

M.Sc. research opportunity – Forest management effects on carbon

Applications are invited for a 2-year M.Sc. position with UNBC in a funded collaborative project with the BC Ministry of Forests, Lands, Natural Resource Operations & Rural Development (FLNRORD).

The project

Forest management can play a role in mitigating climate change by increasing natural carbon sinks in forests and by reducing emissions caused by management. However, empirical studies of forest management effects on total carbon stocks are sparse and often short-term. The Date Creek Experiment, established in 1992, offers an ideal opportunity to collect data on longer-term carbon stock changes due to various levels of partial harvesting, clear cut and unharvested sites. This work will contribute to the basic scientific knowledge of forest carbon and be highly relevant to decision makers interested in climate change mitigation.

The student will conduct field work at the Date Creek Experiment, (near Hazelton in north western BC) on the sites that were mature forests before treatment and mesic sites to reduce the potential confounding variables. Field sampling will include trees, snags, coarse woody debris, and forest floor. The student will also have access to existing pre-harvest and post-harvest data to estimate carbon stocks in over time either directly or based on existing models such as estimating tree biomass from prism plots. If time permits, the empirical data could be compared against LANDIS-II carbon model output.

The student

- Completion or expected completion by May 2018 of a bachelor's degree in ecology, forestry, biology, or related subject.
- Strong analytical skills.
- Field work experience.
- Driver's license.
- Excellent written, verbal, and digital communication skills.
- Ability to work independently.

Successful applicants will be working with Dr. Oscar Venter and Dr. Ché Elkin (University of Northern British Columbia), Caren Dymond (University of Calgary; B.C. Ministry of Forests, Lands, Natural Resource Operations & Rural Development (FLNRORD)), Erica Lilles (FLNRORD). Two years of funding are guaranteed for this position.

Interested students should contact Dr. Oscar Venter for further information on this research opportunity and position. Applicants for this position will be asked to send a letter of interest, detailed CV, transcripts, and names of 3 references to Oscar.Venter@unbc.ca. The preferred start date for this position will be April/May 2018, with the potential for a September 2018 start.