

Anticipated Toxicology M.Sc. Opportunity

Project title

Environmental and social risk assessment to support informed collaborative decision making for vegetation management of northern Rights-of-Way

Project summary

Through integration of social and environmental sciences, the goal of our research project is to develop both effective community engagement strategies and relevant ecological risk assessment data to support informed collaborative decision making for vegetation management of northern Rights-of-Way. SaskPower has extensive ROWs within the boreal forest ecosystem extending as far north as Uranium City and east to Flin Flon. As a first step in implementing an Integrated Vegetation Management (IVM) plan for these northern ROWs, SaskPower is proposing the use of Garlon™ RTU via basal bark application to augment recent hand cutting. Information is needed regarding the persistence and toxicity of Garlon™ RTU in northern soils and plants. Local Indigenous communities have raised concerns regarding herbicide usage on northern powerline ROWs. In addition to working with SaskPower, this project will also work closely with Indigenous communities in northern Saskatchewan. Development of toxicology research questions will in part be driven by community concerns and sharing of information regarding risk associated with various vegetation management decisions will be an important aspect of the project. Incorporating toxicology research and community engagement provides an opportunity to build on our knowledge of northern boreal herbicide persistence and toxicity, while addressing the concerns of those communities most directly impacted by herbicide usage.

The student will be expected to:

- Complete two internships with SaskPower where they will provide relevant information for risk-based decision making and assist with development of an IVM monitoring system
- Work closely with a northern Saskatchewan Indigenous community to integrate primary areas of concern regarding Garlon™ RTU usage into testable hypotheses
- Complete field trials examining herbicide persistence and toxicity during the months of June-August in the northern Saskatchewan
- Complete laboratory trials examining toxicity of Garlon™ RTU in northern boreal soils and plants
- Work closely with a Project Manager and Masters of Environment and Sustainability (M.E.S.) student to facilitate community participation in field trials and assist with community outreach activities

The expected starting date for this 2 year project will be September 1, 2016.

The stipend for this position is \$18,695 including benefits per year for 2 years.

Interested candidates should submit a CV, three references and unofficial transcripts to Dr. Katherine Stewart at University of Saskatchewan (katherine.stewart@usask.ca). For more information please contact Dr. Stewart.