school of environmental sciences

The Research Seminar Presentation by

Michael Ben-Israel

will be held on

Wednesday March 16, 2016

At 10:10 am

ALEXANDER HALL 337

Title: Investigating microbial processes related to phytoremediation of toluene contamination in a shallow fractured bedrock system

Abstract

This seminar presentation will discuss the use of hybrid poplar trees for phytoremediation (plant-based cleanup) of the hydrocarbon toluene in contaminated aquifers, and outline a proposal for investigating microbial processes involved in these systems. Phytoremediation is an approach for containment and treatment of environmental contaminants that has recently grown in popularity given its cost-effectiveness, ease of implementation, and its promising returns compared to conventional approaches. Remediation efforts, however, can often be slow, expensive, and labour intensive, with inappropriate selection and application of available remediation options resulting in inflated expenditure. Better characterization of the phytoremediation potential and activity of hybrid poplars and their associated microbial communities in cleaning up hydrocarbon-polluted aquifers will enable more informed decision-making in choosing remediation strategies. Towards this goal, molecular analysis of plant-associated microbial communities at a current hybrid poplar-based phytoremediation site will be proposed in this seminar.

Everyone is welcome to attend

(This is a Research Proposal presentation by students in ENVS*6900)