

Miniature Circle of Life (a program on biodiversity), done by [Tracy S. Feldman](#) on 19 July 2014

This is a series of activities aimed at getting participants to understand the importance of biodiversity for healthy forests, and to help participants gain an appreciation for biodiversity even at a small scale, by encouraging them to look more closely and see things they might not otherwise see.

1. Introductions

Introduce myself to the group, and have everyone else introduce themselves. Introduce the topic for the day. How many kinds of living things do you interact with in a day? How many kinds of living things are in Glennstone Preserve? On the lawn by the retention pond?

2. Interaction puzzle

The objective of this activity is to use teamwork to help participants understand biodiversity and interconnections between living things in their environment. I designed puzzles in which each piece had a photograph of an organism and a series of descriptions of interactions with living things in neighboring puzzle pieces with arrows. See puzzle designs below. I printed the puzzles on cardstock and laminated them, then cut out the pieces.

In this activity, give each player one puzzle piece (or two, if there are too few people). Tell the group that they must work together to complete the puzzle. They must first imagine that they are the organism(s) on their puzzle pieces. If they are unfamiliar with the living things pictured on their puzzle pieces, provide more information. Then ask: What organisms do they interact with? What eats them? What do they eat? Do interactions benefit any other living things? They can feel free to talk with their neighbors/parents about their answers.

Then ask participants to use what they came up with to solve the puzzle. To do so, they must not only fit the pieces together, but also note the interactions on the puzzle—which ones interact with each living thing pictured on each piece?

3. Miniature circle of life

The idea behind this activity is to help people look closely at the world. In doing this, participants will hopefully come to understand that there are more different kinds of living things in many habitats than they may have thought previously (and they have the power to distinguish among different living things), and to understand that different areas that look similar may have different assemblages of species. I did an activity very similar to this one on my 5th grade camping trip in 1983. I am not sure where it originally came from. It has been modified by others to use hoops instead of string.

Give everyone a 1-meter long piece of yarn. They can make a circle out of it, in a place of their choosing. Care should be taken to direct them if they are unsure where to put

their strings. It does not matter where they put them, but some may be concerned with where is the “right place”. Having a hoop to throw (and do the exercise wherever it lands) can help. Otherwise, just direct them where to place their circles if they are unsure.

Within the circle of yarn, they should look carefully and figure out how many different kinds of living (or once living) things are in their circle, even if those organisms just fly/walk through for a short time (but participants should not count themselves). You could ask participants to find at least ten different types of organisms in their circles. Alternatively, it works not to give any limits on the number of living things they can find—this opens the possibility of finding more than ten.

Make sure they know to look closely at the plants in their circles as well as the animals, and to try to figure out how many different kinds of plants they have (not just list “plants”). They need not know what any of the living things are (in fact, they can assign them names if they wish), but they should draw or describe the inhabitants of their circle enough to remind themselves of the differences between living things in their circle. Also, they can make observations to figure out what their organisms are doing there (just walking by, or setting up a spider web?).

Afterwards, meet as a larger group to share what you all found. How many living things did each person find? Did anyone find a living thing that no one else found? What kinds of living things were in everyone’s circles?

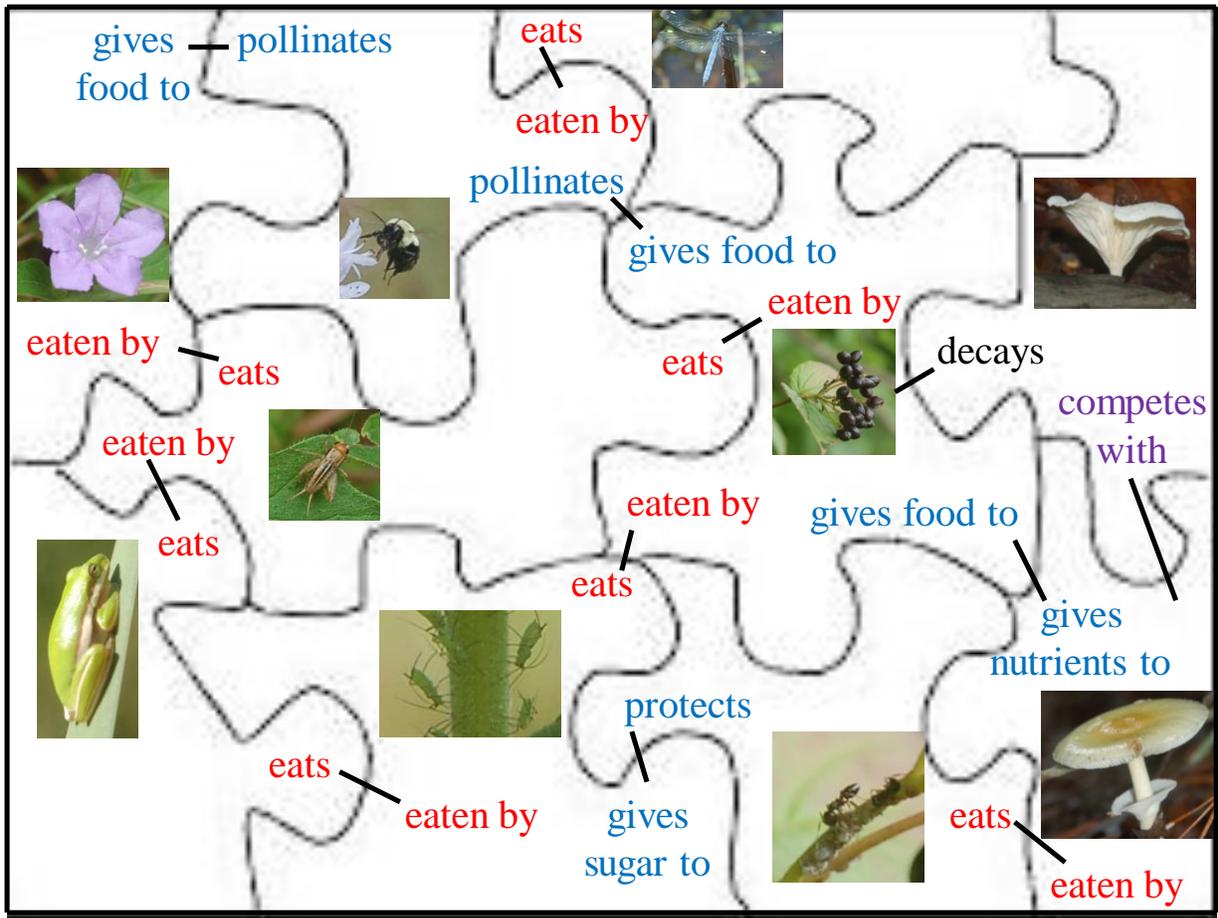
Compare findings between circles on lawns and circles in a forest or in a forest prairie clearing. In which place did they find more types of living things? Which living things (if any) were in common between the two locations? What fraction of species were similar? Why might that be?

