

Supplementary Information

Title:

Climate-induced patterns of activity and nest conditions select for genes associated with growth and maturation in a widespread lizard species

Table of Contents:

Figure	Description	Pages
Figure S1	Correlation matrix of predictor variables	2
Figure S2	Scree plot of biophysical variable PCA	3
Figure S3a-l	Biophysical variables plotted on maps of species range	4-15
Figure S4	Bar plot show number of candidate genes per chromosome	16
Figure S5	Dot plot showing cross-entropy values for admixture analysis	17

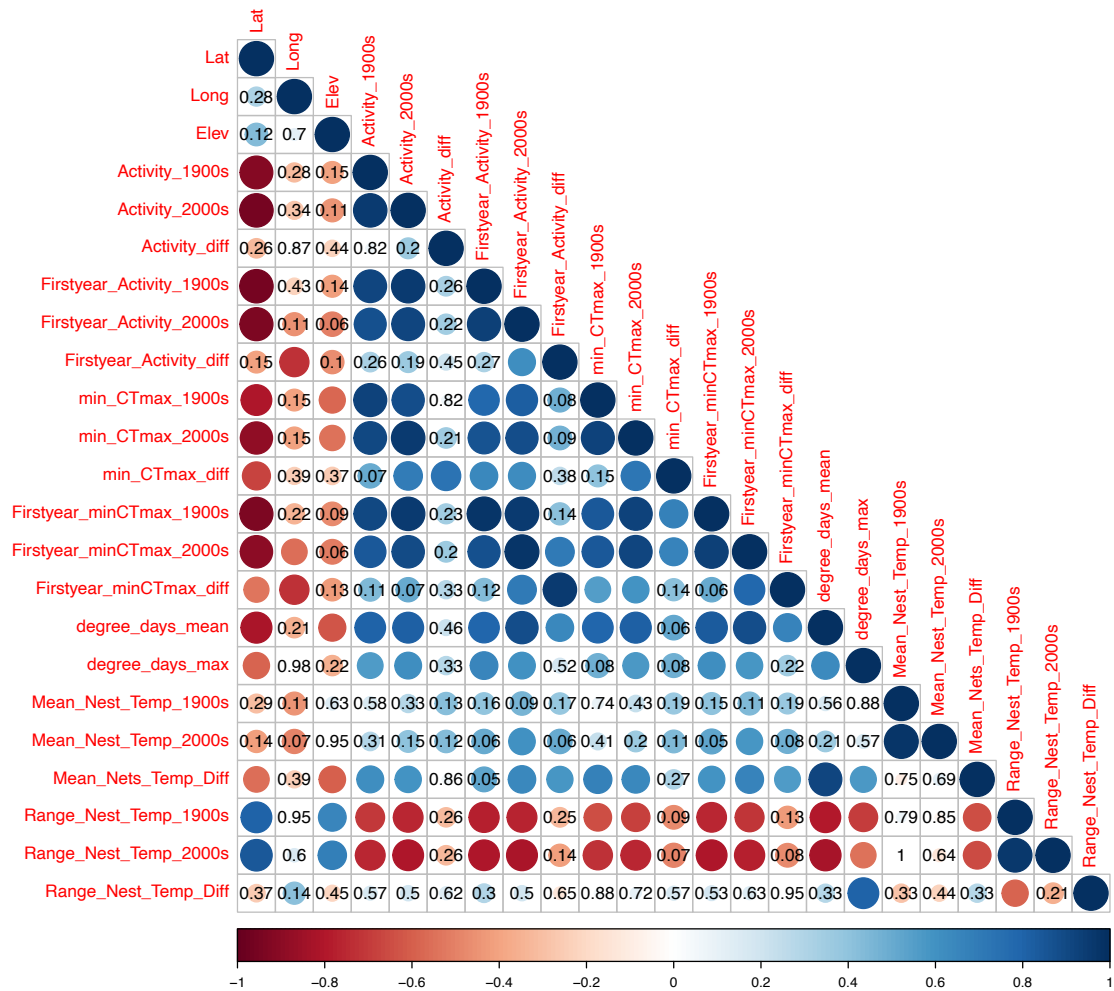


Figure S1. The heat plot showing the correlation values between predictor variables. Numbers indicate correlation coefficient, and solid circles indicate significant correlations. Colors encode for positive or negative correlation values.

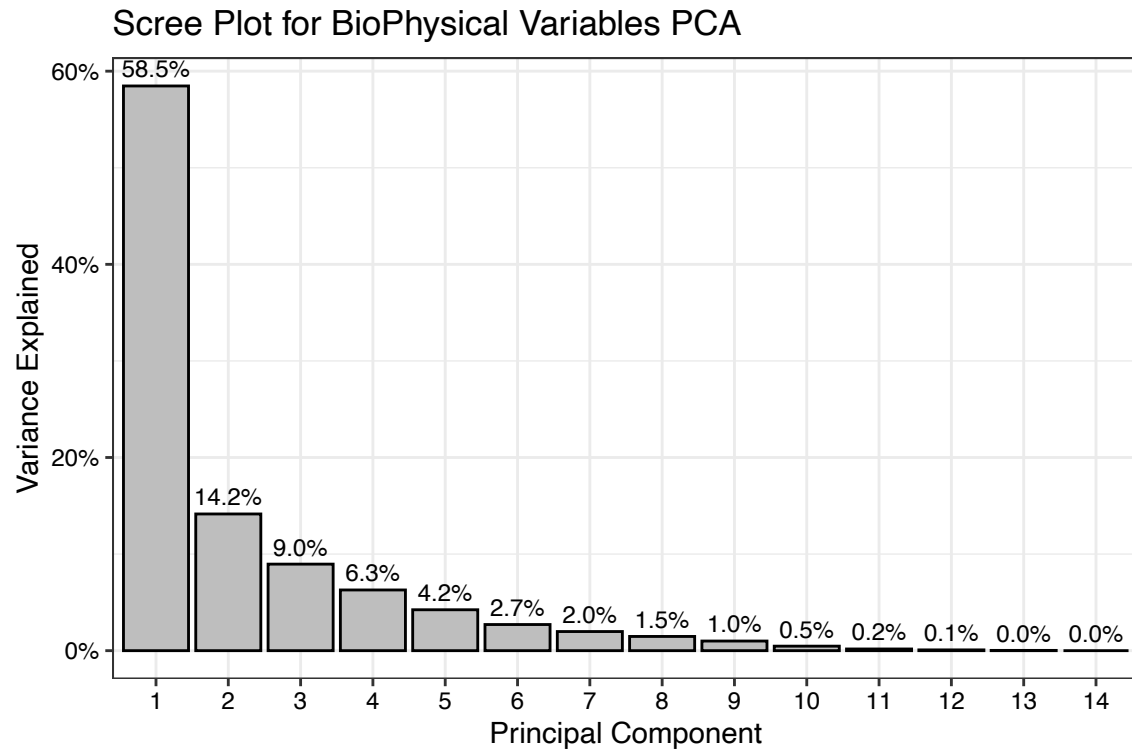


Figure S2. The scree plot for the principal component analysis on the biophysical predictor variables. Percentages for each bar indicate the amount of total variation explained by the PC axis.

