**Table S8. Sensitivity of correlation between seasonality parameters and climatic variables to method of rescaling laboratory data and resolution of climate data.** Correlation coefficients between estimated seasonality parameters of model fit to laboratory data with scaling factor applied to model output and sine curves fit to the monthly (CRU) and weekly (NOAA/NARR) climate data.

|  |  |  |
| --- | --- | --- |
|  | **Monthly climate data** | **Weekly climate data** |
| **Climatic variable** | *Amplitude of seasonality (b)* | *Seasonal offset (φ)* | *Amplitude of seasonality (b)* | *Seasonal offset (φ)* |
| Vapor pressure/Specific humidity |
|  *Mean* | -0.670\*\*\* | -0.837\*\*\* | -0.721\*\*\* | -0.819\*\*\* |
|  *Amplitude* | -0.216 | -0.470\* | -0.304 | -0.379 |
|  *Offset* | -0.324 | -0.040 | 0.574\*\* | 0.353 |
| Minimum temperature |
|  *Mean* | -0.634\*\*\* | -0.735\*\*\* | -0.558\*\* | -0.630\*\*\* |
|  *Amplitude* | 0.412 | 0.349 | 0.474\* | 0.399 |
|  *Offset* | -0.360 | -0.083 | -0.398 | -0.223 |
| Precipitation |
|  *Mean* | -0.670\*\*\* | -0.707\*\*\* | -0.409 | -0.433\* |
|  *Amplitude* | -0.055 | 0.070 | -0.066 | 0.140 |
|  *Offset* | 0.166 | 0.119 | 0.098 | 0.267 |
| Potential evapotranspiration |
|  *Mean* | -0.049 | -0.133 | 0.149 | -0.038 |
|  *Amplitude* | 0.627\*\*\* | 0.668\*\*\* | 0.649\*\*\* | 0.626\*\*\* |
|  *Offset* | 0.510\* | 0.725\*\*\* | 0.630\*\*\* | 0.771\*\*\* |
| Wet days |
|  *Mean* | -0.517\*\* | -0.256 | -0.360 | -0.377 |
|  *Amplitude* | -0.136 | 0.085 | -0.233 | -0.408 |
|  *Offset* | -0.130 | -0.208 | -0.145 | 0.132 |
| Cloud cover |
|  *Mean* | -0.157 | -0.006 | -0.525\*\* | -0.386 |
|  *Amplitude* | 0.411 | 0.538\*\* | 0.454\* | 0.562\*\* |
|  *Offset* | -0.547\*\* | -0.686\*\*\* | -0.515\*\* | -0.672\*\*\* |
| Diurnal temperature range |
|  *Mean* | 0.483\* | 0.354 | 0.369 | 0.175 |
|  *Amplitude* | 0.434\* | 0.525\*\* | 0.522\*\* | 0.513\*\* |
|  *Offset* | 0.464\* | 0.652\*\*\* | 0.096 | 0.449\* |

\**p*<0.01, \*\**p*<0.001, \*\*\**p*<0.0001