4. **Finding Stories in Nature** (notebooks and pens/pencils required)

I did not get to this activity (there was not enough time). If this activity is combined with the above activity, then we can use some of the observations from this exercise to start weaving a story. If not (or either way), it might be good to start with a short story or two about natural history phenomena in the area, personifying the organisms involved to illustrate that the basic problems the organisms face are similar to those we face.

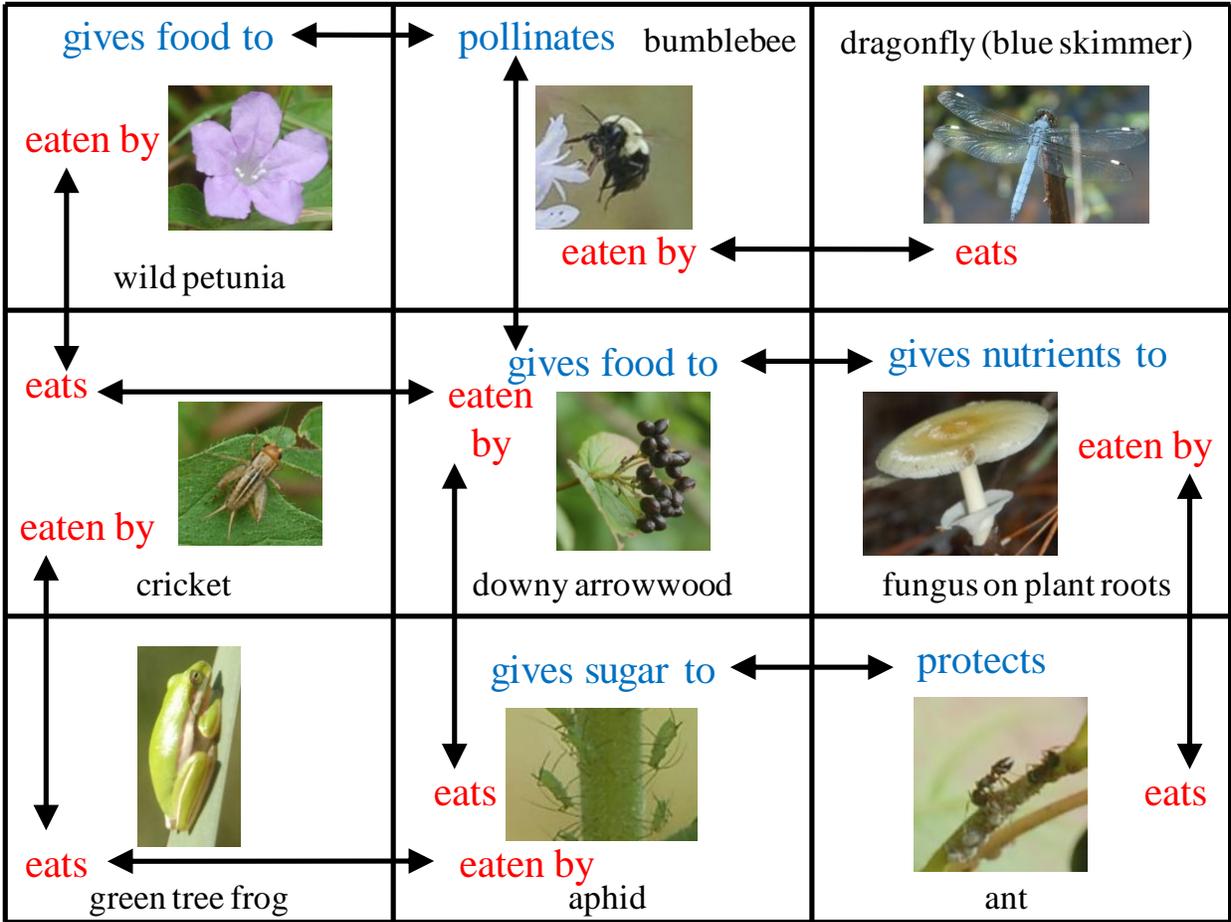
Participants will explore the woods, and will write down any observations or “stories” they see around them.