Mean Adult Activity 1941–1960

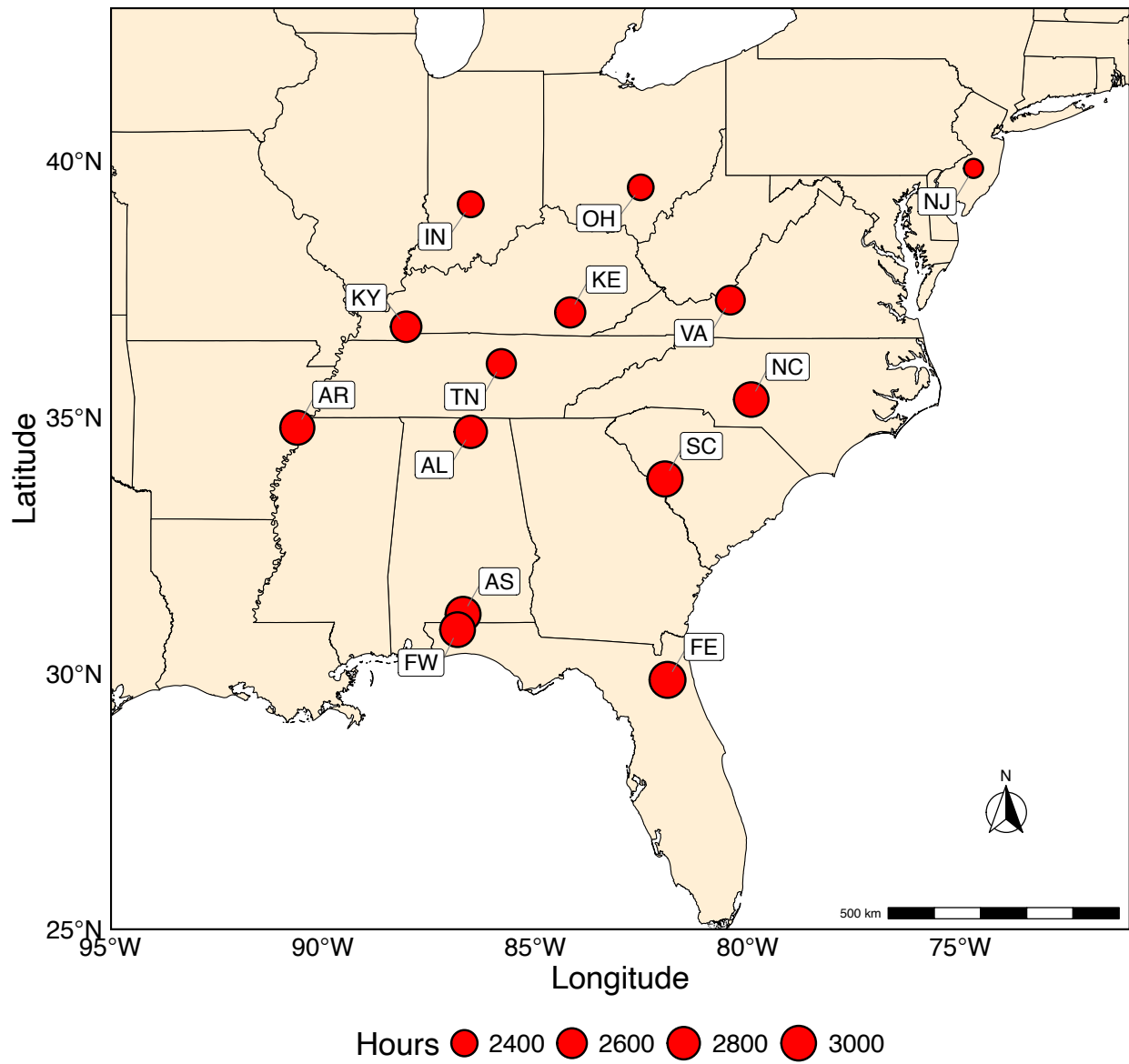


Figure S3a. Map showing mean annual adult activity at each research site for climate data spanning 1941-1960.

Adult Time Above CT_{max} 1900s

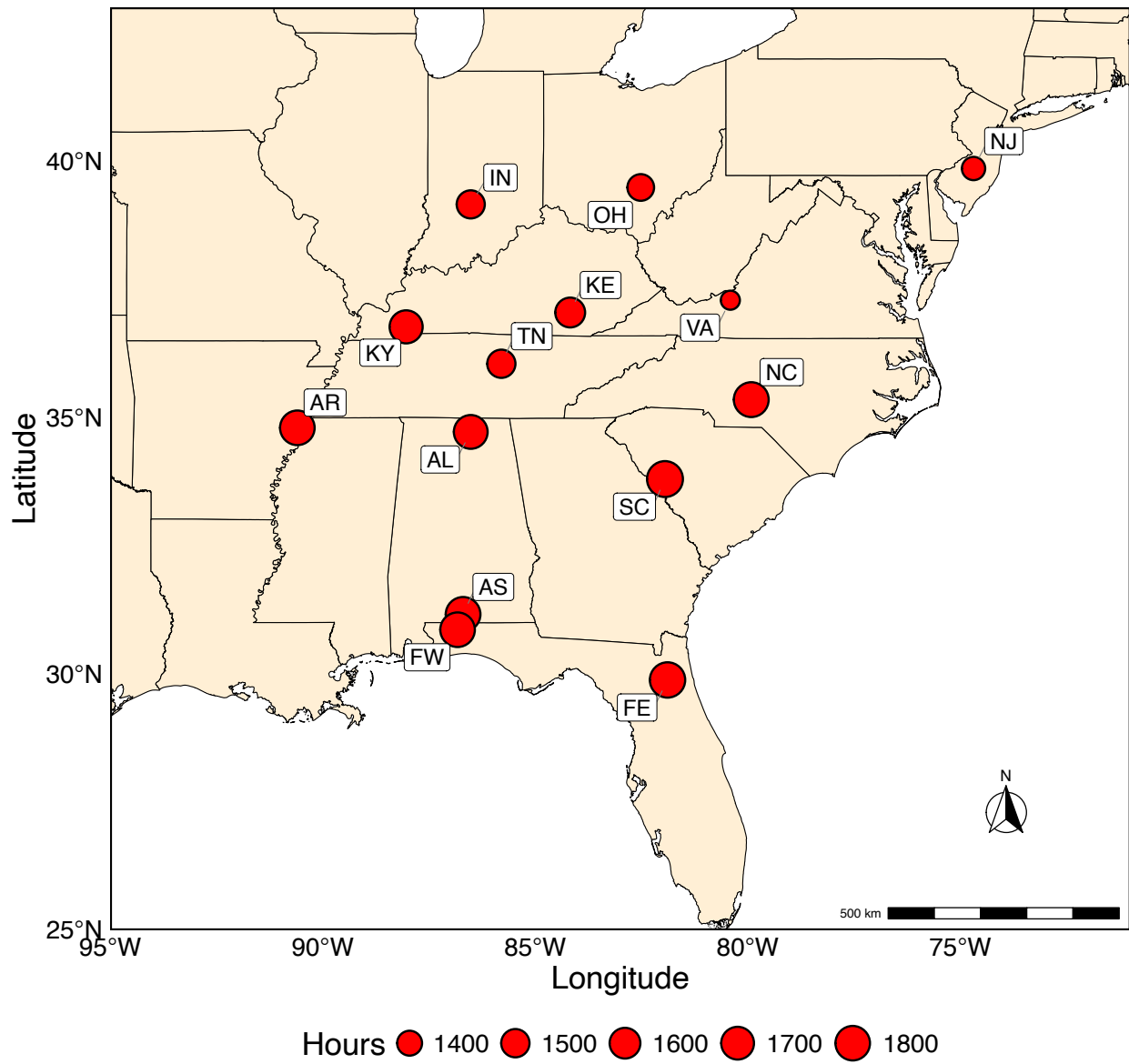


Figure S3b. Map showing mean annual time above CT_{max} for adults at each research site for climate data spanning 1941-1960.

