



Jane Hoek, Tyee Photo

## Newsletter #3

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### **BV RESEARCH CENTRE HIRES COOP SUMMER STUDENT**



The Centre has hired Tlell Glover as its first summer employee under the UNBC coop education program.

Tlell grew up in the Suskwa Valley, graduated from Smithers Secondary School in 1997 and currently lives on a rural property outside Telkwa.

She is studying Physical Geography and Plant Biology at UNBC with an eye towards teaching and or research and is a member of the UNBC Varsity Nordic Ski Team. Tlell brings to the Centre a strong enthusiasm for ecology and the outdoors, great writing skills and several years of prior work experience as a silvicultural surveyor and ecology technician as well as a background in lifeguarding and water safety.

Tlell's first activities have been to take on the preparation of a series of posters to highlight the Centre's research results and to help organize the Research Funding Workshop. She will serve also as a field assistant on several of the Centre's research projects this summer including ecosystem restoration studies on the lower Skeena River and Bulkley Valley grasslands and tree regeneration and stand structure assessments in mountain pine beetle damaged stands.

The BV Research Centre is heading into another exciting research field season. With nine projects already underway, and over \$250K in funding for new projects, we are confident of another successful year.

### **MEMBERSHIP**

Our membership is growing and now stands at 70 Associate Members, of whom 11 are new members. We are grateful for the continuing support of our four Supporting Members: Pacific Inland Resources, Canfor, MSRM and WLAP. Our goal is to increase associate membership in 2005 to at least 80, reflecting the full spectrum of interests in natural resources from around northwest BC. If you know someone you think may be interested in joining the Centre please contact [ed@bvcentre.ca](mailto:ed@bvcentre.ca), and we will ensure that a Director contacts that person with information on what the Centre does and what it can offer.

### **RESEARCH PROGRAM**

Here is a brief description of our projects so far this year:

#### **Babine Watershed Monitoring Trust Service Agreement**

The BV Research Centre has been retained by the Babine Watershed Monitoring Trust to develop and implement an Annual Monitoring Plan for the Babine Watershed. The Plan is based on the Monitoring Framework developed by David Daust and Karen Price in 2004.

#### **Skeena Islands Winter Aerial Photography**

Aerial photography of the Skeena River from approximately Lakelse River to the Kwinitza River was conducted in March 2005 before leaf-out of deciduous trees. Photo interpretation and mapping based on this new photography will allow stands with a well developed conifer understory to be differentiated from purely deciduous stands. This project

## SPREADING THE WORD- RECENT ACCOMPLISHMENTS

With the Centre's research program now in its second year, communication of results to the scientific community, resource managers and the public has truly begun to pick up speed. Activities and publications completed since our last newsletter in January 2005 include:

Dave Wilford (BC MoF) and Matt Sakals (UBC grad student) published two Land Management Handbooks (#57 and #58) aimed at improving forest management practices on alluvial and colluvial fans, available at: [www.for.gov.bc.ca/hfd/pubs/](http://www.for.gov.bc.ca/hfd/pubs/)

Karen Price and Dave Daust (consultants) presented a seminar and workshop in Smithers outlining their work on Risk Assessment in the Babine Watershed for the Babine Watershed Monitoring Trust, which has retained the Centre to undertake monitoring in the Babine watershed.

Adrian de Groot (Drosera Ecological Consultants) and Sybille Haeussler (Skeena Forestry Consultants) jointly led an extension session in Terrace on the Skeena Islands floodplain ecology and management with Anne Hetherington (BC WLAP) and Kevin Kilpatrick (Kalum Forest District).

Kevin Kriese described the Centre's goals and activities to a province-wide audience on CBC Radio's BC Almanac hosted by Mark Forsyth in Smithers on March 16th.

complements fieldwork conducted by the BV Research Centre in 2004 and is the next phase in developing an ecosystem management plan for the Skeena Islands that prioritizes stands for conservation, restoration, or commercial harvest. Project funding comes from the Ministry of Forests, Kalum Forest District.



Winter aerial photography of the Skeena Islands clearly delineates middle (deciduous) and high (mixed species) floodplain benches.

Photo credit: J. Heath, Terrasaurus

### **Date Creek Re-measurement**

The Date Creek silvicultural systems study was established on a 4000 ha area in the Kispiox Forest District in the early 1990's to examine alternatives to traditional clearcut harvesting. Multidisciplinary research has been undertaken, prescriptions developed and now the area is being used for adaptive management trials. The study site has yielded 25 scientific papers, numerous reports and extension products, and has been used for tours involving a wide range of people (from local residents to international scientists). The experiment is recognized internationally for its contribution to forest science. This project will allow re-measurement of core experiments such as forest growth and coarse woody debris, plant succession, soils, and silviculture.

### **Regeneration and Stand Structure in the East Ootsa and Entiako Areas after Infestation by Mountain Pine Beetles**

The south end of the Lakes Timber Supply Area was one of the earliest areas in the province to experience epidemic levels of the mountain pine beetle (MPB) outbreak. Four years ago, at the beginning of the epidemic, researchers and resource managers identified a critical gap in knowledge relating to how forest structure and vegetation dynamics would respond to the epidemic. In 2001, Deborah Cichowski and Patrick Williston, in cooperation with Fraser Lake Sawmills and BC Parks, established research plots in the Entiako and East Ootsa areas to measure and monitor vegetation responses to the MPB outbreak. The purpose of this project is to re-measure

## SPREADING THE WORD- UPCOMING EVENTS

### June -August 2005

Sybille Haeussler will highlight research from across northern BC in a presentation titled "Emulating or Transforming Nature: A Western Canadian View" and, with Adrian de Groot, will present a poster on Skeena Islands floodplain research at the North American Forest Ecology Workshop in Ottawa, June 12-15  
<http://www.unites.uqam.ca/gref/nafew2005/>

Kevin Kriese will talk about the Centre's achievements at the Smithers Symposium on Mountain Community Development, June 28-30  
<http://resweb.res.unbc.ca/smitherssymposium2005/>

Dave Coates and Sybille Haeussler will each present results from Centre research at the joint Ecological Society of America/International Congress of Ecology meeting in Montreal August 7-12  
<http://www.esa.org/montreal/>

existing research plots within MPB stands and to address knowledge gaps relating to advanced regeneration, ingress, stand structure and coarse woody debris.

### **Implications of Landscape Composition and Pattern in Managed Sub-boreal Forests**

This project is funded by the Forest Investment Account, Forest Science Program and the Ministry of Forests, Northern Interior Forest Region. It is also in collaboration with the Sustainable Forest Management Network through the University of Alberta.

The project is examining implications to wildlife/ biodiversity of alternative rates and spatial patterning of harvest. Patterns created through forest harvesting can be difficult and costly to change once established, and thus need to be considered early in stewardship planning. This is further complicated in much of interior British Columbia by the ongoing MPB outbreak (the emphasis of the project), which is dramatically affecting landscapes, harvest rates, and strategies. The test landscape is the Nadina Forest District (Morice and Lakes Timber Supply Areas).

### **Improving Juvenile Tree Growth Prediction for Complex-structured Mountain Pine Beetle Damaged Stands.**

There are major stewardship and long run sustainability concerns in the MPB damaged stands and landscapes of northern BC. Forest managers require robust, unbiased predictive equations of juvenile tree growth under a range of management conditions in MPB damaged stands. This is an especially pressing need in unsalvaged areas and in managed stands where complex structure remains after salvage. For MPB damaged areas, we will develop and test new juvenile tree growth equations that build upon previous detailed research in northern BC forests. The improved growth functions will allow models to predict more accurately tree growth and survival across the broad range of management scenarios being practiced today in MPB damaged areas. This work is key to the development of SORTIE as one of the models available to assist with the Timber Supply Review in MPB damaged areas.

## NATURAL RESOURCES SCHOLARSHIP UPDATE

In 2005 the Centre will once again offer a \$500 scholarship to a Smithers Secondary School student pursuing post-secondary studies related to the conservation and management of renewable natural resources.

For 2006, we plan to extend the scholarship to include both recent high school graduates and current post-secondary students in natural resources with a home base in the northwest BC region. Prospective scholarship recipients will then have to apply directly to the Centre. Donations to the BV Centre Renewable Resources Scholarship Fund are still needed for this year and can be mailed to:

BV Research Centre,  
Box 4274,  
Smithers,  
BC V0J 2N0  
Attn: Scholarship Fund

## Regeneration and Stand Structure Following Mountain Pine Beetle Infestation in the Sub-boreal Spruce Zone.

Due to the overwhelming magnitude of the MPB epidemic, management emphasis has shifted from efforts to control the epidemic to efforts to mitigate its impact on communities and the environment. The Allowable Annual Cut has been increased in most management units, which may lead to a fall-down in timber supply in the medium to long term. It is likely that significant areas of infested forest will never be salvaged due to the large area that is impacted. Forest managers must now make decisions about which stands should be salvaged, which should be left to regenerate naturally, and which stands may require rehabilitation. This project will prepare a comprehensive data set that describes stand structures and regeneration found following MPB attack, across diverse site types, from one to ten years following attack, and across several biogeoclimatic subzones in the north-central interior. The data will be collected so that it can be applied in various modeling environments, including further development of SORTIE. This dataset will be used to refine tree recruitment models for use within SORTIE.

