Supporting Information

Mueller and Seneviratne 10.1073/pnas.1204330109
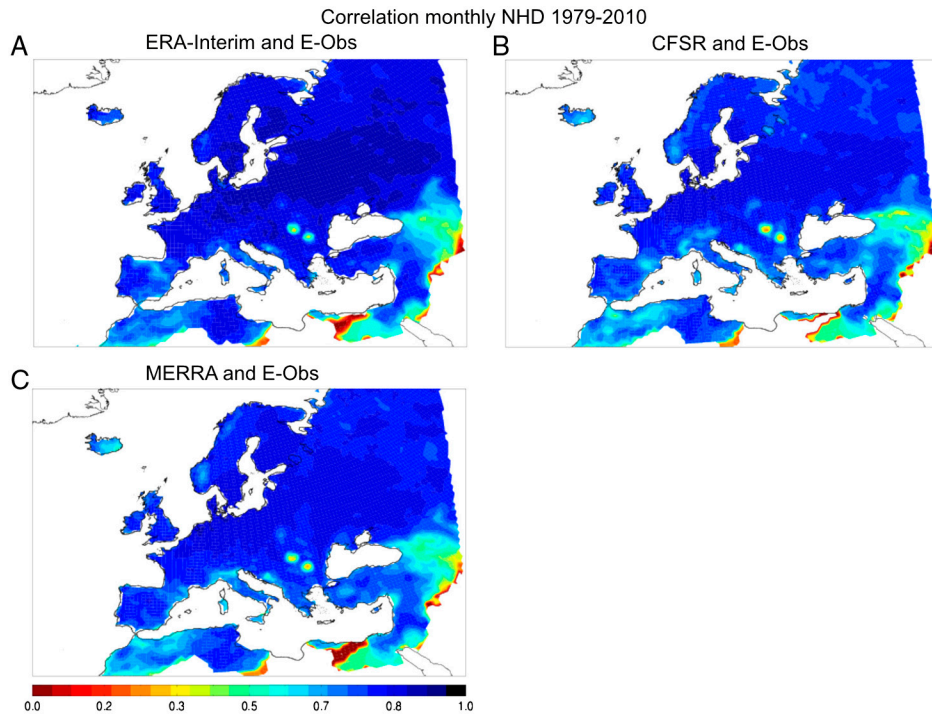

Fig. S1. Correlation of monthly NHD from ERA-Interim (*A*), CFSR (*B*) and MERRA (*C*) reanalyses and E-Obs temperature dataset over 1979–2010.
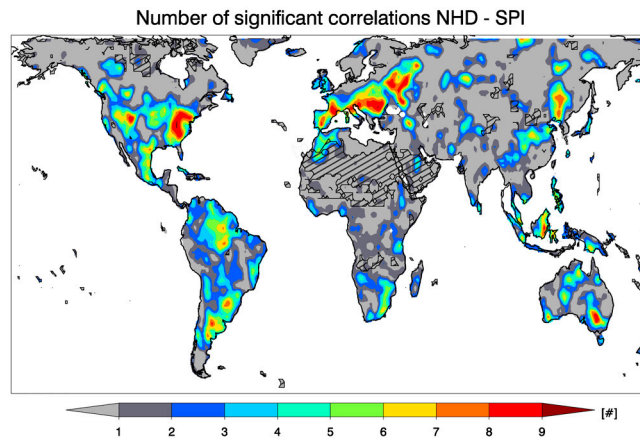

