Figure 1 Left Panel A histogram of the depth of the observed earthquakes. The distribution is heavily right skewed and so a log base 10 transform is used for the rest of the analysis. **Middle Panel** A lot of the residuals from a linear model relating magnitude to log base 10 depth, colored by latitude groups. The green points cluster near the top of the plot. **Right Panel**. A lot of the residuals from a linear model relating magnitude to log base 10 depth adjusted for 5-level factor variables for latitude, longitude, and number of site.s The residuals are colored by latitude groups. Some of the patterns observed in the original residuals have been eliminated.