

Terrestrial Ecosystems Forest Study

Scientists' Names:

Date:

AM PM
(circle one)

Plant Survey Data

◆ Tree Diameter

Find the 5 trees with blue or orange flagging in your plot, identify the species using the identification cards and measure the diameter at breast height (DBH). Wrap the DBH tape measure around the tree at breast height, and record the measurement around to the RED start line.

	Tree 1	Tree 2	Tree 3	Tree 4	Tree 5
Species					
DBH					

Final Data

Species of
Largest Tree:

Largest DBH:

cm.

Analyze: According to the chart, how old is the largest tree in your plot? _____

Looking at your entire plot, are there more older or younger trees in your plot?
What does this tell you about the forest?

◆ Amount of Ground Covered by Trees (Basal Area)

Stand two steps away from the orange flagged tree at the center of your plot. Holding the prism horizontally, look through the prism and 'cruise' the forest by turning in a circle around your hand with prism. Count the number of trees that are 'in' (see direction sheet). Do this three times (in different locations within your plot) and record your results for each location on the lines below.

Finally, find the median (middle) and multiply that number by 20. Record the result here.

Median _____ x 20 = _____ sq. meters/hectare

sq. m/ha

Analyze: Forests can be categorized based on their basal area measurements.
Circle the category that your forest plot fits into.

Thin Forest
0-80 sq. m/ha

Average
100-180 sq. m/ha

Heavily Forested
200+ sq. m/ha

Plant Survey Data (continued)

◆ Canopy Cover

Use the tubular densiometer to take readings at 10 different locations within your plot, and record below. Use a '+' when the center crosshairs contain branches or leaves, and a '-' when there are no branches or leaves crossing the center.

Count the number of '+' s, and multiply this number by 10 to get the percentage of canopy cover.

Number of '+' s _____ x 10 = _____ % Canopy Cover Record Here →

Analyze: A higher percentage of canopy cover means that less light can reach the forest floor. What evidence do you see that the amount of canopy cover has an effect on your forest plot?

◆ Understory Density

Count the number of plant stems that cross the density board when it is held horizontally and the string just touches the ground. Do this at three different locations within your plot and record the count below.

Take the median (middle) number and record it here →

Analyze: Remember that plants need sunlight, water, oxygen, and space to survive. How could any other plants grow if a forest had 100% canopy cover?

Final Data



%
stems

Animal Data

Use the space below to record any animals or signs of animals you observe while conducting your research.