

Homework No. 10 – Inventory with Point Samples

Objective

In this assignment, you will practice collecting data from a systematic sample in a mixed northern hardwood stand using variable-radius plots. The ultimate goal is to estimate stand-level summaries of stocking and stand density. Later, you will compare the inventory with the one generated using fixed-area plots and calculate a required sample size.

Instructions

You will establish three prism plots at the same pre-determined locations you established last week. These are in a stand off of Misery Bay Road west of Toivola MI. This stand is privately owned by GMO Renewable Resources, a timber investment management organization that holds more than 440,000 acres in the western Upper Peninsula. Refer to the map from last week if you need to re-locate your sample points.

Navigate to your sample point, and then establish a BAF 10 ft²/ac variable-radius or “prism” plot at each plot center. Pick a very obvious tree and start measuring in a clockwise direction, recording species and dbh (to the nearest 1/10”). Remember to check for borderline trees as necessary. Sample all trees above the 3” diameter limit we used in the fixed-radius plot.

When you’re done, choose one hardwood and one softwood tree on each plot and measure the 10-year inside bark radial increment. Sample only from trees greater than 10” dbh and try to pick a different height-class tree on each plot. Note that it may be difficult if not impossible to see the growth rings on hardwoods. Do the best that you can.

Product

When you have time, back at the “office”, enter all of the data into an Excel workbook. Then, submit your field sheets, and a hardcopy of your workbook as attachments to an appropriate memo. Submit only one memo per team; this means you have to list all of the team members and obtain all of their initials! Also, email your workbook to Robert.

Due Date

This assignment is due at the beginning of class on Friday April 17, 2009.