Questions for Mordecai et al 2012 Ecology Letters

Answer the following questions in no more than 200 words (be terse! Use bullets, not complete sentences)

1. What is predicted relationship between Temperature and R0 for malaria? Draw your answer graphically. What are the values on the y-axis? Why?
2. Which species of malaria and mosquito does this predicted curve apply to? (there are 5 species of malaria that infect people, and dozens of mosquito species). How does this change your interpretation of their results?
3. Do data on malaria transmission support this prediction?
   1. What are the data that the papers uses to test their model predictions? Are they R0 estimates? Are they good data to test their predicted model?
   2. Do the data completely or only partially support their predictions? What would the data pattern be if they exactly supported their predictions (make a graph)? Why might there be deviations?
4. Which parameter in their R0 model is the most important in determining the response of R0 to temperature? Why is this parameter so important?
5. How might climate change affect malaria transmission based on this paper’s prediction? Does the result depend on where you are making a prediction?