

Notes:

- Your major question for today is: “How can we describe the structure and composition of the forest above Cronemiller Lake using both numeric and descriptive data?”
- As groups, you will analyze all of the data that the class collected last week, then as individuals you will write summary reports.

Complete in lab:

- You will receive photocopies of the data sheets from last week. If you have any questions about the data, be sure to ask the groups that collected the data.
- Use Excel spreadsheets to enter the data for trees and shrubs. To make the work go faster, you can divide your table team into two teams, one to tackle the shrub data and one to take on the tree data. You may use the computers in Room 216 in addition to the computers in the lab room.
- On page 710 are the formulas you will use as a numeric analysis to determine the dominance of tree and shrub species. Your group will be responsible for calculating and making graphs of:
 - Trees – graphs should compare species according to:
 - Dominance
 - Relative dominance
 - Density
 - Relative density
 - Frequency
 - Relative Frequency
 - Importance
 - Shrubs – graphs should compare species according to:
 - Density
 - Relative density
 - Frequency
 - Relative Frequency
- At the end of lab, distribute electronic copies of the data and all 11 graphs to your group members. Group members are responsible for writing individual reports.

Homework:

Your homework this week is to write a description of the forest as it might appear in a forest management guide or as one section in an ecological study. Read the attached sample from a forest management guide as a model for style. Your report should include:

- A general qualitative description of the forest based on your observations, including the terrain (sloped? flat? variable?), the overall structure (tall trees? short? all one age and size? variable ages and sizes?), and forest features (moist? dry? boggy? was the understory dense or sparse?).
- A quantitative description based on your data. Discuss the following:
 - Which tree species was most dominant?
 - Which tree species was most frequent?
 - Which three shrub species were most frequent?
 - Compare density and frequency of shrubs vs. trees.
 - Compare the tree data with the young tree species in the shrub data. Which trees are regenerating themselves? Are they the same trees that currently dominate the forest? Would you say this is a climax forest (dominant tree species tend to dominate the reproduction) or is it in succession (non-dominant tree species tends to dominate the reproduction)?
 - Discuss possible sources of error in your own group’s data and the class data regarding a) the plants you identified and counted and b) the quadrats you laid out.

Reports will be due by Friday of next week. Turn them in to the box by my office or hand them to me before or after lecture on Friday (or any time before).