Appendix G: Scaling Relationships with Original Variables

The results shown in the main paper are for principal component combinations of the original variables. The results are not appreciably different for individual variables; we give an example below in figure G1. Similarly, standardizing the variables does not change the story, so the standardization of the variables that was necessary for the principal components analysis is not likely to have changed the results very much (figure G2).

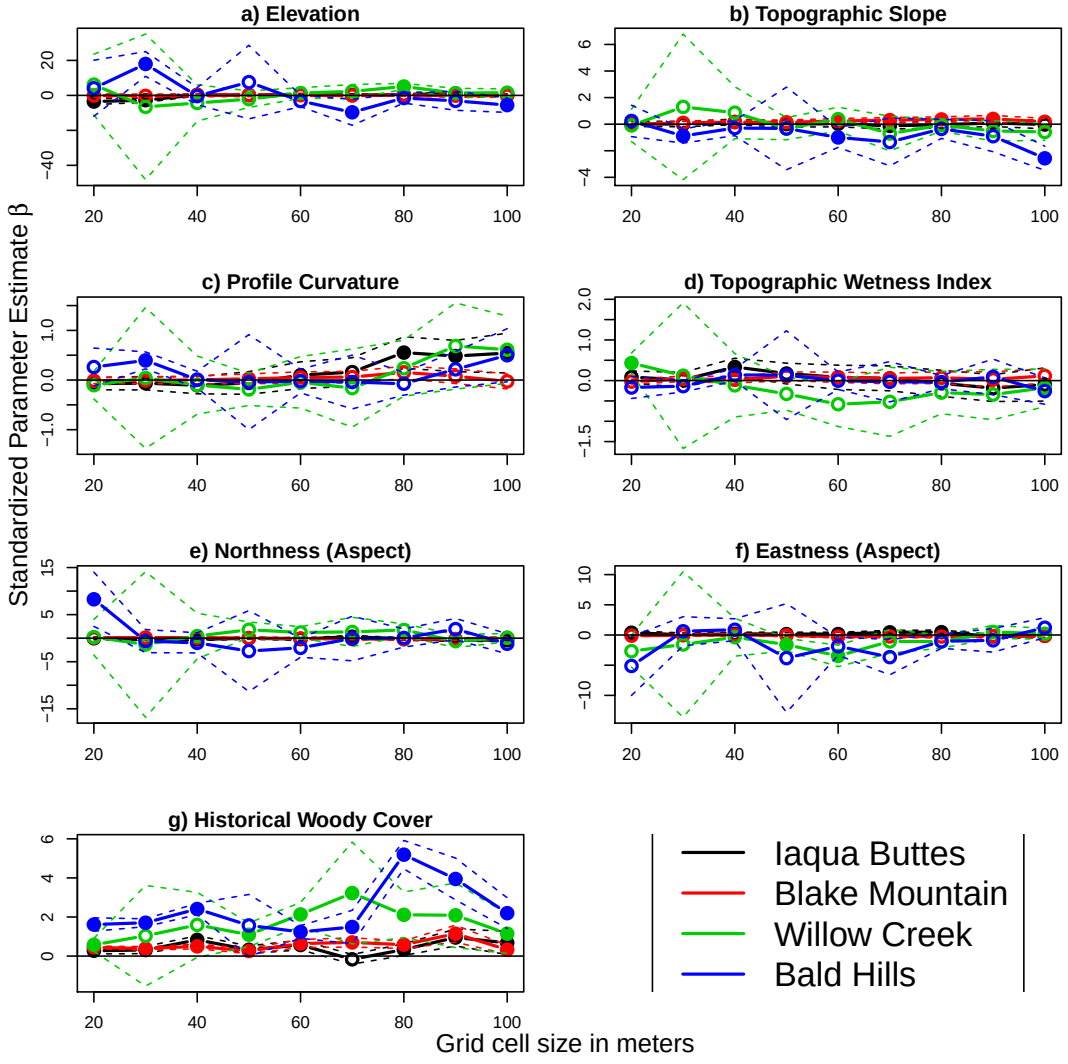

Figure G1: Results of scaling from 20 m grid cells to 100 m grid cells. Each color represents one site, with solid lines associated with parameter estimates and dashed lines showing 95% confidence intervals; parameter estimates which were significant at $p < 0.05$ (after correction for multiple testing) have solid circles and those that were not have open circles. Parameters were for standardized variables, so the magnitude of the effects of different parameters within a single site-scale combination can be directly compared.

