### A Newsletter for UNBC Alumni and Friends

An Attractive Invention Moustafa Mohamed's magnetic sensor

Hi-Tech at Full Throttle UNBC Alumni in the driver's seat

## Sport Support

The need for a sports centre hits home for Tuppy Hoehn





Spring 2003

## UpFront



#### Convocation 2003

About 650 students are preparing to graduate at the annual Convocation ceremony on May 30th. Events will include an alumni reception on campus the evening before, a Convocation reception, and group photo. An honorary degree will be awarded to Audrey McLaughlin, a former Member of Parliament from the Yukon and advocate for the North.

#### ACTION

More than 100 faculty, staff, students, and northern BC residents contributed to the University's new academic plan. ACTION – Answering the Challenge Through Innovation, Opportunities, and Networks – will guide UNBC for the next five years. You can download it from www.unbc.ca/reports.

#### We're #8!

The annual Maclean's magazine ranking of Canadian universities saw UNBC rise from 14th place to 8th, on the strength of its students, faculty, and library resources. Topping the What's Hot section: "Feels like a mountain resort: lots of windows and fireplaces, on a campus surrounded by mountains, lakes, and rivers."

#### Tuition

The Board of Governors has approved a 33% tuition increase. The funds will be used to help maintain operations at the University, increase scholarships and bursaries, expand counselling services, and help cover rising costs.

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## Q&A

In the midst of Olympic bidding, a passionate group of people are fighting to bring a sports centre to UNBC. Student and athlete Tuppy Hoehn is one of them.

#### UPDATE: What's the big idea?

**TH:** Northern BC produces excellent young athletes, who often must leave to train and compete at a higher level. But we have the potential to offer an ideal training environment for these athletes right here. When I was a member of the national biathlon team, I spent four years at the Canadian training centre in Canmore, Alberta. The experience was essential to my athletic development and success, so I know first-hand how important a sports centre in the North would be to athletes like me, as well as to northern communities. Prince George would have the opportunity to keep the North's best athletes close to home.

**UPDATE:** So what's in it for the sporting community? **TH:** Imagine a sports centre at UNBC that would not only increase the available recreation space in Prince George for everyone, but support the development of athletes of all levels. Not to mention, with the future Northern Medical Program, athletes could access the physio equipment and specialists that are currently only available in Calgary or Vancouver. Best of all, athletes could pursue sports and education together. That would be ideal.

**UPDATE:** Why should a new sports centre be at UNBC? **TH:** Currently, UNBC's limited athletic centre meets only 20% of the needs of the university body. Look at the basketball teams– they can't practice or play on campus because there are no courts. Other universities in BC are fully equipped, and will get even more facilities if Vancouver hosts the Olympics. Because of this, UNBC is losing many top students and athletes to these universities. Simply put, a sports centre is critical for the growth of the university. That affects everyone.



#### On the Cover

Tuppy Hoehn of Vanderhoof is graduating this year with a UNBC degree in Resourcebased Tourism. She represented Canada at the 1998 Olympics in Japan.



UNBC Basketball's Lindsay Anderson and Gene Wolff with nordic skier Barb Sharp

# Just Did It.

hose who buy into the idea that the last two minutes of a basketball game are the only bits worth watching saw UNBC stumble in its

Basketball isn't the only sport to give UNBC a name. While most students were getting back into the swing of things after the winter

formative years. But the big crowds that pack the local college gym had much to cheer about this year. UNBC teams are now among Canada's

## From scoring an All-Canadian to carrying the flag at the World University Games, this has been a banner year for UNBC athletics

break, Forestry student Barb Sharp was in Italy, making history as the first UNBC student ever to compete in the World University Games. Barb

best: both the men's and women's team posted their best-ever overall records this season and were consistently ranked in the national top-15. Individually, the women's team produced its first All-Canadian: Lindsay Anderson of Saskatchewan finished as the league's top scorer and a first-team all-star. She was also named an Academic All-Canadian for performing at an equally high level in the classroom, an award that was also presented to teammate Christina Neufeld.

On the men's team, Gene Wolff led a squad that included four First Nations players among the starting five. All of the players quickly became role models for elementary school students, partnering with the RCMP and hosting basketball camps. Gene narrowly missed out on the BC scoring title, but he did capture the MVP award in the annual All-Native Basketball Tournament in Prince Rupert. In the BC playoffs, the men's team beat last year's national champion from Fraser Valley en route to a bronze medal finish. competed in biathlon, a sport that combines target shooting and cross-country skiing, and finished as top Canadian in one event. She also carried the flag for Canada at the opening ceremonies, where Canadians joined with the 3000 other athletes from 45 countries.

