**S3 Table. Coefficient estimates from the best fit model re-leveling the reference groups of region and season.** Data were collected in the Coastal Plain and Piedmont regions of North Carolina from 1 September 2012 to 31 August 2014. Best fit model: Activity ~ Temperature \* Region \* Season – Temperature: Season + (Temperature: Season | Site).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Estimate | SE | z | P value |
| InterceptPiedmont and Summer | 2.89 | 1.03 | 2.79 | 0.01 |
| Temperature | 0.09 | 0.06 | 1.58 | 0.11 |
| RegionCoastal Plain | -0.27 | 1.21 | -0.22 | 0.82 |
| SeasonWinter | -4.15 | 0.88 | -4.71 | 0.00 |
| Temperature : RegionCoastal Plain | -0.05 | 0.07 | -0.76 | 0.45 |
| RegionCoastal Plain : SeasonWinter | 0.29 | 1.02 | 0.29 | 0.77 |
| Temperature : RegionPiedmont : SeasonWinter | 0.23 | 0.09 | 2.42 | 0.02 |
| Temperature : RegionCoastal Plain : SeasonWinter | 0.25 | 0.06 | 3.89 | 0.00 |
|  |  |  |  |  |
| InterceptPiedmont and Winter | -1.26 | 0.60 | -2.09 | 0.04 |
| Temperature | 0.32 | 0.08 | 4.11 | 0.00 |
| RegionCoastal Plain | 0.02 | 0.75 | 0.03 | 0.98 |
| SeasonSummer | 4.15 | 0.88 | 4.71 | 0.00 |
| Temperature : RegionCoastal Plain | -0.03 | 0.09 | -0.32 | 0.75 |
| RegionCoastal Plain : SeasonSummer | -0.29 | 1.02 | -0.29 | 0.77 |
| Temperature : RegionPiedmont : SeasonSummer | -0.23 | 0.09 | -2.42 | 0.02 |
| Temperature : RegionCoastal Plain : SeasonSummer | -0.25 | 0.06 | -3.89 | 0.00 |
|  |  |  |  |  |
| InterceptCoastal Plain and Summer | 2.61 | 0.63 | 4.14 | 0.00 |
| Temperature | 0.04 | 0.03 | 1.11 | 0.27 |
| RegionPiedmont | 0.27 | 1.21 | 0.22 | 0.82 |
| SeasonWinter | -3.86 | 0.51 | -7.60 | 0.00 |
| Temperature : RegionPiedmont | 0.05 | 0.07 | 0.76 | 0.45 |
| RegionPiedmont : SeasonWinter | -0.29 | 1.02 | -0.29 | 0.77 |
| Temperature : RegionCoastal Plain : SeasonWinter | 0.25 | 0.06 | 3.89 | 0.00 |
| Temperature : RegionPiedmont : SeasonWinter | 0.23 | 0.09 | 2.42 | 0.02 |
|  |  |  |  |  |
| InterceptCoastal Plain and Winter | -1.24 | 0.44 | -2.83 | 0.00 |
| Temperature | 0.29 | 0.05 | 5.28 | 0.00 |
| RegionPiedmont | -0.02 | 0.75 | -0.03 | 0.98 |
| SeasonSummer | 3.86 | 0.51 | 7.60 | 0.00 |
| Temperature : RegionPiedmont | 0.03 | 0.09 | 0.32 | 0.75 |
| RegionPiedmont : SeasonSummer | 0.29 | 1.02 | 0.29 | 0.77 |
| Temperature : RegionCoastal Plain : SeasonSummer | -0.25 | 0.06 | -3.89 | 0.00 |
| Temperature : RegionPiedmont : SeasonSummer | -0.23 | 0.09 | -2.42 | 0.02 |