

f^{oot}notes

the newsletter of the foothills research institute

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Celebrating 20 Years of Research, Knowledge, and Partnerships



Informative display panels

fRI's 20th anniversary celebration took place Oct. 1–4 in Hinton, and it was a great success. The four-day event included an open house, field tour, and annual general meeting followed by a banquet, as well as a meeting of the Board of Directors. It was an opportunity for attendees, including partner representatives and members of the general public, to get a first-hand look at past and present research and to see how programs have evolved over the last two decades. It was also the perfect time for fRI to show off its new logo and branding.

The open house, held at the Hinton Training Centre where fRI has its offices, featured informative displays from fRI programs, associations, and partners. Attendees chatted with program leads and took in the displays before hearing presentations from Gordon Stenhouse, program lead, Grizzly Bear Program, and Bob Udell, program lead, Adaptive Forest Management History Program. A wine and cheese reception followed.

In the Field

Reading about research projects is one thing, but seeing them brings the work of fRI's programs to life. On Oct. 2, about 35 participants boarded a bus and headed into the forest to experience the landscapes, geology, ecology, culture, and history of the Northern Rockies region, and to learn more about fRI research.

Participants got their feet wet at the Hardisty Creek GRS Crossing, learned about alternative silviculture systems

at the Gregg River Riparian Trials, and visited the Gregg Thinning Trials, historic growth and yield trials established in 1963. Walking through the thinning trial plots, they could easily see the difference in the girth and height of trees planted at different spacings.

“This is a great learning experience,” said participant Dean McCluskey, senior advisor, Government and Industry Relations, Talisman Energy, over lunch and a welcomed

fire at Gregg Cabin. “Everything is in layman’s terms and you can actually see what’s being done.”

Cornelia Kreplin, executive director, Sustainable Production / Food for Health, Alberta Innovates – Bio Solutions, agreed and pointed out there was more to see in the forest than what meets the eye. “You can see the relationship between fRI and industry working strongly,” she said. “It’s transforming science into solutions that industry is looking for.”

After lunch, the group stopped at the Switzer Park Visitor Centre, where they learned about fRI’s partnerships with Alberta Parks from Scott Sunderwald, Alberta Parks. Sunderwald also gave them a chance to try out the atlatl, an ancient weapon.

As snow began to fall, it was off to Rock Lake Road, where Rick Bonar, fRI president, discussed new approaches to forest management. Due to the heavy snow, the tour was cut short, with fRI giving everyone a free copy of the *TransCanada Ecotours® Northern Rockies Highway Guide* to make up for missing out on the last two stops.

Many of the stops on the day-long tour were part of the *TransCanada Ecotours® Northern Rockies Highway Guide*, produced by the Adaptive Forest Management History Program and now available for purchase.

“It was quite an amazing tour,” said Keith McClain, lead for the Mountain Pine Beetle Ecology Program. McClain had visited a number of the stops before but said that he learns something new each time. “Someone also said you never step into the same forest twice because things change. That’s what impressed me yesterday, just how much change occurred over the last little while.”

Moving Forward

fRI has changed a lot over 20 years, as have the land management practices of its partners, thanks to the knowledge that has been generated.

Seeing is Believing

The Gregg River Riparian Trials are an experiment being conducted by West Fraser to explore alternative silviculture systems that might improve management of riparian areas.

The site is located on an area that used to be part of the floodplain but is now above the flood level and a considerable distance from the river channel. Because spring frost tends to damage new growth in the area, young spruce don’t grow well if they are in the open. Taller trees nearby reduce frost damage so West Fraser only took out about half of the mature trees on the site in the winter of 1990/91, first using chainsaws and horses and then switching to mechanical means.



Rick Bonar speaking

Results have been more than encouraging and West Fraser is proposing to apply the managed disturbance approach both outside and within the traditional 60-metre buffer zone along waterways. It’s more expensive than clear cutting, but Bonar believes that it makes sense on the less than three percent of timber harvest sites that would benefit from this type of management because it protects riparian values and solves the issue of frost damage to spruce seedlings.

“The program and association leads are the ones who have plowed the road to get us here and they are the ones who will lead us into the future,” said Bonar in his opening remarks at the AGM on Oct. 3.

The AGM was an opportunity for those leads to give stakeholders an in-depth look at activities both past and present, as well as a glimpse into the future, for example, the launch of fRI’s new logo and branding.



Annual General Meeting speakers

About 100 audience members heard about the critical importance of projects being undertaken by the Mountain Pine Beetle Ecology Program. Program Lead McClain told the audience that heavy losses are expected with over six million hectares of pine forests in this province at risk.

Axel Anderson discussed the first projects underway in the new Water Program, which he's leading. One exciting aspect is the intention to collaborate beyond borders.

Sharon Meredith, new operations director of the Foothills Growth and Yield Association, talked about the history of the association and current work, including the Lodgepole Pine Regeneration Model. The model is being enhanced for 2013 and is expected to support decisions about such things as site preparation, whether to weed and thin, and whether stands are on track.

The audience also heard about the Foothills Landscape Management Forum's plans for a new approach to cumulative effects management, in which the government's responsibility for population management and human use would be combined with industry's management of footprint and habitat into one plan.

Darren Tapp, regional director of forestry for Environment and Sustainable Resource Development, called the work of the forum "on-the-ground integration" and said that the overall mandate of the provincial government is to have a more integrated policy framework for resource development.

Transferring knowledge has always been a key deliverable for fRI and the Alberta Land-use Knowledge Network is taking knowledge transfer to a new level. Program Lead Kirby Wright shared some of the challenges the network has experienced and some of the initiatives underway, including finding ways to get knowledge to people in the field, like developing an application for delivering just-in-time information.

"Sometimes it's important to have detailed knowledge but sometimes it is way more important to have a two-page fact sheet, the things you need to know in that time and place," he said.

The Healthy Landscapes Program is a new fRI program, with a long history. It's an evolution of the Natural Disturbance Program and is being led by David Andison.

"One of the cornerstones is to take a look at what we can learn from Mother Nature and how that might guide how we manage landscapes," Andison told the crowd.

The day included a look into the books produced by the Adaptive Forest Management History Program and at the fascinating history and evolution of the GIS Program. Gordon Stenhouse, program lead, Grizzly Bear Program, also provided insight into current projects funded by partners like FRIAA, Alberta Innovates – Bio Solutions, and the Alberta Upstream Petroleum Research Fund.

Moderator Bob Udell kept the presentations flowing smoothly and provided interesting background information on each presenter.



The audience

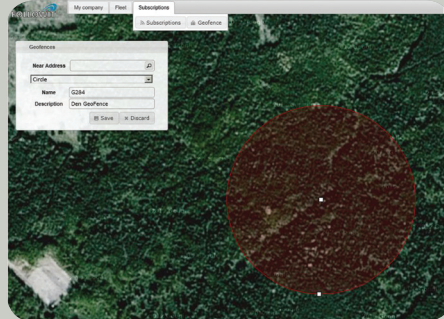
How Times Have Changed

During the open house, the Grizzly Bear Program and the GIS Program illustrated how changes in technology have had significant impacts on research capability.

The collars researchers use today to collect data on grizzly bears are better for bears as they're much lighter than those used years ago. They also make data collection easier.

"With the oldest collars, the data was stored on the collar so you actually had to get the collar off the bear to get the information," says Karen Graham, biologist. "The next advancement allowed you to program the collar to send the data on a designated date at a certain time, but you had to fly over the bear at that exact time to get the information. Sometimes that wasn't possible and you missed it."

Today's collars use satellite technology. Researchers log on and can get information in close to real time. They can even "talk" to the collars, telling a collar to fall off when a bear is at a location where researchers will be able to easily locate the dropped collar.



Screenshot of perimeter around bear den

"We can set a perimeter around a bear den and tell the collar to email us when the bear leaves the den, crossing that perimeter," says Stenhouse. "We used to find out a bear had left the den only when it was seen somewhere else, like approaching a mine site. Now we know immediately."

At the GIS Program display, children's blocks provided a tangible demonstration of how data storage has changed since fRI's inception. The first tiny block represented the 4 GB provided by what was then a state-of-the-art server. It's not much and, at \$1,000 per GB, it wasn't cheap.

"The amount of storage crept up for the first 10 years. Then, in 2002 we had increasing needs for digital orthophotography and satellite imagery, at increasing resolutions, and fRI's boundaries were expanding. The amount of data storage we needed began to grow at a more rapid rate," says Julie Duval, senior GIS analyst.

Today, fRI has 7,000 GB of storage space and doesn't pay too much more for it than it paid in 1993 for 4 GB, as the cost per GB has gone down to \$0.16.

General Manager Tom Archibald Retires

After five years, Tom Archibald is stepping down from the position of general manager.

Archibald spent many years with the Government of Alberta before bringing his managerial experience, outgoing



Tom Archibald

personality, and ability to work with a diverse group of partners and people to fRI.

Under Archibald's management, fRI has seen significant changes and accomplishments, such as streamlining annual work planning processes to save time for staff and board members. He also played a key role in migrating the IT system from the government system to an independent service provider in order to give partners greater access to data and services.

Archibald says the passion of staff, contractors, and board members for the products fRI provides and for the

contribution the organization makes to sustainable forest management have made his time with fRI rewarding.

"Hardly a day goes by when you are not learning something—whether it is regarding the business practices of a not-for-profit company or research. That has kept me extremely busy and excited about fRI over the past five years," he says.

Archibald plans to focus on family and take a few well-earned vacations, and we wish him and his family the very best!

News and Events

Watch for it

fRI's new website is expected to launch in December 2012 and it's definitely something to watch for.

The website is being built on top of an open source content management system that is currently powering the Land-use Knowledge Network's website and will also power fRI association websites. This allows content to be cross-fertilized across multiple sites, and development resources and web servers to be shared.

Centralizing the administration of multiple sites will also save time and money, and improve the accuracy of the thousands of records currently managed by fRI. As a result of the hard work of Chelsea Richards, fRI's summer student, users will, for the first time, be able to access 20 years of fRI resources through the website and the newly developed physical library.

