Exercises, part 4:

1. Simulate a birth-death tree with 200 tips using b=0.1 and d=0.05. Plot the tree and make an LTT plot.
2. Simulate a character on your tree using a brownian motion model with a rate of 1.0.
3. Test your simulated character on the tree for phylogenetic signal.
4. Estimate ancestral character states for your character. The root state in the tree was actually 0 - how close did you get?

Exercises, part 5

1. Fit a birth-death model to the phelsuma tree. Also calculate the gamma statistic. What do these results suggest?
2. Use fitContinuous to compare BM, EB, and OU to the phelsuma data. Which model is best supported by the data?