Then get back together as a larger group to share stories, and perhaps weave them into one larger story. Fantastic elements are welcome.



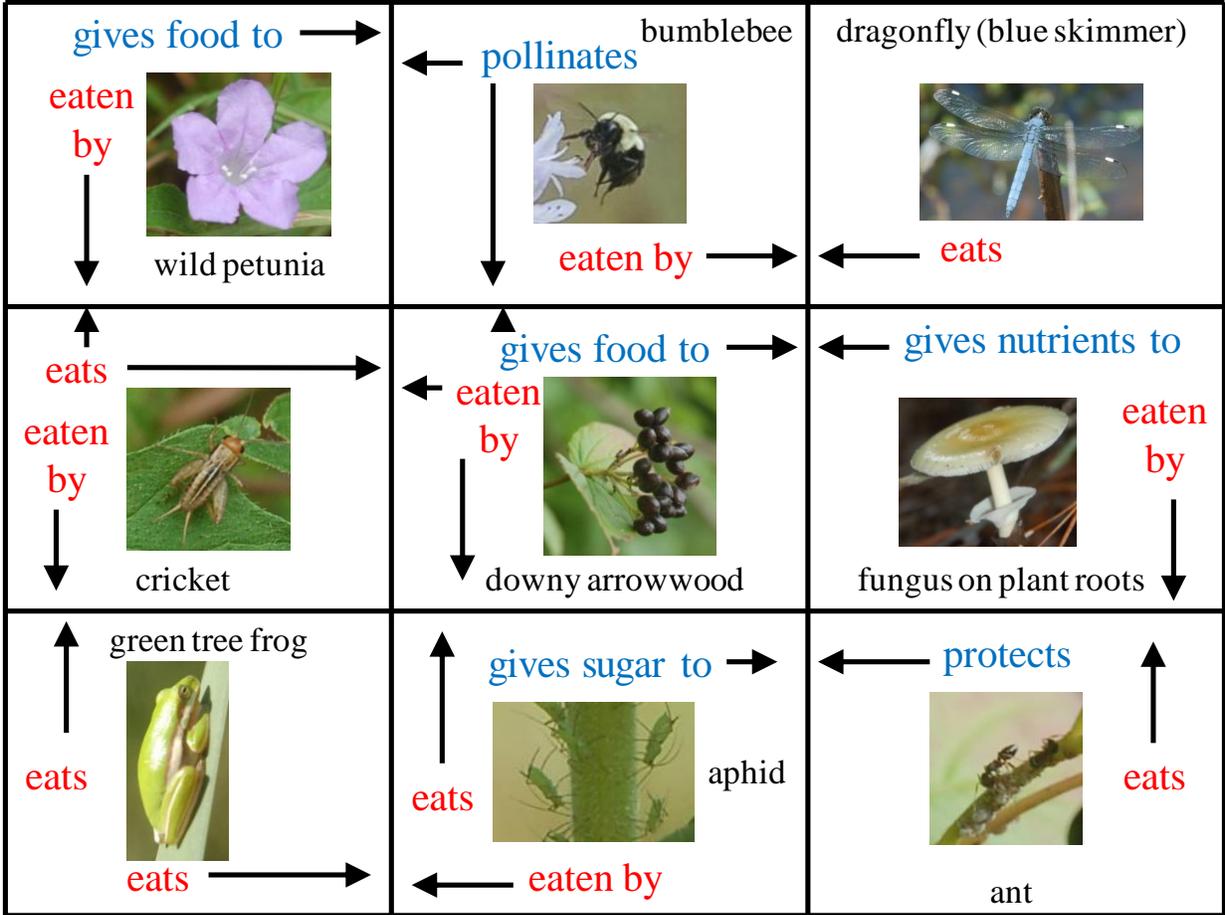
Interaction web puzzle, easiest version

Participants can use the shapes to help them solve the puzzle, but should also examine the interactions between living things in neighboring squares.



Interaction web puzzle, medium difficulty

Participants can solve the puzzle by completing the arrows spanning between squares, but can also solve the puzzle by figuring out the combination of interactions between living things in neighboring squares.



Interaction web puzzle, greatest difficulty

Participants must solve the puzzle by figuring out the combination of interactions between living things in neighboring squares.