Modeling Biodiversity

1. Suppose you had an area with 10 honey bees and 50 spotted lady beetles. You select an individual and then select another individual without replacing the first individual. What is the probability that the selected individuals are both honey bees?

2. In our area with 10 honey bees and 50 spotted lady beetles, what is the probability that the selected individuals are both lady beetles?

3. What is the probability that the two selected individuals are from different species?

4. Suppose we have n_1 individuals of species 1 and n_2 individuals of species 2 (different from species 1). You randomly select one individual and then randomly select another individual without replacing the first chosen individual. What is the probability that the two selected individuals are from different species?

5. For a large data with many more than just 2 species, build a model to represent biodiversity in terms of totals from your data.

Written by Suzanne Lenhart