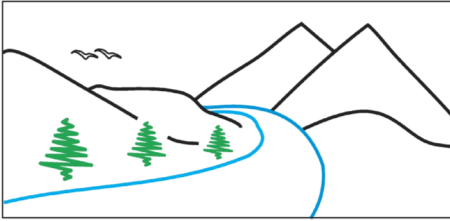


N R E S i



"Our environment is our future"

RESEARCH COLLOQUIUM SERIES

Dr. Chris Wallis

Postdoctoral Researcher,
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Friday
Sept 11, 2009

3:30 - 4:30

LECTURE THEATRE

7 - 152

LIGHT REFRESHMENTS
SERVED AT 3:20 PM

How Pines Adapt to Protect Themselves against Diseases

In a world encountering climate change, lodgepole pine (*Pinus contorta*) stands are and continue to more frequently encounter increased pest outbreaks. Attempts are currently underway to mitigate certain climate change issues such as drought by assisting the migration of certain pine populations to locations likely to become hotter and drier, but it remains unclear if such movement of pines will increase or decrease the likelihood of pest attacks. In this work, pine defenses were analyzed in distinct pine populations throughout the province of British Columbia to assess the variations in the levels of these defenses. Pine populations from areas adjacent to the Coast Range and Rockies consistently possessed greater levels of defense compounds in their foliage than those from the more arid Central Interior. These pine populations should be preferred in efforts to move pines northward to mitigate other effects of climate change. Multiple explanations for this finding were also explored, and populations that historically experienced more frequent foliar disease outbreaks seem to have evolved greater levels of foliar defense compounds.