Barb returned to Prince George where she participated in the BC x-c ski championships at Otway. She won gold in the senior women's category and was joined on the victory podium by fellow UNBC student Ian Jackson, who captured first place among junior men.

### Support a sportsplex?

We want to know what you think about a sports facility at UNBC. Email us at **sportsplex@unbc.ca** or for more information, go to **www.unbc.ca/sportsplex**.



#### membered and and may of the Northern Health Sciences centre

# Building Capacity

t's definitely a bright spot for the local construction industry. This summer, work will begin on three new buildings on the Prince George campus that will support the expansion of high-tech teaching and research, and accommodate the new Northern Medical Program. The new facilities will alter the UNBC skyline, adding more than 100,000 square feet of classrooms, labs, offices, and common space. Designed by Kasian Kennedy Architects of Vancouver, the building is expected to be complete by the fall of 2004, when the first twenty-four Northern Medical Program students will begin their studies. The NMP is a component of BC's Medical School, a partnership involving UNBC, the University of British Columbia, and the University of Victoria to double the number of physicians trained in BC. All medical students will

#### The Doctors' House

In November of last year, Gordon Campbell visited the campus to unveil the architectural designs for the

## By the time the Prince George campus celebrates its 10th anniversary next fall, 3 more buildings will be open.

complete the first semester at UBC, before having the opportunity to continue their studies in northern BC or on Vancouver Island. A distinctive component

Northern Health Sciences Centre, the impressive new building that will be home to the new Northern Medical Program. Many witnessed the writing of a new chapter in the development of medical education for the North, including some enthusiastic UNBC students who had an active role in the event; they unveiled a number of illustrations that featured the future building from various angles. With its strong wood elements and state-ofthe-art technology, the Northern Health Sciences Centre will be "a building that captures the essence of northern BC," according to UNBC President Dr. Charles Jago. Future medical students will enjoy small classrooms electronically linked to their colleagues around the province, and a student common area located in the building's atrium. of the Northern program will be the opportunity to gain clinical experience with practicing physicians in communities all over northern BC, while also being able to tap into UBC's teaching network within the province's big hospitals. The objective of the program is simple: to increase the number of doctors practicing in the North by training them in the North.

#### **High Tech**

The same objective exists for UNBC's high-tech programs: training computer scientists and engineers in the North increases the likelihood that students will stay after graduation and help diversify the northern BC economy. The idea got a big boost in early 2003, when the Government of BC provided

## Growth Facts

- The 46,000 square foot R&D Park (Phase 1) is the first modern public-private partnership among universities.
- Collaborative ventures with both public and private organizations have allowed UNBC to design new Continuing Education programs to specifically target the training needs of communities in the North.
- Growth is also occurring among degree programs: Computer Science is doubling the number of students, the Education program is adding a senior stream, and the Government is funding additional students in Nursing, Disability Management, and Social Work.





Scheduled Opening: Fall 2004 Lab Extension Scheduled Opening: Fall 2004

Re Re

Research & Development Park (Phase 1) Scheduled Opening: Early 2004

# For Northern Needs

funding to double the number of students in the Computer Science program and build an extension to the new lab building to accommodate classrooms and labs. At the same time, the Axor Group from Montreal announced its plan to build a new Research and Development Park on campus that will provide opportunities for high-tech companies to locate right on campus. UNBC and Data Base File Tech, a Victoria-based company specializing in data storage, will be the first tenants, but other companies – both local and out-of-town – are also exploring the option. The new R&D Park is expected to be built by the end of 2003.

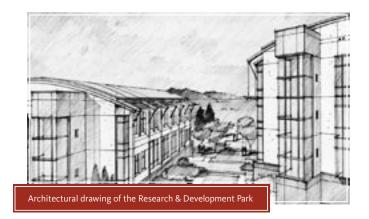
#### **Optical Links**

Supporting the medical program and the high-tech expansion is a new, incredibly fast telecommunications connection linking Prince George with the rest of Canada and the world. As a result of a partnership with BCNet, UNBC and the City now have access to a 2.4-gigabit per second network connection to Vancouver and beyond – about 2,000 times faster than an average home broadband internet connection. Although hidden in conduit, the network is essential to offering courses in the medical program, expanding high-tech R&D, and supporting future collaboration between researchers.

www.unbc.ca/news&events

#### Library Renovations

The new Health Sciences Centre and Research & Development Park will provide some opportunities for offices and classrooms to vacate the Library building, making room for the growing Library collection. Expanded space for the Archives of Northern BC and a new education resource lab to accommodate students in the Bachelor of Education program are two of the results. Meanwhile, access to electronic resources, the internet, and catalogue will move to an expanded "Information Commons" area on the first floor of the Geoffrey R. Weller Library. The UNBC Library has been growing at a rapid rate: no other university in Canada devotes a higher percentage of its budget to new acquisitions.





