Evan Krause ECO 602 Prof. Michael Nelson 9/28/2022

1.

- a. Extent of late-successional forest, Continuous numeric from 0 to 100%
- b. Total basal area, Continuous numeric from 0 to ~200

2.

- a. Brown creeper abundance, continuous numeric from 0.0 to 1.0
- b. Brown creeper occurrence, discrete binary numeric either 0 or 1
- 3. The first set of data was best suited to the linear model due to the variation within the data whereas the second *model* was constrained by the type of the data (discrete binary)

4.

Ricker model: the pros and cons of the ricker model are the same; its usefulness for variables of a specific character (zero-including, right-tailed, concave down) such as that of population growth but less utility outside of variables characterized that way.

Quadratic model: the pros of a quadratic model is how easily understandable it can be and the ease with which they can be simplified. The con of a quadratic model is how disparate the function parameters can be when compared to actual environmental data. Higher-order (x^3+) polynomial functions are poor for modeling realized mechanistic data.