Adult Time Above CT_{max} 2000s

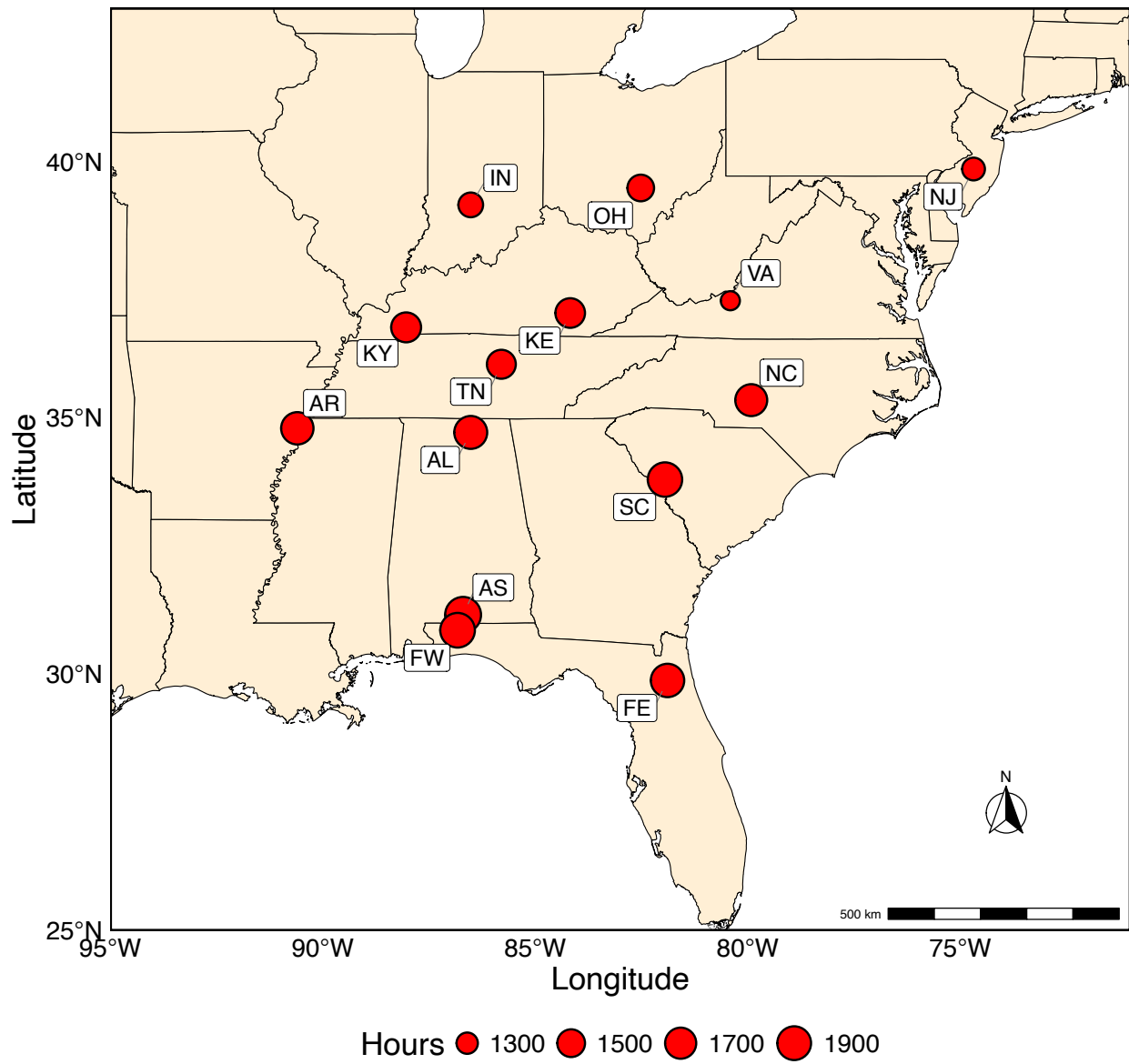


Figure S3c. Map showing mean annual time above CT_{max} for adults at each research site for climate data spanning 2001-2020.

Adult Change in Time Above CT_{max} 1900s–2000s

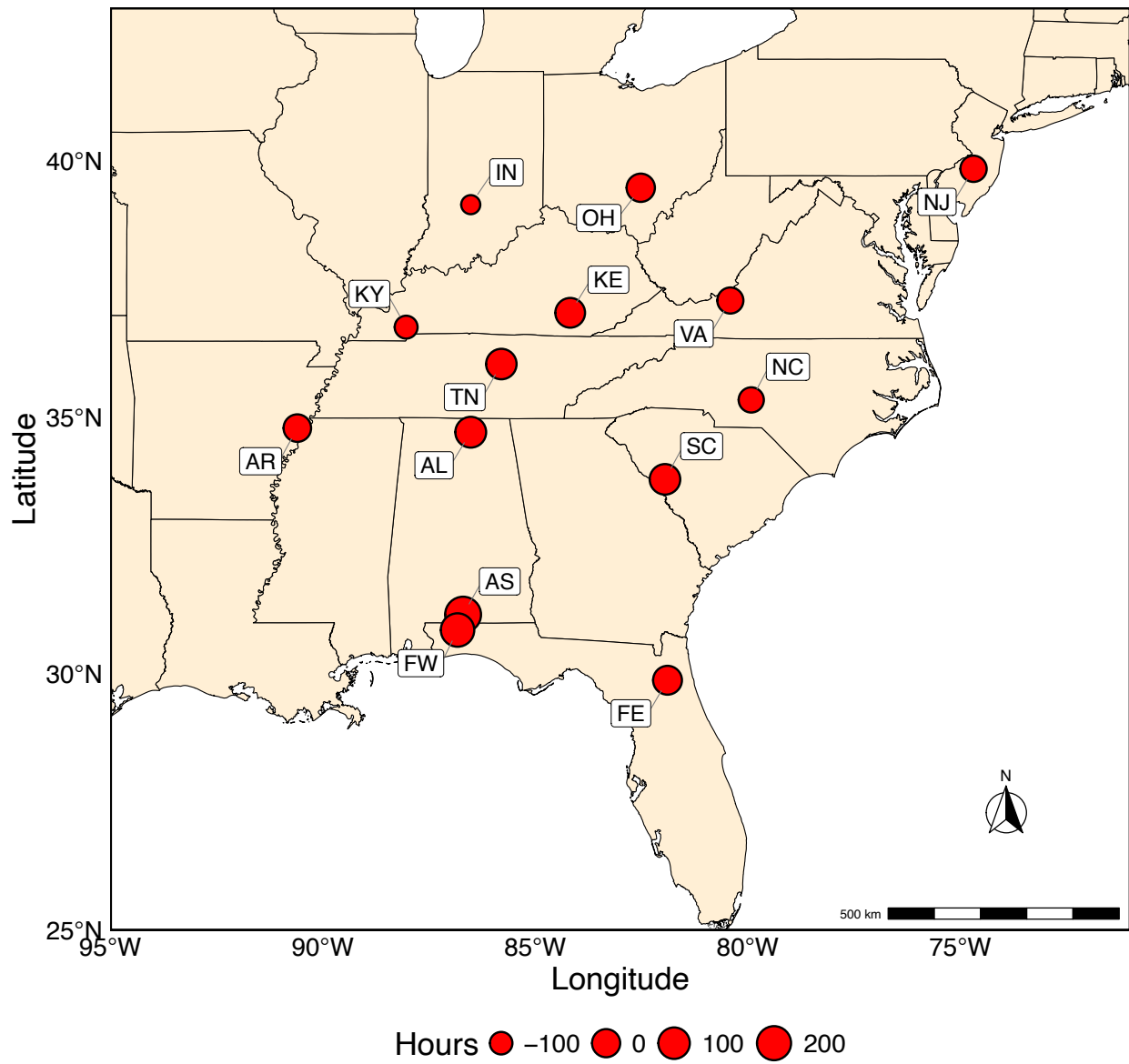


Figure S3d. Map showing difference in mean annual time above CT_{max} for adults at each research site between 1941-1960 and 2001-2020.