# In the Driver's Seat

The high-tech industry is usually associated with places like Silicon Valley, Ottawa, and Vancouver, but high-tech is also happening in the North. Why? Because northern BC has a growing and vibrant high-tech sector made up of innovative entrepreneurs, technologists, engineers and scientists. It's a fast growing region of innovation, where

UNBC alumni are capitalizing on a youthful drive of fearlessness, persistence, and hard work by contributing new technologies to help strengthen our communities.

Companies like Tesera Systems, Floatingrock.com, Noratek Solutions, Environmental Dynamics, Spatial Mapping, Miller Software Consulting, and Terra Cognita Software Systems are all local science and technology firms that were either founded by UNBC alumni or employ them in key positions. These companies are all part of a sector that continues to see expansion into new markets, bringing new wealth and new opportunities into

the region. Despite the recent problems in the high-tech sector, their work is critical to meeting greater demands for workplace efficiencies, environmental requirements, and the collection, storage, and analysis of data collected within industry.

Garth Frizzell, founder of Terra Cognita Software Systems, is a great example of an alumnus helping to build the high-tech sector in northern BC. A computer science graduate from the University of Victoria, Garth came to UNBC to earn his master's degree. While working on his thesis, Garth developed various software projects for the university and forest companies. He soon realized the demand for his expertise and setup his own software development firm almost within sight of the university. It has been so successful that the company garnered Technology Start-up of the Year honours at the 2002 Northern BC Technology Awards, setup a regional office in Ottawa, and is currently exploring expansion into China.

UNBC alumni are capitalizing on a youthful drive of fearlessness, persistence, and hard work by contributing new technologies to help strengthen our communities.

Another example is Noratek Solutions, a Prince George-based information technology firm that specializes in Oracle database applications for industry and government. Started in 2000 by former UNBC employee Steven Findlay, the company's first major hires were Jeremy Gaudet and Dave Fidler. These two UNBC Computer

Science grads have contributed greatly to the success of the company in developing critical database systems in areas such as finance, field management, silviculture, and even tracking the province's Pine Beetle epidemic. They're key members of a team that has picked up numerous technology awards, invitations for trade missions, and requests for conference presentations.

Both of these successes, along with the participation of alumni in the region's technology groups, student science programs, and various professional associations, are

evidence of UNBC's impact on high-tech growth in the North. The role of graduates in that growth is central: alumni will continue to play a leading role in the emergence of new sectors, the creation of new technologies, and the growth of high-tech. I'm proud of our region's past, optimistic about its future, and more importantly, I'm excited about the role my alma mater and its grads will play in building and supporting northern BC innovation.



#### Bjorn Butow

Bjorn has written definitive reports on the North-Central BC high-tech sector. As Technology Development Officer with the Prince George-based Innovation Resource Centre, Bjorn works with entrepreneurs to build their technology companies and he has been a driving force for high-tech development and promotion in the north. Contact him at **bbutow@innovate.bc.ca** 

This space will feature an article by a UNBC grad in every issue of UPDATE



Penny Gagnon (BA First Nations Studies '01) is Executive Director of the Prince George & District Elizabeth Fry Society.

## UNBC Grads: Where are they Now?

In each of the past two years, UNBC grads Sandor Buchi and Jennifer Turner have scored the top marks in the BC registered professional forester exams.

### Alumni News & Events

The UNBC Alumni Association provides encouragement, friendship, contact, support, and community to UNBC grads. Contact us anytime via email at: alumni-a@unbc.ca

Victoria Social Saturday, May 3 Victoria, BC

Alumni Association AGM Wednesday, May 28, 2003 Prince George, BC

**Charity Classic Golf Tourney** Thursday, May 29, 2003 Prince George, BC

Annual Alumni Reception Thursday, May 29, 2003 Prince George, BC

Harbour Cruise Wine & Cheese Thursday, June 12, 2003 Vancouver, BC

For event details and more information on the Alumni Association, go to:

### www.unbc.ca/alumni

### Jauna Anstett

(BSc Biology 'oo) works as an Environmental Planner for Ghostpine Environmental Services in Calgary, AB.

John Bass (BSc Resource Recreation & Tourism 'o2) is a Tourism Resource Person for the Inuvialuit Development Corporation in Inuvik, NWT.

**Andrea Battistel** (BSc Biology '01) is a Fisheries Technician for Canfor in Fort St James, BC.

**Danielle Cary** (BSc Comp Sci 'o2) is a Software Developer for Pulse Microsystems Ltd. in Georgetown, ON.

Jason Cook (BComm 'oo) and Stacy Milliard (BComm 'oo) co-founded "Herbal Science", a company in Vancouver, BC.

**Lisa Crawford** (BSc Psychology '01) is an Adult Probation Officer in Fort St John, BC.

**Jason Hess** (BSc Comp Sci 'oo) is in the Master's of Software Engineering program at Griffith University in Brisbane, Australia. Tracey Woodburn (BA Int'l Studies '01), Joe Hegel (BA Int'l Studies '00), and Marck Weich (BA Int'l Studies '01) are all teaching English in Japan.

**Darren Hynes** (BA Geography '99) moved to Uganda in January and is teaching high school geography.

**Diane Jamieson** (BSW '98) works as a Community Liaison Coordinator with the Northwest Territory Council of Persons with Disabilities in Yellowknife, NWT.

**Susan Moffat** (BSc Geography 'oo) is a Geomatics Cartographer for the City of Calgary, AB.

**Joanne Muirhead** (BSc Biology '99) is the Executive Director of the Osoyoos Desert Society in Osoyoos, BC.

**Sean Rowell** (BA Economics '01) is now studying law at UBC in Vancouver, BC.

**Natalie Willett** (BSW '98) is a Medical Social Worker at the Dawson Creek & District Hospital in Dawson Creek, BC.

### Donor Recognition Levels

#### Annual Recognition

 Green & Gold Circle
 \$5 - \$999

 The Williston Circle
 \$1,000 - \$4,999

#### Lifetime/Cumulative Recognition

#### The President's Circle

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 \$5,000 - \$19,999

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 Gold Supporter
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#### The Chancellor's Circle

Benefactor Partner Emerald Diamond \$100,000 - \$249,999 \$250,000 - \$499,999 \$500,000 - \$999,999 \$1,000,000 and up

#### The Heritage Circle (Planned Gifts)

This includes wills, bequests, life insurance, and life income plans designated to support UNBC now or in the future.

### **UNBC** Donations

#### Office of University Development

University of Northern British Columbia 3333 University Way Prince George, BC V2N 4Z9

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(250) 960-5799
devoff@unbc.ca
www.unbc.ca/giving





Sharona Supernault is a UNBC grad from Dawson Creek, one of the communities that has made a pledge to the Northern Medical Programs Trust.

# Giving to UNBC

#### Student Awards Ceremonies

were held in February. Almost 550 awards

were given to UNBC students in the 2002-2003 academic year. A total of **\$1.1 million** 

This year, UNBC raised nearly \$2 million, including more than \$170,000 through our community response to our annual appeal, "**Developing Tomorrow's Leaders**".

dollars in scholarships and bursaries was distributed amongst bright and deserving UNBC students.

### The new Master of Arts in Disability Management program,

launched in fall 2002, received \$60,000 in funding from the Vancouver Foundation to support development of the program for online delivery. Great-West Life also recently established a \$60,000 endowment award. One recipient per year will receive a \$3,000 award.

#### The Walter C. Koerner Scholarship was established by the Koerner Foundation with a commitment of \$45,000 to provide a renewable student award of \$5,000 per year to three students who are enrolled in studies related to Forestry.

#### Northern Medical Program:

nineteen communities across northern

BC have pledged to raise about \$4 million of the \$6 million goal, to be managed by the Northern Medical

Programs Trust. The Trust will be managed by the participants, in partnership with UNBC. In December 2002, Tumbler Ridge became the first community to complete its Community Pledge.

#### The C.D. Howe Foundation

has contributed \$250,000 to become a partner in the Northern Advancement Program, which assists students from rural and First Nations communities in their transition to university.