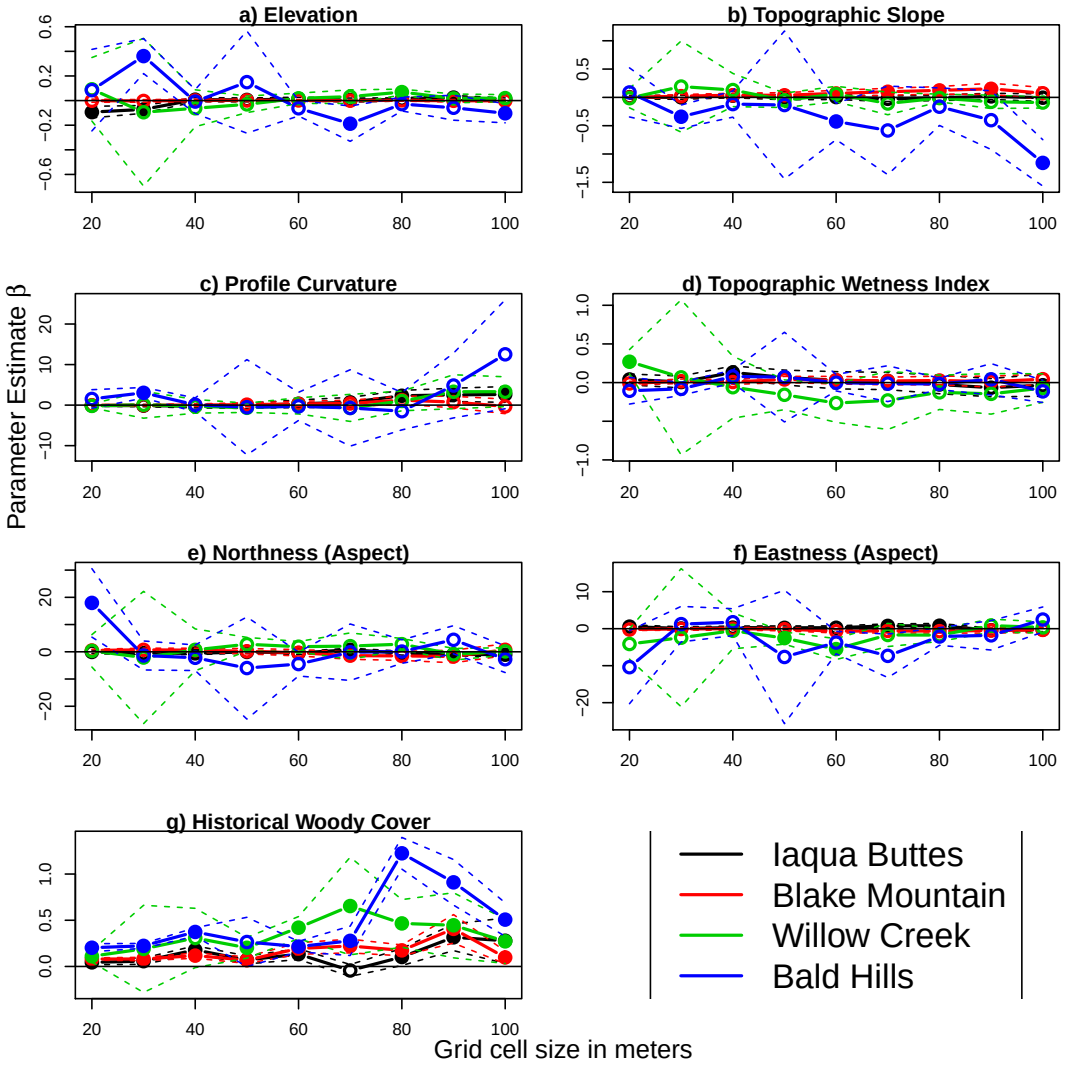

Figure G2: Results of scaling from 20 m grid cells to 100 m grid cells. Each color represents one site, with solid lines associated with parameter estimates and dashed lines showing 95% confidence intervals; parameter estimates which are significant at $p < 0.05$ have solid circles and those that are not have open circles. Parameters are for non-standardized variables, so the magnitude of the effects can be directly compared across all sites and scales; the results are generally unchanged from the standardized case, therefore comparisons in Figure 5 in the main text are legitimate.