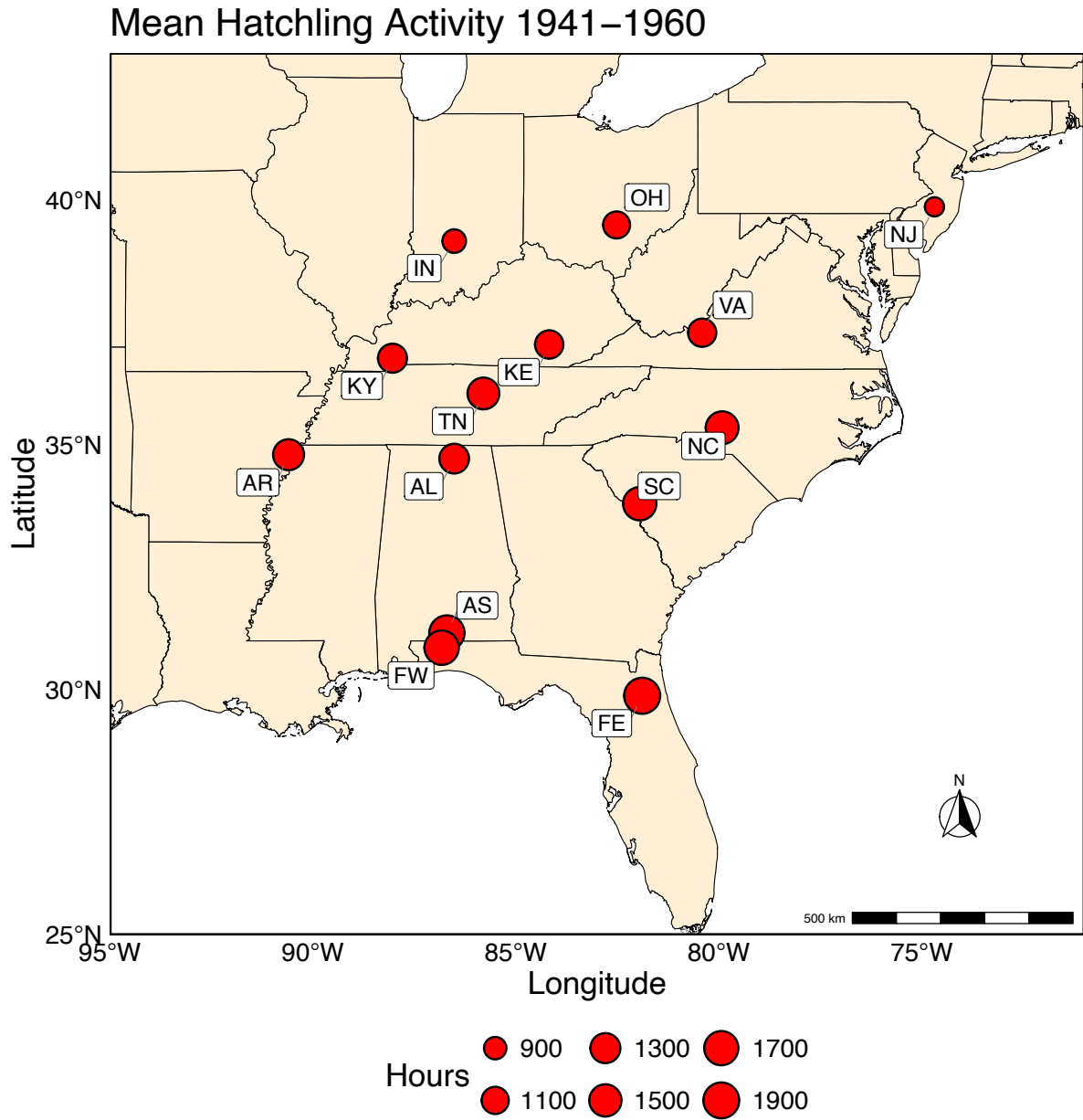


Figure S3e. Map showing mean annual activity time for hatchlings at each research site for climate data spanning 1941-1960.

Hatchling Time Above CT_{max} 1900s

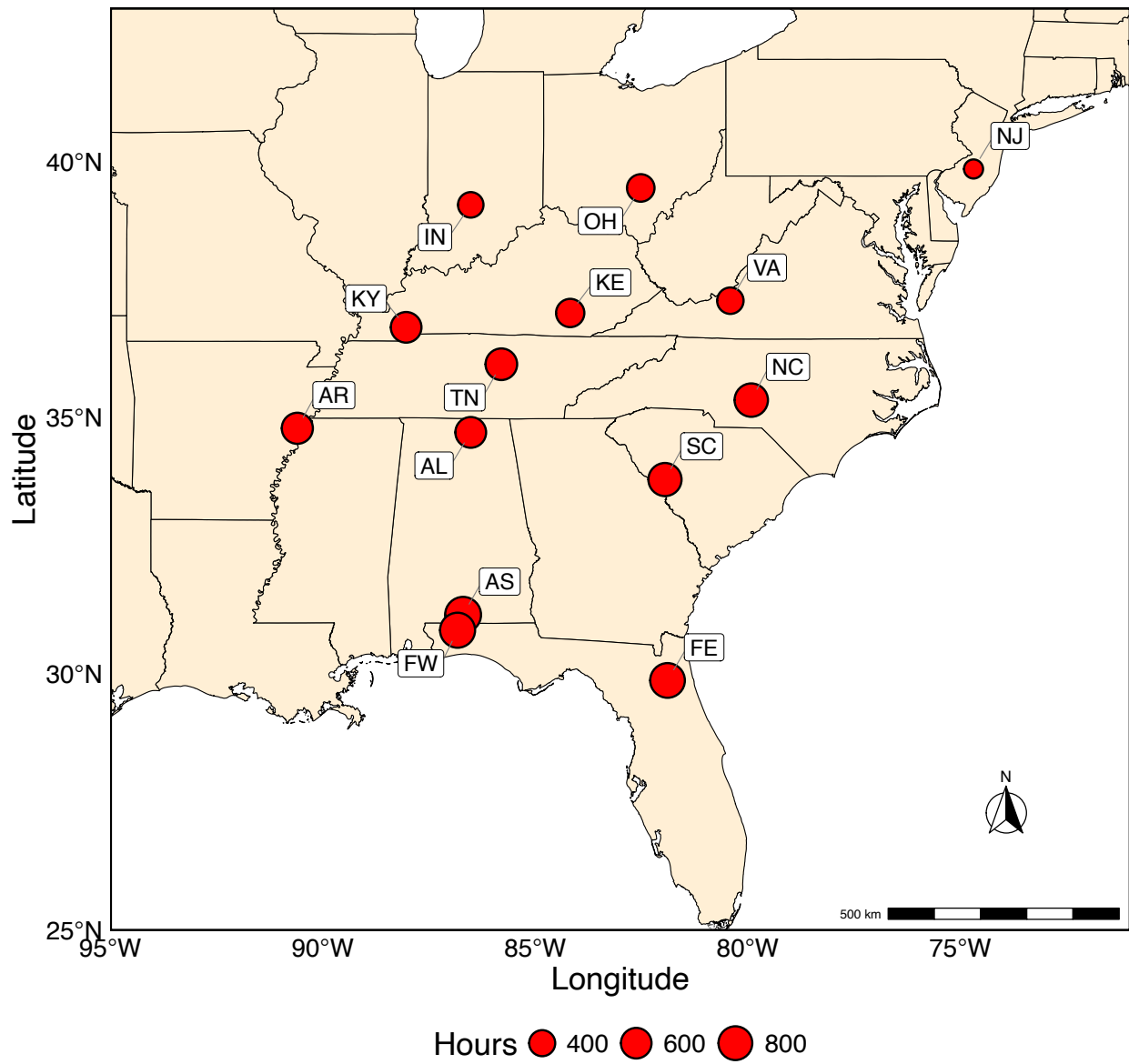


Figure S3f. Map showing mean annual time above CT_{max} for hatchlings at each research site for climate data spanning 1941-1960.