## • A partnership between UNBC, IBM and CISCO

brought \$107,000 in equipment and more than \$200,000 in supplies and services to the Computer Science expansion and extension of the new Teaching Laboratory building.

The success of the 2002-2003 Annual Appeal is a testament to the spirit and generosity of many who care about northern British Columbia. UNBC would like to thank everyone for making this important endeavour a success each year.

# People in the News

### It's Magnetic!

The challenge was straightforward: a tool was needed to detect rock movement along streambeds. Physics prof Moustafa Mohamed stepped up, designing a magnetic sensor that could withstand an

enviromental pummelling and simply detect when objects, such as rocks, passed through its magnetic field.

82 of them have been submerged in the Stuart-Takla watershed as part of a research project to measure the effects of spring runoff on salmon habitat. The unit is incredibly sensitive – more sensitive, in fact, than sensors used for anti-lock braking systems

in vehicles – and doesn't need any power to operate. Moustafa has already received four patents in the US and Canada for his invention and is currently working on how to adapt it to other potential uses, such as counting fish, home security systems, or triggering traffic signals. He's also figuring out how to have the sensor automatically transmit information via the internet or satellites, providing researchers with real-time information on when objects of various sizes and shapes are moving through the sensor's magnetic field.

#### **Unruly Writers**

English prof Rob Budde helped organize the popular "Just West of Unruly 2" writer's festival through the month of March. A total of 23 writers from Prince George and across Canada participated in the event's ten presentations. There were also presentations in other northern BC communities.



#### **Poetic Achievement**

Having work published is common in the academic world, but not for students in only their third year of instruction in a particular discipline. Shirley Hung knows what it feels like after being one of only a handful of people to be published in a

With already 4 patents in Canada and the US, UNBC prof Moustafa Mohamed is exploring a world of applications for his invention.

Japanese poetry book. The book publishers received 80,000 entries and Shirley was the only non-Japanese person- and the only person from outside of Japan- to be selected.

#### **Rising Stars**

Five UNBC faculty have received federal and provincial funding to develop a unique social science research lab that will provide researchers with high-tech tools to study the political, cultural, and historical components of northern communities. Tracy Summerville (Political Science), Wendy Aasen (First Nations

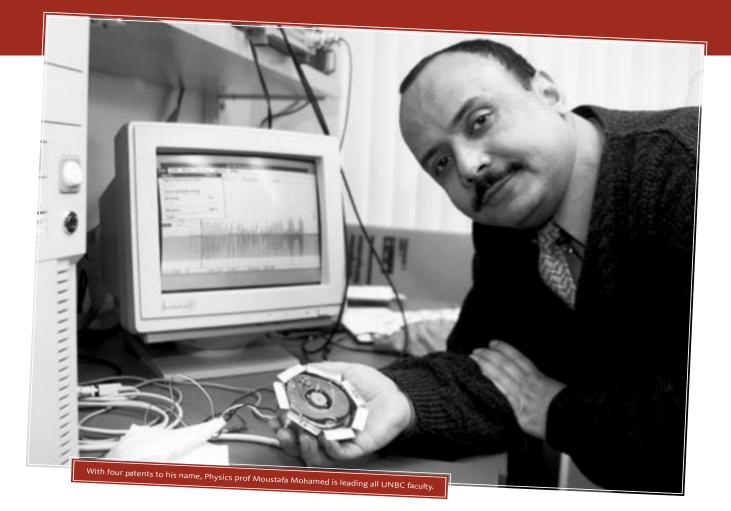
Studies), Michel Bouchard and Farid Rahemtulla (Anthropology), and Dennis Procter (Education) have been recognized by the Canada Foundation for Innovation and the provincial Knowledge Development Fund for their novel approach to using digital media and the world wide web for communicating research info back to communities.



#### **Northern Links**

Students, alumni, faculty, and staff are all involved with an innovative project designed to increase educational connections in the North. The University of the Arctic is a "university without walls" and has been formed through collaboration

among northern colleges and universities. Already, students from communities such as Fort St John and Quesnel have been e-connected with students in Scandinavia, Russia, and the Territories in courses that have focused on northern peoples, their history, and the environment. UNBC faculty have been helping to develop the program and teaching courses, and Vice-President Academic Deborah Poff is now a new member on the UArctic council. UNBC's Carolyn Russell has been helping to expand student exchange opportunities, and in northern Finland, UNBC grad Scott Forrest (in photo) is one of a handful of staff helping to establish and expand the operations of the fledgling school.



