



Oh Deer!

Everglades Lab

<http://fcelter.fiu.edu/schoolyard>

Purpose: To determine the effect of competition for resources on a population in the Everglades ecosystem.

Materials:

- Area large enough for students to run
- Data chart

Procedures:

1. Mark 2 parallel lines along the ground about 20 feet apart.
2. Students count off in fours. All of the number ones line up along one line and all other groups line up along the second line.
3. All of the ones are now “deer”. All other groups represent essential components of a habitat: food, shelter, or water.
4. Three symbols will be used during the game:
 - a. Hands over stomach: deer looking for food; food
 - b. Hands over mouth: deer looking for water; water
 - c. Hands together over head: deer looking for shelter; shelter
5. The game will be played in rounds (or years). A deer can choose to look for any one of the three essential components during each round, but cannot change what it is looking for during a single round. It will use the symbols to show what it is looking for.
6. The “habitat” students will choose to represent an essential component during each round, and will use the symbols to show what component they are representing.
7. When each round begins, the deer will have their back to the habitat. The habitat will show their symbols, and then the deer will show theirs. The instructor will signal that the round has begun, and the deer will turn around and run to the habitat to find what they are looking for (a matching symbol).
8. Once a deer finds what it is looking for, it will take the “habitat” student back to the deer line, representing its survival. The habitat student will now become a deer for the next round- representing reproduction of the deer that has met its needs.
9. If more than one deer reaches the same habitat component, the student that arrived there first survives.
10. Any deer that does not successfully find what it is looking for will “die” and become part of the habitat line for the next round.
11. At the beginning and end of each round, the deer population will be recorded.
12. At the end of 15 rounds, use your population data to create a line graph of the deer population over 15 years.

Results: Record your data table and line graph go in this section.

Conclusion:

Answer the following questions on a separate sheet of paper. (One paper per group member)

1. Discuss the line graph from your data section
2. Discuss how your data illustrates competition within a population.
3. Discuss sources of error
4. Discuss changes you would make to improve the activity
5. Discuss how the addition of a predator, such as the Florida panther, might affect your data.

Extension:

1. For further investigation, repeat the experiment and add a predator at in the 5th generation.
2. How long will the deer population continue to grow after adding the predator?