

# Simple Mosquito Modeling

Carl A. B. Pearson

Emerging Pathogens Institute, University of Florida

April 9, 2013

# Emphasis: Simple

comparison of continuous, spatially homogenous models

Why?

understanding of infection trends can inform interventions, health system preparations, *etc.*

# Common Mosquito Model

TODO sine

## ...vs. Common Mosquito Abundance

TODO overlay mosquito pops with sine, match peaks

# So, Low Hanging Fruit

preview: no sophisticated analysis to pick said fruit  
but these basic analyses provide fertile ground for much more  
quantitative detail

1. useful to write models in terms of measurable parameters,
2. measurable parameters are not scale-free,
3. mathematics is more useful when scale free, therefore
4. dimensional analysis is awesome