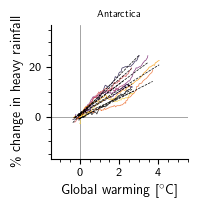
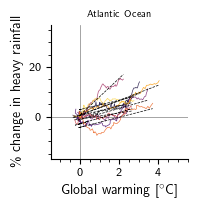
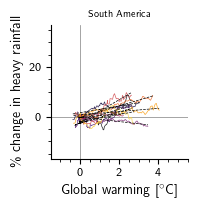
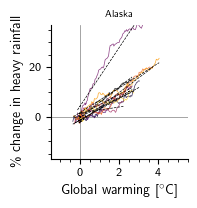
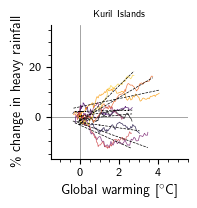
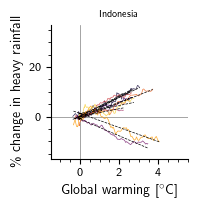
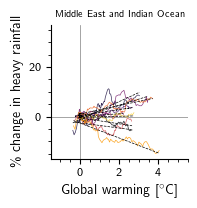
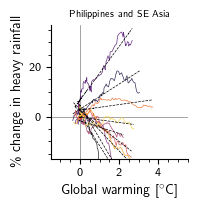
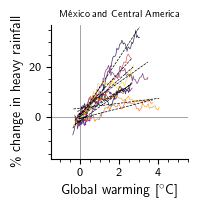
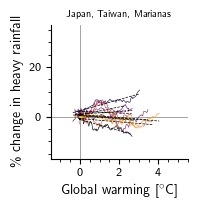
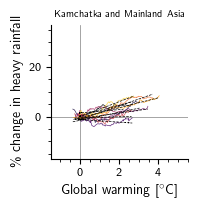
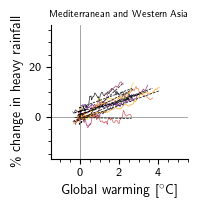
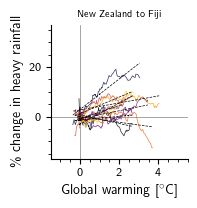
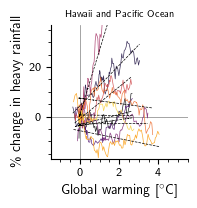
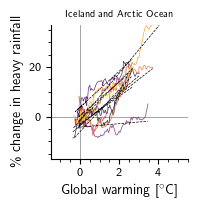
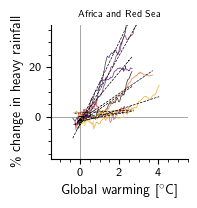
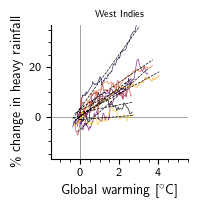
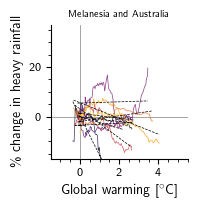
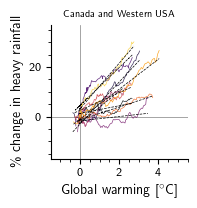
**Supplementary Material 1**

**Forced model responses at different spatial scales**

Percent change in modelled heavy rainfall per degree of global warming, from nine climate models: ACCESS1.3, CNRM‐CM5, CSIRO‐Mk3.6.0, CanESM2, INM‐CM4, IPSL‐CM5A‐MR, MIROC5, MRI‐CGCM3, and NorESM1‐M. Data are shown as a 30-yr rolling mean, normalized to January 2021. Dashed black lines are linear regression of response for each model. Data are areal averages, calculated by including model grids that contain a Holocene-active volcano for each of the Global Volcanism Program’s defined “Region” and “Subregion” categories (19 and 101 categories, respectively).

Regions

Subregions:

