

# 2008 Annual Report



**Forestry**  
University of British Columbia

# FORESTRY ADVISORY COUNCIL

The Forestry Advisory Council provides advice to the Faculty on curriculum matters and research priorities.

**Mr. George Weyerhaeuser (Chair)**

Senior VP Technology  
Weyerhaeuser Company

**Mr. Nick Arkle**

Chief Forester  
Gorman Brothers Lumber Ltd.

**Mr. Keith Atkinson**

Executive Director  
First Nations Forestry Council

**Mr. Ken Baker**

CEO  
Forest Innovation Investment Ltd.

**Mr. Reid Carter**

Managing Partner  
Brookfield Asset Management Inc.

**Mr. Wayne Clogg**

Senior Vice President of Woodlands  
West Fraser Timber Co. Ltd.

**Mr. John Dyble**

Deputy Minister  
BC Ministry of Forests and Range

**Mr. Jim Farrell**

Assistant Deputy Minister  
Canadian Forest Service, Natural Resources Canada

**Mr. David Gandossi**

Executive Vice President, CFO & Secretary  
Mercer International

**Ms. Anne Giardini**

President  
Weyerhaeuser Company

**Mr. Ian Gill**

Executive Director  
ECOTRUST Canada

**Ms. Sharon Glover**

President  
ABC FP

**Mr. David Hallman**

Director General, Economic Development,  
Community Investment Branch  
Indian and Northern Affairs

**Mr. Ken Higginbotham**

Vice President, Forestry and Environment  
Canfor

**Mr. Kimi Ito**

Director  
K. Ito & Assoc. Ltd.

**Mr. Rick Jeffery**

President and CEO  
Coast Forest Products Association

**Mr. Wulf Killmann**

Former Director, Forest Products and Industries Division  
Food and Agriculture Organization of the UN

**Mr. Doug Konkin**

Deputy Minister  
Ministry of Environment

**Mr. Pierre Lapointe**

President and CEO  
FPInnovations

**Mr. Avrim Lazar**

President and CEO  
Forest Products Association of Canada

**Mr. Dave Lewis**

President  
Truck Loggers Association

**Mr. Charles N. Loewen**

CEO  
Loewen Windows

**Mr. Paul McElligott**

President and CEO  
Timber West Forest Corp.

**Mr. Garry Merkel**

Owner/Manager  
Forest Innovations

**Mr. Bruce McIntyre**

Partner  
PricewaterhouseCoopers LLP

**Mr. Dennis Rounville**

Executive Vice President, President  
Forest Products Group, Tembec

**Mr. Gerry Salembier**

Assistant Deputy Minister, Western Economic Diversification  
Government of Canada

**Ms. Frances Seymour**

Director General  
Centre for International Forestry

**Mr. Al Thorlakson**

President and CEO  
Tolko

**Mr. Doug Walker**

President and CEO  
The Nature Trust of Canada

# **2008 Annual Report**

## **Faculty of Forestry**

---

University of British Columbia

April 1, 2008 – March 31, 2009

Cover photographs: Bald Eagles by Jamie Myers, HND.

Inside full page photographs: Details of UBC Campus Trees by John Worrall, Associate Professor Emeritus.

**Editor:** Susan B. Watts, PhD, RPF

**Desktop Publishing:** In-house at the Faculty of Forestry by Jamie Myers.

© 2009, Faculty of Forestry  
University of British Columbia

ISSN 1188-9837

# Contents

Dean's Message	1
----------------	---

## Students and Teaching Programs

### Undergraduate Students

Programs of Study	4
Co-op Programs	5
Student Services and Recruitment	6
Enrolment Statistics	7
Awards	8
Graduation Statistics	9

### Graduate Students

Enrolment Statistics	10
Scholarships and Fellowships	12
Degrees Granted	14

International Forestry	18
------------------------	----

Aboriginal Forestry	20
---------------------	----

## Faculty, Research, Development and Alumni

Office of the Dean	22
Faculty and Staff	23

Forest Resources Management	24
Faculty and Staff	25
Achievements and Plans	28

Forest Sciences	30
Faculty and Staff	31
Achievements and Plans	35

Wood Science	36
Faculty and Staff	37
Achievements and Plans	40

Centre for Advanced Wood Processing	42
-------------------------------------	----

Centre for Applied Conservation Research	44
--	----

University Research Forests	46
-----------------------------	----

Offices, Awards and Distinctions	48
----------------------------------	----

Extramural Funding and Sponsored Research	52
---	----

Faculty Publications	62
----------------------	----

Faculty Development and Alumni	74
--------------------------------	----



Grand fir, *Abies grandis* (Dougl. ex D. Don) Lindl. Maturing female cone.



## DEAN'S MESSAGE

Sustainability continues to be a “buzz word” that means many things to different people and organizations. A Faculty of Forestry, probably as much as any other entity, knows that without sustainability the forest ecosystem and the

economic values that derive from it, as well as the myriad of social values derived from the economic and biological aspects of the forested landscape, would quickly disappear. The province of British Columbia and Canada continue to be buffeted by the winds of economic turmoil. One of the initiators of this economic downturn, the slow down/stop of the US housing market, is greatly impacting the BC and Canadian forest sectors. The start of this prolonged downturn in wood exports/use in many ways functioned as “the-canary-in-the-coal-mine”, with the hope that, with the forest sector being the first into this trough, it will, be one of the first sectors to climb out! However, the significant reduction in forest-related employment over the past few years has clearly demonstrated that what might have once been considered a sustainable forest sector is dramatically influenced by ecological (the mountain pine beetle infestation of our lodgepole pine forests), economic (the massive reduction in production and use of traditional forest products) and resulting societal factors. In this year’s annual

report we focus on the success of our international goals, the continued evolution of our Aboriginal strategy and report on the continued growth of our student numbers and research programs.

### Students and Teaching Programs

For the eighth year in a row, our student enrolment at both the undergraduate and graduate levels has continued to grow. Total undergraduate enrolment for 2008/09 was 507 students, an increase of three students from the previous year. Our Natural Resources Conservation program remains the most popular of our five undergraduate options with 222 students enrolled. These students represent 43.8% of our total undergraduate body, up from 36.1% last year. A priority for the past year has been to increase international student enrolment and retention. Our success is evident in our numbers. In 2008/09 we had 66 international undergraduate students, up from 57 the previous year. We hope to be one of the first units on campus to meet the university’s target of having 15% of the undergraduate student body as international students (this past year we were at 13%). We also remain an attractive location for visiting and exchange students from elsewhere in Canada and the world. Our co-op forestry and wood products processing programs continue to be popular with undergraduate students. This past year saw 26% of forestry work terms and 21% of wood products processing work terms held in international locations. Cornelius Motsa from Swaziland and Hellene Sarin from Cambodia,

**Faculty of Forestry Activities, 1998/99 – 2008/09**

	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06	06/07	07/08	08/09
Undergraduate enrolment <sup>1</sup>	627	553	508	447	441	448	453	454	467	504	507
Distance education (fte)	29	21	22	19	14	9	9	10	10	10	9
Graduate enrolment	206	217	231	202	163	170	197	242	252	265	261
Teaching Evaluation Index <sup>2</sup>	2.27	2.15	2.19	2.05	1.88	1.90	1.99	1.89	2.00	4.26	4.29
GPOB (\$'000) <sup>3</sup>	4,865	4,919	5,491	5,884	6,124	6,219	6,332	6,398	6,631	6,850	8,102
GPOB/WFTE <sup>4</sup>	2,048	2,195	2,479	3,024	3,487	3,508	3,315	2,976	3,003	2,890	3,439
Extramural funding (\$'000)	8,929	8,168	8,635	8,357	11,370	11,379	10,427	12,101	11,699	13,296	13,493
Endowment income (\$'000)	1,063	1,192	1,330	1,342	2,031	1,981	1,706	1,698	1,575	1,902	1,843
Extramural funding/GPOB faculty member (\$'000)	255	233	225	214	274	295	260	304	286	365	374

<sup>1</sup> Headcount unless otherwise noted

<sup>2</sup> Average numerical score of several criteria used by students to assess teaching performance of Faculty members.

Score system used up to and including 2006/07, 1= Excellent; 2=Very Good; 3=Good; 4=Fair; 5=Poor; 6=Very Poor

New system introduced in 2007/08, 5=Excellent; 4=Good; 3=Average; 2=Poor; 1=Very Poor

<sup>3</sup> GPOB = base recurring budget

<sup>4</sup> WFTE calculated as 2 x (undergraduate + extrasessional) + 4 x masters + 6 x PhD students

two of our international students, were selected to receive prestigious International Leaders of Tomorrow scholarships. Sarah Braun received the Canadian Institute of Forestry Gold Medal recognizing her as the most outstanding student in our 2008/09 graduating class. The Binkley Award, recognizing contribution to our Natural Resources Conservation program, was presented to Tristan Banwell who also serves as our advisor of undergraduate admissions. Our undergraduate student statistics are summarized on pages 4-9.

Enrolment in the Forestry Graduate Program remained high in 2008/09 with 261 students. Over 53% of these students are enrolled in doctoral programs and women comprise almost 45% of our masters and 36% of our doctoral students. We continue to be one of the most culturally-diverse graduate programs on campus with students from 38 different countries. During the year, a record fifty-nine students completed their studies and were conferred with graduate degrees. Branchlines, our faculty newsletter, this year featured profiles of 32 of our graduate students, demonstrating the high caliber of our students and the remarkable diversity of topics in which they are engaged in BC and around the world. Our graduate student statistics are summarized on pages 10-16.

Dr Hosny El-Lakany completed his first full year as our director of International Forestry. This was a busy year with the Faculty co-organizing a symposium in Beijing with the China Forestry Education Association. This symposium brought senior level administrators together from more than 30 Chinese universities, 5 Canadian universities and representatives from other countries to discuss issues in post secondary forestry education. A follow-up symposium will be organized in May 2010 at UBC. Further information on our international activities is provided on pages 18 and 19 of this report.

For more than 15 years we have been developing a First Nations strategy for our Faculty. With continued financial support from the Ministry of Forests and Range, and our First Nations Council of Advisors, we were able to rehire Dr Garth Greskiw to manage the implementation of this strategy. Our challenge remains to increase the number of First Nation Registered Professional Foresters and land managers by providing assistance to First Nations and the wider forest community through our First Nations strategy. Pages 20-21 provide highlights of our Aboriginal forestry achievements and plans.

## Faculty, Research, Development and Alumni

This past year has seen one retirement, one resignation and no new hires. Dr Jonathan Fannin, formerly a joint appointment between Civil Engineering and Forest Resources Management, has moved to 100% Civil Engineering. Dr John McLean retired on June 30, 2008 after more than 30 years of service to the university. John served as Associate Dean, Graduate Studies and Research for nine years and as Acting Dean for two years. He has been very active in the forest entomology community since he started at UBC in 1977.

The Centre for Advanced Wood Processing (CAWP) continues to provide educational programs and applied research activities under its new integrated structure within the department of Wood Science. During the past year, CAWP has been developing a new eight module on-line certificate program for entrepreneurs and management-track employees of wood manufacturing businesses to acquire key management concepts. The full program will be launched in the fall of 2009. For further information on activities of the Centre, see pages 42 and 43 of this report.

The Centre for Applied Conservation Research (CACR) co-directors Sarah Gergel and Peter Arcese continue to lead Centre partners to help solve interdisciplinary problems in conservation and management. CACR continued in its role of helping oversee a new program for graduate student research funded through the FIA-Forest Science Program. Peter Arcese organized a Scholar's Symposium to help celebrate the research of 10 exceptional graduate student scholars funded through this program. Pages 44 and 45 provide highlights of Centre events and research activities.

Thirty six new projects were initiated at our three Research Forests over the past year. Construction of the Charlie and Sue Johnson cabins at Loon Lake was completed and work was begun on the Norm and Betty Pelton Rotary field. Past year achievements and future plans for Malcolm Knapp, Alex Fraser and Aleza Lake Forests are listed on pages 46 and 47 of this report.

Extramural support of our faculty members' research totaled almost \$13.5 million, an increase of 1.5% over the previous year. Federal funding of research activities represented over \$4.9 million of this figure. Tri-council funding accounted for over 19% of our total support with grants totaling \$2,591,909. Provincial funding increased again this past year for a total of over \$6.9 million, an increase of 23.1% from 2007-08. One third of our provincial funding was in the form of research awards through the Forest Sciences Program. Private industry support for research contributed another \$1.3 million in 38 projects. International support of research was

down to \$314,000, a decrease of 54% from the previous year. A listing of individual faculty member research projects and their associated publications for the past year begins on page 53 of this report.

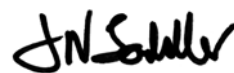
Our development program saw continued generosity for research program funding, student award creation, and contributions to capital projects. In March 2009 a new BC Leadership Chair was announced in our Wood Science department by Minister of Forests and Range Pat Bell. Dr Phil Evans is the inaugural Chair holder. Further development and alumni highlights appear on pages 74 and 75 of this report.

## Plans for 2009 – 10

As this year's Annual Report goes to press we have just completed meetings with our Forestry Advisory Council (current members listed on the inside cover of this report) and have celebrated the contributions of three of our Faculty's stalwart champions. Mike Apsey, CM, RPF (ret), and a forestry alumnus from 1961, was awarded an Honorary Doctor of Laws *honoris causa* degree from the University of British Columbia. Gordon Prest, now retired from his position as manager of our Aboriginal program, but continuing to work on behalf of the Faculty as co-chair of our First Nations Council of Advisors, received the 2009 National Aboriginal Achievement Award. Finally, Joe Gardner, OC, Dean Emeritus, 1985, and likely UBC's longest serving dean (1965 to 1983) was officially recognised for the pivotal role he played in defining the future direction of "forestry". Joe pioneered the hiring of new faculty members in what was then considered to be the revolutionary areas of conservation, wildlife management and social aspects of forestry.

In order to better define what the future might hold it is often advisable to look to the past. Looking back over the somewhat turbulent past twelve months, we are proud to say that we have continued to hold our position as a research intensive unit that is second only to the Faculty of Medicine at UBC in terms of the research dollars we attract per full-time-equivalent faculty member. Research, and the continued recruitment of top national and international graduate students into our doctoral and course-based masters programs, will continue to be one of the Faculty's highest priorities. However, this strategy will be effective only if the groups and individuals responsible for funding the competitive programs that we have so successfully employed in the past will continue to have the foresight, courage and skill to ensure that this funding continues and grows. It is during times of diminishing resources and competing priorities that groups such as our Faculty, charged with helping develop a better future (through research and education), need

to be able to compete in an arena where there is continued and increasing funding. Seminal events, such as the more than 15 million hectares of lodgepole pine forest that will eventually die in BC, show that we cannot just look to the future by examining our past. Now, more than ever, is the time to invest in the research needed to show how we can sustainably manage forest ecosystems as well as traditional and evolving products (bioproducts/bioenergy/biorefining) and the communities that depend on BC, Canada and the world's forests. We plan to take on an increasingly aggressive international role through recruiting more international students into our programs, and also through collaborations and programs such as the International Program for Forestry Education that we currently co-coordinate with colleagues in Finland. We will host the follow-up meeting to the Olympic-themed inaugural Canada/China forestry education summit that was hosted in Beijing (2008), shortly after the summer Olympics. With Vancouver being the host city for the 2010 winter Olympics it is appropriate that we aspire to be higher, stronger and faster in a follow up forestry education summit that we will host in May of next year. This will also be the year that discussions and planning currently underway to define UBC's "sustainability" strategy should come to fruition. We plan to be a key player in the development of campus-wide course-based masters programs in thematic areas of sustainability such as energy, water and resources. We also plan to re-align our undergraduate courses to allow students to specialise in different areas of sustainability. Despite the old saying that "the more things change, the more they stay the same", it is apparent that unprecedented change is happening around us. This change is happening ecologically, economically and socially, involving all three components of a sustainable system. The Faculty of Forestry will continue to be a leader in the educational, research and implementation aspects of sustainability during these changing times.



## UNDER-GRADUATE STUDENTS

### PROGRAMS OF STUDY



**Peter L. Marshall**  
BScF, MScF, PhD, RPF  
Associate Dean  
Undergraduate Studies  
604-822-4918  
peter.marshall@ubc.ca

**Sally Aitken**  
BSF (Hons), MSc, PhD  
Director  
Forest Sciences Program

**Dennis Bendickson**  
BSF, RPF  
Director  
Forest Operations Major

**Simon C. Ellis**  
BSc (Hons), MSc, PhD, FIWSc  
Director, Wood Products  
Processing Program

**Scott G. Hinch**  
BSc (Hons), MSc, PhD  
Director, Natural Resources  
Conservation Program

**John Nelson**  
BSF, MBA, PhD, RPF  
Director, Forest Resources  
Management Major

[www.forestry.ubc.ca/programs/undergrad.html](http://www.forestry.ubc.ca/programs/undergrad.html)

THE FACULTY OF FORESTRY offers four-year degree programs in the following areas:

#### **Bachelor of Science in Forestry** BSF

This degree integrates science and technology to advance the understanding and practice of sustainable forest management. It enables students to become Registered Professional Foresters with diverse career options. Students choose one of two majors upon application to first year:

**Major in Forest Operations:** This major focuses on the engineering, planning, development, harvesting, and management of forest lands. It is designed to develop professionals who understand both environmental and social objectives and who can provide the link between the growing forest and its products. Students in this program can add courses to create eligibility for registration as a Professional Engineer. For students who wish to concentrate on business rather than engineering, a Minor in Commerce is offered through the UBC Sauder School of Business.

**Contact: Dennis Bendickson**  
604-822-5932      dennis.bendickson@ubc.ca

**Major in Forest Resources Management:** This major focuses on the multidisciplinary aspects of forest resources and the management of forested ecosystems. Students learn about the unique characteristics of each resource, their interactions, and the manipulation of forests to yield a variety of desirable products in the context of ecological, social, and economic objectives. It also allows a four-year International Forestry Specialization.

**Contact: John Nelson**  
604-822-3902      john.nelson@ubc.ca

#### **Forest Sciences** BSc (Forest Sciences)

This program is designed to develop professionals who can conduct research in forested ecosystems, and are well prepared for graduate studies. Students gain a strong foundation in the basic biological and environmental sciences, with emphasis on the interacting components and functions of forests. Core topics include genetics, soil science, weather and climate, tree form and function, ecology, silviculture, biodiversity, and research methods. In the third and fourth years of study, students specialize in an area of particular interest. Possible specializations include forest ecology, forest entomology or pathology, forest fire science, forest genetics or biotechnology, forest hydrology and aquatic sciences, forest soils, tree physiology, silviculture, conservation biology, or wildlife ecology. It also allows a four-year International Forestry Specialization.

**Contact: Sally Aitken**  
604-822-6020      sally.aitken@ubc.ca

#### **Wood Products Processing** BSc (Wood Products Processing)

This award-winning program is a fusion of science, engineering and business that prepares students for careers in the wood products sector. Students gain a comprehensive understanding of wood science, advanced manufacturing and business operations, and can choose to complement their degree with a Minor in Commerce through the UBC Sauder School of Business. Co-op is an option to integrate career-related experience into academic studies. This program was developed in response to the need for university graduates qualified to become leaders in the wood products manufacturing sector. Graduates are always in demand and enjoy diverse career opportunities with the highest average salary compared to other UBC undergraduate degrees.

**Contact: Simon Ellis**  
604-822-3551      simon.ellis@ubc.ca

#### **Natural Resources Conservation** BSc (Natural Resources Conservation)

This transdisciplinary program provides students with a solid foundation in the function, process, and structure of natural ecosystems, with an appreciation for the political, legal, and socioeconomic contexts of conservation and management strategies. The development of communication and problem-solving skills, teamwork, and leadership is emphasized. Students select a major at the end of second year:

**Major in Science and Management:** Students obtain a working knowledge of conservation science and management, particularly within the Pacific Northwest context. A notable feature is the fourth year capstone field school which integrates field and classroom instruction throughout the fall term. Students can readily pursue Registered Professional Biologist or Forester status through this major.

**Major in Global Perspectives:** Students obtain broad knowledge on a range of resource systems. International study is a requirement. A notable feature is the capstone modeling course involving a comprehensive assessment of policy, management, and resource sustainability in developing countries.

**Contact: Scott Hinch**  
604-822-9377      scott.hinch@ubc.ca

#### **ACHIEVEMENTS IN 2008 – 09**

A revised Forest Resources Management program was completed this year and will be implemented in September 2009. The new program is designed to meet the new Canadian Federation of Professional Forester Associations (CFPFA) standards for accreditation of Canadian university forestry programs. The new program is based on the concept that every graduate does not need to follow exactly the same course path and there should be the flexibility for students

## UNDER-GRADUATE STUDENTS

## CO-OP PROGRAMS



**Geoffrey Anderson**  
BComm  
Coordinator, Co-op Education  
Forestry Programs  
604-827-5196  
geoff.anderson@ubc.ca



**Barbara Bremner**  
BA  
Coordinator, Co-op Education  
Wood Products Processing  
Program  
604-822-4793  
barbara.bremner@ubc.ca

[www.forestry.ubc.ca/co-op](http://www.forestry.ubc.ca/co-op)

to emphasize certain aspects of forest management in their education. The core forestry requirements are retained and we have introduced flexibility to the program through restricted and unrestricted electives that allow students to concentrate on certain aspects of forest management.

### PLANS FOR 2009 – 10

- Meetings are planned with the Association of Professional Engineers and Geoscientists of BC

**C**OOPERATIVE EDUCATION is an educational model that allows students to alternate between academic terms and paid work terms related to their program of study. Students gain practical work experience that enhances their understanding of classroom studies and upon graduation they are well prepared, academically and professionally, for their future careers. Participating employers have access to an excellent staffing resource for special projects as well as the opportunity to recruit, train and assess potential future employees.

### ACHIEVEMENTS IN 2008 – 09

#### Forestry Programs

- Co-op students successfully completed their work terms at a variety of employer hosts including academia, government (federal, provincial, US state), industry and non-governmental organizations.
- Work terms were completed in British Columbia, Northwest Territories/Nunavut, Ontario, South Africa and the United States.
- Employers hiring co-op students for the first time included: Canadian Food Inspection Agency (Burnaby office), Capilano Suspension Bridge and West Fraser Mills (Quesnel and Williams Lake).
- The distribution of co-op work terms by geographical location was as follows: 31% – Lower Mainland of British Columbia; 10% – Vancouver Island; 26% – other locations in British Columbia; 7% – Canada outside of British Columbia; and 26% – internationally.
- The 7th Annual Forestry Careers Day was held in October 2008 bringing students together with organizations representing conservation, government, industry, professional associations and sustainability.

#### Wood Products Processing Program

- Co-op work terms were completed in British Columbia, Alberta, Manitoba, Ontario, and Saskatchewan as well as Australia, Japan, and the United States.
- The distribution of co-op work terms by geographical location was: 43% Lower Mainland of

to develop a more efficient means of matching the academic qualifications of graduates in the Forest Operations Major with the professional syllabus of a forest engineer.

- The revised Forest Resources Management program gives us the flexibility to offer various specializations. This year we will be completing a “Community and Aboriginal Forestry” option that we plan to implement in September 2010.

British Columbia; 12% other locations in British Columbia; 24% Canada outside of British Columbia; and 21% internationally.

- International co-op work terms were completed with Forest Enterprises Australia and The University of Tasmania (Australia), Key Tec Co., Ltd. (Japan), and Pöyry Forest Industry Consulting (United States).
- Attendance at the semi-annual Co-op Presentation Evening remained strong despite the recent economic downturn.
- Presentations delivered by senior co-op students at the Co-op Presentation Evening were recorded and added to our website for viewing by individuals unable to attend the event.

### PLANS FOR 2009 – 10

- Continue to further develop international co-op work term opportunities that will broaden students’ cultural awareness and understanding of global issues related to their field of study and future careers.
- Increase the number of new employer partners participating in co-op.

<i>Number of work terms completed</i>				
	05/06	06/07	07/08	08/09
Forestry	8	9	9	8
Forest Sciences	5	6	9	7
Natural Resources Conservation	18	22	26	24
Wood Products Processing	47	50	52	34
<b>Total</b>	<b>78</b>	<b>87</b>	<b>96</b>	<b>73</b>

<i>Work term salaries 08/09</i>	
	Average Salary (\$/Month)
Forestry	3,266
Forest Sciences	2,748
Natural Resources Conservation	2,611
Wood Products Processing	2,985

## UNDER-GRADUATE STUDENTS

## STUDENT SERVICES & RECRUITMENT



**Candace Parsons**  
BSF, RPF

Director, Student Services  
604-822-3547  
candace.parsons@ubc.ca



**Tristan Banwell**

Advisor, Admissions  
604-822-1834  
tristan.banwell@ubc.ca



**Laura-Ashley Wright**  
BSc GRS

Student Advisor,  
International Programs  
604-822-9187  
laura-ashley.wright@ubc.ca

**T**HE UBC FORESTRY STUDENT Services Team provides support to prospective, new and continuing undergraduate students. Our priorities include attracting strong students to our degree programs, enhancing student life for current undergraduates and raising the profile of the Faculty of Forestry at UBC and beyond.

### ACHIEVEMENTS IN 2008 – 09

#### Student Events

Tradition is alive and well in the Faculty of Forestry. Alumni will fondly recall many events that still take place each year, including Forestry Week and the infamous year-end party, Coconut. This year, Student Services worked with the Forestry Undergraduate Society to organize and support the following events:

- Imagine UBC, the university-wide first-year orientation held on the first day of classes
- UBC Forestry trip to Fredericton, NB for the Canadian Institute of Forestry (CIF) Centennial Conference, which featured a nationwide Forestry Student Quizbowl competition – two UBC teams competed, with our ‘Buns of Stihl’ successfully defending our 2004 title and bringing home the trophy
- Dean’s Welcome Back BBQ, a well-attended annual function
- Beer & Chili Night, a cook-off hosted by the CIF
- International Food Extravaganza, a sampling of student-prepared dishes from the world over
- UBC Silver Ring Ceremony, our magnificent graduation celebration sponsored by the CIF
- Coconut, the legendary year-end event, held this year at the UBC Farm
- Storm the Wall, North America’s largest intramural event – our Forestry team took home the campus-wide trophy for the second year in a row!

#### Student Services

Student Services staff provide many different types of assistance, including admissions and registration assistance, orientations and tours, personal and program advising, referrals to other UBC services and more. We pride ourselves on our personalized approach to student support; we receive very positive feedback from our students on our excellent services. In 2008 we welcomed Laura-Ashley Wright to our team for the year; she filled in as our international student advisor while Chiara Longhi was on maternity leave.

#### Recruitment Activities

Most recruitment activities were managed by two of our staff: Laura-Ashley, who recruits and advises international, visiting and exchange students, and Tristan Banwell, who is responsible for recruiting and advising domestic students entering all forestry programs. Tristan has taken on additional responsibilities for international recruitment, primarily in the U.S. Barbara Bremner, Wood Products Processing Co-op Coordinator, has been responsible

for recruitment to the Wood Products Processing program during Joanna Mackie’s maternity leave, assisted by co-op student Kiran Kalkat. Candace Parsons, Geoff Anderson and Yuko Lee assisted with enquiries from prospective students and attended career fairs and on-campus recruitment events. A number of undergraduate volunteers also joined us at recruitment events; these students were able to share their enthusiasm for their programs of study on a peer-to-peer level.

Our faculty-wide recruitment priority this year has been to increase international student enrolment and retention. We increased our presence in China through the efforts of Jorma Neuvonen, Director of Special Projects, and Guangyu Wang, Asia Coordinator. Tristan and Laura-Ashley attended a number of prospective student events in the USA and preliminary application numbers have increased significantly in all target areas. All advisors worked to engage interested candidates and assist them throughout the application and registration process, as well as to ensure their continued support throughout the academic year. We also maintained efforts to raise awareness of our programs among current UBC Arts and Science students and enhanced our website. As an indication of our hard work, enrolment this year again exceeded 500 registered students, over 10% higher than the early 2000s.

#### Outstanding Students

We were very proud to have two students receive the International Leader of Tomorrow scholarship, a prestigious award recognizing outstanding international students – Cornelius Motsa from Swaziland (BSF Forest Operations) and Hellene Sarin from Cambodia (Conservation). Sarah Braun, a Forest Sciences student, was chosen to receive the Canadian Institute of Forestry Gold Medal, recognizing her as the most outstanding student of this year’s graduating class. This year’s Binkley Award, recognizing contribution to the Natural Resources Conservation program went to Student Services’ own Tristan Banwell. For more details on scholarships and bursaries, please see the Awards section on page eight of this report.

### PLANS FOR 2009 – 10

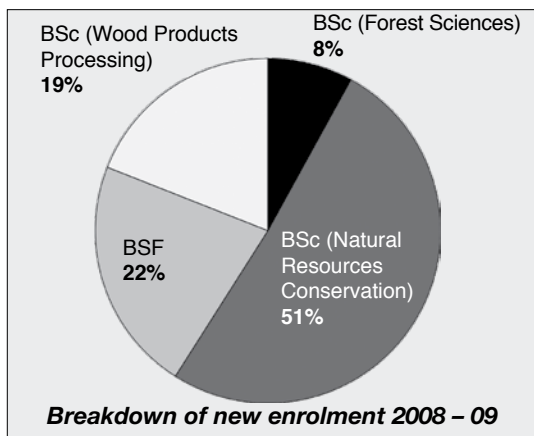
- Take a Forestry Quiz Bowl team to Nanaimo, BC for the CIF Conference and AGM, where they will defend their consecutive titles against college and university forestry teams from across Canada.
- Develop a UBC Forestry recruitment video in association with UBC’s International Student Initiative and filmmaker Bruce Marchfelder.
- Continue to enhance the reputation of the Faculty of Forestry and increase awareness of our undergraduate programs, both on campus and beyond.
- Take an active role in promoting sustainability by building a relationship with the Sustainability Office and participating in events on campus (e.g. UBC Sustainability Conference; UBC Sustainability Fair).

## New Student Enrolment

New student enrolment this year was 160, down 3 from the previous year. Our admission GPAs for students entering directly from secondary school remained the same as last year: 78% for the Forest Sciences and Natural Resources Conservation programs and 75% for Wood Products Processing and BSF Forest Resources Management and Forest Operations majors.

New students entering into different program years are tabulated below.

<b>New students 2008 – 09</b>	
Year of study	Number of new students entering
1	144
2	13
3	1
4	0
<b>Total</b>	<b>160</b>



## Total Enrolment

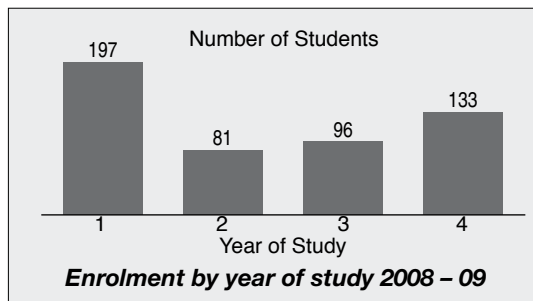
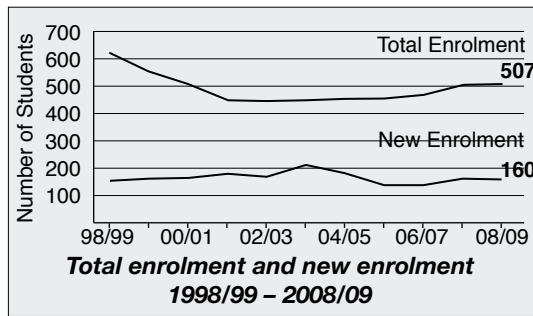
Total undergraduate enrolment grew to 507, an increase of three students over the previous year. This increase is a consequence of the higher secondary school entrance standards we have adopted in the past few years, which have resulted in higher retention rates (fewer failures) as well as a larger new student intake.

We remain an attractive location for undergraduate visiting and exchange students from elsewhere in Canada and the world. This year we hosted 11 visiting and exchange students, plus an additional 15 who participated in TRANSFOR (Transatlantic Education for Globally Sustainable Forests). The TRANSFOR program includes intensive 2-3 week field courses (organized by partner Canadian universities in cooperation with Model Forests), transatlantic student exchanges to improve sustainable forest management in the 21st century, teacher

exchanges for joint curriculum development, and student internships abroad.

In addition to visiting and exchange student enrolment, the number of international students enrolled in our degree programs continues to increase. This year we had 66 international students, up from 57 the previous year. We hope to be one of the first units on campus to meet the university's target of having 15% of the undergraduate student body as international students.

The following graph shows the distribution of undergraduate students by year of study.



The percentage of female students in our undergraduate programs is between 41 and 42% for the third year in a row. This percentage varies considerably among our programs, from about 63% for the Natural Resources Conservation program to about 10% for the Wood Products Processing program.

The following table provides a breakdown of students by program.

<b>Enrolment by program 2008 – 09</b>		
	Number enrolled	% of total
Forest Resources Management (BSF)	103	20.3
Forest Operations (BSF)	36	7.1
Forest Sciences (BSc)	41	8.1
Wood Products Processing (BSc)	105	20.7
Natural Resources Conservation (BSc)	222	43.8

AWARDS

**First Year Students**

Agawa, Shoko	WEST
Cane, Richard	C.S. JOHNSON, TRUCK <sup>1</sup>
Chen, Albert	WOOD
Edwards, David	WOOD
Grabowski, Meagan	TRUCK <sup>1</sup>
Grills, Chantelle	ALUMNI <sup>2</sup>
Li, Cecilia	WOOD
Nie, Xin	DEAN, MAC <sup>3</sup>
Pimentel, Nicolas	WOOD
Rodwell, Joe	WOOD
Shearer, Mark	SODERMAN, TRUCK <sup>1</sup>
Tam, Robert	WOOD
Tan, Rynehvee	WOOD
Vukasovic, Fabian	WOOD

**Second Year Students**

Boulton, Christopher	WEST
Bunnell, Corey	WEST
Cimolai, Tomas	TRUCK <sup>2</sup>
Kofoed, Michael	WOOD
Lister, Caleb	WOOD
Mellstrom, Charlotte	MAC <sup>3</sup> , WELDWOOD
Pauley, Rachel	BANKS
Senda, Teio	WEST
Wildeman, Jesse	ABCFP <sup>1</sup> , ROLLER

**Third Year Students**

Barber, Annalise	SIDDOO <sup>1</sup>
Barra, Michael	WELLWOOD
Buschhaus, Catherine	DEAN, NATIONAL
Chow, Amanda	GOLOUBEF, SOPRON
Doyon, Erika	SPLAN
Driedger, Erika	McINTOSH <sup>2</sup>
Forsman, Shannon	SODERMAN
Goldsmith, Fraser	ROLLER
Guy, Brendan	McINTOSH <sup>1</sup> , SOPRON

**ABCFP** Scholarship in Forestry<sup>1</sup>, Graduating Prize in Forestry<sup>2</sup>, UBC-O Award<sup>3</sup>  
**UBC Forestry ALUMNI** Division Scholarship<sup>1</sup> and Entrance Scholarship<sup>2</sup>  
**BACKMAN** Scholarship in Forest Resources Management  
 Charles and Jane **BANKS** Scholarship  
 Emily and Francis **BINKLEY** Scholarship  
**CARIBOO** Woodlot Education Society Scholarship in Forestry  
 Hugh R.D. **CHISHOLM** Scholarship in Forestry  
 Canadian Institute of Forestry (**CIF**) Medal  
 Robert J. **CRAIG** Memorial Scholarship  
 August and Cristina **CRUCIL** Scholarship in Forestry  
 Charlie and Sue **JOHNSON** Forestry Entrance Scholarship  
**DEAN** of Forestry Scholarship  
 Elizabeth **BACKMAN** Scholarship in Natural Resources Conservation  
 Galt **ELKINGTON** Memorial Scholarship  
 Barry **ENGLISH** Memorial Prize  
 Joseph and Joyce **GARDNER** Scholarship in Forestry

Harrison, Sophia	BANKS
Heiberg-Harrison, Alexandra	BANKS
Hooper, Robyn	DEAN, SODERMAN
Hu, Miao	WELLWOOD
Kirkby, Melody Anne	BANKS
Laurysen, Michael	KRESS, WOOD
Lee, Charles	WOOD
Lobo, Nina	DEAN
Lu, Cynthia	SIDDOO <sup>1</sup>
McKay, Ariana	BANKS
Morton, Renee	GOLOUBEF
Ponnambalam, Kumary	SPLAN
Radatzke, Kristin	BANKS
Schonnop, Marcus	SPLAN
Scott, Brian	TRUCK <sup>2</sup>
Swift, Natalie	ALUMNI <sup>1</sup>
Thy, Emilie	SPLAN
Toews, Mary	LITTLE
Utama, Stefanus	WOOD
Young, Emily	SIDDOO <sup>1</sup>

**Fourth Year Students**

Alidina, Alyssa	SODERMAN
Allingham, Reece	R.E. MILLS, MILLS, SMITH
Anderson, Meghan	BANKS
Bemmels, Jordan	DEAN, SIDDOO <sup>2</sup>
Borslein, Daniel David	WOOD
Boulanger, Helene	ENGLISH
Braun, Sarah	JOHNSON, DEAN, ELKINGTON
Caissy, Mathieu	WEST
Carter, Bradley	BANKS, WOOD
Cheng, Kenneth	BANKS, WOOD
Coleman, Richard	STEINER
Farrer, Nicola	SPLAN
Ferguson, Jeffrey	WELDWOOD
Freeman, Olivia	DEAN, MAC <sup>3</sup>

Peter Andrew **GOLOUBEF** Scholarship in Forestry  
 Harry **HOBSON** Memorial Prize  
 Ted **JOHNSON** Scholarship in Forestry  
 Janet **KETCHAM** Scholarship  
 Tony **KOZAK** Scholarship in Forest Measurement  
 National Education Initiative Gerhard **KRESS** Memorial Scholarship  
 Charles **LARRE** Memorial Graduating Prize  
 David Bell **LITTLE** Memorial Scholarship  
**MACHINERY** and Supply Companies Group Forestry Scholarship  
 H. R. **MACMILLAN** Prizes in Forestry<sup>1</sup>, Forest Harvesting<sup>2</sup>, Scholarship in Forestry<sup>3</sup>  
 Jim and Gerry **McINTOSH** Award in Forestry<sup>1</sup> and Scholarship in Forestry<sup>2</sup>  
 James Russell **MILLS** Memorial Award  
**NATIONAL** Scholarship  
**NORTHWOOD** Pulp and Timber Limited Scholarship  
 Robert E. **MILLS** Memorial Award  
 K.J. **ROLLER** Sopron Scholarship in Forestry  
 Kapoor Singh **SIDDOO** Scholarships in Forestry<sup>1</sup> and Forest Ecology<sup>2</sup>

Hale, Cathryn	KETCHAM, BINKLEY
Hart, James	BANKS, WOOD
Henderson, Evan	CRUCIL, MAC <sup>3</sup>
Hryniewicz-Moczulski, Magdalena	SPLAN
Irvine, Shannon	SOPRON, CARIBOO
Iverson, Chad	SISCO
Jervis, Harlan	NORTHWOOD
Liem, Martin	WOOD
Maceachern, Neil	WELDWOOD
Martin, Amanda	MAC <sup>3</sup> , DEAN
Mckenzie, Heather	BACKMAN, SPLAN
Mihalcheon, Chris	BANKS, WOOD
Ng, Jeffrey	WEYERHAEUSER <sup>1</sup> , WOOD
Okamoto, Tami	GARDNER
Opacic, Luke	MACHINERY, WOOD
Pashkowski, Tove	KOZAK, TIMBERLINE, SODERMAN, BACKMAN
Pearson, Alexander	BANKS, WOOD
Prilesky, Vojtech	SPLAN, WHITTALL
Ramey, Stella	NORTHWOOD
Sawden, Andrew	SMITH
Scuffi, Lacy Jane	E. BACKMAN, WEYERHAEUSER <sup>2,3</sup>
Smith, Jason	ABCFP <sup>3</sup> , SMITH
Staff, Natalie	CRAIG, SODERMAN
Tha, Andrea	BANKS
Vickers, Brian	SPLAN
Whitney, Charlotte	CHISHOLM
Widiyanto, Dwi	WOOD

**Graduating Awards (Spring 2008)**

Macalister, Sean CIF  
 Chewter, Marley MAC<sup>1</sup>, HOBSON  
 Patocka, Tomas MAC<sup>2</sup>  
 Martin, Michaela ABCFP<sup>2</sup>  
 Nordal, Brock ABCFP<sup>2</sup>  
 Lim, Hyung-Suk LARRE  
 Dave White **SISCO** Memorial Award in Forestry  
 J. Harry G. **SMITH** Award in Forest Resources Management  
 Oscar **SODERMAN** Memorial Scholarship  
**SOPRON** Alumni Scholarship  
 William John **SPLAN** Scholarship in Forestry  
 Paul Robert **STEINER** Memorial Scholarship in Wood Science  
**TIMBERLINE** Scholarship  
**TRUCK** Loggers Association Scholarship<sup>1</sup> and Scholarship in Harvesting<sup>2</sup>  
**WELDWOOD** of Canada Ltd. Scholarship in Forestry  
 Mary and Robert **WELLWOOD** Memorial Scholarship in Wood Science and Industry  
**WEST** Fraser Timber Co. Ltd. Scholarship in Forestry  
**WEYERHAEUSER** Scholarship in Forestry<sup>1</sup>, Award in Forestry<sup>2</sup> and Aboriginal Award in Forestry<sup>3</sup>  
 Weldwood of Canada Limited H. Richard **WHITTALL** Scholarship  
 University of BC **WOOD** Products Processing Awards

**Bursaries**

The following bursaries have been made available specifically for students enrolled in the Faculty of Forestry. Due to the confidential nature of bursary applications, recipients cannot be identified.

Herschel H. BOYDSTON, Jr. Memorial Bursary in Forestry	J. D. HETHERINGTON Memorial Bursary	Oscar SODERMAN Memorial Bursary
Gerry and Jack BURCH Bursary	British Columbia KILN Association Bursary in Forestry	Oscar SZIKLAI Memorial Bursary in Forestry
Tommy BURGESS Memorial Forestry Bursary	Jeanette LINDSAY Memorial Bursary	E.G. & W.D. TOUZEAU Bursary
Ian T. CAMERON Memorial Bursary	NORRIS-MEBIUS Bursary	VINTEN Fund Forestry Bursary
CANFOR Corporation Bursary	P. L. NORTHCOTT Memorial Bursary	John WORRALL Alumni Bursary in Forestry
COASTAL Silviculture Committee Bursary	Tudor OMMANEY Memorial Bursary in Forestry	
Doris M. DOWLING Memorial Bursary	Henri J. PIGEON Bursary in Wood Science and Industry	
EUROCAN Pulp & Paper Co. Bursary		

**Degrees Conferred, May 2008 and November 2008 Congregations**

**BSc (Natural Resources Conservation, Science and Management Major)**

- Asadian, Yalda
- Belisle, Myriam
- Bly, Liv
- Burnett, Karen
- Chan, Ling Ling
- Cheng, Sin Heng
- Cobaschi, Diana
- Collins, Sarah
- Fanning, Kirsten
- Gale, Marika
- Hsu, Kai-Ting Amy
- Isaac-Renton, Miriam
- Javed, Maheen
- Johannsen, Nadja
- Johnson, Wallis
- Johnston, Carleigh
- Layton-Cartier, Genevieve
- Lee, Abby Yik Tong
- Lindstrom, Virginia
- Lo, Andi
- Martell, Deborah
- Martin, Michaela
- Maunsell, Sherri
- Mondoux, Catherine
- Montgomery, Jesse
- Moutal, Daniel
- Nettles, Taylor
- Norman, Anita
- Peng, David Jin
- Primrose, John
- Riopel, Michelle
- Shevchenko, Sergey
- Sit, Charlotte
- Tso, Karen

**BSF (Forest Operations)**

- Hunter, Blair
- Medley, Jean
- Patocka, Tomas
- Peacosh, Andrew
- Scott, Matthew

**BSF (Forest Resources Management)**

- Adamo, Jeffrey
- Aldred, Michael
- Baird, Greg
- Bell, Keith
- Chien, Peter Yu Chuan
- Durnin, Darren
- Karow, Larissa
- Kenyon, Andrew
- Lenarduzzi, Lisa
- Macalister, Sean
- McLaughlin, Garrett
- Morrison, Kimberly
- O'Farrell, Tyler (deceased)
- Pereira, Daniella
- Slater, David
- Strickland, Peter
- Taylor, Michael
- Wells, Graham
- Whiting, Emily
- Witbeck, Scott
- Ziamba, James

**BSc (Forest Sciences)**

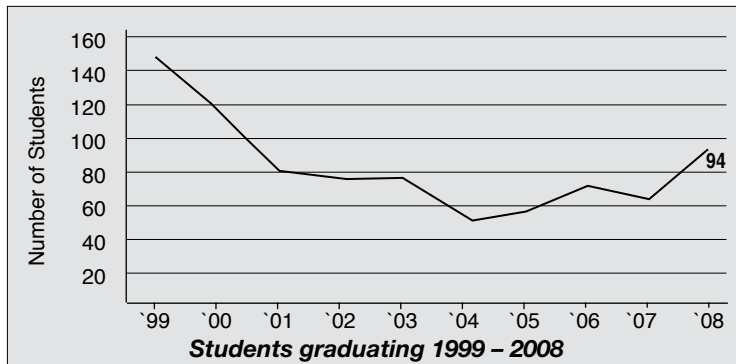
- Agbayani, Selina
- Brar, Simren
- Chewter, Marley
- Derhousoff, Jennifer
- Harrison, Gillian
- Janmohamed, Naila
- Shafiei, Liyousa

**BSc (Natural Resources Conservation, Global Perspectives Major)**

- Detillieux, Sandy
- Haggerstone, Haley
- Sotana, Cristie
- Stein, Miriam

**BSc (Wood Products Processing)**

- Apperley, Michael
- Chau, Eric
- Dhaliwal, Jatinder
- Englander, La'i
- Han, Seung Ku
- Henriques, Daniel
- Hong, Anna Hai Man
- Hui, Samuel Lok Man
- Kagan, Adam
- Klein, Kimberlee
- Langley, Alex
- Lee, James Young Woo
- Lim, Hyung-Suk
- Lozinsky, Stefan
- Nordal, Brock
- Oftadeh, Shermineh
- Ortner, Kevin
- Schulte, Aaron
- Singbeil, Brendan
- So, Kevin
- Toosi, Behnam
- Trant, William
- Zargar, Ashkan



## GRADUATE STUDENTS

## ENROLMENT STATISTICS



**Cindy E. Prescott**

BSc (Hons), MSc, PhD  
Associate Dean  
Graduate Studies & Research  
604-822-4701  
cindy.prescott@ubc.ca

**Gayle Kosh**

Dip. T.  
Manager, Graduate Programs  
604-827-4454  
gayle.kosh@ubc.ca

**Dan Naidu**

Coordinator, Graduate Awards  
and Scholarships  
604-822-6177  
dan.naidu@ubc.ca

**Erika Helmersen**

Assistant, Graduate Programs  
604-822-6784  
erika.helmerson@ubc.ca

THE FACULTY OF FORESTRY offers four graduate degrees:

- Doctor of Philosophy – PhD (in Forestry)
- Master of Science – MSc (in Forestry)
- Master of Applied Science – MASc (in Forestry)
- Master of Forestry – MF

and a specialization stream in the area of Forests and Society.

