

Figure S1. Relationship between mean and range of yearly temperatures for Florida weather stations.

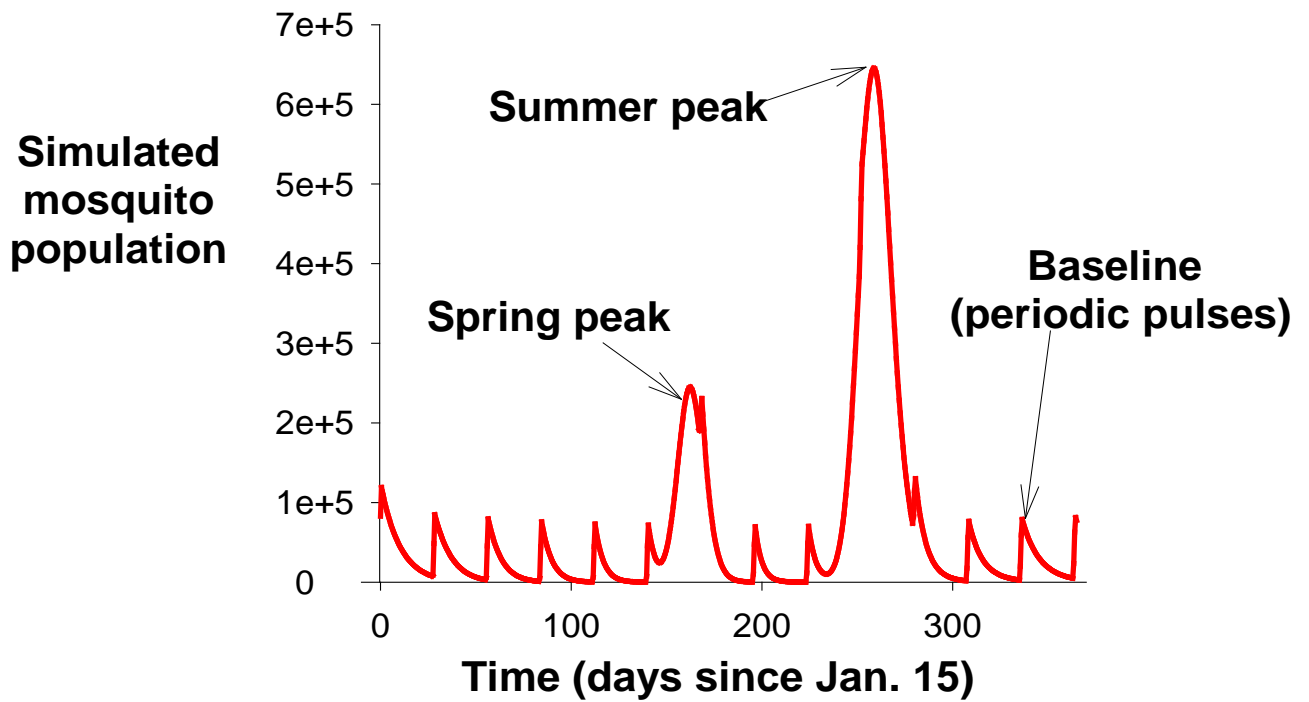


Figure S2. Phases of modeled mosquito populations

A

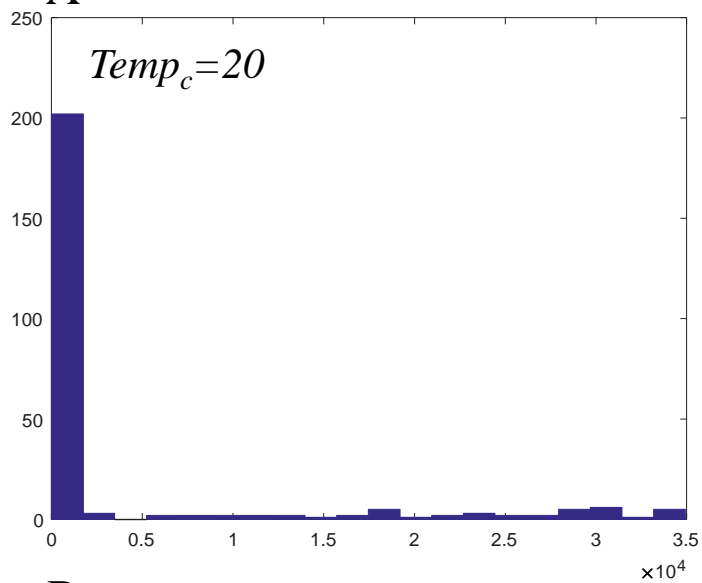
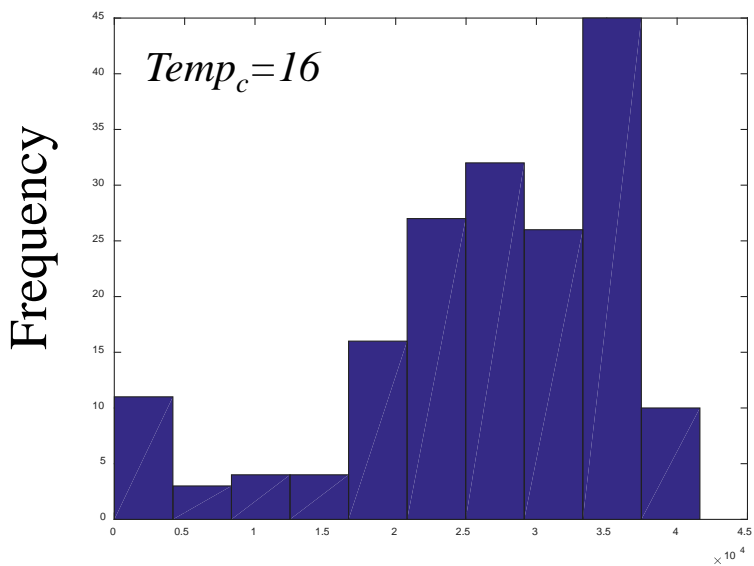
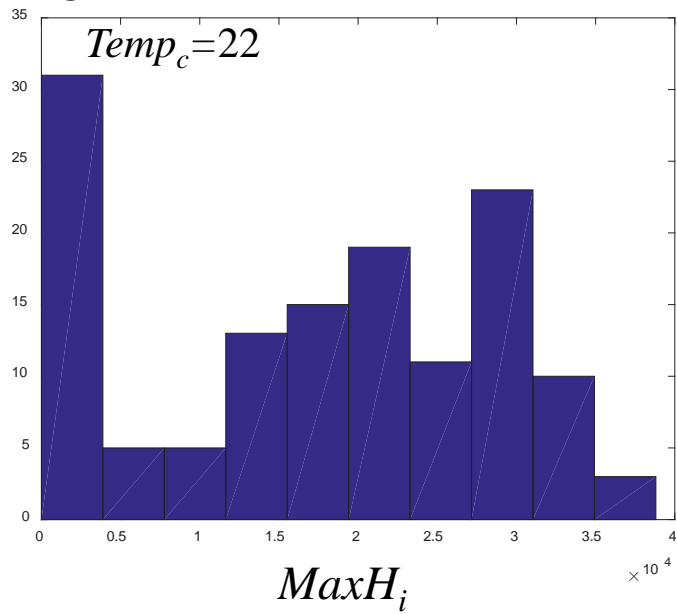


Figure S3. $MaxH_i$ histograms for each $Temp_c$. Note change in y-axis.

B



C



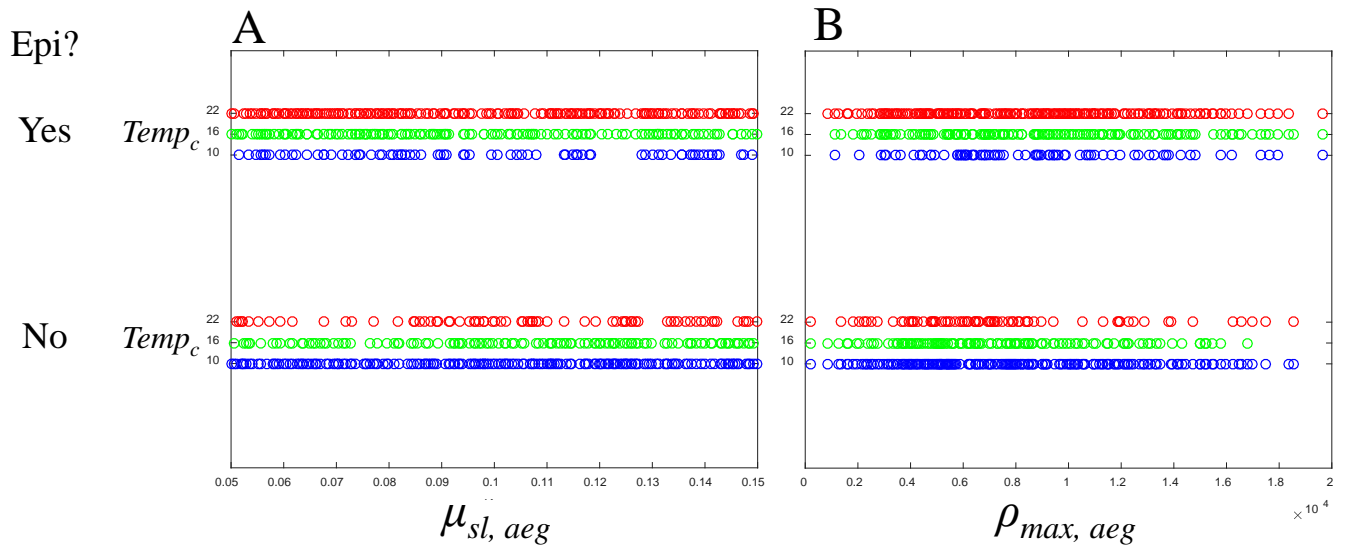


Figure S4. Relationship between epidemic occurrence and A) mortality – temperature slope, B) maximum mosquito population, for *Ae. aegypti*. All 3 values of $Temp_c$ shown (22°C, red; 16°C, green; 10°C, blue). Top set, epidemic occurred; bottom, no epidemic. Each point is one simulation plotted for parameter from that run set. All other parameters varied as well, in the LHC sampling scheme. Epidemics were more likely at $Temp_c = 22^\circ\text{C}$, with lower values of $\mu_{sl, aeg}$ and higher values of $\rho_{max, aeg}$ at $Temp_c = 16^\circ\text{C}$ and 22°C .