

## Supplementary Material

### High and low air temperatures and natural wildfire ignitions in the Sierra Nevada region

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*Environments*

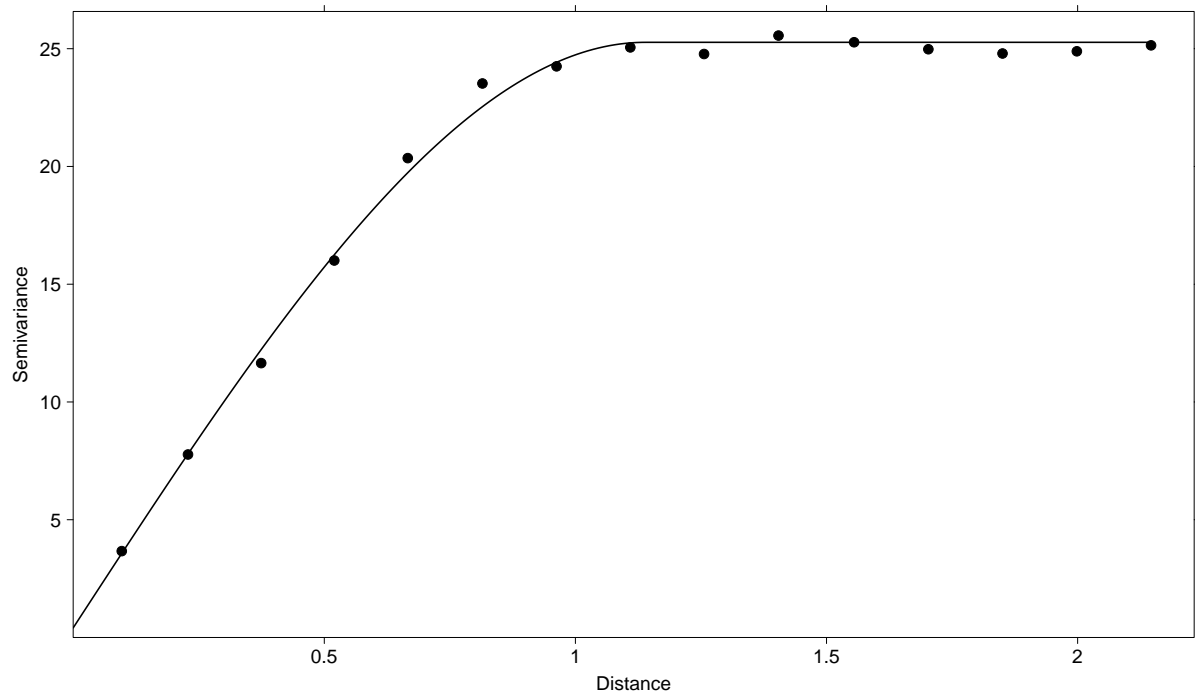


Figure S1: Spatial variogram of maximum daily air temperature [ $Ta_{max}$ : °C] values from 1992-2015 for the Sierra Nevada study region (Moran's I: observed = 0.1971851; expected = -0.0002479544; sd = 0.0005227258; p value = 0).