### Enrolment and Graduation Trends

Enrolment in the Forestry Graduate Program remained high during the past year with 261 graduate students. More than half (53%) of our graduate students are enrolled in PhD programs. Women comprise 45% of our masters and 36% of our doctoral students. The average graduate student

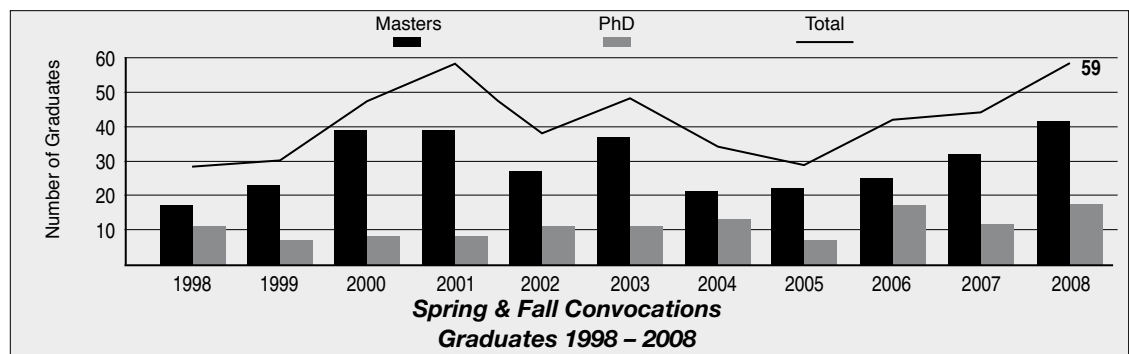
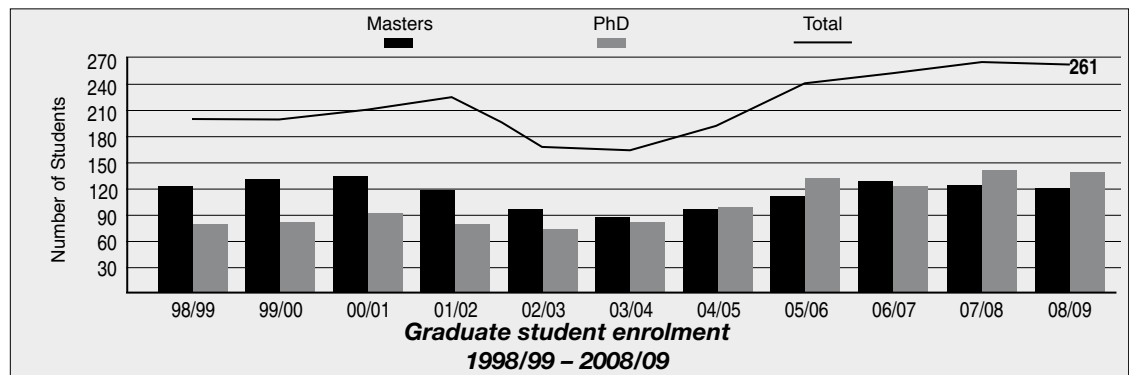
**Distribution of students by degree program 2008 – 09\***

	Male	Female	Total
PhD	90	50	140
MSc	54	39	93
MASc	6	0	6
MF	7	15	22
<b>Total</b>	<b>157</b>	<b>104</b>	<b>261</b>

\*As of October, 2008.

complement of supervising faculty members is 5.1.

Fifty-nine students graduated last year, the highest graduate degree conferral in the history of the Faculty, 41 with masters degrees and 18 with PhD degrees. Average time-in-program of students finishing their programs in 08/09 was 2.6 years for masters and 4.3 years for doctoral students.



### Origins of Forestry Graduate Students 2008 – 09

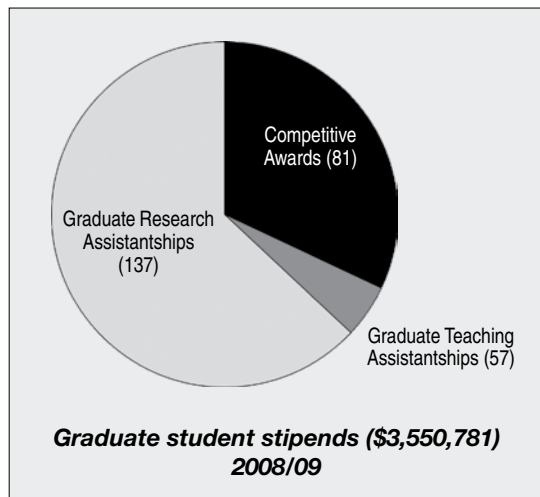
The Faculty of Forestry continues to attract excellent graduate students from around the world. Fifty-three percent of our graduate students are from countries other than Canada, and we have students from 38 different countries, making Forestry one of the most culturally diverse graduate programs on campus.

### GRADUATE STUDENT FUNDING 2008 – 09

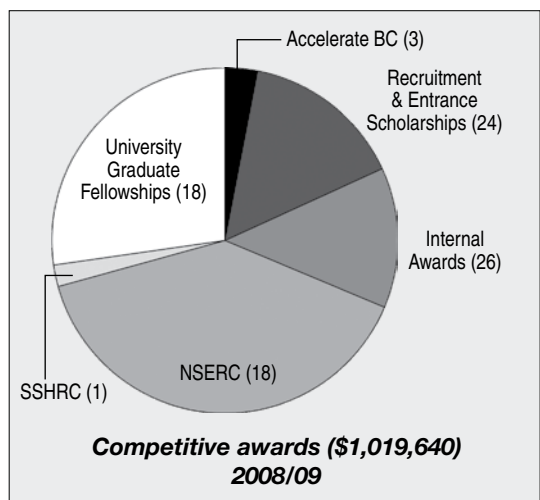
Adequate funding of our graduate students is a priority in the Faculty of Forestry. With the addition of Dan Naidu as Awards Coordinator, we undertook a review of graduate student funding in the Faculty of Forestry this year. More than \$3.5 million was invested in graduate student stipends in 08/09. The average stipend for doctoral students (during the first four years of their program) was just over \$17,000; for masters students (during the first two

Fax: 604-822-8645  
www.forestry.ubc.ca/  
programs/grad

years of their program) it was just over \$13,000. Graduate research assistantships (\$2,239,774) are the primary source of student stipends, especially for masters students, while graduate teaching assistantships contribute about 5% of our student funding (\$173,546). Competitive awards (not including tuition awards) contribute about half of doctoral student stipends and one quarter of masters student stipends (\$1,137,460).



Forestry graduate students received more than \$1 million in competitive awards in 08/09. About 40% of this amount was in the form of Tri-Council (NSERC and SSHRC) scholarships (19 students), and 27% in the form of University Graduate Fellowships (18 students) (\$278,845). Recruitment fellowships and entrance scholarships were awarded to 24 new students. Endowed, merit-based, Faculty of Forestry awards continue to be a vital resource for our graduate students; in 08/09 25 students received part of their stipend from these internal awards. Louise Blight holds the Graduate Fellowship in Sustainable Forestry, sponsored by the Koerner Foundation.



## ACTIVITIES AND ACHIEVEMENTS IN 2008 – 09

Branchlines Faculty newsletter issues this year featured profiles of 32 of our graduate students, demonstrating the high caliber of our students and the remarkable diversity of topics in which they are engaged in BC and around the world.

Drs Scott Hinch and Sally Aitken presented a workshop on “What is Graduate Studies” for forestry undergraduate students.

Leah Rathbun (PhD, LeMay) received the Graduate Teaching Assistant Award. Glenn Crossin (PhD, Hinch) received the Best PhD Thesis Award and Jo Chau (MSc, Sowlati) received the Best Masters Thesis Award. Lisa McDonnell (PhD, Mansfield) was active in the Let’s Talk Science program, coordinating several visits to talk with students in rural areas of BC. Kyle Bateson (MSc, Trospen) was our first student to receive the newly approved Honours grade for his thesis.

The Forestry Graduate Student Association (FGSA) was very active this year. They organized a welcome-back get-together, wine and cheese social, a musical ‘coffee house’, monthly socials and an end-of-term barbeque. The FGSA continued to host the Global Tea House talk series; this year students from Argentina, India, Africa, Iran, France and South Africa talked about the forests and culture in their native lands. The FGSA also supported graduate student involvement in intermural sports across campus. The FGSA executive and representatives are Mariano Amoroso, Sam Coggins, Leah Rathbun, Negar Abdollahzadeh, Aya Murakami, Babita Bains, Joyce Shen, and Toktam Sajedi.

Dr John Innes led a workshop on policy-relevant research, and Dr Phil Evans launched a workshop series on advanced scientific writing for graduate students and postdoctoral fellows. Dr Bruce Larson and Mariano Amoroso introduced a new graduate course on stand dynamics and silviculture. Dr David Tindall resumed directorship of the Forests and Society masters stream. Our graduate students also continue to benefit from graduate skills-training courses in oral presentation and technical writing offered by Dr Susan Watts.

## PLANS FOR 2009 – 10

- Track activities and accomplishments of graduate alumni
- Contribute to planning of new course-based master’s degree programs

## GRADUATE STUDENTS

## SCHOLARSHIPS AND FELLOWSHIPS

### Doctoral Students

Assadi, Pooria	SRF
Bennett, Joseph	NSERC
Blenner-Hassett, Trevor	ACCELERATE BC
Blight, Louise	KOERNER
Branton, Margaret	UGF
Brooks, Denise	PAETZOLD
Camfield, Alaine	ORNITHOLOGISTS
Campbell, Jocelyn	BASSETT
Chamberlain, Brent	VAN DUSEN, TIMBERWEST
Chandran, Ajith	MCPHEE
Chang, Feng-Cheng	HELLER, POSTER 1 <sup>st</sup>
Chen, Baozhang	ALLEN, JOHAL, MCPHEE
Chen, Yue (Jessie)	DAAD
Churchland, Carolyn	GES, SRF
Cockle, Kristina	UGF KILLAM
Coggins, Samuel	SMITH, PACIFIC FOREST
Crossin, Glenn	BEST PHD THESIS
Curtis-McLane, Sierra	UGF
De La Torre Cuba, Amanda	UGF
Del Rio, Luis	UGF PACIFIC CENTURY
DeWaard, Jeremy	NSERC, PACIFIC FOREST CTR
Dimitriou, Pedro	UGF
Donaldson, Michael	SRF, NSERC
Dordel, Julia	HANSON, MCPHEE
Ebadian, Mamood	SRF, TIMBERWEST, WELDWOOD
Eddington, Margaret	GES, SRF
Farnden, Craig	FMIBC, MCPHEE
Gonzalez, Julian	ACCELERATE BC
Hajjar, Reem	SSHRC
Hamilton, Jill	SRF, NSERC
Hember, Robbie	NSERC, PACIFIC FOREST CTR
Holliday, Jason	NSERC
Hruska, Kimberly	LUMBER, MCPHEE
Huang, Yu	SRF, MCPHEE
Innerd, Andrew	NSERC IPS
Jack, David	MADSEN
Jeffries, Kenneth	NSERC
Jones, Trevor	UGF
Kalcsits, Lee	GES, SRF
Kirby, Kathryn	NAMKOONG, UGF KILLAM
Lazarescu, Ciprian	UGF
Massoumi-Alamouti, Sepideh	NSERC
Mcguigan, Erin	UGF
Mackinnon, Andy	SRF
Mobini Dehkordi, Mohammad Mahd	SRF
Naujokaitis-Lewis, Ilona	SRF, NSERC

Norris, Andrea	NSERC
Palma, Cristian	COCHRAN
Paudel, Shyam	UGF PACIFIC CENTURY
Rathbun, Leah	GTA
Read, Wolf	ACCELERATE BC
Ristea, Catalin	SOPRON
Rosin, Klemens	BERTHIER
Singh, Monika	MCPHEE
Spetic, Wellington	IDRC
Stephen, James	NSERC, BCIC
Trenholm, Ryan	SRF
Unda, Faride	NSERC
Vahid, Saba	UGF PAETZOLD
Waeber, Patrick	UGF ARNOLD
Wahl, Antje	UGF PACIFIC CENTURY
Wright, Shannon	MCPHEE, UGF PACIFIC CENTURY

### Masters Students

Bains, Babita	WATSON
Barchet, Genoa	UGF PACIFIC CENTURY
Blair, Timothy	NSERC
Bravi, Rebecca	NSERC IPS
Bull, Justin	SRF
Burt, Jennifer	SRF
Chau, Jo	BEST MASTER'S THESIS
Ferster, Colin	PACIFIC FOREST CTR AWARD
Gale, Marika	GES, SRF, NSERC, NSERC TUS
Gillanders, Steve	BUCKLAND, WELDWOOD
Gough, Angeline	AFFLECK, CANFOR, MCPHEE
Haase, Jonathan	GES
Keir, Karolyn	BEST STUDENT PRESENTATION AT JOINT CONFERENCE OF IUFRO WORKING GROUPS
Little, Patrick	GES
Marcoux, Helene	NSERC, NSERC TUS
Morgan, Jessica Lindsay	NASA-MSU, NSERC
Noel, Natalie	NSERC, GO GLOBAL
Pribowo, Amadeus	SRF
Ramon Hidalgo, Ana	GES, LA CAIXA
Roscoe, David	NSERC
Sam-Brew, Solace	MCPHEE
Sheldon, Kim	GRIFFITH, MCPHEE
Skrivanos, Pano	MCPHEE
Suzuki, Yoriko	GRAHAM, MCPHEE
Tomaselli, Maria	SRF
Tomlinson, Matthew	IALE, HOFFMEISTER, MCPHEE
Tooke, Rory	CHISHOLM, MCPHEE, VAN DUSEN
Varhola, Andres	MCPHEE, WEBER

**ACCELERATE BC** Graduate Research Internship Program

**AFFLECK** Peter N. Affleck Memorial Graduate Scholarship in Forest Policy

George S. **ALLEN** Memorial Scholarship

Edward W. **BASSETT** Memorial Scholarship in Reforestation

**BCIC** Innovation Scholars Scholarship

Don **BUCKLAND** Memorial Scholarship in Forest Pathology

**CANFOR** Corporation Fellowship in Forest Ecosystem Management

Hugh Robert Duncan **CHISHOLM** Scholarship in Forestry

Ralph and Elizabeth **COCHRAN** Scholarship

**COMMONWEALTH** Scholarship

Deutscher Akademischer Austausch Dienst.

Forest Management Institute of British Columbia

Forest Science Program Graduate Student Pilot Project

Graduate Entrance Scholarship

Graduate Fellowship in Sustainable Forestry

**GO GLOBAL** international learning programs award

Braham G. **GRIFFITH** Memorial Scholarship in Forest Resources Management

Graduate Teaching Assistant Award

Kenneth **GRAHAM** Memorial Scholarship

Brenda **HANSON** Memorial Scholarship in Forestry

Paul **HELLER** Fellowship

Bert **HOFFMEISTER** Scholarship in Forest Wildlife

US-IALE Student Travel Award

International Doctoral Research Centre Awards

**IMAJO** Cedar Management Fund

Asa **JOHAL** Graduate Fellowship in Forestry

**KOERNER** Foundation

**LA CAIXA** Canada Scholarships

**LINDBERGH** Foundation Grant

**LUMBER** Inspector's Benevolent Society Scholarship

**MADSEN** Harold Madsen Prize

Donald S. **MCPHEE** Fellowships

**NAMKOONG** Family Fellowship in Forest Sciences

**NASA-MSU** Professional Enhancement Award

Natural Sciences and Engineering Research Council of Canada

**NSERC** Graduate Scholarships

**NSERC** Post Graduate Scholarships

**NSERC** Industrial Postgraduate Scholarships

**NSERC** Top Up Supplements

Organization of American States Scholarships

Society of **ORNITHOLOGISTS** Award for Best Oral Presentation

**PACIFIC FOREST** Centre Graduate Student Award

**PACIFIC LEADERS** Graduate Student Fellowships

J. Harry G. **SMITH** Scholarship in Forest Resources Management

**SOPRON** Alumni Fellowship

Strategic Recruitment Fellowship

Social Science and Humanities Research Council of Canada

**TIMBERWEST** Forest Limited Fellowship in Forest Resources Management and Planning

**TIMBERWEST** Forest Limited Fellowship in Forest Sciences

University of BC Graduate Fellowships

University of BC Graduate Fellowships – Theodore E. **ARNOLD** Fellowships

University of BC Graduate Fellowships – **JOSEPHINE T. BERTHIER** Fellowships

University of BC Graduate Fellowships – **KILLAM** Predoctoral Scholarships

University of BC Graduate Fellowships – **PACIFIC CENTURY** Graduate Scholarships

University of BC Graduate Fellowships – Cordula and Gunter **PAETZOLD** Fellowships

University of BC Graduate Fellowships – **SIMONS** Foundation Doctoral Scholarships

University of BC Graduate Fellowships – **ST. JOHN'S COLLEGE** Fellowships

**VANDUSEN** Graduate Fellowships in Forestry  
James **WATSON** Award

Adrian **WEBER** Memorial Scholarship in Forest Ecology

**WELDWOOD** of Canada Limited Scholarship in Forestry

**WELDWOOD** of Canada Ltd. H. Richard **WHITTALL** Scholarship

## Degrees Conferred, May 2008 and November 2008 Congregations

**MASc****CHANG, Xue Feng (Harry)***Dr J. Saddler*

The rapid micro-scale determination of lignin content in *Arabidopsis thaliana* accessions

**MAHMOUDI, Mohammad Hossein***Dr T. Sowlati*

The simulation modeling of supply logistics of forest biomass in British Columbia

**MOREIRA Munoz, Simon***Dr J. Nelson*

Timber supply and economic impact of mountain pine beetle salvage strategies

**SMILEY, Bryce***Dr P. McFarlane*

Chemi-code: an innovative method for wood product tracking

**TRUBILOWICZ, Joel***Dr M. Weiler*

Using motes for high resolution hydrological measurement

**MSc****AMBUS, Lisa***Dr G. Hoberg*

The evolution of devolution: evaluation of the community forest agreement in British Columbia

**BATER, Christopher***Dr N. Coops*

Assessing indicators of forest sustainability using LIDAR remote sensing

**BOLDOR, Irina Angelica***Dr J. Kimmins*

An assessment of the representation of fire severity and coarse woody debris dynamics in an ecosystem management model

**BROCKETT, Beth***Dr S. Grayston*

Patterns in soil microbial community composition across a range of regional climates in western Canada

**BROOKS, Dallin**

Forests &amp; Society

(Essay) British Columbia's mountain pine beetle – an opportunity for wood: communities, commodities and companies

**CAVILL, Jacqueline***Dr T. Maness*

Application of a land use planning decision support tool in a public participatory process for sustainable forest management

**CHAU, Jo***Dr T. Sowlati*

Evaluation of wood biomass utilization for the greenhouse industry in British Columbia

**CHOI, BaekYong (Daniel)***Dr J. Ruddick*

Using fungicides or combinations of fungicides to provide mold and decay fungal protection to OSB

**CORRIVEAU, Britt***Dr M. Feller*

The effects of natural and anthropogenic disturbances on the structure and composition of early successional plant communities in the interior cedar-hemlock (ICH) zone of southern British Columbia

**DAVIS, Neil***Dr P. Wood*

A tale of two committees: evaluating collaborative management planning in Canada's Pacific ground-fish fisheries

**DEGUISE, Isabelle***Dr J. Richardson*

Movements of adult western toads, *Bufo boreas*, in a managed forest landscape and the incidence of a disease in southwestern British Columbia

**DICK, Graeme***Dr G. Smith*

Development and use of a discrete element model for simulating the bulk strand flow in a rotary drum blender

**DURAN, Jorge***Dr S. Cohen*

Market prospects for wood products certified for forest management and/or legality in Japan

**FAGHIHI, Azadeh***Drs R. Kozak & P. Wood*

(Essay) Compatibility of alternative livelihood programs and counter-narcotic efforts: a development dilemma in Afghanistan

**FREEMAN, Nicola***Dr P. Arcese*

Motorized backcountry recreation and stress response in mountain caribou (*Rangifer tarandus*)

**HOPE-ROSS, Kyle***Dr J. Kadla*

Synthesis and characterization of C-2 symmetric liquid crystalline materials

**KEIR, Karolyn***Dr S. Aitken*Beautiful but lacking diversity: the population genetics of Pacific dogwood (*Cornus nuttallii* Audobon ex Torr. & A. Gray)**KLEIBER, Danika***Dr P. Arcese*

Female intrasexual reproductive competition in the facultatively polygynous song sparrow

**LEE, Taehee***Dr P. Marshall*

Response of uneven-aged interior Douglas-fir stands to precommercial thinning in Central Interior, British Columbia

**LEE-JOHNSON, Eddison***Dr R. Trospen*

The governance of forestland and resources in British Columbia: case study of Stelat'en First Nation

**McHUGH, Alyson***Dr J. Innes*

Missing baseline information for British Columbia's forests: can timber cruise data fill some gaps?