**Restoration of Endangered Northwest BC Grasslands**  
Partners and funders include: Skeena Region BC Ministry of Water, Lands and Air Protection, BC Habitat Conservation Trust Fund, Bulkley Valley Naturalists, Northwest Wildlife for the Future, BC Ministry of Forests, Northwest Fire Centre, Smithers Secondary School Work Experience Program. Research and restoration activities in 2005 include execution and vegetation monitoring of a one hectare prescribed burn and manual cutting trial, testing methods for exotic species control, and re-establishment of native grassland species in damaged areas.



Coop student Tlell Glover doing fieldwork at the Hubert Hill/Toodienia grassland restoration site near Telkwa.

## FUNDING WORKSHOP

The BV Research Centre is hosting a one day facilitated workshop on June 22nd at the Logpile Lodge for researchers, decision makers, and resource managers to assess research priorities and funding opportunities, and to identify research proposals to be facilitated by the BV Research Centre in the coming year.

This is an important strategic meeting that will be key in shaping the nature of the work we are doing at the Centre in the future. Your attendance is important.

To let us know that you can attend please contact Tlell Glover at (847-6082, [tlellglover@bvcentre.ca](mailto:tlellglover@bvcentre.ca))

If you have any questions about the workshop please contact Larry McCulloch at (847-3267, [larry.mcculloch@lmfms.ca](mailto:larry.mcculloch@lmfms.ca))

## CENTRE'S STRATEGIC PLAN APPROVED

In May, the Board approved a five-year Strategic Plan for the Centre. The Plan is posted on our website.

Why does the Centre need a Strategic Plan? As a new organization, we need to provide a clear vision for our members about what the Centre is, what it isn't, and where it is going. The Plan will also help us explain to funders why they should work with and support the Centre. Finally, for a volunteer board, with a small staff and a very ambitious mandate that we cannot carry out all at once, the Plan sets priorities about what the Centre will try to do in the coming years.

After much discussion and feedback from the members, the Board established the following Mission, Vision, and Value statements:

*Mission:* To undertake high quality natural resources research.

*Vision:* To establish northwest BC as an internationally recognised centre for excellence in natural resources research.

*Values:* All BV Research Centre projects and programs will be consistent with the following values:

- o *Excellence:* Research must meet or exceed accepted scientific and ethical standards in the relevant field.

- o *Relevance:* Knowledge obtained from research can be applied to natural resource issues and is accessible to communities and managers.

- o *Objectivity:* All research is conducted with an absence of bias and is not influenced by personal or organizational prejudice.

- o *Sustainability:* All work must contribute to the long term health, integrity and vitality of social, economic and environmental systems. Ecological sustainability is a requirement for sustainability of social and economic systems.

- o *Community:* The work of the Centre contributes to the vitality and diversity of the communities of northwest BC.

- o *Collaboration:* The Centre fosters relationships between researchers, non-governmental organizations, governments, resource managers, and other interested participants to create new opportunities, enhance creativity, and promote excellence.

**BV RESEARCH CENTRE  
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(2005-2006)**

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We encourage you to read the Strategic Plan and give us your thoughts. The Board will review our success in meeting the plan on an ongoing basis, and in two years will assess whether the plan needs to be changed.

**MEMBER SURVEY**

Last fall, the Bulkley Valley Research Centre conducted a survey of its members on the Centre's current services and strategic planning. When asked the most effective way for members to receive information from the Centre, e-mail was the most popular choice (88.2%), although accessing the website, attending research presentations, and reading the newsletter were also popular (45.1%, 43.1%, and 43.1% respectively). Questioning the most important Centre projects or programs revealed that research project delivery was a high priority among members (85.1%), but many felt that seminar series, research planning, and public outreach programs were also important (68.1%, 61.7%, and 59.6% respectively). Northwest BC was the geographic area that 52.1% of members felt the Centre should focus on, while 29.2% broadened their response to include all of northern BC. Members were also asked to rank new programs or activities the Centre might undertake over the next five years. In order of priority the results were:

1. Extension of research results to local stakeholders and managers.
2. Proposal development for non-government sources.
3. Hosting regional workshops or conferences.
4. Providing services to members, such as shared journal subscriptions and conference notices.
5. Sponsoring posters or presentations on BV Research Centre projects at conferences.
6. Providing physical office space for visiting researchers.

We wish to thank the members (51 in all) who took the time to help direct the Centre's future activities. Plus thank you to all our members for their continued support this year.

Sincerely,

BV Research Centre, Board of Directors (2005-2006)