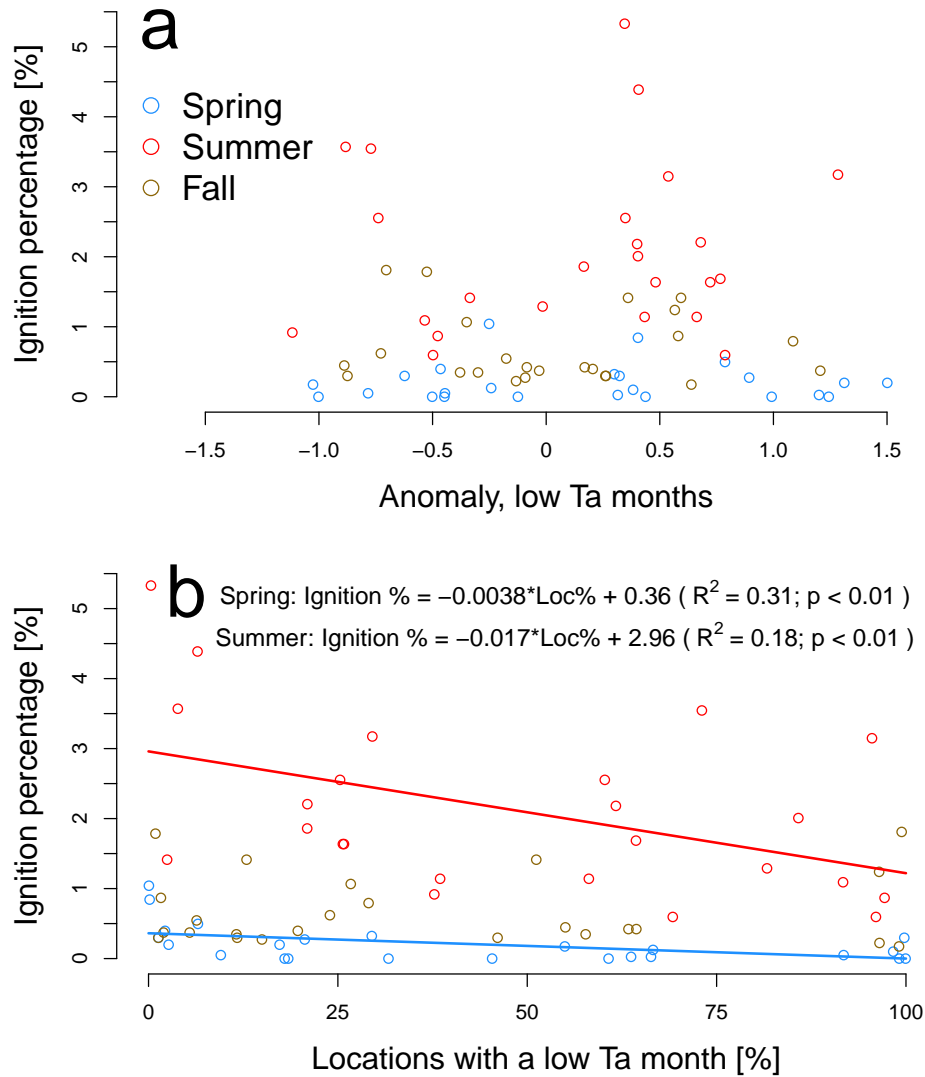


Figure S2: Relationships between the average anomaly of low air temperature months (anomaly = observed – long-term mean/standard deviation of long-term mean) and the percentage of locations in the Sierra Nevada region experiencing a wildfire ignition in spring, summer, and fall seasons (Panel a), and relationships between the percentage of locations in the Sierra Nevada region experiencing a low air temperature month and the percentage of locations in the Sierra Nevada region experiencing a wildfire ignition in spring, summer, and fall seasons (Panel b). Significant relationships are shown in each panel ( $R^2$  coefficient of determination;  $p < 0.05$ ).