Hatchling Time Above CT_{max} 2000s

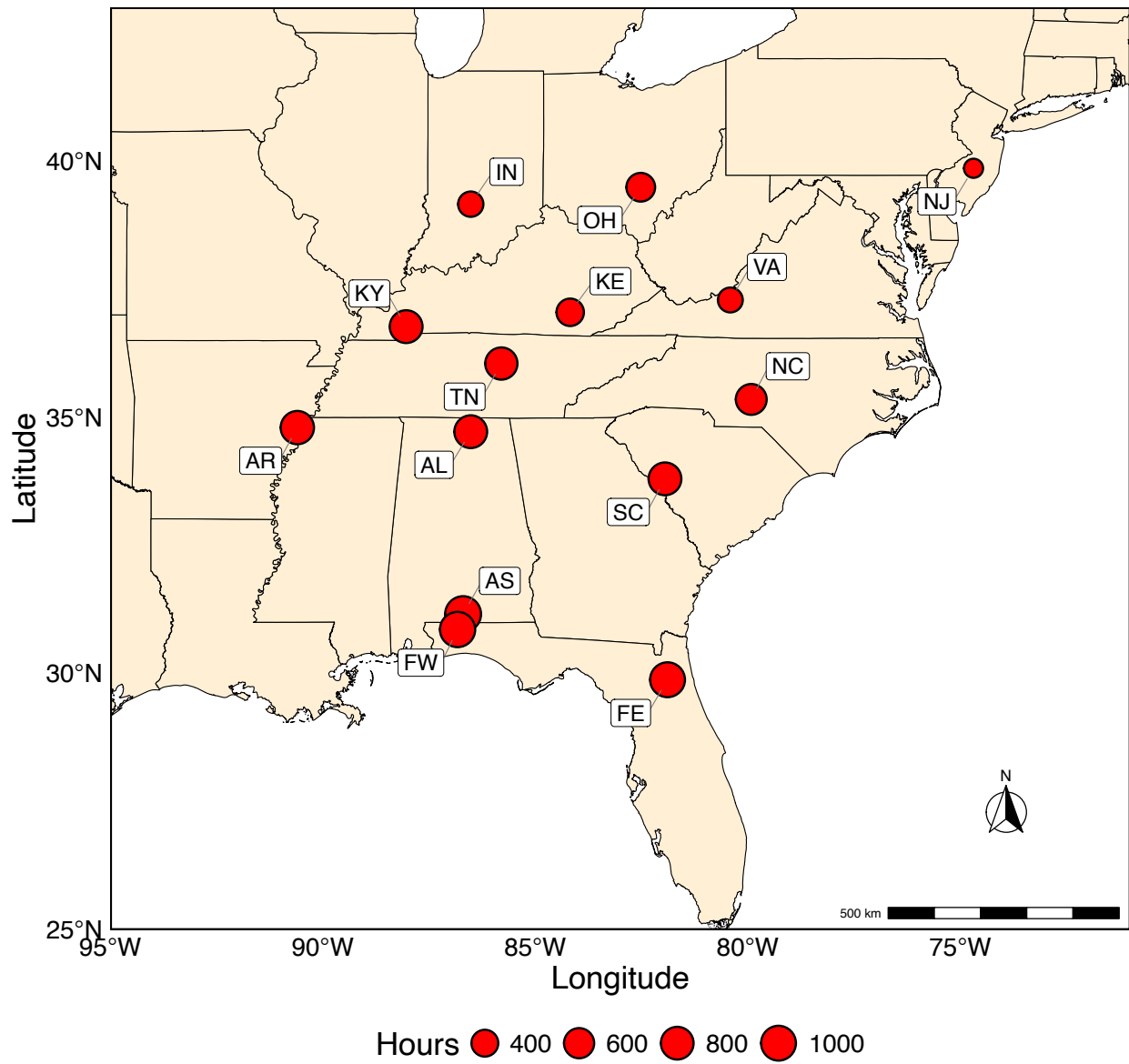


Figure S3g. Map showing mean annual time above CT_{max} for hatchlings at each research site for climate data spanning 2001-2020.

Hatchling Change in Time Above CT_{max} 1900s–2000s

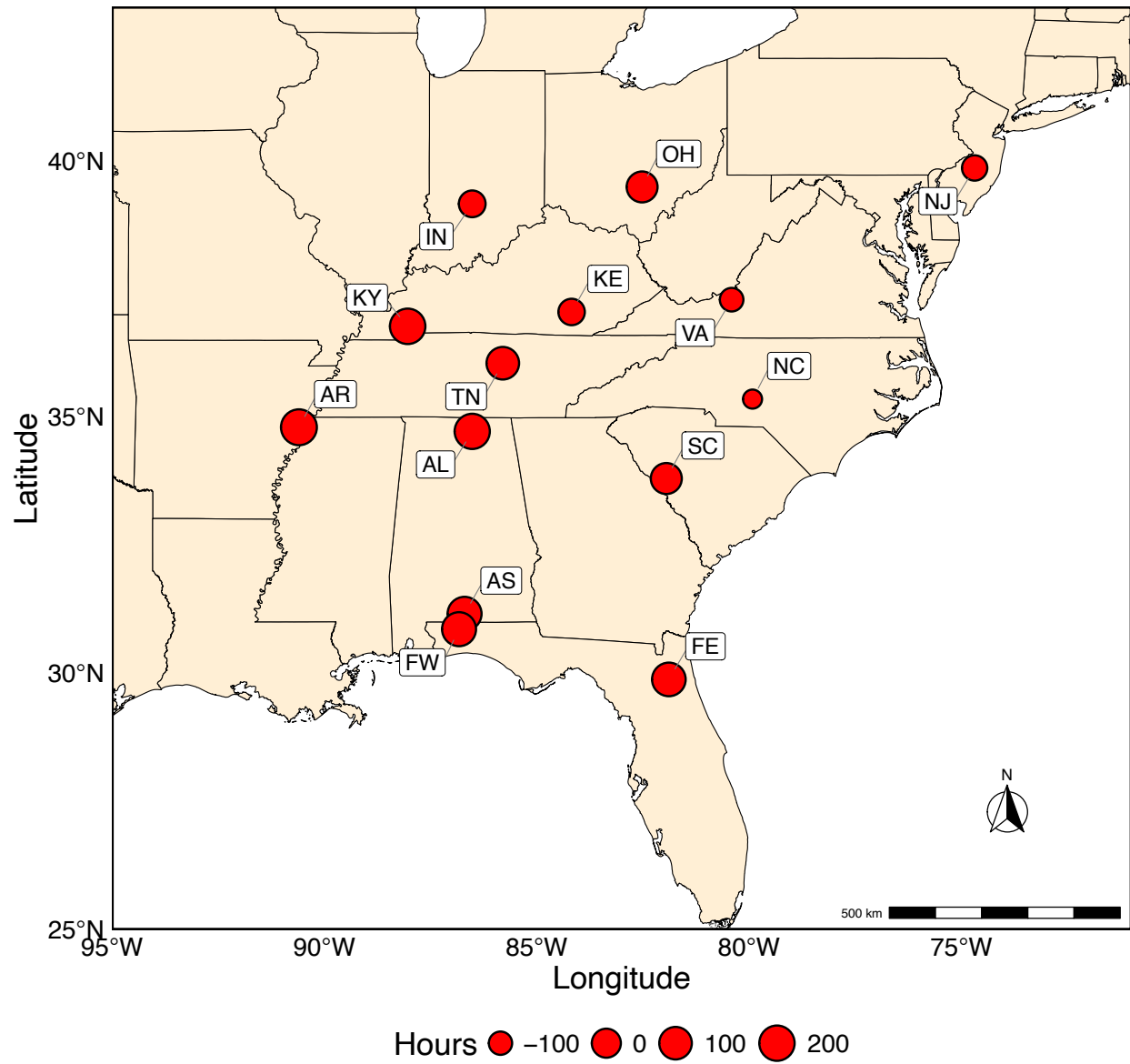


Figure S3h. Map showing difference in mean annual time above CT_{max} for hatchlings at each research site between 1941-1960 and 2001-2020.

