Coevolution Graphing Activity

Coevolution occurs when two (or more) species reciprocally affect each other’s evolution. This activity displays coevolution in action, with the class playing the role of a population of a bird species, with varying beak sizes. The birds eat the seeds of a tree species, and the seeds also vary in size. Over the course of several rounds of this activity (which represent generations of both birds and trees), we will demonstrate how both beak size and seed size evolve in response to each other.

**Graph the starting frequency of beak size and seed size below**

Beak Size

Seed Size

**Graph the frequency of beak and seed size after one round of seed collection and reproduction**

Beak Size

Seed Size

**Graph the frequency of beak and seed size after the second round of seed collection and reproduction**

Beak Size

Seed Size

**Graph the frequency of beak and seed size after the second round of seed collection and reproduction**

Beak Size

Seed Size

**Discussion Questions:**

Were changes in beak and seed size consistent from round to round (i.e. beak size always got bigger), or did changes fluctuate from round to round (i.e. seed sizes increased in one round and decreased in another)?

What do you think drives changes in beak size? Give a specific example based on your frequency graphs.