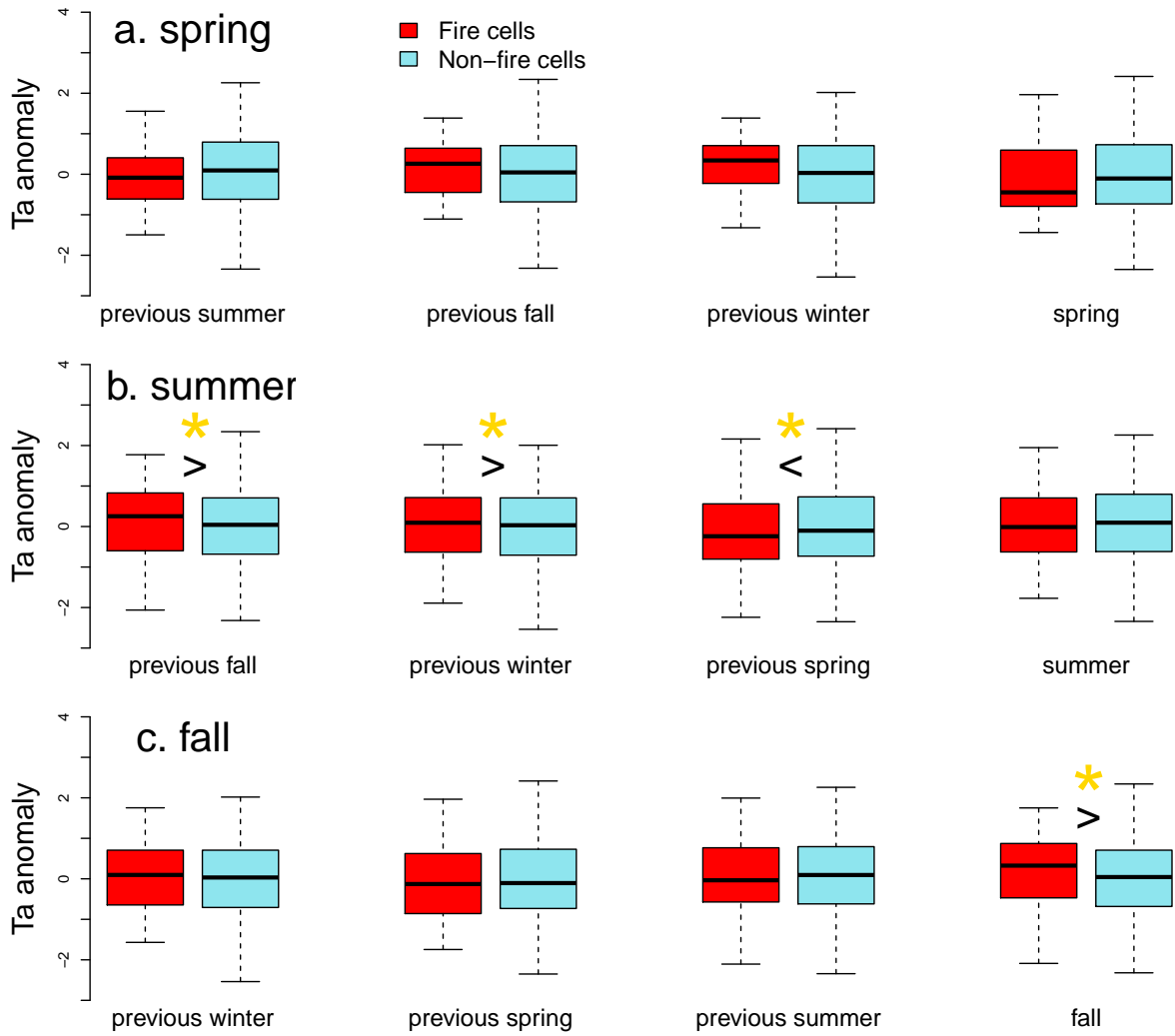


Figure S3: Boxplots illustrating differences in the anomaly of low air temperature months (anomaly = observed – long-term mean/standard deviation of long-term mean) between ignition (red) and non-ignition (blue) locations in the 3 seasons previous to and including the spring (Panel a), summer (Panel b), and fall (Panel c) fire seasons. Significant differences and the direction of difference are indicated for each boxplot pair (one-tailed t-tests;  $p < 0.05$ ).

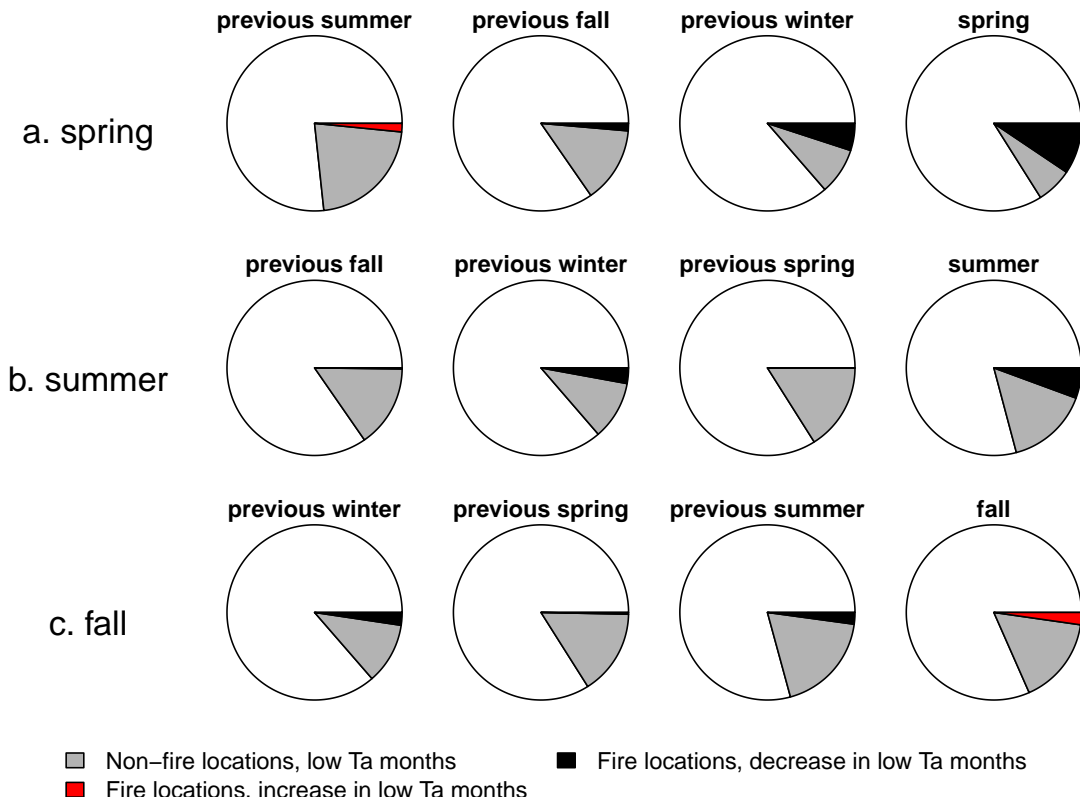


Figure S4: Pie charts illustrating differences in the proportion of ignition and non-ignition locations experiencing a low air temperature month in the 3 seasons previous to and including the spring (Panel a), summer (Panel b), and fall (Panel c) fire seasons. The average proportion of non-ignition locations experiencing a low Ta month in each season is illustrated in grey, a proportional increase in ignition locations experiencing a low Ta month in each season is shown in red, and a proportional decrease in ignition locations experiencing a low Ta month in each season is shown in black. For pie charts illustrating a proportional decrease for ignition locations, the average proportion of non-ignition locations experiencing a low Ta month in each season is the sum of the grey and black areas.