#### **Cultural Exchange**

Twenty faculty from Hebei University in China are at the vanguard of a program that will see 60 more professors cross the Pacific to study and learn English at UNBC. Participants in the program receive daily English-language instruction at the University, take a UNBC course related to their disciplines, and participate in events designed to provide exposure to life in Canada. The program is UNBC's largest-ever international exchange project.

#### **Rural Resources**

Geography prof and Canada Research Chair Greg Halseth is part of a huge national research program examining the nature of the New Rural Economy. Greg's role in the program has two parts: he has been contributing information on Tumbler Ridge and Mackenzie (two of the communities that are part of the national study) as well as leading a research centre on rural services, one of four centres the big project has created.



#### **Healing Plants**

First Nations elder Sophie Thomas is a wealth of information and it took a pair of UNBC profs to get some of her knowledge on paper. Biology professors Alex Hawley and Jane Young have worked with Sophie and her family to write a book on the medicinal properties of local plants, especially those in Sai'kuz territory around Vanderhoof. The book sold more than 100 copies on the day of its launch.

#### **Sniffing Out Good Research**

A group of Environmental Science students had a great opportunity this past semester to apply their knowledge and skills to a "real world" environmental concern in northern BC. The nine students worked with professor Peter Jackson in Taylor near Fort St John, to study how air circulation patterns – even light winds – affect the movement of industrial emissions and odours. Taylor is home to one of Canada's largest gas processing facilities.



#### The Root of the Problem

Though most of the recent attention on forest trouble-makers has focused on the mountain pine beetle, UNBC grad student Jeanne Horning is directing her attention to another pest that has the potential to kill area pine trees: the root

collar weevil. Jeanne is determining whether faulty root structures – often caused when trees are manually planted – make trees more susceptible to weevil attacks. Her research has been recognized by the Entomological Society of Canada, which awarded Jeanne the National Graduate Student Award last fall.



**Forestry professor Art Fredeen** has received a grant from the Canadian Foundation for Climate and Atmospheric Sciences to investigate the importance of forests to carbon and CO<sub>2</sub> in the Aleza Lake Research Forest east of Prince George. Earlier this year, Dr Fredeen was on a climate change panel with Environment Minister David Anderson and co-organized a national conference at UNBC on the impacts of climate change on Canada's forests.

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#### Snail Mail

Fill out this form and mail to: Office of Communications University of Northern British Columbia 3333 University Way Prince George, BC V2N 429

#### Online

Email us your updated contact information at hammond@unbc.ca or do it online at www.unbc.ca/alumni.

## Forests and Global Warming?

What do forests and forestry have to do with our earth's climate, the current rise in carbon dioxide in our atmosphere, and ultimately, to climate change? These are all good questions, and how we manage our forests may well be a critical factor in the future of our earth's climate system.

A quick look around the world will tell you that the northern latitudes are already experiencing some of the greatest impacts of global warming. While the whole world has warmed less than 1 degree Celsius over the past decade, temperatures in the North have already risen by about three times that amount. It's not so much that our summers are getting warmer; more that our winters are getting less cold. That sounds like a good deal at first, but there are consequences. The mountain pine beetle epidemic is just one of them.

So what does forestry have to do with this? Land-use. Deforestation and the conversion of forests to pastures have contributed about 50% of the rise in atmospheric  $CO_2$  since pre-industrial times. That's far higher than many have previously thought. The burning of fossil fuels has always been targeted as the major climate change culprit, but forests are a huge player too. Indeed, standing forests represent tremendous reservoirs of carbon, which reduces  $CO_2$  in the atmosphere. Over half of the world's terrestrial organic carbon (about 1150 Gigatonnes) is resident in forests. While agricultural crops come and go each year, trees and forest systems accumulate carbon over hundreds and thousands of years.

 $CO_2$  alone is not a bad thing. Together with water vapour, carbon dioxide and the other greenhouse gases help to make the world's climate comfortable; without them, the earth would be a frozen planet. Perhaps the rise of  $CO_2$  in the atmosphere can be considered as just too much of a good thing.

For years, our large forests were considered to be major carbon sinks, absorbing carbon through photosynthesis. But forests may not be able to absorb all of the extra  $CO_2$  that humans are pumping into the atmosphere, and it may be more appropriate to begin thinking of forests as potential sources of carbon rather than sinks, either naturally or through forest harvesting. Simply put, we need to learn more and do more. It's critical to the economy and quality of life in the North.