**Butterflies and Non-native plants**

Round 1:

Pick a few students and give them 3 pink index cards (each symbolizing a native plant). Pick a few students (less than the native plant population) to be consumed nonnative plants (symbolized by a different colored index card). Select 2 students to be butterflies that only like eating native plants.

Butterflies are "released" to eat for a selected amount of time. They consume a plant by tagging the plant and receiving one index card. They may not tag the same plant two times in a row.

Round 2:

If any plant has at least 1 (or more) card left, they reproduce and have a second plant (select another student to be new plant and get cards as appropriate for native or nonnative plants). Students should see that ALL the nonnative plants reproduce because they were not eaten. However, some of the native plants don't survive, so there are fewer native plants the next round. Typically, you should consider doubling the number of butterflies based on survival, so there are more to eat the native plants (since all the butterflies ate well the first round).

You can add in a bird in both rounds (or just the second or not at all) to be a predator for the butterflies.

Summary questions

1. What happened in the simulation? Describe observations.

2. What impact did the decrease in native plant population have on the butterflies?

3. Predict what would happen in future rounds .

4. What are the limitations of this simulation?