Partner Perspectives

Field project bolsters university studies

Partner Perspective

Renewable Resources
University of Alberta

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Ellen Macdonald
Associate Dean, Research

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Overview

The Department of Renewable Resources in the University of Alberta's Faculty of Agricultural, Life and Environmental Sciences has about 30 professors and a mandate to provide a forestry and environmental education to about 350 undergraduate students. In addition the department serves about 100 Masters and PhD students who require a balance of teaching and research to achieve their goals.

Challenge

Universities are continually challenged to take their students beyond the lab and the textbook to real-world situations that can be a treasure trove of learning and research opportunities. In making this opportunity happen for its students, the Department of Renewable Resources needed external funds and a forest landscape that would serve as an outdoor lab. Ideally there should also be connection with a wider circle of scientists, and with the corporate and government managers who need the science to support their daily decision-making responsibilities.

Solution

Associate Dean of Research Ellen Macdonald and colleague Uldis Silins proposed a research project under the Mountain Pine Beetle Ecology Program at Foothills Research Institute. The project would have students spend summers in the forest, running trials to see what ecological changes would be wrought by a beetle infestation. "We know what has happened in British Columbia, but Alberta has a different climate, different soils, different forest stands . . . we felt it was important to know in advance what to expect in this province," Macdonald says. Under the umbrella of the Institute's wider MPB program, the project has received funding to kill a stand of pine using stem injection of herbicides, and then conduct follow-up monitoring of early impacts on surface hydrology, nutrients, companion vegetation, and how future development of the forest is affected.

Results

With funding and a forest location, the project takes students outdoors from April to September. Undergrads, PhD students and a technician are gaining experience in picking field sites, gathering and analyzing data, and interacting with Institute and industry managers. "We could do it (provide the education) without this partnership, but for it to be meaningful in terms of making a difference in environmental management at the end of the day, we have to be able to connect and share results with land managers," says Macdonald. "It's a real benefit to grad students especially to have that opportunity to connect with government and industry partners." Foothills Research Institute has helped the student team disseminate knowledge through Brown Bag Lunches and workshops. "It's been a really excellent partnership, working with the Institute and realizing this project on the ground," Macdonald says.