Mean Nest Temperatures 1941–1960

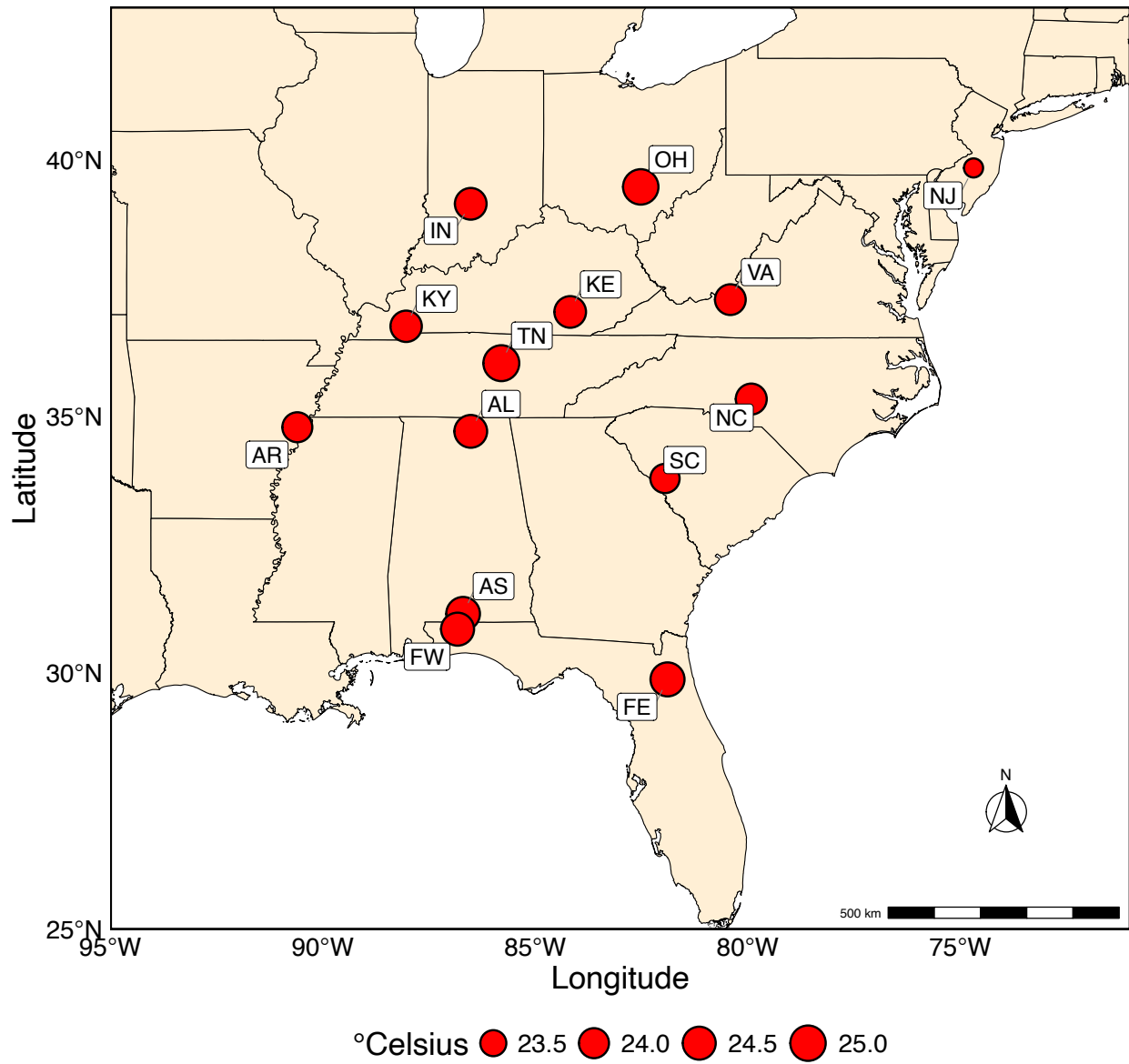


Figure S3i. Map showing mean annual nest temperatures at each research site for climate data spanning 1941-1960.

Change in Mean Nest Temperatures 1900s–2000s

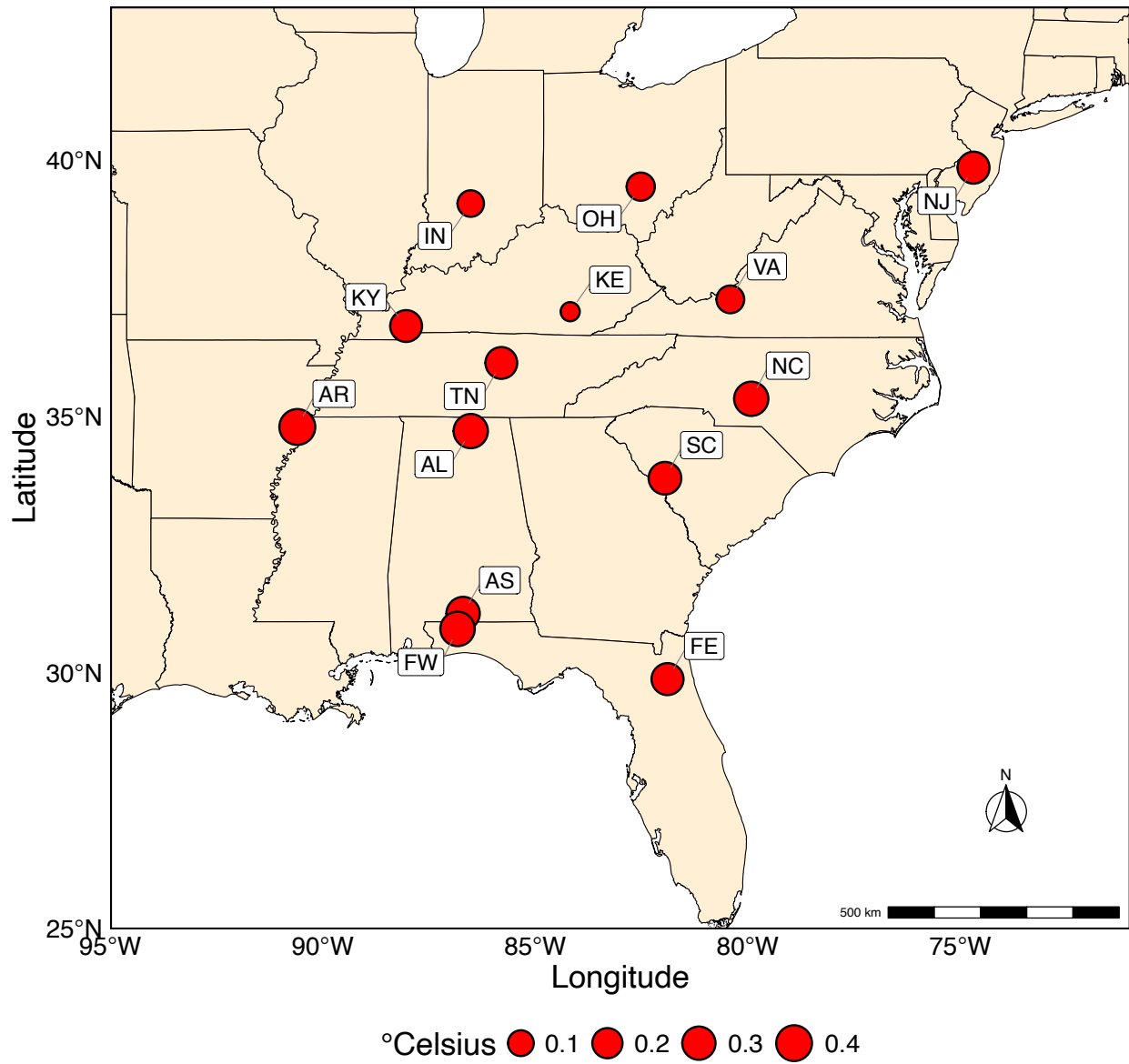


Figure S3j. Map showing change in mean annual nest temperatures at each research site between 1941-1960 and 2001-2020.