**MIESNER, Martin***Dr P. Evans*

Photodegradation of adhesives used in wood composite materials

**MIQUELAJAUREGUI, Yosune***Dr S. Mitchell*

Vegetation community development in small stream buffers eight years after harvesting at Malcolm Knapp Research Forest

**PLATTNER, Alexander***Dr C. Breuil*

Pathogenility and taxonomy of fungi associated with the mountain pine beetle in British Columbia

**POINTEAU, Virginie***Dr R. Guy*Water-use efficiency and productivity in native Canadian populations of *Populus trichocarpa* and *Populus balsamifera***PON, Lucas***Dr S. Hinch*The role of fish physiology, behaviour, and water discharge on the attraction and passage of adult sockeye salmon (*Oncorhynchus nerka*) at the Seton River dam fishway, British Columbia**RODDAN, Bruce***Dr M. Krzic*

Two prototype fluvial suspended sediment samplers evaluated in an instream flume

**ROHRBACH, Katrin***Dr S. Avramidis*

Schedule and post-drying storage effects on western hemlock squares quality

**ROWLAND, Sara***Drs S. Grayston & C. Prescott*

Recreating a functioning forest soil in reclaimed oil sands in northern Alberta

**SALAZAR, James***Dr T. Sowlati*

Life cycle assessment case study of North American residential windows

**THOEWES, Steven***Dr T. Maness*

The use of simulation as a decision tool for improvements in sawmill manufacturing

**THOMPSON, Shanley***Dr S. Gergel*

Mapping mixed and fragmented forest associations with high spatial resolution satellite imagery: capabilities and caveats

**WEBER, Sarah***Drs T. Maness & R. Trospen*

Aboriginal forest tenure and governance in British Columbia: exploring alternatives from a Stelat'en First Nation community perspective

**MF****CASHEL, Lisa**

Forests &amp; Society

(Essay) Community forestry in north america: the expression of stewardship and community engagement in forest conservation

**LEHNERT, Steven**

Forests &amp; Society

(Essay) The influence of public perception on forest management strategies in coastal British Columbia's North Coast Forest District

**NIZIOLOMSKI, Chris***Drs G. Bull & J. Nelson*

(Essay) Scenario design and indicator/measure forecasting for the Quesnel defined forest area

**PhD**

---

**ANDERSON, Axel***Drs Y. Alila & M. Weiler*

Patterns of water table dynamics and subsurface runoff generation in a watershed with preferential flow networks

**CAMFIELD, Alaine***Dr K. Martin*

Life history tradeoffs, incubation behavior and conservation of horned larks (*Eremophila alpestris*)

**CANAM, Thomas***Dr S. Mansfield*

An investigation of the physiological roles and enzymatic properties of invertases in tobacco and hybrid poplar

**GONZALES, Emily***Dr P. Arcese*

The effects of herbivory, competition, and disturbance on island meadows

**HILKER, Thomas***Dr N. Coops*

Estimation of photosynthetic light-use-efficiency from automated multi-angular spectroradiometre measurements of coastal Douglas-fir

**HONG, Jung-Pyo***Dr D. Barrett*

Three-dimensional nonlinear finite element model for single and multiple dowel-type wood

**KEATING, Jeffrey***Dr S. Mansfield*

Characterization of an ethanologenic yeast exhibiting atypical galactose metabolism

**OGDEN, Aynslie***Dr J. Innes*

Climate change adaptation and sustainable forest management in the boreal forest

**TANNERT, Thomas***Dr F. Lam*

Structural performance of rounded dovetail connections

**TESTE, François***Dr S. Simard*

Role of mycorrhizal networks in dry Douglas-fir forests

**TIMKO, Joleen***Drs J. Innes & T. Satterfield*

Evaluating ecological integrity and social equity in national parks: case studies from Canada and South Africa

**COLEMAN, Heather***Dr S. Mansfield*

Modification of cellulose biosynthesis through varied expression of sucrose metabolism genes in tobacco and hybrid poplar

**CROSSIN, Glenn***Dr S. Hinch*

Factors affecting the timing and success of sockeye salmon spawning migrations

**KLENK, Nicole***Dr G. Bull*

The ethics and values underlying the “emulation of natural disturbance” forest management approach in Canada: an interdisciplinary and interpretive study

**KRANABETTER, Marty***Dr S. Simard*

Interacting effects of soil nitrogen supply and light availability on understory sapling growth and foliar attributes

**LANTZ, Trevor***Dr S. Gergel*

Relative influence of temperature and disturbance on vegetation dynamics in the low arctic: an investigation at multiple scales

**WILSON, Amy***Dr P. Arcese*

The role of insularity in promoting intraspecific differentiation in song sparrows

**WILSON, Scott***Dr K. Martin*

Influence of environmental variation on habitat selection, life history strategies and population dynamics of sympatric ptarmigan in the southern Yukon Territory



Sitka alder, *Alnus sinuata* (Regel.) Rydb.  
Mature male aments.

## INTERNATIONAL FORESTRY

**T**HE FACULTY OF FORESTRY at UBC is characterized by its large numbers of international undergraduate and graduate students and a range of significant international research and teaching activities. We are committed to further internationalization and better communicating our ongoing successes within UBC, our community and globally. The challenges faced by forests around the globe affect people locally and the issues facing local forests have global impacts. Our future graduates need to understand their role in the context of global forests and environmental issues. We wish to broaden global awareness of both faculty and students through cross-border experiences and exchange of knowledge through international partnerships and collaboration.



**Hosny El-Lakany**  
BSc, MSc, PhD, DSc  
Director  
International Forestry  
604-822-6921  
hosny.ellakany@ubc.ca



**Jorma Neuvonen**  
MBA, MSc  
Director, Special Projects  
604-822-2807  
jorma.neuvonen@ubc.ca

### International Events

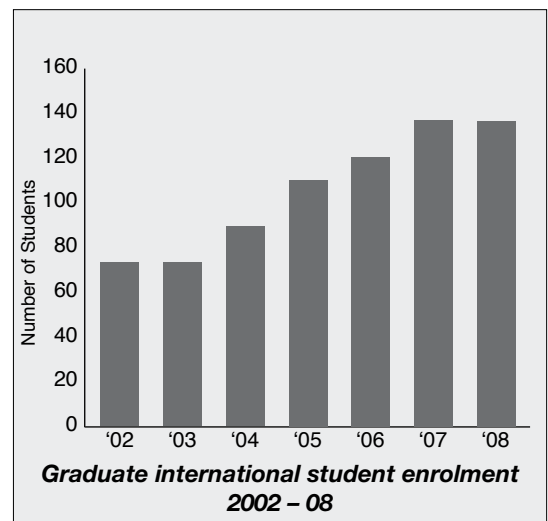
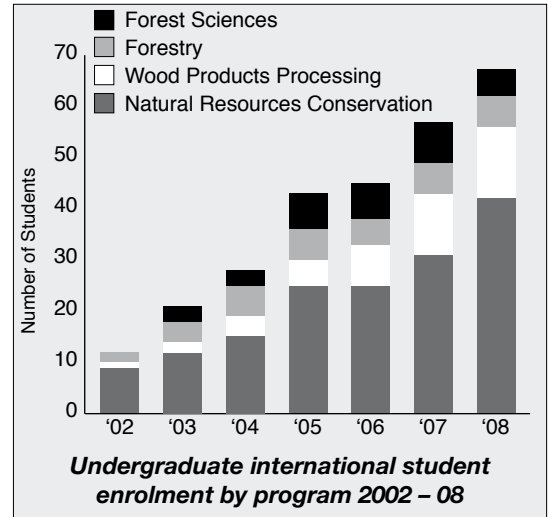
The Faculty organized an International Forestry Education Day on June 25th, in conjunction with the Faculty Advisory Council meeting. The objective of the day was to discuss various global challenges facing the forestry sector and how higher education and research should respond to these challenges. George Weyerhaeuser (World Business Council for Sustainable Development), Wulf Killmann (FAO), Mike Witt (Ecotrust Canada), John Innes (IUFRO) and a number of our faculty members shared their views of current issues, particularly impacts on forestry education.

The Faculty participated in the 50th anniversary celebration of the Chinese Academy of Forestry and an associated international symposium for the heads of forestry research institutions in October with the theme of "Forest research in response to the global change". Dr Jack Saddler delivered a keynote address outlining the Faculty's research related to climate change.

The International Symposium on Forestry Education and the 1st Training Forum on Forestry Education in China was held December 7-11 2008 at the Beijing Forestry University. The Faculty co-organized this symposium with the China Forestry Education Association, the Beijing Forestry University, and the International Partnership for Forestry Education (IPFE). The symposium brought together senior level administrators (presidents, deans and department heads) from more than thirty Chinese universities, five Canadian universities and representatives from other countries (USA, Finland, Australia, Malaysia, Venezuela, Indonesia). The aim was to discuss problems facing post-secondary forestry education, issues of mutual interest, venues for potential collaboration among universities, and possibilities to share our combined expertise. A follow-up symposium will be organized in May 2010 in Vancouver at the University of British Columbia.

### International Students and Student Exchange

UBC's Faculty of Forestry is one of the most culturally-diverse faculties at UBC. Both our undergraduate and graduate programs attract students from around the world and our international student numbers are growing steadily:



Currently international students comprise 13% of the undergraduate student body (representing 15 countries) and 53% of all graduate students (representing 37 countries). We continue our efforts to make international students more aware of what our Faculty has to offer through participation in international recruitment activities.

We provide students with many opportunities for foreign experience through international exchange programs. Our undergraduate and graduate students can select from 155 institutions in 50 countries that share formal agreements with UBC. During the past year, seven of our students went on exchange to Australia, Norway, New Zealand and South Africa. We hosted 10 international exchange/visiting students from 7 different universities in 6 different

Fax: 604-822-8645  
E-mail: [int.progs@ubc.ca](mailto:int.progs@ubc.ca)  
[www.forestry.ubc.ca/intprogs](http://www.forestry.ubc.ca/intprogs)  
[www.forestry.ubc.ca/exchange](http://www.forestry.ubc.ca/exchange)

countries, including Australia, China, Japan, New Zealand, Sweden and the United Kingdom. There is still a marked imbalance between outgoing and incoming students, but this year we worked with the UBC Go Global office to improve our agreements with foreign institutions. With our new international specialization in the Forest Resources Management program, we foresee that more students will elect to participate in international exchanges over the next few years.

2008 was the last year of the TRANSFOR Program (Transatlantic Education for Globally Sustainable Forests). We hosted 15 students for the Canadian field course and sent three students to our partners in Europe for the European field course. Dr Bruce Larson has played a major role in making this program a success.

### International Collaboration

The Faculty hosted a number of international delegations during the year including: Norwegian Wood Products Study Tour, Finnish Minister of Agriculture and Forestry, Thailand's Minister of Science & Technology, State of Maine Trade Mission, to name a few. We also received delegations from a number of Chinese forestry universities and the Chinese State Forestry Administration.

We have continued to develop strong links with universities and research institutions in China. Jorma Neuvonen and our Asia Coordinator Guangyu Wang visited four Chinese forestry universities in December: the Zhejiang Forestry University (Zhejiang Province), the Southwest Forestry University (Yunnan Province), the Jiangxi Agricultural University (Jiangxi Province) and the Fujian Agriculture and Forestry University (Fujian Province). Various collaboration options were discussed including: 2+2 transfer programs, faculty exchanges and graduate students. The visit to China included presentations for the students regarding study opportunities at UBC Forestry. The Faculty signed framework agreements with the Northwest Agriculture and Forestry University and the Southwest Forestry University, which increased our formal partnerships with Chinese institutions to fifteen in total.

The International Program continues to facilitate collaboration between our faculty and major international research institutions such as CIFOR and ICRAF.

### Curriculum Development

In April 2008, Dr Steve Mitchell received university funding to develop a course-based masters program in Sustainable Forest and Land Management. This is a 30-credit, course-based masters degree with two options. One option is designed for graduates with forestry or allied science degrees who intend to practice professional forestry in North America (meets

the Canadian Forestry Accreditation Board accreditation standards). The second, Master of International Forestry, is designed for students who wish to work on international forest and land management issues. Dr Hosny El Lakany is currently leading the development of the International Forestry stream which is scheduled to start in September 2011.

### International Partnership for Forestry Education (IPFE)

The International Partnership for Forestry Education (IPFE, [www.ipfe.fi](http://www.ipfe.fi)) is a global network that assists university-level forestry education to meet society's needs. IPFE facilitates partnerships between university forestry educators and other relevant institutions to jointly improve the quality and relevance of forestry education program. Our Faculty has a leadership role in IPFE through Dr H. El-Lakany as an elected Chair and by hosting the secretariat jointly with the University of Joensuu in Finland. The Canadian Forest Service has provided a grant (2008-2011) to help implement IPFE related activities. Similarly, the Finnish Ministry of Education has allocated funds to the University of Joensuu to help with co-hosting the IPFE secretariat.

IPFE assisted with the establishment of two regional networks in 2008. In April, during the 4th Latin America Forestry Conference in Merida, Venezuela, 36 universities formed the Latin America Forestry Education Network. Similarly, Asia Pacific universities formed a forest education network during the Asia Pacific Forest Week in Hanoi, Vietnam. IPFE also participated in developing a project proposal with the Joensuu University and the School of Natural Resource Management at the Moi University (Kenya). The aim is to develop a project for building capacity to improve forestry education in Kenya.

## ABORIGINAL FORESTRY



**Ronald Trosper**  
BA, MA, PhD  
Associate Professor  
Aboriginal Forestry  
604-822-8089  
ronald.trosper@ubc.ca



**Garth Greskiw**  
BA, MRM, PhD  
Manager, Aboriginal Initiatives  
604-827-4407  
garth.greskiw@ubc.ca

FOR MORE THAN 15 years, the Faculty has been developing and implementing its First Nations strategy. Starting with recognition of the increasing importance of British Columbia's First Nations in the forest sector, the strategy is expanding to include the importance of indigenous peoples in all aspects of ecosystem management, including conservation policy, land use planning, and park co-management.

Today, in British Columbia, the need for First Nations involvement in forested land activities has never been more evident. In November 2004, the Canadian Supreme Court ruled in the Haida and Taku cases that First Nations must be consulted at a strategic level in forestry management. In spite of its view, the Court issued no injunction, and in late May, 2005, the Haida Nation, along with non-Haida community members, blockaded forest operations on Haida Gwaii in protest of actions they felt did not adequately address the public concerns or Aboriginal rights on the island.

These and other events contributed to Premier Campbell's decision to enter into a "New Relationship" with First Nations in BC. Leaders of the First Nations Summit, BC Assembly of First Nations and the Union of BC Indian Chiefs agreed to work on developing the New Relationship. A New Relationship document described the BC Government's intent to establish new legislation and policy affecting First Nations rights and access to traditional territories. Prior to the recent provincial election, Premier Campbell and the First Nations Leadership Council distributed a proposed set of recognition principles for creating legislation to carry out the ideas first put forth in the New Relationship.

Although the extent of the practical effect of the New Relationship remains to be determined, First Nations are gaining greater access to forest resources through Forest and Range Agreements, the new Forest and Range Opportunities, and other Interim Measures Agreements. Although many of the tenures are non-replaceable or have other drawbacks, progress appears to be occurring. The Forest Sciences Board, for instance, has increased its support for research desired by First Nations.

The challenge remains to increase the number of First Nation Registered Professional Foresters and land managers. The UBC Faculty of Forestry wishes to provide assistance to First Nations and the wider forest community in order to meet these challenges and opportunities through its First Nations strategy.

Below is an abbreviated list of achievements over the past year. They are a reflection of strategies and efforts employed to maintain established relationships while fostering new ones.

## ACHIEVEMENTS IN 2008 – 09

- With continued financial support from the Ministry of Forests and Range, the First Nations Council of Advisors (FNCOA), and the Faculty, we were able to rehire Dr Garth Greskiw to manage the implementation of our First Nations strategy, "Furthering Aboriginal Forestry: A Strategic Plan for 2007 – 2010."
- Garth co-ordinates Aboriginal initiatives with the Faculty development office. He involves members of FNCOA, the Faculty and others with fund-raising initiatives to achieve objectives of the 2007-010 First Nations Forestry strategic plan. Garth provides the Faculty contribution to the much-valued UBC First Nations House of Learning initiatives. He collaborates on the UBC Aboriginal undergraduate student recruitment committee to attract new Aboriginal students to UBC. This year on behalf of the Faculty, Garth coordinated the proposal that resulted in the successful nomination of Gordon Prest for the 2009 National Aboriginal Achievement Award. The Faculty has been proud to announce, to all of Canada, that Gordon and the FNCOA have done much to develop Aboriginal forestry knowledge at the University of British Columbia. Gordon continues to serve the Faculty as an advisor and recruiter in his 'retirement'.
- Dr Ronald Trosper from the Salish and Kootenai Tribes of the Flathead Reservation, Montana, began his fourth year in the Faculty as Associate Professor of Aboriginal Forestry, continuing to teach the graduate course FRST 522, "Indigenous Peoples and Forest Land Management," and the undergraduate course CONS 370, "Perspectives on First Nations and Forest Lands." This year he also taught the core seminar for Forests and Society.
- A total of 11 undergraduate and two graduate Aboriginal students were enrolled in forestry programs in 2008-2009. Three of these Aboriginal students will receive their bachelor's degrees in forestry and one will receive a masters degree in forestry in the Spring of 2009.
- In 2005, the Faculty and Malaspina University College formally created the First Nations Bridging and Laddering Partnership to offer the first two years of the BSF degree program for block credit transfer to UBC. We continue to implement this partnership.
- Ronald Trosper, as chair of the Research Advisory Board for the Centre for Native Policy and Research, also served on its Board of Directors.
- This year, in coordination with the First Nations coordinator for the Faculty of Science and the Faculty of Land and Food Systems, we continued to implement an award from the Teaching, Learning and Enhancement Fund to develop a pilot math program for forestry students, includ-

ing Aboriginal students enrolled in other science-based programs.

- Dr Trosper completed a book, *Reciprocity, Resilience and Ecological Economics: Northwest Coast Sustainability*, published by Routledge.
- Dr Trosper is a co-investigator on a continuing project, "A Participatory Approach to Aboriginal Tenure Reform in Canada." The Carrier-Sekani Tribal Council and Stellaquo First Nations are participants in this project, which examines Aboriginal tenures and governance. This project has generated a chapter in a forthcoming book to be edited by David Natcher and Mark Stevenson.
- Dr Trosper continued two research projects. One, funded by the Social Science and Humanities Research Council, supported graduate student Kyle Bateson in work with his band, the Missanabie Cree First Nation of Ontario. He completed his thesis. The second, funded by the Forest Sciences Program, examined the meaning of criteria and indicator frameworks for First Nations communities. Dr John Innes is a collaborator on the second project.
- Dr Trosper continues as the North American focal point for the Task Force on Traditional Forest Knowledge of the International Union of Forest Research Organizations. He will be co-editor of the final report of the task force.
- Dr Trosper continued to work with the new graduate program in Forests and Society. Students can pursue a masters degree either with a thesis or with a professional paper. This program provides ways to study indigenous forestry at the graduate level. Further information is available on the web at [www.forestry.ubc.ca/forsoc/](http://www.forestry.ubc.ca/forsoc/)

## PLANS FOR 2009 – 10

Efforts in 2009 – 2010 will be directed toward funding and implementing the strategic plan and the new community and Aboriginal forestry specialization in the forest resources management degree program.

The new vision of the plan is as follows:

*Guided by indigenous values, and in partnership with all British Columbians, the UBC Faculty of Forestry will be a global leader in indigenous forest stewardship, and the building and sharing of forest knowledge for future generations through exceptional learning experiences.*

The new mission is as follows:

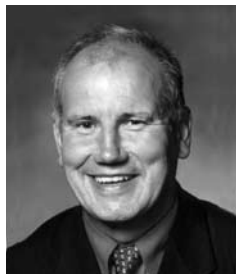
*The Faculty of Forestry will work with the indigenous peoples of British Columbia and throughout the world to enhance participation and success of Aboriginal people in the forest sector, broadly defined.*

The new plan contains specific targets organized by each of the categories of UBC's Trek 2010 Vision of the Future: People, Learning, Research, Community and Internationalization.

## First Nations Council of Advisors

<b>Garry Merkel</b>	Forester, FNCOA Co-Chair Tahltan Nations
<b>Gordon Prest</b>	FNCOA Co-Chair, Sto:lo
<b>Victoria Alfred</b>	Undergraduate Student
<b>Keith Atkinson</b>	CEO, BC First Nations Forestry Council
<b>Dawna Harden</b>	Manager of Policy and Interim Measures, Aboriginal Affairs Branch BC Ministry of Forests and Range
<b>Lennard Joe</b>	Owner-Operator Grizzly-man Resource Management Ltd.
<b>Linc Kesler</b>	Director, First Nations' House of Learning Professor and Head Dep't of Indigenous Studies
<b>Andrea Lyall</b>	Stewardship Forester Ministry of Forests Squamish District
<b>Bruce Larson</b>	Professor & Head FRM, UBC
<b>Peter Marshall</b>	Professor & Associate Dean of Forestry, UBC
<b>Jim McGrath</b>	Forester, Kamloops Indian Band
<b>Debbie Miller</b>	Treaty Officer, Katzie First Nation
<b>Lyle Mueller</b>	Coordinator, Aboriginal Programs UBC Okanagan
<b>David Nordquist</b>	Forester, Adams Lake Indian Band
<b>Angeline Nyce</b>	Lawyer and Forester Ratcliffe and Co. Vancouver
<b>Brian Robinson</b>	Association of BC Forest Professionals
<b>Jack Saddler</b>	Dean of Forestry, UBC
<b>Georgina Thomas</b>	Extension Officer, Forrex First Nations Forestry Council
<b>Laurie Vaughan</b>	Fraser Basin Council Williams Lake
<b>Matt Wealick</b>	Forester and Manager Ch-ihl-kway-uhk Forestry

OFFICE OF  
THE DEAN



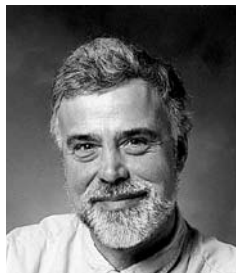
**SADDLER, J. N. (Jack)**

BSc (Hons) (Edin.), PhD (Glas.)

**Dean**

604-822-3542

jack.saddler@ubc.ca



**MARSHALL, Peter L.**

BScF, MScF (Tor.), PhD (Brit. Col.), RPF

**Associate Dean, Undergraduate Studies**

Responsible for administering undergraduate academic programs, including curriculum and calendar changes; admissions; retention; transfers and advancements; awards; discipline and teaching evaluations.

604-822-4918

peter.marshall@ubc.ca



**PRESCOTT, Cindy E.**

BSc (Hons) (Brock), MSc, PhD (Calg.)

**Associate Dean, Graduate Studies and Research**

Responsible for promoting and overseeing administration of externally-sponsored research activities, and administering all aspects of Forestry graduate programs.

604-822-4701

cindy.prescott@ubc.ca



**WATTS, Susan B.**

BSc (Wales), MF, PhD (Brit. Col.), RPF

**Director, Communications**

Responsible for directing communications and external relations, for promoting research, and for producing Faculty Newsletters and Annual Reports.

