

VARIATION IN REPRODUCTIVE CAPACITY OF LODGEPOLE PINE (*Pinus contorta* var. *latifolia*) IN BRITISH COLUMBIA

Lodgepole pine (*Pinus contorta* var. *latifolia*) is the most wide-ranging pine in North America. Populations in British Columbia vary widely in phenotypic and genotypic characteristics and differences between populations can be linked to local climate or to geographic predictors. The effect of climate on variation in reproductive characteristics has never been examined, yet is vital to the production of seed necessary for reforestation. This study aims to determine the relationship between climate and variation in female cone and seed characteristics. The study makes use of the Illingworth provenance trial, sixty common garden plots that are distributed throughout British Columbia. Female cones from seven source populations were collected at 22 sites during the summer of 2012. Data processing to date includes measuring cone length, and determining the number of scales per cone. Initial results indicate wide variation between sites for both variables. Further data processing will include determining the number of seeds per cone. The final product of this study will be a response function relating climate variables to cone morphology and seed yield.

Anne Berland and Patrick von Aderkas

Centre for Forest Biology

Department of Biology

University of Victoria

Victoria, BC

E-mail: anne.berland@gmail.com