Fig. S2. Number of dataset combinations with significant correlations between NHD at the hottest month of each year and preceding 3-month SPI. All possible dataset combinations have been considered (9 in total). Areas with a low availability of data (less than 7 dataset combinations) are hatched. This map has been smoothed with a boxcar filter of width 3.
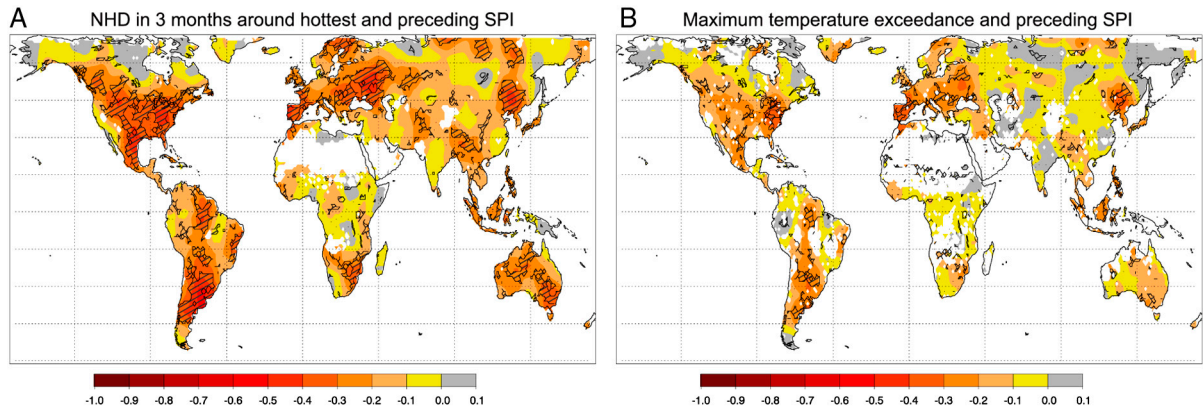
Fig. S3. Correlation of NHD in three months around hottest month and 3-month SPI at the first of the three months (*A*), and correlation of exceedance temperature (temperature minus 90th percentile temperature) at the hottest month with preceding 3-month SPI (*B*). The employed datasets are ERA-Interim for NHD and exceedance temperature, and CRU for SPI.
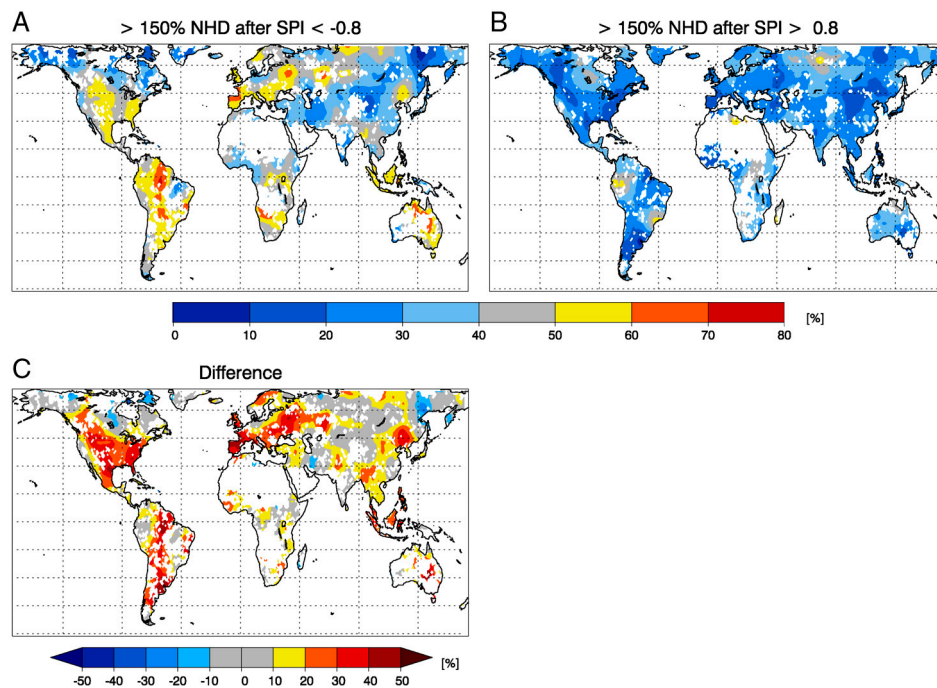

Fig. S4. Hot day occurrence probability after dry versus wet conditions. Occurrence probability for a number of hot days of more than 150% of average in the respective hottest month of each year following low 3-month SPI values (dry conditions, *A*) and high 3-month SPI values (wet conditions, *B*), and difference between the two (*C*). Values are given in percentage of years with above average NHD from total number of low and high SPI years, respectively. Values that are based on a composite of less than 4 years are not shown (white areas). The employed datasets are ERA-Interim for NHD and CRU for SPI.
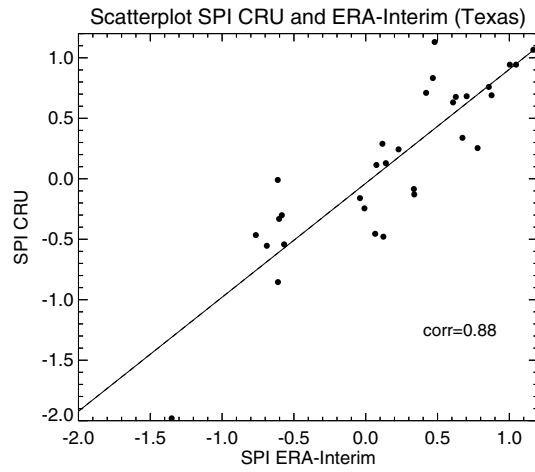
Fig. S5. Scatter plot of SPI from CRU against ERA-Interim, averaged over Texas region (see Fig. 1*B*) for 1979–2009 hottest month values. The reference period for the CRU SPI is 1950–2009 and for the ERA-Interim SPI 1979–2011.