604-822-6316

sue.watts@ubc.ca

OFFICE OF  
THE DEAN

FACULTY  
AND STAFF

**ANDERSON, Geoffrey**

B Comm (Nfld.)  
Coordinator, Cooperative Education  
604-827-5196  
geoff.anderson@ubc.ca

**BANWELL, Tristan**

Advisor, Undergraduate Admissions  
604-822-1834  
trbanwell@forestry.ubc.ca

**BORTHWICK, Barbara**

Director, Administration  
604-822-5542  
barbara.borthwick@ubc.ca

**CHOI, Felix**

BCS (Brit. Col.)  
Manager, Computer Lab  
604-822-6793  
felix.choi@ubc.ca

**CLODIUS, Christoph**

BA (S. Fraser), MA (Brit. Col.)  
Director, Development  
604-822-8716  
christoph.clodius@ubc.ca

**DRAKES, Renita**

BA (Brit. Col.)  
Coordinator, Education and Web Technology  
604-822-0024  
renita.drakes@ubc.ca

**GRESKIW, Garth**

BA, MRM (S. Fraser) PhD (Brit. Col.)  
Manager, Aboriginal Initiatives  
604-827-4407  
garth.greskiw@ubc.ca

**HELMERSON, Erika**

Assistant, Graduate Programs  
604-822-6784  
erika.helmerson@ubc.ca

**JOHANSSON, Carl**

BSc, PhD (S. Fraser) MCSE  
Manager, IT Systems  
604-822-4061  
carl.johansson@ubc.ca

**JOHNSTON, Wendy**

Manager, Finance  
604-822-0651  
wendy.johnston@ubc.ca

**KOLEVA, Eli**

MSc (Bulgaria)  
Executive Coordinator, Dean's Office  
604-822-3542  
eli.koleva@ubc.ca

**KOSH, Gayle**

Dip T (Calg.)  
Manager, Graduate Programs  
604-827-4454  
gayle.kosh@ubc.ca

**LEE, Yuko Ikegami**

Assistant, Student Services  
BFA (Japan)  
604-822-5195  
yuko.lee@ubc.ca

**McCANN, Jenna**

BA (Brit. Col.)  
Officer, Development  
604-822-8787  
jenna.mccann@ubc.ca

**MORIZAWA, Caryn**

Coordinator, Dean's Office  
604-822-2176  
caryn.morizawa@ubc.ca

**MYERS, Jamie**

HND (Lon.)  
Coordinator, Editorial and Graphic Design  
604-822-4072  
jamie.myers@ubc.ca

**NAIDU, Dan**

Coordinator, Graduate Awards & Scholarships  
604-822-6177  
dan.naidu@ubc.ca

**NEUVONEN, Jorma**

MBA (Brit. Col.), MSc (Finland)  
Director, Special Projects  
604-822-2807  
jorma.neuvonen@ubc.ca

**PARSONS, Candace E.B.**

BSF (Brit. Col.), RPF  
Director, Student Services  
604-822-3547  
candace.parsons@ubc.ca

**QUINN, Katherine**

BA (Brit. Col.)  
Coordinator, Development  
604-822-0898  
katherine.quinn@ubc.ca

**SLADE, Carol**

Clerk, Reception  
604-822-2727  
carol.slade@ubc.ca

**WRIGHT, Laura-Ashley**

Officer, International Recruitment  
604-822-9187  
laura-ashley.wright@ubc.ca

Office of the Dean  
Forest Sciences Centre  
2005 - 2424 Main Mall  
Vancouver, BC V6T 1Z4

Phone: 604-822-2727  
Fax: 604-822-8645

**FOREST  
RESOURCES  
MANAGEMENT**



**Bruce Larson**  
*Head*



**Younes Alila**



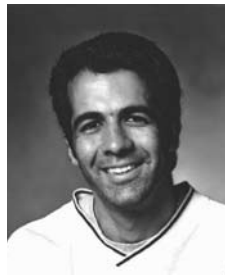
**Dennis Bendickson**



**Gary Bull**



**Nicholas Coops**



**Sumeet Gulati**



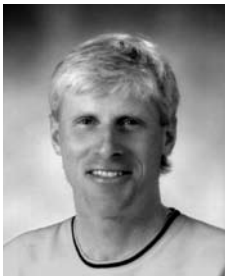
**George Hoberg**



**John Innes**



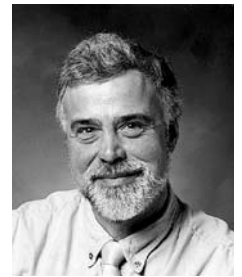
**Valerie LeMay**



**Kevin Lyons**



**Thomas Maness**



**Peter Marshall**



**Michael Meitner**



**Dan Moore**



**Harry Nelson**



**John Nelson**



**Stephen Sheppard**



**David Tait**



**David Tindall**



**Ron Trosper**



**Paul Wood**

**LARSON, Bruce**

Professor, Head and Forest Renewal BC Chair  
in Silviculture  
*Silviculture and Management*  
AB (1976) Harvard, MFS (1978) Yale,  
PhD (1982) Wash.  
604-822-1284  
bruce.larson@ubc.ca

**ALILA, Younes**

Associate Professor  
*Forest Engineering Hydrology*  
BSc (1985), MSc (1987),  
PhD (1994) Ottawa, PEng  
604-822-6058  
younes.alila@ubc.ca

**BENDICKSON, Dennis F.**

Senior Instructor and Director, Forest  
Operations Major  
*Forest Operations*  
BSF (1971) Brit. Col., RPF  
604-822-5932  
dennis.bendickson@ubc.ca

**BULL, Gary Q.**

Associate Professor  
*Forest Economics and Forest Policy*  
BSF (1988), MF (1991) Brit. Col.,  
PhD (1995) Tor.  
604-822-1553  
gary.bull@ubc.ca

**COOPS, Nicholas C.**

Associate Professor and Canada Research Chair  
in Remote Sensing  
*Remote Sensing and Spatial Data Modeling in Forestry  
and Ecology*  
BAppSc (1991), PhD (1996), RMIT Melbourne  
604-822-6452  
nicholas.coops@ubc.ca

**GULATI, Sumeet**

Assistant Professor (Forest Resources Management,  
Land and Food Systems)  
*Food and Resource Economics*  
BA (1993) Mumbai, MA (1995) Delhi,  
MS (2000), PhD (2003) Maryland  
604-822-2144  
sumeet.gulati@ubc.ca

**HOBERG, George**

Professor  
*Policy and Governance*  
BS (1980) Calif., Berkeley, PhD (1987) MIT  
604-822-3728  
george.hoberg@ubc.ca

**INNES, John L.**

Professor and Forest Renewal BC Chair in  
Forest Management  
*Sustainable Forest Management, Cumulative  
Impacts Analysis, First Nations*  
BA (1979), MA (1983), PhD (1983) Cantab., CEnv  
604-822-6761  
john.innes@ubc.ca

**LeMAY, Valerie M.**

Professor  
*Biometrics and Mensuration*  
BSc (1981), MSc (1982) Alta.,  
PhD (1989) Brit. Col., RPF  
604-822-4770  
valerie.lemay@ubc.ca

**LYONS, C. Kevin**

Associate Professor  
*Forest Engineering*  
BSF (1997), MF (1998) Brit. Col.,  
PhD (2001) Oregon State  
604-822-3559  
kevin.lyons@ubc.ca

**MANESS, Thomas C.**

Professor  
*Forest Economics and Policy Analysis*  
BSF (1979) W. Virginia, MSc (1981) Virginia  
Polytech., PhD (1989) Wash.  
604-822-2150  
thomas.maness@ubc.ca

**MARSHALL, Peter L.**

Professor and Associate Dean,  
Undergraduate Studies  
*Growth and Yield, Sampling Design*  
BScF (1976), MScF (1979) Tor.,  
PhD (1984) Brit. Col., RPF  
604-822-4918  
peter.marshall@ubc.ca

**MEITNER, Michael**

Associate Professor  
*Environmental Perception and Visualization,  
Recreation, GIS*  
BSc (1992), MA (1998), PhD (1999) Arizona  
604-822-0029  
michael.meitner@ubc.ca

**MOORE, R. Dan**

Professor (Forest Resources Management, Geography)  
and Forest Renewal BC Chair in Forest Hydrology  
*Hydrology*  
BSc (Hons) (1979) Brit. Col.,  
PhD (1984) Canterbury, PGeo  
604-822-3538  
rdmoore@geog.ubc.ca

**Forest Resources  
Management**  
Forest Sciences Centre  
2045 - 2424 Main Mall  
Vancouver, BC V6T 1Z4

Phone: 604-822-3482  
Fax: 604-822-9106

**NELSON, Harry W.**

Assistant Professor  
*Forest Policy and Economics*  
BA (1983) Carleton, MPP (1987) Harvard, MSc (1990), PhD (1999) Brit. Col.  
604-827-3478  
harry.nelson@ubc.ca

**NELSON, John D.**

Professor and Director, Forest Resources Management Major  
*Timber Supply Planning*  
BSF (1980), MBA (1982) Brit. Col., PhD (1988) Oregon State, RPF  
604-822-3902  
john.nelson@ubc.ca

**SHEPPARD, Stephen R.J.**

Professor (Forest Resources Management, Landscape Architecture) and Director, Collaborative for Advanced Landscape Planning  
*Visual Management, Planning, Visualization, Communicating Climate Change*  
BA (1974) Oxf., MSc (1976) Brit. Col., MA (1980) Oxf., PhD (1982) Calif., Berkeley  
604-822-6582  
stephen.sheppard@ubc.ca

**TAIT, David E.N.**

Assistant Professor  
*Optimization Techniques, Forest Planning*  
BSc (1968), MSc (1970), PhD (1983) Brit. Col.  
604-822-2997  
david.tait@ubc.ca

**TINDALL, David B.**

Associate Professor (Forest Resources Management, Sociology)  
*Environmental Sociology and Social Research Methods*  
BA (1985), MA (1989) Vic., PhD (1994) Tor.  
604-822-2550/2363  
tindall@interchange.ubc.ca

**TROSPER, Ronald**

Associate Professor  
*Aboriginal Forestry*  
BA (1967), MA (1970), PhD (1974) Harvard  
604-822-8089  
ronald.trosper@ubc.ca

**WOOD, Paul M.**

Associate Professor  
*Conservation Policy, Environmental Ethics*  
BSc (1973), PhD (1994) Brit. Col., RPF, RP Bio  
604-822-0951  
paul.wood@ubc.ca

**Research Associates**

**HARSHAW, Howard**

HBOR (Lakehead), BA (Lakehead), PhD (Brit. Col.)  
*Forest Recreation, Human Dimensions of Natural Resources*

**MATHEY, Anne-Helene**

BSc (Grenoble), MSc, PhD (Brit. Col.)  
*Natural Resources Management*

**SCHWAB, Olaf**

BSc (Göttingen), MSc, PhD (Brit. Col.)  
*Forest Economics*

**SHAW, Alison**

BSc (Cape Town), BA, PhD (Brit. Col.)  
*Environmental Planning and Visual Perception and Climate Change*

**Honorary Research Associate**

**ZUMRAWI, Abdel Azim**

BSc (Sudan), MSc, PhD (Corvallis)  
*Biometrics, Growth & Yield*

**Post-doctoral Fellows**

**BEWLEY, Dan**

BSc (Wales), MSc (Birmingham), PhD (Wales)  
*Hydroclimatology*

**HILKER, Thomas**

BSc (Goettingen), MSc (Stuttgart), PhD (Brit. Col.)  
*Modeling Carbon-Fluxes and Mapping Landscape Disturbances*

**NITSCHKE, Craig**

BSF, PhD (Brit. Col.)  
*Forest Vulnerability and Climate Change*

**SCHEFFLER, Cornelia**

Dip (Dresden), PhD (FSU, Germany)  
*Hydrology*

**SCHROTH, Olaf**

Vordiplom (Hannover), MA (Newcastle), PhD (Zurich)  
*Interactive Landscape Visualization*

**TIKINA, Anna**

MSc (Budapest), MFS (Yale), PhD (Brit. Col.)  
*Environmental Policy, Sustainable Forest Management*

**WANG, Guangyu**

BSc (China), MBA (Marylhurst, USA), PhD (Brit. Col.)  
*Sustainable Forestry Management, Forest Certification and Watershed Planning*

**Adjunct Professors**

**COHEN, Stewart**

(Environment Canada, Adaptation & Impacts Research Division)  
BSc, MSc, PhD  
*Climate Change, Impacts and Adaptation*

**COLLINS, Denis**

(BC Ministry of Forests and Range)  
BSc, PhD, PGeo  
*Forest Sustainability and Inventory; Remotely Sensed Imagery*

**DAVIS, Rod**

(Ministry of Environment, Director Emeritus)  
BSc, MSc, PAg  
*Ecosystem and Biodiversity Conservation*

**DE LA ROCHE, Ian**

(Formerly FPInnovations)  
BSc, MSc, PhD  
*Forest Industry Policy*

**D'EON, Robert**

(Consultant)  
BScF, MScF, PhD  
*Ecology and Management of Forested Landscapes*

**EL-LAKANY, Hosny**

(Forestry Department, FAO/UN, Former Head)  
BSc, MSc, PhD, DSc  
*International Forest Policy*

**ELLIOTT, Chris**

(WWF Canada)  
BSc, MES, PhD  
*Forest Policy, Biodiversity and Certification*

**HUDSON, Robert**

(BC Ministry of Forests & Range)  
BSc (Hons), MSc, PhD  
*Forest Hydrology*

**ILES, Kimberley**

(Consultant)  
BS, MSc, PhD  
*Forest Inventory*

**KURZ, Werner**

(Canadian Forest Service)  
Dip Holzwirt, PhD  
*Forest Ecosystem Modelling*

**LAAKSONEN-CRAIG, Susanna**

(BC Ministry of Forests & Range)  
MSc, PhD  
*Forest Economics*

**LECKIE, Donald G.**

(Canadian Forest Service)  
BSc, PhD  
*Remote Sensing*

**MATAKALA, Patrick**

(Int'l Centre for Research in Agroforestry,  
Mozambique)  
BSc, MSc, PhD  
*Community Resource Management and Conservation Planning*

**ROBERTS, Don**

(CIBC World Markets Inc.)  
BSc, MSc, MBA  
*Forest Economics & Finance, International Forestry*

**SMITH, Nicholas**

(Consultant)  
BSc, MF, PhD  
*Biometrics, Inventory, Silvicultural Investment Analysis, Growth & Yield*

**THERIEN, Guillaume**

(J.S. Thrower & Associates)  
BAsC, PhD  
*Forest Biometrics*

**WEILER, Markus**

(Freiburg University)  
MSc, PhD  
*Watershed Hydrology*

**WILSON, Bill**

(Canadian Forest Service)  
BA, MSc, PhD  
*Forest and Resource Economics, International Trade*

**WINKLER, Rita D.**

(BC Ministry of Forests & Range)  
BSF, MSc, PhD  
*Watershed Management, Snow Hydrology*

**WULDER, Mike**

(Canadian Forest Service)  
BSc (Hons), MSc, PhD  
*Forest Geomatics, Remote Sensing*

**YIN, Yongyuan**

(Environment Canada)  
BSc, MSc, MA, PhD

**Professors Emeriti**

---

**ADAMOVICH, L.**

Professor Emeritus (1984)

**CHAMBERS, A.D.**

Associate Professor Emeritus (1997)

**DOOLING, P.J.**

Associate Professor Emeritus (1995)

**GOLDING, D.L.**

Associate Professor Emeritus (1996)

**HALEY, D.**

Professor Emeritus (2004)

**KOZAK, A.**

Professor Emeritus (2001)

**MUNRO, D.D.**

Professor Emeritus (1995)

**MURTHA, P.A.**

Professor Emeritus (2003)

**PEARSE, P.H.**

Professor Emeritus (1997)

**REED, F.L.C.**

Professor Emeritus (1993)

**YOUNG, G.G.**

Associate Professor Emeritus (1996)

## ACHIEVEMENTS AND PLANS

### Staff

**AIREY, Adelle**

CALP Secretary

**AKAI, Heather**

Administrator

**AQUINO, David**

BSc (La Molina, Peru), MF (Brit. Col.)  
Research Assistant, Senior Technician

**BATER, Christopher**

BA (Winnipeg), MSc (Brit. Col.)  
Research Scientist

**BAYLEY, Jennifer**

BSc (Vic.), MSc (Brit. Col.)  
Research Scientist

**ENNS, Sandra**

BA (Brit. Col.), MA (Brit. Col.), PhD (Brit. Col.)  
Project Manager

**FLANDERS, David**

BSc (Calgary), MLA (Brit. Col.)  
Research Scientist

**LEE, Taehee**

BSc (Kyunghee), MSc (Kookmin), MSc (Brit. Col.)  
Research Analyst

**MAEDEL, Jerry**

BFA, TC (Vic.), MSc (Brit. Col.)  
GIS/RS Coordinator

**McHUGH, Alyson**

BSc (Michigan), MSc (Brit. Col.)  
Research Scientist

**POND, Ellen**

BA (Brit. Col.), MLA (Brit. Col.)  
Research Scientist

**RELOVA, Marissa**

BA (Maryknoll Coll., The Philippines)  
Financial Clerk

**RISTEA, Catalin**

BSc (Transylvania), MSc (Brit. Col.)  
Project Manager

**TATEBE, Kristi**

BSc (Brit. Col.), MSc (Brit. Col.)  
Research Scientist

**TSE, Samantha**

BA (Brit. Col.)  
Department Secretary

**VERWOERD, Harry**

Computer Support Specialist

### Promotion

- Dr Kevin Lyons was promoted to Associate Professor with tenure, effective July 1, 2008.

### Resignation

- Dr Jonathan Fannin moved to 100% Civil Engineering effective July 1, 2008.

### ACHIEVEMENTS IN 2008 – 09

- Dr Paul Wood along with four others received Genome BC funding.
- Dr Stephen Sheppard was awarded Peter Wall Distinguished Scholar in Residence and received new GEOIDE NCE funding.
- Drs Alila, Coops, and Nelson, received ongoing NSERC funding.
- Dr Coops received an NSERC Accelerator Discovery grant.
- Drs Innes and Trospen received new SSHRC grants.
- Drs Innes, Maness, Trospen and Weiler received ongoing SFM funding.
- Drs Innes, Larson, LeMay, Marshall, H. Nelson, Trospen and Weiler received FSP funding.
- Dr Ron Trospen received funding to support a study on bridging and supporting Aboriginal students in UBC science programs.
- Revised our BSF curriculum.
- Relocated three members of Adaptation and Impacts Research Division (AIRD) (Environment Canada) to the Forest Sciences Centre to encourage collaboration, Stewart Cohen, Robin Bing Rong, and Yongyuan Yin.
- Working on building closer links with FERIC and the new FPInnovations.
- Dr Harry Nelson continued a successful Brown Bag speaker series.

### PLANS FOR 2009 – 10

- Anticipate new students for the 2 plus 2 program with Nanjing University.
- Finalize the appointment of a Tier 1 CR Chair in Natural Resource Economics.
- Implement Community and Aboriginal Forestry specialization (CAF).
- Launch a major initiative to facilitate exchange of knowledge in the forestry community.
- The Forest Operations program is developing a course equivalency agreement with the Forest Engineer syllabus of the Association of Professional Engineers and Geoscientists of British Columbia. This agreement is intended to provide forest operations students with a clear course map to meet academic eligibility of a professional engineer.
- FACT (Forests and Communities in Transition), an initiative dedicated to international research and dialogue on the wellbeing of forest-dependent communities, will be launched in 2009. FACT aims to establish a global network of researchers and communities working in partnership with governments, non-government organizations, academia, industry and others. In the coming year, FACT will formalize its organizational structure, identify appropriate partners and initiate relevant research projects.



Witch hazel, *Hamamelis* sp.  
Flowers.

FOREST  
SCIENCES  
DEPARTMENT



**Robert Guy**  
*Head*



**Sally Aitken**



**Peter Arcese**



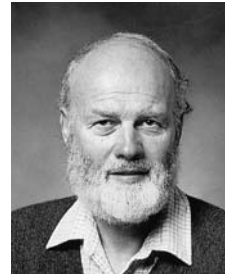
**Jörg Bohlmann**



**Chris Chanway**



**Yousry El-Kassaby**



**Michael Feller**



**Sarah Gergel**



**Susan Grayston**



**Scott Hinch**



**Maja Krzic**



**Kathy Martin**



**Steve Mitchell**



**Cindy Prescott**



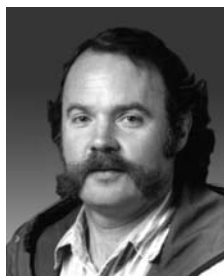
**John Richardson**



**Kermit Ritland**



**Suzanne Simard**



**Tom Sullivan**



**Susan Watts**

**GUY, Robert D.**

Professor and Head  
*Plant Physiology*  
BSc (1977), PhD (1984) Calg.  
604-822-6023  
rob.guy@ubc.ca

**AITKEN, Sally N.**

Professor and Director, Forest Sciences Program  
Director, Centre for Forest Gene Conservation  
*Forest Genetics and Gene Conservation*  
BSF (Hons) (1984) Brit. Col.,  
MSc (1986), PhD (1989) Calif., Berkeley  
604-822-6020  
sally.aitken@ubc.ca

**ARCESE, Peter**

Professor and Forest Renewal BC Chair in  
Applied Conservation Biology  
*Population Ecology of Birds and Mammals*  
BA (1981) Wash., MSc (1985), PhD (1988)  
Brit. Col.  
604-822-1886  
peter.arcese@ubc.ca

**BOHLMANN, Jörg**

Professor (Michael Smith Laboratories, Forest  
Sciences, Botany), Distinguished University  
Scholar, NSERC E.W.R. Steacie Fellow  
*Plant/Insect Interactions, Forest Health, Genomics,  
Biochemistry, Biotechnology*  
BSc (1988), MSc (1991), PhD (1995)  
Braunschweig, Germany  
604-822-0282  
bohlmann@mssl.ubc.ca

**CHANWAY, Christopher P.**

Professor (Forest Sciences, Land and Food Systems)  
*Soil Microbiology*  
BSc (1978) Winn., BS Ag (1980) Manit.,  
MSc (1983), PhD (1987) Brit. Col.  
604-822-3716  
christopher.chanway@ubc.ca

**EL-KASSABY, Yousry A.**

Professor and NSERC Chair in Applied Forest  
Genetics and Biotechnology  
*Quantitative Genetics*  
BSc (1970) Alexandria, MSc (1976) Tanta,  
PhD (1980) Brit. Col., RPF  
604-822-1821  
y.el-kassaby@ubc.ca

**FELLER, Michael C.**

Associate Professor  
*Fire Science and Water Quality*  
BSc (Hons) (1968), MSc (1969) Melb.,  
PhD (1975) Brit. Col.  
604-822-3729  
michael.feller@ubc.ca

**GERGEL, Sarah E.**

Assistant Professor  
*Watershed Landscape Ecology*  
BS (1992) Florida, MS (1996), PhD (2001)  
Wisconsin  
604-827-5163  
sarah.gergel@ubc.ca

**GRAYSTON, Susan J.**

Professor and Canada Research Chair  
in Soil Microbial Ecology  
*Soil Microbial Ecology*  
BSc (1982), PhD (1987) Sheffield  
604-822-5928  
sue.grayston@ubc.ca

**HINCH, Scott G.**

Professor and Director, Natural Resources  
Conservation Program  
(Forest Sciences, Institute for Resources and  
Environment)  
*Aquatic Ecology and Fish Conservation*  
BSc (Hons) (1985), MSc (1987) W. Ont.,  
PhD (1992) Tor.  
604-822-9377  
scott.hinch@ubc.ca

**KRZIC, Maja**

Assistant Professor (Forest Sciences, Land  
and Food Systems)  
*Soil Science*  
BSc (1986), MSc (1990) (Belgrade),  
PhD (1997) Brit. Col.  
604-822-0252  
maja.krzic@ubc.ca

**MARTIN, Kathy M.**

Professor (Canadian Wildlife Service)  
*Avian Ecology and Conservation*  
BSc (1970) Prince Edward Is.,  
MSc (1973) Alta., PhD (1985) Qu.  
604-822-9695  
kathy.martin@ubc.ca

**MITCHELL, Stephen J.**

Associate Professor  
*Silviculture*  
BSF (1987), PhD (1999) Brit. Col., RPF  
604-822-4591  
stephen.mitchell@ubc.ca

**PRESCOTT, Cindy E.**

Professor and Associate Dean,  
Graduate Studies and Research  
*Forest Nutrition*  
BSc (Hons) (1981) Brock, MSc (1984),  
PhD (1988) Calg.  
604-822-4701  
cindy.prescott@ubc.ca

**Forest Sciences**  
Forest Sciences Centre  
3041 – 2424 Main Mall  
Vancouver, BC V6T 1Z4

Phone: 604-822-2507  
Fax: 604-822-9102

FACULTY  
AND STAFF

**RICHARDSON, John S.**

Professor  
*Stream and Riparian Ecosystems*  
BSc (1979) Tor., MSc (1983) Alta.,  
PhD (1989) Brit. Col.  
604-822-6586  
john.richardson@ubc.ca

**RITLAND, Kermit M.**

Professor  
*Population and Quantitative Genetics*  
BSc (1977) Wash., PhD (1982) Calif., Davis  
604-822-8101  
kermit.ritland@ubc.ca

**SIMARD, Suzanne W.**

Professor  
*Forest Ecology and Silvics*  
BSF (1983) Brit. Col., MS (1989),  
PhD (1995) Oregon  
604-822-1955  
suzanne.simard@ubc.ca

**SULLIVAN, Thomas P.**

Professor (Forest Sciences, Land and Food Systems)  
*Wildlife Ecology*  
BSc (Hons) (1973), MSc (1976),  
PhD (1978) Brit. Col.  
604-822-6873  
tom.sullivan@ubc.ca

**WATTS, Susan B.**

Lecturer and Director, Communications  
*Forest Entomology*  
BSc (1973) Wales, MF (1976),  
PhD (1981) Brit. Col., RPF  
604-822-6316  
sue.watts@ubc.ca

**Sessional Lecturers**

**LAVALLEE, Suzie**

BSc, MSc, PhD Candidate (Brit. Col.)  
*Insect Ecology and Conservation*

**Research Associates**

**CHAN-McLEOD, Ann C. Allaye**

BSF, MSc (Brit. Col.), PhD (Alaska)  
*Physiological Ecology*

**HAEUSSLER, Sybille**

BSF (Brit. Col.), MSc (Oregon State), PhD (UQAM)  
*Dynamics, Diversity and Resilience of Plant Communities and Terrestrial Ecosystems*

**KRCMAR, Emina**

BSc, MSc, PhD (Belgrade)  
*Decision Analysis under Multiple Criteria and Uncertainty*

**MELLINA, Eric**

BSc (McGill), PhD (Brit. Col.)  
*Ecology and Fish-forestry Interactions*

**RITLAND, Carol**

BSc, MSc (Brit. Col.), PhD (Tor.)  
*Molecular Genetics*

**SEELY, Brad**

BS (Redlands), PhD (Boston)  
*Nutrient Dynamics and Forest Hydrology*

**SMETS, Pia**

MSc (Leuven), PhD (Brit. Col.)  
*Forest Genetics, Genecology*

**TSUI, Clement**

BSc, PhD (Hong Kong)  
*Mycology, Phylogeny, Evolution, and Population Genetics*

**VERNIER, Pierre**

BA, MSc (Brit. Col.)  
*Habitat Modelling and Landscape Ecology*

**WANG, Tongli**

MSc, PhD (Helsinki)  
*Forest Tree Breeding*

**WELHAM, Clive**

BSc, MSc, (Manit.), PhD (S. Fraser)  
*Biosciences*

**WELLS, Ralph**

BSc, MRM (S. Fraser)  
*Applied Forest Ecology*

**ZHONG, Anliang**

BSc, MSc (Fujian), PhD (Nanjing),  
PhD (Brit. Col.)  
*Forest Ecology*

**Honorary Research Associates**

**COOKE, Steven J.**

BES, MSc (Waterloo), PhD (Illinois)  
NSERC and Izaak Killam Fellowship  
*Fish Conservation*

**DREVER, Mark**

BSc (Tor.), MPM (S. Fraser), PhD (Guelph)  
*Avian Ecology and Conservation*

**EVANS OGDEN, Lesley**

BSc (Hons) (Tor.), MSc (York), PhD (S. Fraser)  
*Wildlife Ecology*

**JACKSON, Michael**

BSc (E. Anglia), MSc (Lond.), PhD (E. Anglia)  
*Biology of Shallow Lakes, Ecotoxicology, and Biodiversity Conservation*

**ZHANG, Yixin**

BSc (Nanjing), PhD (Umeå)  
*Stream Ecology*

## Post-doctoral Fellows

### BLANCO VACA, Juan

PhD (Navarra)

*Forest Ecology, Nutrient Cycling and Ecosystem-level Modelling*

### BOIZARD, Sophie

BSc (Vic.), PhD (Brit. Col.)

*Marine Biology and Biomechanics*

### BUSCHIAZZO, Emmanuel

BSc (Heriot-Watt), PhD (Canterbury)

*Cellular and Molecular Biology*

### CAPPA, Eduardo

BSc (Argentina), PhD (Argentina)

*Forest Genetics*

### COOPERMAN, Michael

BSc (Tufts), MS (Montana), PhD (Oregon)

*Fish Ecology and Fluvial Geomorphology*

### DUDANIEC, Rachael

BSc, PhD (Flinders)

*Conservation Biology*

### HOOVER, Trent

BSc (Alberta), MSc (Northern Brit. Col.) PhD (Brit. Col.)

*Stream Ecology/Open Channel Flow*

### KLAPSTE, Jaroslav

BSc (Czech Republic), PhD (Czech Republic)

*Forest Genetics*

### KOMINOSKI, John

BA (Augustana Coll.), MS (Loyola Univ. Chicago), PhD (Univ. Georgia)

*Ecology*

### LANTZ, Trevor

BSc (Hons) (Alberta), MSc (Victoria), PhD (Brit. Col.)

*Terrestrial Ecology*

### LARRANAGA, Santiago

BSc, PhD (Basque)

*Stream Ecology*

### LECERF, Antoine

BS, MS, PhD (France)

*Aquatic Ecology*

### LIEWLAKSANEEYANAWIN, Cherdak

BSc, PhD (Brit. Col.)

*Forest Genetics*

### MARTINS, Eduardo

BSc, MSc, PhD (Estadual de Campinas)

*Ecology*

### SAKAMAKI, Takashi

BE, ME, DE (Tohoku)

*Dynamics of Organic Matter and Nutrients in Estuaries and Tidal Flats*

### TAYLOR, Sabrina

BSc (Vic.), MSc (Dal.), PhD (Otago)

*Conservation Genetics and Behavioural Ecology*

### VERNE, Sébastien

MSc (François Rabelais), PhD (Poitiers)

*Forest Genetics*

### WERTZ, Sophie

BSc (Marseille III), MSc, PhD (Lyon)

*Microbial Ecology*

## Adjunct Professors

### ALFARO, Rene

(Canadian Forest Service)

BSc, MPM, PhD

*Forest Entomology*

### BULMER, Charles

(BC Ministry of Forests & Range)

BSc, MSc, PhD

*Productivity of Disturbed and Rehabilitated Soils*

### COATES, David

(BC Ministry of Forests & Range)

BSF, MSc, PhD

*Silviculture and Forest Ecology*

### HAMELIN, Richard

(Laurentian Forestry Centre)

BSc, MPM, PhD

*Forest Pathology*

### HUMBLE, Leland

(Canadian Forest Service)

BSc, PhD

*Entomology*

### KLENNER, Walter

(BC Ministry of Forests & Range)

BSc, MSc, PhD, RPBio

*Forestry Wildlife*

### KURZ, Werner

(Canadian Forest Service)

Dip Holzwirt, PhD

*Forest Ecosystem Modelling*

### MARTIN, Tara

BSc (Griffith), PhD (Queensland)

*Population and Conservation Biology*

### MILLER, Kristina

(Fisheries and Oceans, Canada)

BSc, MSc, PhD

*Functional Genomics, Molecular Genetics, Salmon*

### NEWMAN, Reg

(BC Ministry of Forests & Range)

BSc, BSF, PhD

*Range Ecology*

### SHAMOUN, Simon

(Canadian Forest Service)

BSc, MSc, PhD

*Plant Pathology*

**STOEHR, Michael**  
(BC Ministry of Forests & Range)  
BSc, MSc, PhD  
*Advanced Generation Seed Orchards*

**STRONG, Willard**  
(BC Ministry of Forests & Range)  
BSc, MSc, PhD  
*Forest Entomology*

**YANCHUK, Alvin**  
(BC Ministry of Forests & Range)  
BSc, MSc, PhD  
*Gene Conservation*

### Faculty Associates

---

**DURALL, Daniel**  
(Okanagan University College)  
BSc, PhD  
*Mycorrhizal Ecology*

**CLEMENTS, David**  
(Trinity Western University)  
BSc, PhD  
*Weed Ecologies*

### Professors Emeriti

---

**BUNNELL, Fred L.**  
Professor Emeritus (2007)

**KIMMINS, J.P. (Hamish)**  
Professor Emeritus (2007)

**KLINKA, K.**  
Professor Emeritus (2002)

**LAVENDER, D.P.**  
Professor Emeritus (1992)

**McLEAN, John A.**  
Professor Emeritus (2008)

**NORTHCOTE, T.G.**  
Professor Emeritus (1992)

**van der KAMP, B.J.**  
Professor Emeritus (2006)

**WEETMAN, G.F.**  
Professor Emeritus (1998)

**WORRALL, J.G.**  
Associate Professor Emeritus (2003)

### Staff

---

**ASHIQ, Muhammad**  
BF, MF (Pakistan Forest Institute)  
*Research Assistant/Technician*

**AZAM, Shofiu**  
BSc (Dhaka), MSc (Japan)  
*Research Assistant/Technician*

**BERG, Nora**  
BSc (Alta.)  
*Research Assistant/Technician*

**CHAN, Andrea**  
BSc (Brit. Col.)  
*Financial Clerk*

**CHENG, Rosemarie**  
BSIE (UP, The Philippines)  
*Financial Coordinator*

**CHOURMOUZIS, Christine**  
BSc (Hons), MSc (Guelph)  
*Research Scientist*

**DEL BEL, Kate**  
BSc (Guelph), MSc (Cal.)  
*Research Assistant/Technician*

**DESCALZO, Rolando**  
MPM, PhD (S. Fraser)  
*Research Assistant/Technician*

**GIBSON, Will**  
BSc (Brit. Col.)  
*Research Assistant/Technician*

**HODGES, Norman**  
BSc (Vic.)  
*Computer Specialist*

**HOUDE, Isabelle**  
BSc (McGill), MSc (Brit. Col.)  
*Coordinator and Project Manager*

**KREMSATER, Laurie**  
BSF, MSc (Brit. Col.)  
*Manager, Sustainable Forestry Project*

**LI, Agnes**  
BSc (Brit. Col.)  
*Research Assistant/Technician*

**LIAO, Limin**  
BSc (Shangsha), MSc (Beijing)  
*Research Assistant/Technician*

**LOTTO, Andrew**  
RMOT (Malaspina)  
*Research Assistant/Technician*

**McKAY, D'Arcy**  
BSc (SFU)  
*Research Assistant/Technician*

**MISCAMPBELL, Allyson**  
BSc (Lakehead), MSc (Brit. Col.)  
*Research Assistant/Technician*

**MOY, Arnold**  
BSc (Brit. Col.)  
*GIS Specialist*

**MUTIA, Christine**  
B Admin (UP, The Philippines)  
*Financial Clerk*

**POLLOCK, Stephanie**  
BSc (Brit. Col.), MSc (Laval)  
*Research Assistant/Technician*

**ROOTMAN, Susan**  
Departmental Secretary

**SETO, Carrie**  
BA (H.K.)  
*Administrator*

**VIOLA, Giuseppina**

BSc (L'Aquila)

*Research Assistant/Technician*

**YUEH, Hesther**

BSc (McGill)

*Research Scientist*

**Promotions**

Drs Jörg, Bohlmann, Sue Grayston and Suzanne Simard were promoted to the rank of Professor effective July 1, 2008.

**Retirement**

Dr John McLean retired on June 30, 2008 after 31 years of exemplary service to UBC. He was Associate Dean, Graduate Studies and Research from 1992 to 1998 and 2000 to 2003. He was also the Acting Dean from 1998 to 2000. He has been very active in the forest entomology community since he started at UBC in 1977. He has left an indelible stamp on the Faculty of Forestry and on many of his former undergraduate and graduate students.

In his retirement, John will continue to pursue his professional interests.

**ACHIEVEMENTS IN 2008 – 09**

- Dr Arcese was awarded the UBC Izaak Walton Killam Memorial Faculty Research Fellowship.
- Dr Bohlmann was given the CD Nelson Award by the Canadian Society of Plant Physiologists - Société Canadienne de Physiologie Végétale. The CD Nelson Award recognizes outstanding early career research contributions to plant physiology in Canada.
- Dr Kathy Martin was given the Doris Huestis Speirs Award by the Society of Canadian Ornithologists. This award is the most prestigious award of the Society of Canadian Ornithologists and is presented annually to an individual who has made outstanding lifetime contributions to Canadian ornithology.
- Dr Martin organized the Canadian Society of Ecology and Evolution meetings held from May 11-14 2008, at the University of British Columbia.
- Andrea Norris (PhD, Martin) has received the inaugural 2008 Junco Technologies Award for her PhD research. There is only one such award given out annually in Canada. The Junco Technologies Award is sponsored by Junco Technologies Inc., in cooperation with Bird Studies Canada. Junco Technologies Inc., a company specializing in the production of birdhouses, is interested in advancing field research on cavity-nesting birds in Canada. Bird Studies Canada is a national non-governmental conservation organization dedicated to advancing the understanding, appreciation, and conservation of wild birds in Canada.

- Karolyn Keir, grad student of Dr Aitken, won the award for the best student presentation at the joint conference of IUFRO Working Groups 2.04.01 (Population, Ecological and Conservation Genetics) and 2.04.10 (Genomics), along with the Canadian Forest Genetics Association held in Québec City, August 24-29, 2008 entitled "Beautiful but lacking diversity: The population genetics of Pacific dogwood".
- Alaine Camfield, PhD, won the Society of Canadian Ornithologists' Award for the best student oral presentation at the International Joint Annual Meetings of the American Ornithologists Union, the Society of Canadian Ornithologists, and the Cooper Ornithological Society in Portland, Oregon, for her presentation entitled "The influence of ambient temperature on horned lark incubation behavior in an alpine environment".
- Drs Grayston and Martin received new NSERC Strategic Project Supplemental Grants.
- Drs Gergel and Simard received continuing NSERC Special Research Opportunity Program Grants.
- Dr Hinch received a continuing NSERC Strategic Grant.
- Drs Aitken, Arcese, Chanway, El-Kassaby, Gergel, Grayston, Guy, Hinch, Humble, Martin, Mitchell, Prescott, Richardson, Ritland and Simard received ongoing NSERC funding.
- Dr Richardson received a new NSERC – Research Tools & Instruments grant.
- Drs Arcese, Bunnell, Chan-McLeod, Feller, Grayston, Haeussler, Hinch, Kimmins, Krzic, Mitchell, Richardson, Seely, Simard and Sullivan were awarded Forest Science Program grants under the Forest Investment Account for a total of \$1,824,347.
- Drs Guy, Hinch and Simard received new grants from Genome BC.

**PLANS FOR 2009 – 10**

- Pursue the establishment of an NSERC Industrial Research Chair in Forest and Forest Products Entomology.
- Maintain high level of proposals to NSERC, FIA and other funding agencies.
- Dr Bohlmann, co-chairing with Dr Ian Baldwin, will organize the Gordon Research Conference on Floral and Vegetative Volatiles, August 9-14, 2009, Magdalen College, Oxford, United Kingdom.

WOOD  
SCIENCE  
DEPARTMENT



**Paul McFarlane**  
*Head*



**Stavros Avramidis**



**Colette Breuil**



**David Cohen**



**Patrick Cramond**



**Simon Ellis**



**Philip Evans**



**Robert Fürst**



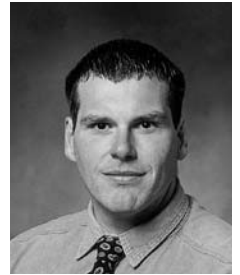
**John Kadla**



**Robert Kozak**



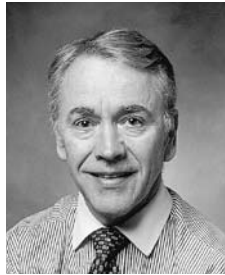
**Frank Lam**



**Shawn Mansfield**



**Helmut Prion**



**John Ruddick**



**Jack Saddler**



**Gregory Smith**



**Taraneh Sowlati**

**McFARLANE, Paul N.**

Professor and Head  
*Environmental Aspects of Wood Products and Processing*  
B. Tech. (Hons) (1973), PhD (1979) Massey  
FIAWS, FIWSc  
604-822-7667  
paul.mcfarlane@ubc.ca

**AVRAMIDIS, Stavros**

Professor  
*Wood Physics and Drying*  
BSF (1981) Thessaloniki, MS (1983),  
PhD (1986) SUNY, Syracuse, FIWSc FIAWS  
604-822-6153  
stavros.avramidis@ubc.ca

**BREUIL, Colette**

Professor  
*Forest Products Biotechnology*  
BSc (1971) Lyon, MSc (1974) Ottawa,  
PhD (1977) Lyon  
604-822-9738  
colette.breuil@ubc.ca

**COHEN, David H.**

Professor  
*Forest Products Marketing and Management*  
Dip For Tech (1976) Selkirk, BSc (1986) Idaho,  
PhD (1989) Virginia Polytech.  
604-822-6716  
david.cohen@ubc.ca

**CRAMOND, Patrick**

Senior Instructor (Wood Science, Mechanical  
Engineering)  
*Wood Products Processing*  
BAsC (1974) Brit. Col., PEng  
604-822-1287  
pcramond@mech.ubc.ca

**ELLIS, Simon C.**

Associate Professor and Director, Wood Products  
Processing Program  
*Wood Anatomy and Quality*  
BSc (Hons) (1983) Wales, MSc (1986),  
PhD (1989) Brit. Col., FIWSc  
604-822-3551  
simon.ellis@ubc.ca

**EVANS, Philip D.**

Professor  
*Photoprotection and Modification of Wood*  
BSc (Hons) (1980), PhD (1985) Wales, FIAWS,  
FIWSc  
604-822-0517  
phil.evans@ubc.ca

**FÜRST, Robert**

Senior Instructor  
*Manufacture of Secondary Wood Products*  
Master Dip (1992) Augsburg, Germany  
604-822-0034  
robert.fuerst@ubc.ca

**KADLA, John**

Associate Professor and Canada Research  
Chair in Advanced Biomaterials Chemistry  
*Polymer Chemistry and Materials Science*  
BSc (1989) Brit. Col., PhD (1997) N. Carolina,  
FIAWS  
604-827-5254  
john.kadla@ubc.ca

**KOZAK, Robert A.**

Professor  
*Sustainable Business Management*  
BSc (1988), PhD (1996) Brit. Col., FIWSc  
604-822-2402  
rob.kozak@ubc.ca

**LAM, Frank**

Professor  
*Wood Mechanics*  
BASc (1982), MASc. (1985),  
PhD (1992) Brit. Col., FIWSc, P.Eng  
604-822-6526  
frank.lam@ubc.ca

**MANSFIELD, Shawn D.**

Associate Professor and Canada Research Chair in  
Wood and Fibre Quality  
*Biotechnology and Chemistry of Wood Fibres*  
BSc (Hons) (1992) Mt. Allison, MSc (1994) Dal.,  
PhD (1997) Brit. Col., FIAWS  
604-822-0196  
shawn.mansfield@ubc.ca

**PRION, Helmut G.L.**

Associate Professor (Wood Science, Civil  
Engineering)  
*Engineered Timber Structures Design*  
BEng (Hons) (1974) Stellenbosch,  
PhD (1987) Tor., PEng  
604-822-3864  
prion@civil.ubc.ca

**RUDDICK, John N.R.**

Professor  
*Wood Preservation*  
BSc (1965), MSc (1966) Newcastle,  
PhD (1970) Lon.  
604-822-3736  
john.ruddick@ubc.ca

**SADDLER, Jack N.**

Professor and Dean  
*Forest Products Biotechnology*  
BSc (Hons) (1975) Edin., PhD (1978) Glas.  
FIAWS  
604-822-3542  
jack.saddler@ubc.ca

**Wood Science**  
Forest Sciences Centre  
2900 - 2424 Main Mall  
Vancouver, BC V6T 1Z4

Phone: 604-822-9352  
Fax: 604-822-9104  
woodubc@interchg.ubc.ca  
www.wood.ubc.ca

**SMITH, Gregory**

Associate Professor  
*Wood Composites*  
BAsc (1988), MAsc (1992) Brit. Col.,  
Dr. sc. techn (1996) Swiss Federal Inst., PEng, FIWSc  
604-822-0081  
greg.smith@ubc.ca

**SOWLATI, Taraneh**

Assistant Professor  
*Operational Research, Performance Assessment*  
BSc (1990) Sharif Univ. of Tech., MAsc (1996)  
Tarbiat Modares, PhD (2001) Tor.  
604-822-6109  
taraneh.sowlati@ubc.ca

**Research Associates****ACKOM, Emmanuel**

BSc (Hons) (Ghana), MSc, PhD (BTU, Germany)  
*Industrial Ecology of Forest Products Manufacturing;  
Forest Certification and Chain of Custody*

**BRAUN, Jennifer**

BSc, MSc, PhD (Cincinnati)  
*Polymer Science*

**CHANDRA, Richard**

BSc, MSc (Brit. Col), PhD (Georgia Institute  
of Technology / Institute of Paper Science and  
Technology, USA)  
*Wood Chemistry*

**CHOWDHURY, Jahangir**

BSc (Hons), MSc (Chitt.), MSc (Wales), PhD  
(Oregon State)  
*Wood-based Composites*

**MABEE, Warren**

BSc (Hons), MSc, PhD (Tor.)  
*Forest Products Biotechnology*

**MALABADI, Ravindra**

BSc, MSc, MPhil, PhD (Dharwad, India)  
*Plant Biotechnology*

**OUJJEHANE, Azzeddine**

BEng (ENPA, Algeria), MSc (INPG, France), PhD  
(Université Blais Pascal Clermont Ferrand, France)  
*Process Modeling*

**SARAVI, Albert**

BSc (Amir Kabir Univ. of Technology, Iran), MSc  
(Sharif Univ. of Technology, Iran), PhD (Brit. Col.)  
*Process Control*

**SEMPLE, Kate**

BSc (Hons) (Australian National), MSc (Melb.),  
PhD (Australian National)  
*Wood Composites*

**TIMKO, Joleen**

BSc, MSc, PhD (Brit. Col.)  
*Social Equity and Ecological Integrity*

**TSUI, Kin Ming (Clement)**

BSc, PhD (Hong Kong)  
*Genomics*

**WANG, Ye**

BSc, MSc, PhD (China Agricultural Univ.)  
*Biochemistry and Molecular Biology*

**YAWALATA, Domingus**

PhD (Brit. Col)  
*Wood Mechanics*

**Post-doctoral Fellows****ALEMAGI, Dieudonne**

BSc (Cameroon), MSc, PhD (Brandenburg Univ.  
Germany)  
*Environment and Resource Management*

**ALTEYRAC, Jerome**

MSc, PhD (Laval, Quebec)  
*Wood Quality Related to Tree Growth Conditions*

**ANDERSSON-ROOS, Alexandra**

MSc, PhD (Lund Univ., Sweden)  
*Forest Product Biotechnology*

**ARANTES, Valdeir**

PhD (Univ. San Paulo, Brazil)  
*Applied Microbiology*

**BAR-NIR, Batia**

BSc, MSc, PhD (Tel-Aviv Univ., Israel)  
*Chemistry, Organic Synthesis*

**BEJTKA, Irenkeusz**

Dip Ing, Dr Ing (Karlsruhe, Germany)  
*Civil (Structural) Engineering/Timber Engineering*

**DAUWE, Rebecca**

PhD (Ghent Univ., Belgium)  
*Plant Metabolomics*

**GHATORA, Sonia**

BSc, MSc, PhD (Guru Nanak Dev Univ., Amritsar,  
India)  
*Microbiology and Enzymology*

