



THE LABORATORY OF TREE-RING RESEARCH

presents a talk by

April Chiriboga

(Lab. of Tree-Ring Research, PhD Candidate)

*Longitudinal Variation in Wood Accumulation Along the Stem of *Populus grandidentata*: Implications for Forest Carbon Monitoring*

Thursday, March 26, 2015 - 12:30pm to 1:30pm

Room: Bannister 110

Direct measures of forest wood production are often based on measures of individual tree growth along the stem, often taken at a single height: basal height (1.3 meters). This assumes that a measurement of wood production at a single height is representative of wood production along the whole stem. In violation of this assumption, it is known that trees do accumulate wood differentially along the stem. In this study of 30 *Populus grandidentata* at the University of Michigan Biological Station, I quantify annual longitudinal variability and explore its effect on the relationship between tree ring widths and annual volume. I also quantify the error in estimated annual whole-stem wood production related to the assumption that wood production is constant along the stem. Derived ring width and volume chronologies are then compared to carbon flux data to explore the relationship between forest-level carbon fluxes and wood production.