EEB 5301 Homework 3

Samantha Apgar & Henry Frye

Spring 2017

Problem 1

Part a

Based on Figure 1, interspecific competition is stronger than intraspecific competition. The Fruit Dove population will out compete the Cotingas and thus their population is not threatened.

Part b

In Figure 1, the conclusions based on the intercepts of the axes are constrained by the following be true: $\frac{k_c}{\alpha_{cd}} < k_d$ (x-axis) and $k_c < \frac{k_d}{\alpha_{dc}}$ (yaxis). If the carrying capacity of the Cotingas violates these constraints then the conclusions in Part a would change.
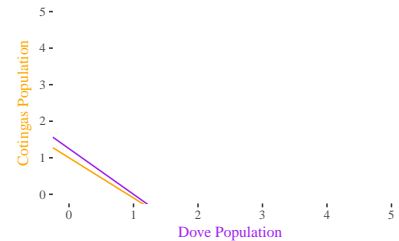

Figure 1: Fruit Dove and Spangled Cotingas Phase Diagram