



A Look at the Lawn: Quadrat Study

For this activity we will take a closer look at lawns and explore the biodiversity that they hold. There is more than just grass! It wouldn't be reasonable, or plausible to count every blade of grass or forb, or identify every single species here on the lawn. You'd be here for days! Instead, biologists use a form of random sampling called quadrats.

Quadrat:

A quadrat is a small plot used to isolate a certain area to measure the distribution of an item over a large area. Quadrats can be all shapes and sizes: rectangular, circular, irregular, etc. Quadrat sampling uses square plots with gridlines which are used to divide up the larger square in parts. Our quadrats have labeled squares: numbered columns and lettered rows.

Activity:

Locate the two quadrats on the lawn. These will be used to obtain data in order to get a general description of the biodiversity in the lawn. For this activity, split your group into two, so that each group can measure one quadrat. The two groups will combine their data at the end of the activity.

Part 1: All grass?

- To start, make a prediction of how much grass you think there is on the lawn, compared to other species. Write down the percent coverage of grass.

Part 2: Difference in species

- Keep the quadrat in the position it is.
- Make a hypothesis of how many different types of plant species you think are in the entire quadrat. Write this number down.
- Now, instead of observing the entire area of the quadrat, take a look at one square within the quadrat. Count how many different species you see.
- Using the I.D. sheet, name the species that you see.

Part 2: Number of each species

- Make a hypothesis of percent coverage of each species. How much space does this species take up on the lawn?
- Looking at a single square (___), observe the percent coverage by each species. Write this number down.
- Now, looking at a different square, complete the percentage coverage of species again. Write this number down.