Mid-December, check out the new foothillsresearchinstitute.ca!

What's in a name?

Changing the name of the Natural Disturbance Program to the Healthy Landscapes Program is indicative of a larger focus.

The Healthy Landscapes approach takes a broad perspective of landscape ecosystems and how they are managed. After a recent evaluation of the mission, vision, and objectives of the Natural Disturbance Program, the program mandate has been expanded and the name changed.

"There wasn't a unifying theme for all the good research and tool development going on and I believe



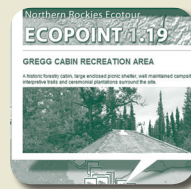
North of Hinton, Alberta

this program focus will potentially provide a new home for that sort of integration," says David Andison, who will continue as program lead.

Recently, one of the program's journal articles was Editor's Choice for the *Canadian Journal of Forest Research*. Read more: <http://www.nrcresearchpress.com/doi/abs/10.1139/x2012-104>

There's (almost) an app for that

The *TransCanada Ecotours@Northern Rockies Highway Guide* web-app is now available for previewing at ecotour.foothillsri.ca. The web-app is designed to work across all web browsers and smartphones with



Screenshot of ecopoint on website

a focus on introducing users to the ecotour. The full feature iPhone and iPad app will be available for download in spring 2013, just in time to plan to take the tour this summer.

Riparian Workshop

Government and industry members interested in riparian management as it relates to Alberta forestry are invited to attend the Riparian Workshop put on by the Water Program.

The workshop is still in development but will include presentations on the processes and functions of riparian areas, emphasizing new knowledge and tools, as well as information from neighbouring jurisdictions, and a panel discussion.

"Over the last decade, fRI and other agencies have researched riparian processes and functions. This, combined with new technologies and data, can be used to improve the management of riparian areas in Alberta," says Axel Anderson, program lead.

The workshop is tentatively scheduled for January or February 2013 at the University of Alberta, Lister Hall. For more information, visit www.foothillsri.ca

Jim LeLacheur retires

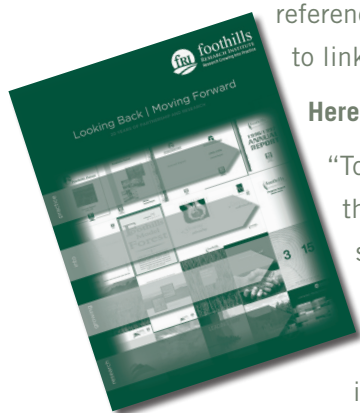
fRI's past president (2005–2010) and current member of the Board of Directors Jim LeLacheur is retiring from being chief forester – Alberta, West Fraser Mills Ltd.

Jim graduated with a forestry degree from the University of British Columbia in 1978. He joined West Fraser in 1990. After progressive roles in woods and lumber manufacturing, he became chief forester – Alberta operations in 2007.

Jim has championed sustainable forest management and research in this province. Everyone at fRI wishes him the best as he and his wife Donna retire to the Okanagan.

An in-depth look at the last 20 years

fRI's 2011–12 interactive annual report celebrates 20 years of providing science-based knowledge and tools to its more than 100 partners. The online version, available at www.foothillsri.ca, links to a wealth of reports, media articles, references, and videos. The print version's QR codes can be scanned using a smartphone or other device to link directly to feature content.



Here's what readers are saying:

“Today I received the *2011–12 Foothills Research Institute Annual Report*. It is as impressive as the accomplishments of the organization. fRI staff, consultants, Board of Directors, and partners should be proud of what the organization has accomplished.” – Lisa Risvold Jones, Senior Coordinator Community and Aboriginal Affairs, Teck Coal Limited

“You all need to be congratulated on a fine job. I found the layout very creative and effective in presenting the essence of the organization and its predecessors. The time line approach with major accomplishments and other milestones allows one to get a history lesson very quickly. It is simply an excellent example of communicating. I have a keen incentive to continue along the path of excellence to ensure continued success of fRI.” – Keith M. McClain, Ph.D., R.P.F. Program Lead, Mountain Pine Beetle Ecology Program

Where we've been



Reading material

Visit foothillsresearchinstitute.ca to read these and other publications.

Return undeliverable copies to: Box 6330, Hinton, AB Canada T7X 1X6
T: 780-865-8330 | F: 780-865-8331 | foothillsresearchinstitute.ca

The Foothills Research Institute core landbase is located in west-central Alberta, and is based in the resource community of Hinton, some three hours west of Edmonton. It covers roughly 2.75 million hectares (27,500 square kilometres), and encompasses Jasper National Park of Canada, Willmore Wilderness Park, William A. Switzer Provincial Park, and the Forest Management Area of Hinton Wood Products, a division of West Fraser Mills Ltd. It also includes some provincial “crown forest management units” and the Hinton Training Centre's Cache Percotte Training Forest. Within its boundaries are three forest areas—boreal, montane, and subalpine—and many forest uses, including timber, petroleum, and coal extraction, tourism, and recreation.