (d) 1500 m–2000 m. Positive values represent ground energy gain.

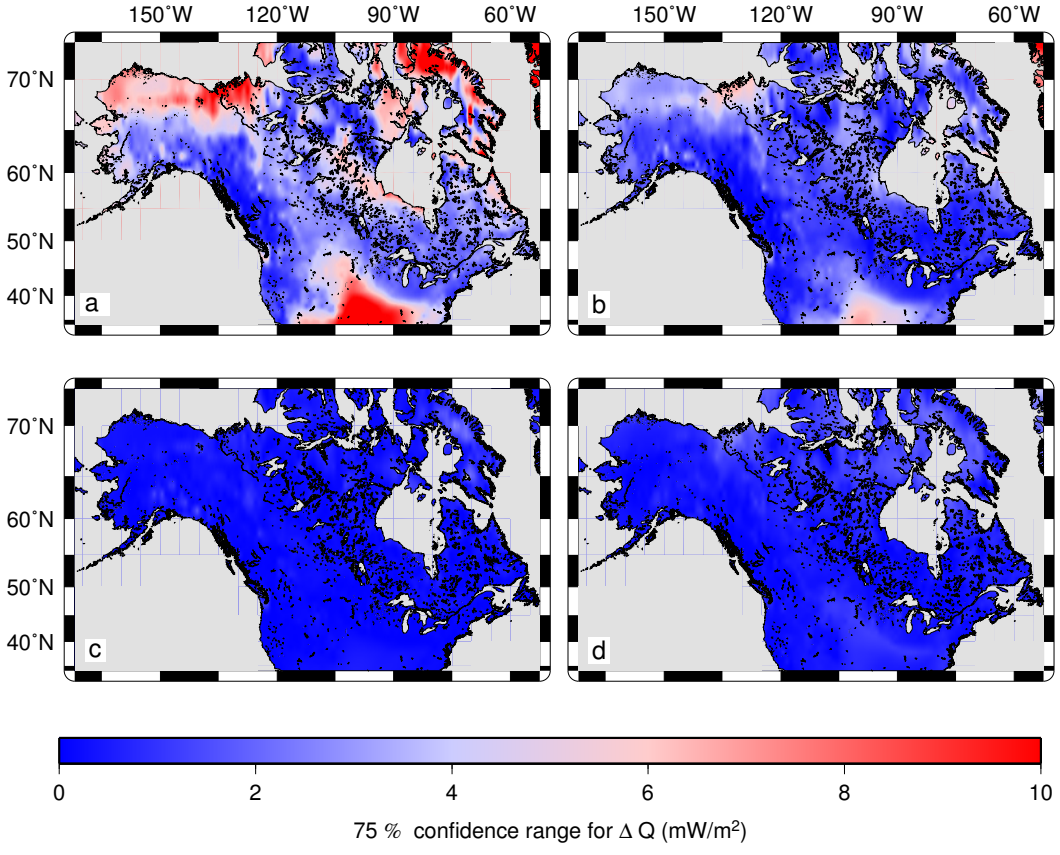

Fig. 2. Spatial distribution of the 75% confidence interval for the mean perturbation of the heat flux for depth intervals ranging from (a) 30 m–500 m, (b) 500 m–1000 m, (c) 1000 m–1500 m, and (d) 1500 m–2000 m.