

NRESi



"Our environment is our future"

For **Illuminate** information and link to the webcast: http://www.unbc.ca/nres/nresi_webcast.html

RESEARCH COLLOQUIUM SERIES

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Friday

Nov. 19, 2010

3:30 - 4:30

LECTURE THEATRE

7 - 150

Soil Change and Soil Resilience: Lessons from Natural Experiments on Multiple Time Scales

Using examples of natural experiments in soil formation, I will show how a pedological perspective can inform the way we view soil change and resilience on multiple time scales in our region. The geological youthfulness of our soil landscapes provides a degree of geochemical resilience that we usually take for granted. This youthfulness, characterized by large reserves of unweathered nutrient-bearing minerals, is created and maintained by disturbance events occurring on a range of scales, for example, continental glaciations, volcanic eruptions, landslides and dust deposition. In the absence of these events, in otherwise highly productive environments, subtle initial features of soil parent materials can trigger a downward spiral of ecological decline. In other settings, parent material characteristics can amplify the retarding effect of extreme cold and/or aridity on soil change and ecological succession.