Range of Nest Temperatures 1941–1960

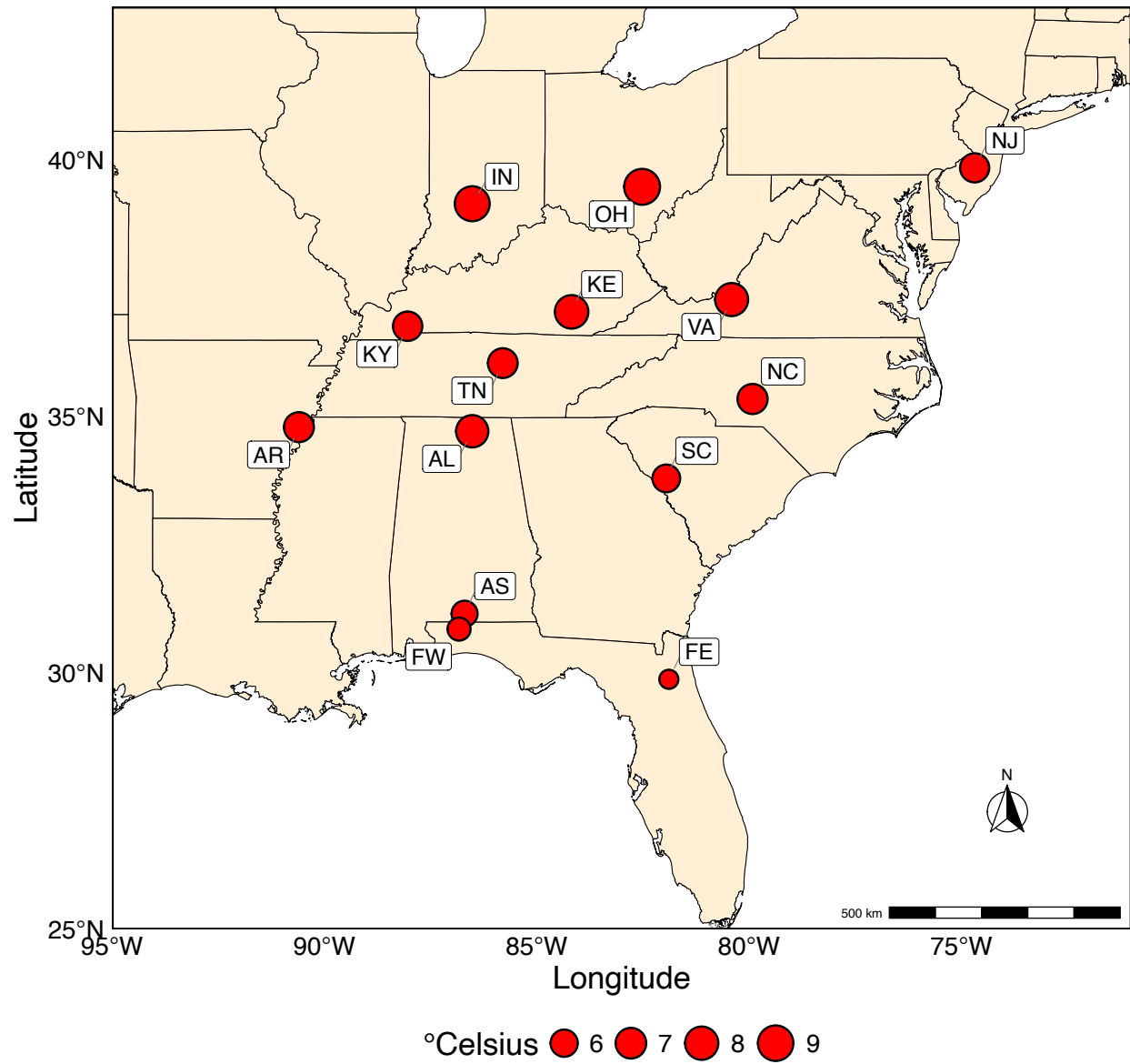


Figure S3k. Map showing mean annual range of nest temperatures at each research site for climate data spanning 1941-1960.

Degree Days Above Max Temperature 1900s vs. 2000s

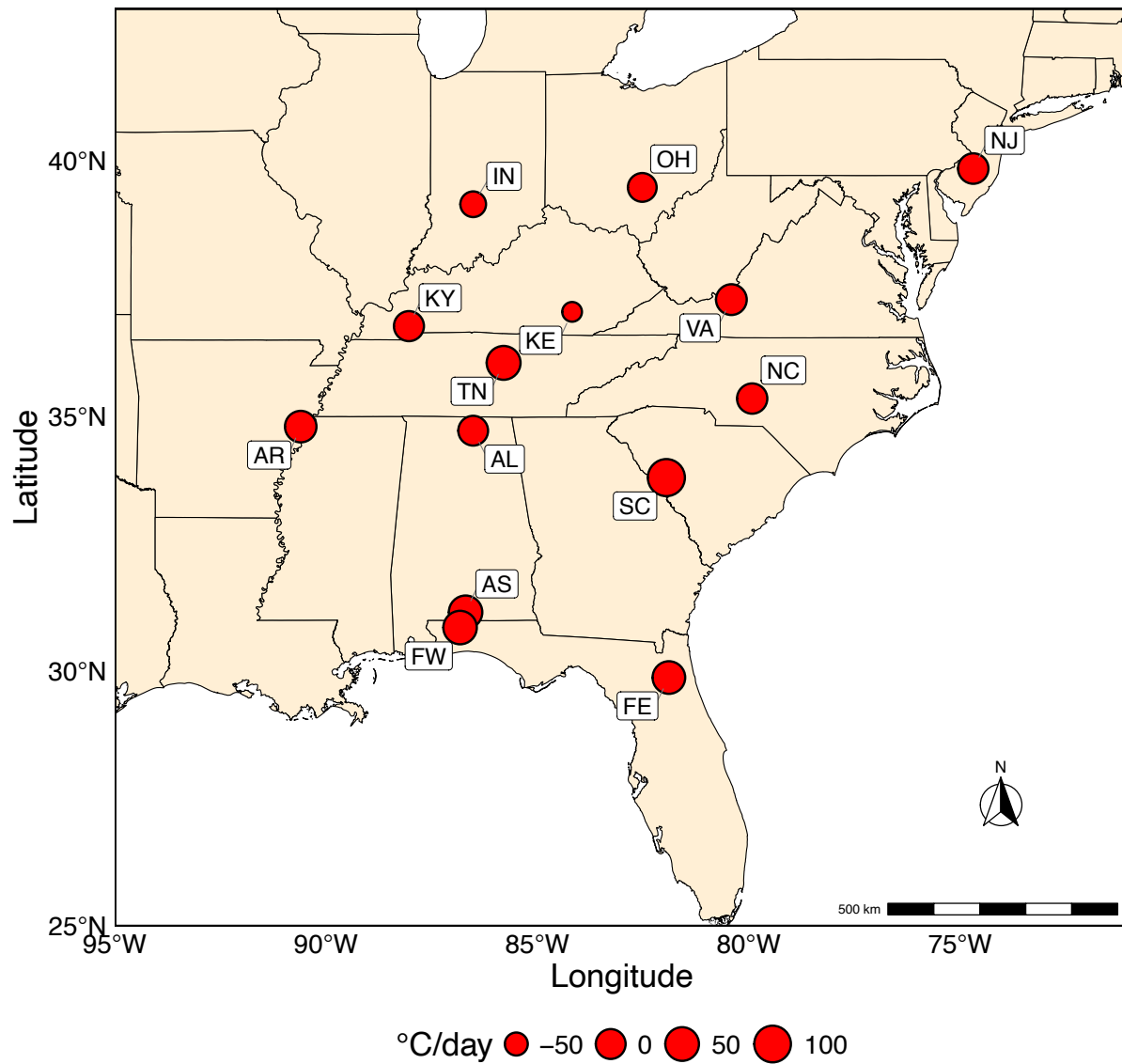


Figure S3l. Map showing mean annual degree days above maximum nest temperatures between 1941-1960 and 2001-2020.