**GONZALES-PENA, Marcos**

BEng (Chapingo Autonomous Univ., Mexico),  
MSc, PhD (Univ. of Wales)  
*Photo Degradation of Wood*

**HONG, Jung Pyo**

PhD (Brit. Col.)  
*Structural Performance of Wood Products and  
Structural Systems*

**IFUKU, Shinsuke**

BSc, MSc, PhD (Tokyo Univ., Japan)  
*Cellulose Material Science, Organic Synthesis & Processing*

**KIM, Yong Sik**

BSc, MSc, (Kangwon Nat. Univ., South Korea),  
PhD (Brit. Col.)  
*Paper Science & Engineering*

**MAO, Jingliang**

MSc, PhD (Univ. of Washington, Seattle)  
*Paper Science & Engineering*

**PARK, So Young**

BSc (Busan Nat. Univ., Korea), MSc, PhD  
(Chungbuk Nat. Univ., Korea)  
*Tree Biotechnology*

**PORTH, Ilga**

MSc, PhD (Univ. of Vienna)  
*Genomics, Plant Biochemistry*

**SALLES, Bruno**

PhD (Univ. of Brasilia, Brazil)  
*Enzymology Applied to Forest Product Biotechnology*

**TOKAREVA, Olena**

BSc, MSc (Zapiruzhzhya State Univ. Ukraine),  
PhD (Tufts Univ., USA)  
*Chemistry / Biotechnology*

**TU, Maobing**

BA (Anhui, China), MSc (Tianjun, China), PhD  
(East China Univ.), PhD (Brit.Col.)  
*Bioconversion of Biomass to Ethanol*

**WATANABE, Ken**

PhD (Univ. of Tokyo, Japan)  
*Wood Physics and Drying*

---

**Visiting Scholars****ACASAS-CORDERO, Carolina**

BS (Pontificia Univ. Católica de Chile, Chile)  
*Forestry Engineering*

**CLOSEN, Maximilian**

Student (Univ. of Applied Science Rosenheim,  
Germany)  
*Wood Steel Connections*

**FALLER, Thomas**

Student (Univ. of Applied Forestry, Rottenburg,  
Germany)  
*Timber and Wood*

**HUANG, Hao**

BCE, MSE, (Chongqing, China)  
*Timber Design and Engineering*

**KRAUSE, Hans**

BSc, MSc (Diploma), PhD (Kiel, Germany)  
*Glue Laminated Timber*

**JIN, Juwan**

BSc, MSc, PhD (Nanjing, China)  
*OBS from Metasequoia*

**JOHANSSON, Johanna**

Student (Lund Univ., Sweden)  
*Chemical Engineering, Process Design*

**LANDBRING, Hanna**

Student (Lund Univ., Sweden)  
*Chemical Engineering, Process Design*

**PARK, Hee Jun**

BSc, MSc, PhD (Seoul Nat. Univ., Korea)  
*Forest Products*

**PUERGSTALLER, Andreas**

Student (Brixen, Italy)  
*Construction of Multi-Story Buildings/Application of  
Cross Laminated Timber*

**SEIM, WERNER**

PhD, (Univ. of Karlsruhe, Germany)  
*Fe Modelling of In-Plane-Loaded Masonry Structures*

**SHEN, Fei**

BS, MS, PhD Candidate, (Shenyang Univ. China)  
*Biomass Energy Engineering*

**TANAKA, Takashi**

MSc (Univ. of Tokyo, Japan)  
*Wood Water Relations*

**WANG, Liyu**

BEng, MEng (Northeast Forestry, China), PhD  
(Beijing)  
*Non-destructive Grading of Timber*

**ZHANG, Jin**

PhD (Southeast Univ., Nanjing, China)  
*Timber Engineering*

**ZHONG, Yuehua**

BSc, PhD (Sichuan Univ., China)  
*Forest Products Biotechnology*

---

**Adjunct Professors****BEATSON, Rodger**

(BC Institute of Technology)  
BSc, PhD  
*Pulp and Paper Chemistry*

**DAI, Chunping**

(Forintek Canada Corp.)  
BSc, MSc, PhD  
*Wood Composite Products & Processing, Computer  
Modeling*

**GASTON, Chris**

(Forintek Canada Corp.)  
BSc, MSc, PhD  
*Forest Products Marketing*

**HE, Minjuan**

(Tongji University)  
BSc, MSc, PhD  
*Timber Structures*

**MORRIS, Paul**

(Forintek Canada Corp.)  
BSc, PhD  
*Preservation and Protection*

**OLIVEIRA, Luiz**

(Forintek Canada Corp.)  
BSc, MSc, PhD  
*Wood Drying*

---

**Professors Emeriti****BARRETT, D.J.**

Professor Emeritus (2005)

**GARDNER, J.A.**

Dean Emeritus (1985)

**KENNEDY, R.**

Dean Emeritus (1992)

**PASZNER, L.**

Professor Emeritus (1999)

## Staff

### **ANASTAS, Hiba**

MSc (Brit. Col.)  
Research Assistant/Technician

### **BREMNER, Barbara**

BA (Vic.)  
Cooperative Education Coordinator

### **CULLIS, Ian**

BSc, MSc (Brit. Col.)  
Research Assistant/Technician

### **CHIU, Jason**

BSc (Brit. Col.)  
Training and Continuing Education

### **CHUNG, Pablo**

BSc (UNALM), MSc (Brit. Col.)  
Research Scientist

### **DHILLON, Jessie**

BSc (Brit. Col.), Dip Chemical Sciences (BCIT)  
Research Assistant/Technician

### **FISHER, Karen**

BEd (Ont.)  
Administrator

### **GO, Genevieve**

BSc (De la Salle Univ., Philippines) MBA (Simon Fraser Univ.)  
Project Manager, Report Writer

### **GUNTHER, Lawrence**

Engineering Technician

### **HASTINGS, Diana**

BSc (Brit. Col.)  
Research Assistant/Technician

### **HOANG, Sue Ann**

BA (Brit. Col.)  
Administrative Support 2

### **KALYNYAK, Peter**

MSc (Ternopil Pedagogical Univ., Ukraine)  
Research Assistant/Technician

### **LEE, George**

BSc (China), MSc (Oregon State)  
Wood Engineer Scientist

### **LEUNG, Vincent**

BSc (Brit. Col.), Dip T (BCIT)  
Technical Facilities Supervisor

### **LIU, Winfield**

BA (Brit. Col.)  
Computer Support Specialist

### **MACDONALD, Iain**

BA (Scotland), MA (Brit. Col.)  
Managing Director, CAWP

### **MACKIE, Joanna**

BA (S. Hampton), MFC (Tor.)  
Recruitment Officer

### **PARK, Ji Young**

PhD (Seoul Nat., Korea)  
Biotechnology and Chemistry of Wood Fibre

### **TONG, Yonghui (Larry)**

BSc, MSc (Northeast Forestry, China)  
Research Assistant/Technician

### **VALENCIA, Cecilia**

Research Scientist

### **VOSS, Coral**

Secretary

### **WONG, Debbie**

BComm (Brit. Col.)  
Senior Financial Specialist

### **YAN, Hui Jun**

BS (Shandong Inst., China), MAS (Harbin, China)  
Research Engineer

### **YANG, Li**

BSc (Northeast Technology Univ., China),  
MSc (Idaho)  
Research Assistant/Technician

## Promotion

Dr Robert Kozak was promoted to the rank of Professor effective July 1, 2008.

## ACHIEVEMENTS IN 2008 – 09

- The Wood Products Processing program achieved an enrolment of 109 undergraduate students with a new student intake of 27.
- The co-op program continued as an integral and highly successful component of the Wood Products Processing program with 34 co-op work terms completed.
- Recruitment activities included: an advertisement in the Youthink PS; creation of a promotional video for YouTube, our website, and career fairs; creation of profiles highlighting career paths of select alumni; participation in 22 education and career events; 28 visits to high schools and colleges; and 43 presentations to 1349 students and 26 educators.
- Students from Dr Greg Smith's wood composites class represented UBC in the BC Wood Works/ Canadian Wood Council engineering design competition. The leading team placed second in the overall performance category.
- Dr Phil Evans was appointed the inaugural holder of the BC Leadership Chair in Advanced Forest Products Manufacturing Technology. This prestigious new Chair will focus on the creation of the knowledge and technology needed to develop new bio-composite materials and substantially improve the properties of manufactured wood products in BC.

- Dr Rob Kozak has authored a new 408 page text book “Introductory Probability and Statistics – Applications for Forestry and the Natural Sciences. Coauthors of this book include Antal Kozak (Professor Emeritus, UBC Forest Resources Management), Christina Staudhammer (University of Florida) and Susan Watts (Lecturer, UBC Forest Sciences). The book, published in 2008 by CABI International, is an elementary statistics text developed specifically for individuals choosing to make a career in the fields of forestry, forest products, conservation and other natural sciences.
- Dr Robert Kozak was appointed Director of FACT – *Collaborative research and dialogue on forests and communities in transition*. He was also appointed an Associate Editor of the Canadian Journal of Forest Research and the Deputy Coordinator of IUFRO Working Group 5.10.100.
- Dr Shawn Mansfield served as the Co-Chair of the IUFRO Tree Biotechnology Conference Committee.
- Dr John Ruddick received the Faculty of Forestry’s Killam Teaching Award.
- Dr Frank Lam participated in a very successful shake-table test in Japan that demonstrated the ability of multi-storey wood framed buildings to withstand a severe earthquake.
- Drs Breuil and Kadla received new NSERC funding while Drs Avramidis, Breuil, Dai, Evans, Kadla, Lam Mansfield, Ruddick, Saddler, Smith and Sowlati received ongoing NSERC funding.
- Drs Avramidis, Cohen, Evans, Kozak and Lam received new funding from NRCan’s Value-to-Wood program while Drs Evans, Lam and Smith received ongoing funding from the Value-to-Wood program.
- Dr Kadla received ongoing funding from the Sentinel Network NCE while Dr McFarlane received ongoing funding from the Sustainable Forest Management Network NCE.

## **PLANS FOR 2009 – 10**

---

- The close coordination of the activities of the Department and CAWP will continue. In order to compensate for reduced endowment revenues, the development of a sustainable funding framework will be a focus during the coming year.
- An appointment at the Assistant or Associate Professor level will be made to the Chair in Wood Building Design and Construction.
- Faculty will continue to vigorously pursue diverse funding sources to support wood products research.

# CENTRE FOR ADVANCED WOOD PROCESSING



**Iain Macdonald**  
BA, MSc

Managing Director  
604-822-1472

[iain.macdonald@ubc.ca](mailto:iain.macdonald@ubc.ca)

**Pat Cramond**, BAsc  
Senior Instructor

**Robert Fürst**, M Dip  
Senior Instructor

**Taraneh Sowlati**  
BSc, MAsc, PhD  
Assistant Professor

**Barbara Bremner**, BA  
Coordinator, Co-op Education &  
Acting Officer, Recruitment

**Jason Chiu**, BSc  
Specialist, Technical

**Karen Fisher**, BEd  
Administrator

**Lawrence Günther**  
Technician, CAWP Lab

**Sue Anne Hoang**, BA  
Administrative Support

**Vincent Leung**, BSc  
Supervisor, Technical Facilities

**Winfield Liu**, BA  
Specialist, Computers

**Coral Voss**  
Secretary

**Centre for Advanced  
Wood Processing**  
Forest Sciences Centre  
2900-2424 Main Mall  
Vancouver BC V6T 1Z4  
Phone: 604-822-6448  
Fax: 604-822-9159  
[cawp@cawp.ubc.ca](mailto:cawp@cawp.ubc.ca)  
[www.cawp.ubc.ca](http://www.cawp.ubc.ca)

**T**HE CENTRE FOR ADVANCED WOOD Processing (CAWP) is Canada's national centre for education, extension and research for the advanced wood products industries. The role of CAWP is to provide support to the BSc (Wood Products Processing) (WPP) program in the education and training of students with the capacity to lead and drive change in the industry; offer continuing education and lifelong learning programs aimed at enhancing the skills of existing industry employees; provide technical services to improve the product quality and manufacturing efficiency of SMEs; and to coordinate interdisciplinary applied research. CAWP is funded through an endowment, the CAWP Partnership Program, various project grants, and cost recovery on services.

CAWP is supported by a large number of industrial equipment and technology suppliers, whose in-kind contributions of software, machinery, supplies, and services significantly enhance our facilities and the training and education experiences that CAWP is able to offer. Several manufacturing companies also support CAWP annually through cash contributions to our industry partnership program.

CAWP has an internal Management Committee, established in 2007, to allow faculty members in the Department of Wood Science to provide input into the activities of CAWP, and it is active in planning and monitoring our technical and educational activities. CAWP also receives guidance from an external Advisory Board consisting of senior personnel from the wood products industry across Canada.

## Educational Programs

The Wood Products Processing program remains the largest degree program in wood technology/wood science in North America. In 2008-09 there were 34 co-op work terms completed, reflecting a well-balanced geographical distribution across Canada in British Columbia, Alberta, Manitoba, Ontario, and Saskatchewan. International work terms were completed in Australia, Japan, and the United States. In addition to supporting WPP courses, CAWP provides facilities to support joint project-based courses involving students from Emily Carr University and the Wood Products Processing Program. In 2009 a joint course was held in which mixed student teams from the two institutions designed and built outdoor furniture to be used at hospitality stations at several of the 2010 Winter Olympic venues.

## Continuing Education, Communication and Extension

CAWP continues to offer two certificate programs to industry professionals - the Industrial Finishing Certificate and the Kiln Drying Certificate. During the past year CAWP has been developing a new certificate program under contract for the Wood Manufacturing Council. The complete program

will consist of eight 25-hour online course modules that can be taken by entrepreneurs and management-track employees of wood manufacturing businesses to acquire key management concepts. The eight modules are: Sales and Marketing; Human Resources and Safety; Quality Management & Control; Business Finance & Investment Evaluation; Supply Chain Management; Factory Layout and Equipment Justification; Production Planning; and New Product Development. Authors from UBC as well as external specialists participated in the writing process, and extensive industry input was received via an industry steering committee and a pilot launch of the Quality Management & Control module. Ten companies in six provinces participated in the pilot launch, and interviews were held at each of the companies to evaluate course content and format. The feedback is being used to make final modifications to all eight course modules, with web development to be completed by July 31st. It is anticipated that the full suite of courses will be made available to industry learners beginning in the fall of 2009, with CAWP coordinating delivery of the program in partnership with several regional colleges throughout Canada. This summer CAWP will also complete the development of a train-the-trainer curriculum for plant floor technical skills, also for the Wood Manufacturing Council. A new online course for forest industry consultants, funded by a grant from the UBC University Investment Fund, will also be offered for the first time in 2009.

In May 2009 CAWP will unveil a new product development service which will form part of the Business Innovation Partnership, a joint program delivered in cooperation with BC Wood Specialties Group and FP Innovations to provide business development services to the value added wood products industry in British Columbia. The program is funded by Forestry Innovation Investment, and the new service provides funding support for companies that need help with product design, engineering and prototyping. Participating companies will be able to access scientific and technical expertise and CAWP's state-of-the-art range of CAD/CAM design and manufacturing equipment. CAWP technical staff have received advanced training on computer-aided design and manufacturing software to prepare for the launch of the new program.

The Canadian International Development Agency (CIDA)-funded capacity-building project in South Africa is now entering its final year of implementation. Creation of e-learning courses for Stellenbosch University's Wood Products Science program has now been completed, and in the summer of 2009 a spinoff course on furniture design will be offered for the first time in South Africa in partnership with Emily Carr University. The Stellenbosch University team is keen to continue the collaboration with CAWP, and is seeking additional funding to create

a Postgraduate Diploma in Wood Products Science, which would involve the joint development of additional e-learning courses that could be offered to workplace learners in both Africa and North America. Representatives from the CAWP and Stellenbosch University project teams visited Ghana in February 2009 to investigate the possibility of extending the newly-developed educational programs into West Africa, and an East African node is also being considered. In addition to expansion of the African project, CAWP has also fielded requests for assistance with value-added wood processing training and education from groups in Peru, Barbados and Indonesia.

In August 2008 CAWP held its fifth industry conference on industrial wood finishing in Atlanta prior to the International Woodworking Fair (IWF). The 2008 event was held in partnership with the organizers of IWF as well as with Vance Publishing, and the theme of “Green to Lean and In Between” attracted 120 manufacturers, researchers and technical specialists.

## Research

CAWP's role under an integrated structure within the Department of Wood Science is to act as a conduit between the industry and academic communities in order to ensure that applied research activities within the department and CAWP fully reflect industry needs. CAWP is active in helping industry find solutions to current competitive challenges by linking them with researchers who may be able to provide avenues for change.

Several faculty members of the Department of Wood Science continue to receive funding for research projects from the NRCan-CFS Value-to-Wood program. These projects cover a wide range of themes, from corporate social responsibility to advanced finishing and building systems and from forest certification and life cycle analysis to advanced wood composites development.

## PLANS FOR 2009 – 10

- Maximise industry support for CAWP through our industry partnership program.
- Launch and deliver the Product Innovation Program.
- Complete the development of the national management training program and plant-floor skills train-the-trainer program for the Wood Manufacturing Council.
- Launch the Management Training Certificate Program in cooperation with regional colleges.
- Launch a new introductory-level e-learning course on the forest products value chain.
- Build on the success of the CIDA South Africa project to assist a wider audience within Africa.
- Repurpose various existing e-learning courses for use as training programs in Canada.

## Visiting and Post-Doctoral Fellows

<b>Seiple, Kate</b>	(CAWP, UBC)
<b>Weizenegger, Johannes</b>	(Applied Sciences, University of Biel, Switzerland)

## Centre Associates

<b>Avramidis, Stavros</b>	(UBC)
<b>Barrett, David</b>	(UBC)
<b>Blyt, Christian</b>	(Emily Carr University)
<b>Bramer, Mark</b>	(Conestoga College)
<b>Breuil, Colette</b>	(UBC)
<b>Cohen, David</b>	(UBC)
<b>Dai, Chunping</b>	(Forintek)
<b>Ellis, Simon</b>	(UBC)
<b>Evans, Philip</b>	(UBC)
<b>Hartley, Ian</b>	(UBC)
<b>Kadla, John</b>	(UBC)
<b>Kataoka, Yutaka</b>	(FFPRI, Tsukuba, Japan)
<b>Kiguchi, Makoto</b>	(FFPRI, Tsukuba, Japan)
<b>Köster, Heinz</b>	(Fachhochschule Rosenheim)
<b>Kozak, Robert</b>	(UBC)
<b>Lam, Frank</b>	(UBC)
<b>Mai, Carsten</b>	(Univ. of Göttingen)
<b>Maness, Thomas</b>	(UBC)
<b>Mansfield, Shawn</b>	(UBC)
<b>McFarlane, Paul</b>	(UBC)
<b>Militz, Holger</b>	(Univ. of Göttingen)
<b>Morris, Paul</b>	(Forintek)
<b>Mortimer, John</b>	(Stellenbosch Univ., S.Africa)
<b>Prion, Helmut</b>	(UBC)
<b>Romilly, Douglas</b>	(UBC)
<b>Ruddick, John</b>	(UBC)
<b>Rypstra, Tim</b>	(Stellenbosch Univ., S.Africa)
<b>Schajer, Gary</b>	(UBC)
<b>Scholte, David</b>	(Consultant)
<b>Smith, Greg</b>	(UBC)
<b>Yellowly, Ian</b>	(UBC)

## CENTRE FOR APPLIED CONSERVATION RESEARCH



**Peter Arcese**  
BA, MSc, PhD  
Co-Director  
604-822-1886  
peter.arcese@ubc.ca



**Sarah Gergel**  
BS, PhD  
Co-Director  
604-827-5163  
sarah.gergel@ubc.ca

**I**NCREASING DEMAND for natural resources makes the maintenance of healthy, sustainable forests a key challenge for the future. To address this challenge, Dr Fred Bunnell and Dean Clark Binkley established the Centre for Applied Conservation Biology in 1991. Over the past 18 years, our faculty, post doctoral fellows and graduate students have build a reputation for excellence in biodiversity conservation research. In 2001 we became the Centre for Applied Conservation Research (CACR) under the direction of Dr John Innes, reflecting a broader mandate to incorporate social and economic issues into applied conservation research. Dr Peter Arcese and Dr Sarah Gergel now share CACR directorship and draw from across campus, and other universities, for collaborations improving the conservation of species, ecosystems, and landscapes and the responsible management of natural resources.

### HIGHLIGHTS OF 2008 – 09 AND FUTURE EVENTS

#### FIA – FSP Graduate Student Scholar's Symposium

CACR continued in its role of helping oversee a new program for graduate student research. In 2006/07, the FIA-FSP established a competitive, 3-year pilot project to facilitate academic research by graduate students on applied topics in forest science and conservation. The key goal of the pilot project is ensuring that future forest scientists in British Columbia gain 'real-world' experience working with managers while conducting cutting-edge research critical to the development of sound resource management policy.

The FIA-FSP Scholar's Symposium, organized by Peter Arcese, celebrated the collaborative research of the 10 exceptional graduate student scholars funded through the program. The luncheon and seminar series included graduate students from CACR, Simon Fraser University, University of Northern BC, as well as their industrial and government collaborators. Presentations from UBC graduate students included Julia Chandler (Simard Lab), "Ecosystem recovery after disturbance: thresholds for biodiversity and resiliency indicators," as well as Robbie Hember (Coops Lab), "Effects of climate on the forest carbon balance of coastal British Columbia." A description of the scholarship program can be found at: [www.cortex.ca/fia-fsp/res-gsp.html](http://www.cortex.ca/fia-fsp/res-gsp.html).

#### Eye on the Parks: CACR Research in Canada's National Parks

CACR is involved in a diversity of projects that help monitor, manage and understand the dynamics of Canada's diverse National Parks which span a wide range of ecosystems. Examples include a current project in Gulf Islands National Park Reserve led by Nicholas Coops which combines hyperspectral and LiDAR remotely sensed data to map the distribution of tree species and forest structure. The new techniques will improve the ease by which park managers

obtain and update detailed species and forest structural information. Another project encompasses all national parks in Western Canada and quantifies the accuracy of Landsat data in predicting burn severity across the landscape. This research will help fire managers and ecologists by providing accurate, detailed geographic data regarding the effects of wildland fire on various ecosystem patterns and processes. Peter Arcese continues to collaborate with Parks Canada to develop software tools to aid in the identification of critical habitat for Species-at-Risk, map distributions of breeding birds in the Southern Gulf Islands, and identify baseline plant communities for conservation and as benchmarks for restoration.

Trevor Lantz (PDF in the Gergel Lab) has been working in the Old Crow Flats in Vuntut National Park. The 'Crow Flats' have been significant to the Vuntut Gwitchin for millennia who rely on the area's thousands of shallow lakes and landscape mosaic of wetlands, tundra and woodland habitat essential for moose, furbearers and waterfowl. Local observations have raised concerns that climate warming will alter these ecosystems and negatively impact the health and culture of this community. Trevor is using air photos and satellite imagery to document rates of lake drainage, as well as and field sampling to explore changes in plant successional dynamics on former lake basins. Other work in the Gergel Lab included reconstruction of ecosystem baseline conditions and historic levels of landscape heterogeneity in and around Pacific Rim National Park using historical aerial photographs. Historic photographs provide the most detailed, high-resolution and spatially-continuous record of the pre-harvest landscape in coastal BC (1930s) and are useful in guiding restoration plans.

