



"Our environment is our future"

# The Natural Resources & Environmental Studies Institute Annual Lecture



**Guest Lecturer:**  
**Dr. Lori Daniels**  
Associate Professor  
University of British Columbia

## "Widespread Increases in Tree Mortality Rates in Old Forests"

In a recent collaboration with several forest ecologists studying old-growth forests, we determined that tree death rates have more than doubled over the last few decades. Our analyses of longitudinal data from unmanaged old forests in the western United States and southwestern British Columbia showed that background mortality rates have increased rapidly in recent decades, with doubling periods ranging from 17 to 29 years among regions. Increases were also pervasive across elevations, tree sizes, dominant genera, and past fire histories. Forest density and basal area declined slightly, which suggests that increasing mortality was not caused by endogenous increases in competition. Because mortality increased in small trees, the overall increase in mortality rates cannot be attributed solely to aging of large trees. Regional warming and consequent increases in water deficits are likely contributors to the increases in tree mortality rates.

**Date: Thursday March 19th, 2009**

**Time: 7:00 pm**

**Place: UNBC, Canfor Theatre - Room 6-213**

(Light refreshments available)

**EVERYONE IS WELCOME!**