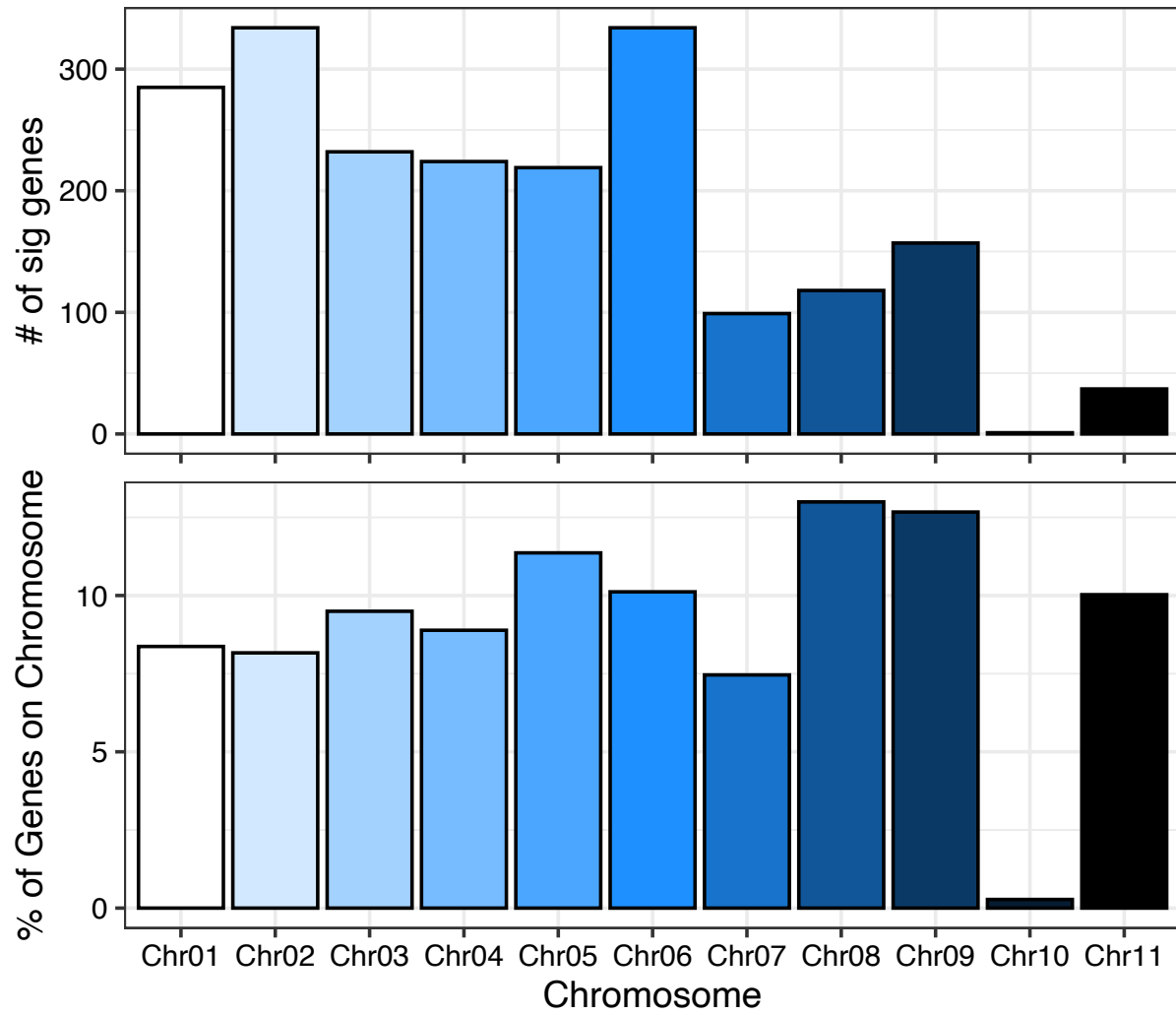


Figure S4. Bar chart showing total number of candidate genes per chromosome (top), and the percentage of genes per chromosome identified as candidate genes (bottom).

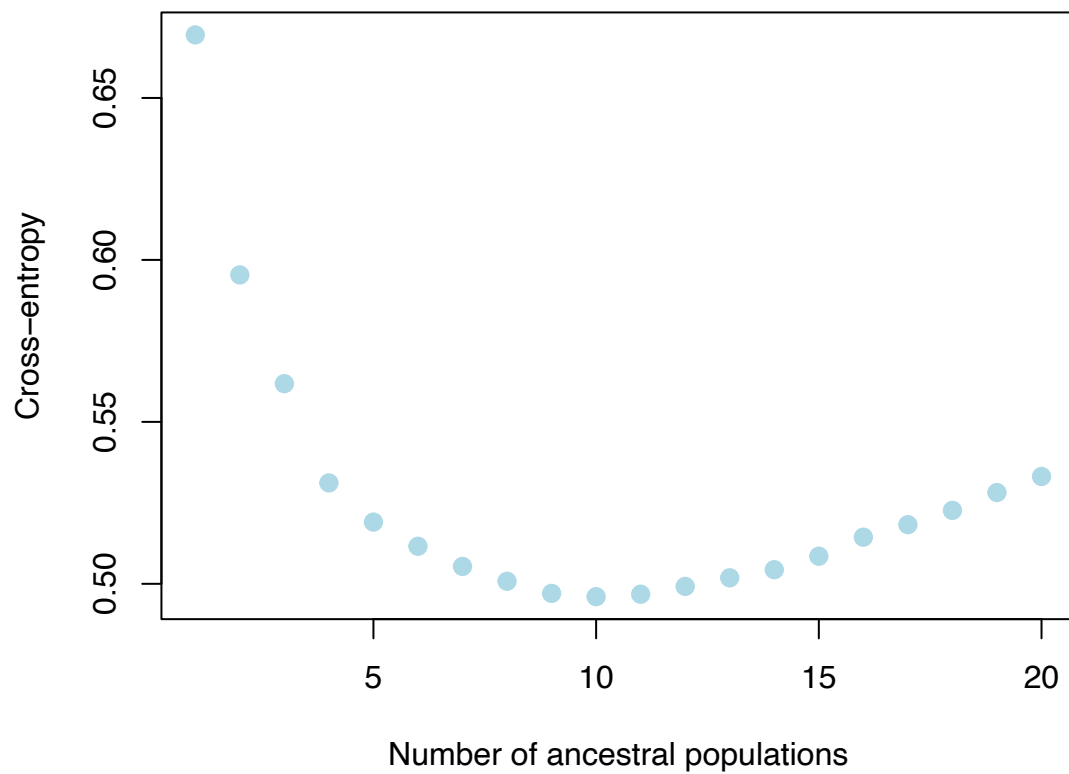


Figure S5. The cross entropy values plotted for 1-20 populations to determine the optimal K values for use with LFMM2.