

Opportunity for Graduate Studies in Phytoremediation

I invite applications for two graduate students in my Phytotechnologies Research Group at the Royal Military College of Canada (RMC). I am looking for applicants who have completed undergraduate studies in biology, chemistry or environmental studies. Knowledge of plant biology would be an asset.

My phytoremediation research group is involved in research funded by national granting agencies, other government agencies, and industrial partnerships. Current research involves using vascular plants to remediate both inorganic and organic contaminants at a number of sites in Ontario and Canada. I am seeking graduate students to primarily be involved in two separate industrially funded projects where we are using halophytes (salt tolerant plants) to remediate: i) legacy fertilizer sites in western Canada, and ii) road salts in Loyalist Township. While phytoextraction (salt uptake and partitioning followed by plant harvest) is one mechanism of remediation, we are also using a specialized class of halophytes referred to as 'recretohalophytes'. These salt-tolerant plants take up and then excrete excess salts on their stem and leaf surfaces. The salts are then dispersed by the wind in a process referred to as 'haloconduction'. Both projects involve using Aermod software to model salt dispersion from plants and determine the feasibility of this remediation approach. Initial results have been very promising.

The successful applicants will work with my other graduate students at RMC who will be able assist and guide them with the modelling. The students will also have the opportunity to visit their field sites, work in my analytical laboratory and in my greenhouse at RMC, as well as at the CALA-accredited Analytical Services Unit at Queen's University.

RMC is located in beautiful Kingston, Ontario. As Canada's only federal university, our undergraduate students number ~1000 (cadets in uniform), and we also have ~500 graduate students (both civilian and military).

Interested applicants should send the following to Dr. Barb Zeeb (zeeb-b@rmc.ca):

- Cover letter and statement of interest
- Undergrad transcripts
- Names and contact information for 3 referees