#### Coffee House

CACR and others helped organize another successful Coffeehouse event highlighting the musical, performance, humour and other creative talents of our members.

#### Research Groups and Projects

##### Climate Change and Biodiversity

Fred Bunnell, founder and former director of CACR, and his colleagues continued their work on effects of climate change on biodiversity, primarily focused on wetlands. They also are assisting the BC Ministry of Environment and the forest industry with application of the recently adapted provincial conservation framework that was developed by Fred and coworkers.

##### Environmentalism in Canada

David Tindall and his research team recently conducted nation-wide social surveys of the general public, and environmental organization members, regarding attitudes about protected areas and parks, as well as other environmental issues. This is part of a larger project examining environmentalism in Canada.

Centre for Applied  
Conservation Research  
Forest Sciences Centre  
3004-2424 Main Mall  
Vancouver, BC V6T 1Z4  
Fax: 604-822-5410  
[www.forestry.ubc.ca/conservation](http://www.forestry.ubc.ca/conservation)

## Conservation and Development in Africa

Rob Kozak, Joleen Timko, and others have started the AFRICAD initiative which aims to pursue conservation-based approaches that address poverty alleviation and local livelihood development in forested areas of significant biodiversity value in sub-Saharan Africa.

## Conservation Policy

Paul Wood has been continuing his work on the ethics and social acceptability of using genomic tools in reforestation, and has started on a separate project to examine the ethics of using genomic tools in salmon management. He and his students have also been working on stakeholder involvement in groundfish management, professional ethics, and how best to implement the Supreme Court's requirements for consultation and accommodation of First Nations' interests when proposed developments may impact their traditional territories.

## Remote Sensing, Biodiversity and Terrestrial Ecosystem Mapping

Nicholas Coops is leading projects applying remote sensing to forest growth and biodiversity issues, including modelling mountain pine beetle damage and mapping biodiversity using satellite data. Of recent interest is the integration of hyperspectral remote sensing and LIDAR data to produce a TEM-based classification of Gulf Islands National Park Reserve in BC (explained above). The Gergel Lab explored the utility of imagery from the QuickBird high-spatial resolution satellite to aid TEM in coastal BC, and explored the role of TEM misclassification error in influencing estimates of ecosystem productivity.

## Wildlife Biodiversity after the Bark Beetle Epidemic

Since 1995, Kathy Martin and students have studied wildlife ecology in the Interior mixed forests that support high biodiversity. Over 40% of wildlife species show significant population trends in relation to forest health with the largest change in resident cavity nesters. Current students will study the impacts on cavity nesters in post-beetle epidemic forests.

## Belowground Ecosystem Group's Soil Biodiversity Research

Sue Grayston, Cindy Prescott, Suzanne Simard, Chris Chanway and students are exploring the links between the composition and diversity of soil microbial communities and key processes in the cycling of carbon and nutrients in forest ecosystems. Current projects include assessing variable retention harvesting as a tool to maintain soil functions and productivity in coastal forests, fertilizing forests as a means of increasing sequestration of carbon in soil, recreating a functioning forest soil in reclaimed oil sands sites in Alberta, using stable isotope probing to identify keystone species in soil food webs and

understanding how soil fauna such as ants and millipedes interact with microbial communities to influence carbon flows and nutrient cycling in BC forests.

## Stream and Riparian Research Laboratory

John Richardson continues to lead collaborators on the ecology and management of riparian-stream ecosystems, including the influence of reserve strips, ecology of invertebrates and amphibians, and resource limitation in streams.

## Centre for Forest Conservation Genetics

The Centre's mandate is to study population and ecological genetic structure of indigenous forest tree species, assess the current degree of genetic conservation in both nature reserves and collections, and evaluate genetic diversity in populations of forest trees to meet current and future environmental challenges. The CFCG is also the home of the climate model ClimateBC, and is undertaking a variety of research to predict the fate of BC's native tree populations and ecological zones in a rapidly changing climate.

## Salmon Migration and Fish/Forestry Research

Scott Hinch and colleagues are using physiological biopsy telemetry and lab experiments to study salmon migration behaviour and swim performance, and reveal limitations to ocean and river survival. Long-term field experiments in both southern coastal and northern interior regions of BC are being used to study the impacts of riparian forest practices on fish and habitat in small streams, and the processes of recovery.

## Sustainable Forest Management Research Laboratory

Led by John Innes, this lab is an interdisciplinary research unit focusing on sustainable forest management through an understanding of both human and natural systems. Research projects in Canada, China, Brazil, Mexico, Australia and South Africa focus on forest certification, criteria and indicators, effectiveness monitoring, climate change, cumulative impact assessment, geomorphologic processes, biodiversity and social and cultural indicators for resource-dependent and First Nation communities.

## The Genetic Data Centre

Directed by Carol Ritland, this group conducts state-of-the art DNA genotyping and sequencing, including projects on coat colour and population structure of Kermode bears, killer whales on the west coast, Alaskan carnivores, western tent caterpillars and social spiders.

## UNIVERSITY RESEARCH FORESTS

**T**HE FACULTY OF FORESTRY operates three Research Forests: The Malcolm Knapp Research Forest near Maple Ridge on the coast, the Alex Fraser Research Forest near Williams Lake in the central interior of BC and the Aleza Lake Research Forest, near Prince George (jointly operated with the University of Northern British Columbia).

The mission of the Research Forests is to support the Faculty of Forestry, other partner universities and research organizations in serving the people of BC through teaching and research. This is accomplished by hosting research from a variety of disciplines in order to create teaching opportunities for students from UBC, other post-secondary institutions and continuing education programs.

The location of the forests, covering eight diverse biogeoclimatic subzones and three tenure systems, offers a variety of research and education opportunities.

### ACHIEVEMENTS IN 2008 – 09



**Bruce Larson**  
AB, MFS, PhD

Chair, Research Forests  
Advisory Committee  
604-822-1284  
bruce.larson@ubc.ca



#### **MALCOLM KNAPP FOREST**

**Paul Lawson**  
BSF, MBA, RPF  
Manager  
paul.lawson@ubc.ca

- Initiated 16 new research projects.
- Participated in the development and review of the Forest Management Plan for Stanley Park.
- Employed one forestry student in a 4-month internship and hosted one volunteer intern from Germany.
- Completed construction of the 650 m<sup>2</sup> Charlie and Sue Johnson Cabins at Loon Lake.
- Began construction of the Norm and Betty Pelton Rotary Field washrooms at the entrance to Loon Lake.
- Increased Loon Lake facility use to 17,990 overnight stays in 2008 from 9,900 in 2003.
- Hosted the Faculty's Spring Field School and Conservation Field School.
- Hosted 250 children and over 300 volunteers at the fifth Canadian Cancer Society Camp Goodtimes held at Loon Lake.
- Completed a yield analysis of the Knapp Forest in conjunction with Dr John Nelson and his graduate student Simón Moreira-Munoz.
- Cut over 426,000 board feet of lumber at our sawmill facility.
- Completed silviculture surveys on 151 ha, brushing and deer protection installation on 29 ha, and planting of 56,800 trees on 35 ha.
- Constructed 1,664 m of new roads, and upgraded 250 m of old railroad grade.
- Upgraded wireless internet service to Loon Lake in order to replace the computer lab.
- Successfully completed an audit under the Province of BC Forest Revenue Audit Program.



#### **ALEX FRASER FOREST**

**Ken Day**  
BScF (Hons), MF, RPF  
Manager  
ken.day@ubc.ca

- Initiated 13 new research projects.
- Acquired LiDAR and hyperspectral data.
- Recorded 343 contact days for extension with 256 attendees, including Fall Field School.
- Employed one UBC Forestry student and hosted one international intern.
- Led 10 tours for researchers, professionals, students, teachers and donors.
- Improved interpretive signage facilitating knowledge transfer and increased public awareness.
- Continued silviculture operations with regeneration surveys on 69.8 ha and planting of 62,000 seedlings on 54.3 ha.
- Built 1.4 km of new permanent road, and spot graveled 2.7 km.
- Replaced bridge deck using forest timbers in cooperation with West Fraser Mills.
- Prescribed burned 2.0 ha of grassland restoration site.
- Completed fuel management plans under contract to City of Williams Lake and Cariboo Regional District.
- Continued managing the application process for the Williams Lake Community Forest in cooperation with the Williams Lake Indian Band.
- Completed 11 contracts for government, consultants and industry including fuel reduction treatments for Williams Lake and regional district, evaluating biofuel production from logging debris, extension product development, bird monitoring, and Forests For Tomorrow underplanting.
- Participated on boards for the Gavin Lake Forest Education Society, local Invasive Plant Committee, and Southern Interior Silviculture Committee.

#### **Malcolm Knapp Research Forest**

PO Box 21120  
14500 Silver Valley Road  
Maple Ridge, BC V2X 1P7  
Phone: 604-463-8148  
Fax: 604-463-2712

#### **Alex Fraser Research Forest**

72 S. 7th Avenue  
Williams Lake, BC V2G 4N5  
Phone: 250-392-2207  
Fax: 250-398-5708

#### **Aleza Lake Research Forest**

3333 University Way  
Prince George, BC V2N 4Z9  
Phone: 250-960-6674/6339



## ALEZA LAKE FOREST

**Michael Jull**  
BSF, MSc, RPF  
Manager  
jullm@unbc.ca

- Initiated 7 new projects.
- Recorded over 250 visitor days for forest education.
- Co-hosted a workshop on LiDAR with UBC UNBC, BC MoFR, and FORREX.
- Led 7 field visits for research, educational and technical audiences.
- Hosted the Council of Forest Industries Natural Resources Workshop for Grade 11/12 students.
- Remeasured 34 permanent sample-plots in partial cut stands to monitor forest growth.
- Planted over 117,000 spruce and Douglas-fir.
- Completed silviculture surveys on 70 ha. and backlog manual brushing on 47 ha. of pre-1987 cutblocks through Forests for Tomorrow.
- Completed an FSP-funded 2-year regional study of the long-term dynamics of Douglas-fir leave-trees in the SBS zone, including Aleza sites.
- Employed one outdoor recreation and tourism management university student for four months.
- Funded 2 faculty seed grants.
- Edited a historical memoir of Aleza Lake Experiment Station authored by John Revel RPF.
- Built a new forest ecology demonstration trail, parking lot and information kiosk, with support from the regional district and businesses.
- Helped launch the Northern Amphibian Monitoring Outpost Society of BC.

## PLANS FOR 2009 – 10

### Malcolm Knapp Forest

- Open the Charlie and Sue Johnson cabins and complete the Norm and Betty Pelton Rotary Field at Loon Lake.
- Install a “Camp Host” residence.
- Increase Loon Lake visitor days based on improved accommodations and marketing.
- Expand Camp Goodtimes to accommodate 300 children and 350 volunteers annually.
- Increase timber harvest levels to 26,000 m<sup>3</sup>.
- Prepare a Woodlot License Plan for Woodlot 37.
- Update the Research Forest Management Plan.

### Alex Fraser Forest

- Continue management and supervision of local fuel hazard reduction operations.
- Continue diversifying revenue streams, including sales, services and funded projects.
- Develop business plan incorporating long-term strategic planning.
- Submit application for Williams Lake Community Forest.
- Minimize timber harvest levels.
- Continue bioenergy research opportunities.
- Initiate forest cover inventory project.

### Aleza Lake Forest

- Install interpretive signs on new trail.
- Update ALRF Research and Education strategies.
- Complete a new timber supply analysis and first phase of total-resource planning for the ALRF.
- Coordinate plans for research and education facilities on the Aleza Forest.
- Co-host the BC Forest History Association AGM and conference.

### Research Forests harvesting 2008

	Knapp	Fraser	Aleza	Total
Logging	m <sup>3</sup> 17,966 ha 33	2,392 9.6	11,600 42	<b>31,958</b> <b>84.6</b>
Commercial Thinning/Partial Cutting	m <sup>3</sup> 4,648 ha 15	4,893 66.2	0	<b>9,541</b> <b>81.2</b>
Road Right-of-Way	m <sup>3</sup> 2,080	1,308	0	<b>3,388</b>
Salvage	m <sup>3</sup> 92	4,905	0	<b>4,997</b>

Knapp Forest utilized a variety of harvest methods in 2008 including ground based and skyline. Silvicultural systems ranged from clearcut with reserves to variable retention. Commercial thinning was carried out on two blocks, but was curtailed due to market conditions.

Due to increasingly poor market conditions for wood products through the year, the Fraser Forest relied more than ever on contracts for consulting services to augment its operating income.

### FOREST STAFF

**Cheryl Power**  
BSF, RPF  
Resident Forester  
Malcolm Knapp Research Forest  
cheryl.power@unbc.ca

**Cathy Koot**  
BSc, RPBio  
Research Coordinator  
Alex Fraser Research Forest  
cathy.koot@unbc.ca

**Melanie Karjala**  
MNRES  
Research Coordinator  
Aleza Lake Research Forest  
karjal0@unbc.ca

**A** LONGSIDE THEIR TEACHING and research commitments, most Faculty members have committee responsibilities with off-campus organizations and groups. These involvements are listed below together with various distinctions and awards (in bold-face type) bestowed on Faculty members during the past year.

**AITKEN, S.N.**

- Deputy Coordinator 2.04.01 – Population, ecological and conservation genetics.
- Member, Genetic Conservation Technical Advisory Committee, Forest Genetics Council of BC.
- Associate Editor, Tree Genetics and Genomes.
- Member, CTIA-IUFRO Quebec 2008 Scientific Advisory Committee.
- Member, Organizing Committee, WT Adams Symposium, Western Forest Genetics Association 2009.
- Member, Organizing Committee, IUFRO Tree Biotechnology Conference Whistler 2009.

**AVRAMIDIS, S.**

- Member, Editorial Board, Drying Technology.
- Member, Editorial Board, Wood Materials Science and Engineering.
- Member, Editorial Board, Maderas. Ciencia y Tecnologia.
- Member, Editorial Board, Prerada Drveta (Wood Processing).

**BOHLMANN, J.**

- **CD Nelson Award, Canadian Society of Plant Physiologists.**

**BREUIL, C.**

- **George Marra Award Distinction.**
- Associate Editor, Mycological Research.
- Fellow, Institute of Wood Science.

**COOPS, N.C.**

- Canadian Research Chair in Remote Sensing.
- Adjunct Faculty, Oregon State University.
- Editor-in-Chief, Canadian Journal of Remote Sensing.

**EL-KASSABY, Y.A.**

- Associate Editor, Canadian Journal of Forest Research.
- Member, Editorial Board, International Journal of Forest Research.
- Coordinator, Biotechnology Task Force, IUFRO.

**EVANS, P.**

- BC Leadership Chair.
- Adjunct Professor, The Australian National University.
- Visiting Professor, SP Tratek, Sweden.
- Fellow, International Academy of Wood Science.
- Fellow, Institute of Wood Science.

- Associate Editor, Wood Science & Technology.
- Member, Wood-based Composites Centre Research Committee.

**GERGEL, S.E.**

- Elected Councillor-at-Large, International Association for Landscape Ecology, US Chapter.

**GRAYSTON, S.J.**

- Canada Research Chair in Soil Microbial Ecology.
- Associate Editor, Canadian Journal of Forest Research.
- Associate Editor, Soil Biology & Biochemistry.
- Associate Editor, Canadian Journal of Soil Science.

**GUY, R.D.**

- Past President, Canadian Society of Plant Physiologists
- Managing Editor, TREES Structure & Function

**HINCH, S.G.**

- Opponent PhD Dissertation, Swedish University of Agricultural Sciences, Umea, Sweden.

**INNES, J.L.**

- Vice President for Policy, IUFRO.
- Member, Executive Board, IUFRO.
- Member, Management Committee, IUFRO.
- Member, Congress Scientific Committee, IUFRO.
- Vice Chair, Commonwealth Forestry Association.
- Member, General Purposes and Finance Committee, Commonwealth Forestry Association.
- Member, Publications Committee, Commonwealth Forestry Association.
- Member, Sustainable Forestry Board.
- Member, Resource Committee, Sustainable Forestry Board.
- Member, Sustainable Forestry Initiative Objective 8 Task Force.
- Member, Board of Directors, FORREX.
- Chair, International Committee, FORREX.
- Member, Collaborative Partnership on Forests, Team of Experts on Adaptation of Forests to Climate Change.
- Member, Board of Experts, Committee for Research Evaluation, Italy.
- Member, Scientific Advisory Committee, C-Questor.
- Member, Interdisciplinary Committee, World Cultural Council.

- Member, Sustainable Use Specialist Group, IUCN/SSC.
- Associate Editor, *Dendrochronologia*.
- Member, Editorial Advisory Board *International Forestry Review*.
- Member, Editorial Advisory Board *Forest, Snow and Landscape Research*.
- Member, Editorial Advisory Board *Environmental Conservation*.

#### **KADLA, J.F.**

- Canada Research Chair in Advanced Biomaterials.
- Editor, *Journal of Wood Chemistry and Technology*.
- Fellow, International Academy of Wood Science.
- Member, Executive Committee, ACS CELL Division.
- Member, Scientific Program Committee, INWFPPC.
- Member, Scientific Program Committee, ISETPP.
- Member, Scientific Program Committee, ISWPC.

#### **KOZAK, R.A.**

- Fellow, Institute of Wood Science.
- Editor, *Journal of Forest Products Business Research*.
- Associate Editor, *Canadian Journal of Forest Research*.
- Deputy, Working Group 5.10.100, International Union of Forest Research Organizations.
- Member, Team of Specialists on Forest Products Marketing, UN Economic Commission for Europe.

#### **KRZIC, M.**

- Western Councilor on the Canadian Society of Soil Science executive

#### **LAM, F.**

- Fellow, International Academy of Wood Science.

#### **LEMAY, V.M.**

- Co-ordinator, IUFRO 4.01.
- Associate Editor, *Forest Science*.
- Associate Editor, *Forestry Chronicle*.
- Co-ordinator, IUFRO 4.01.
- Member, Scientific Committee for Meeting in Quebec, IUFRO.
- IUFRO Conference on Experimental Design, Switzerland.
- IUFRO Conference on Measurements and Management, Australia.

#### **LYONS, K.C.**

- Member, Editorial Board, *International Journal of Forest Engineering*.
- Member, Joint Practices Board, ABCFP, APEGBC.

#### **MANSFIELD, S.D.**

- Associate Faculty, Department of Botany.
- Chair, Society of Plant Physiologist, Tree Physiology Award Committee.
- Associate Editor, *BioEnergy Research*.
- Co-Chair, Conference Committee, IUFRO Tree Biotechnology.
- Member, International Scientific Committee for the International Conference on Biotechnology in the Pulp and Paper Industry.
- Member, American Chemical Society, Renewable Resources and Cellulose Division.
- Fellow, International Academy of Wood Science.
- Member, Editorial Board, *Holzforschung*.
- Member, Editorial Board, *Journal of Industrial Microbiology and Biotechnology*.

#### **MARSHALL, P.L.**

- 1st Vice President, Canadian Institute of Forestry.
- President, Canadian Institute of Forestry.
- Associate Editor, *Forestry Chronicle*.
- Member, Canadian Forestry Accreditation Board.
- Canadian Institute of Forestry Representative, Canadian Federation of Professional Forestry Associations

#### **MARTIN, K.**

- **Doris Huestis Speirs Award for Outstanding Lifetime Contributions to Canadian Ornithology, 2008.**
- Associative Editor, *Avian Conservation and Ecology*.
- Member (representative for Canada), International Ornithological Committee.
- Member, Canadian Society of Ecology and Evolution Council.
- Chair, 11th International Grouse Symposium, 2008.
- Member, BC Spotted Owl Population Enhancement Team, BC Govt.
- Member, Williamson's Sapsucker Species at Risk Recovery Team, Canada.
- Member, Canadian Society for Ecology and Evolution Conference, Vancouver, 2008.

#### **McFARLANE, P.**

- Elected Fellow, International Academy of Wood Science.
- Member, Editorial Board, *APPITA Journal*.
- Member, Editorial Board, *New Zealand Journal of Forestry Science*.

- Fellow, Institute of Wood Science.
- Member, Policy and Critical Issues Committee, Society of Wood Science and Technology.
- Member, Consortium Review Committee, FRST, New Zealand.
- Member, Program Review Committee, FRST, New Zealand.

#### **MITCHELL, S.J.**

- Editor, *Forestry: An international Journal*.
- Member, IUFRO Unit 8.01.11, Wind and Trees.
- Member, Organizing Committee, International Conference on Wind Effects on Trees, Freiburg.
- Member, Organizing Committee, International Workshop on Windthrow Risk Modelling, Montpellier.

#### **MOORE, R.D.**

- Representative, Canadian to International Association of Hydrological Sciences.
- Associate Editor, *Proceedings of the National Academy of Science*.
- Associate Editor, *Canadian Journal of Forest Research*.

#### **PRESCOTT, C.E.**

- Member, Future Forest Ecosystems Scientific Council.
- Member, Forest Science Board.
- Editor, *Canadian Journal of Forest Research*.
- Associate Editor, *Ecosystems*.
- Chair, Environment Review Panel, Academy of Finland.

#### **RICHARDSON, J.S.**

- Associate Editor, *Journal of Applied Ecology*.
- Associate Editor, *Canadian Journal of Fisheries and Aquatic Sciences*.

#### **RITLAND, K.**

- Guest Professor, SLU, Umea Sweden.
- Associate Editor, *Heredity*.

#### **RUDDICK, J.N.R.**

- Honorary Life Member, International Research Group on Wood Protection.
- Life Member, Canadian Wood Preservation Association.
- Long Service Award, Canadian Standards Association.

#### **SADDLER, J.N.**

- Fellow, Royal Society of Canada.
- Editor, *World Journal Microbiology and Biotechnology*.
- Task Leader, IEA Biotechnology Network.
- Member, US DoE Biofuels Review Program.
- Program Reviewer, US Department of Energy, Bioenergy Progress.
- Task Leader, IEA Bioenergy.
- Program Reviewer, Food and Agriculture Organization.

#### **SHEPPARD, S.R.J.**

- **Distinguished Scholar in Residence, Peter Wall Institute for Advanced Studies.**
- Member, Expert Panel on Visualization, Faro Mine Project, Yukon.

#### **SMITH, G.D.**

- Fellow, Institute of Wood Science.
- Member, Society of Wood Science and Technology.
- Member, ASTM International Technical Committees D07.03 and D14.30.

#### **SOWLATI, T.**

- President, Canadian Operational Research Society Vancouver Chapter.
- Member, Canadian Operational Research Society.
- Member, Editorial Board, *International Journal of Applied Management Science*.
- Member, Editorial Board, *International Journal of Data Analysis Techniques and Strategies*.
- Member, Institute of Industrial Engineers.
- Member, College of Reviewers, MITACS.
- Board Member, Sharif University of Technology Association, Vancouver Chapter.
- Member, Society of Canadian Women in Science and Technology.
- Member, Forest Products Society.
- Member, Canadian Biosystems Engineering.
- Member, American Society of Agriculture and Biological Engineering.
- Member, Association of Professional Engineers and Geoscientists of British Columbia

#### **TROSPER, R.**

- Associate Editor, *Ecology and Society*.
- Member, Task Force on Traditional Knowledge, IUFRO.



Sugar maple, *Acer saccharum* Marsh.  
Flowers.

# EXTRAMURAL FUNDING AND SPONSORED RESEARCH

## INCOMES

Between April 1, 2008 and March 31, 2009 members of our faculty were awarded a total of almost \$13.5 million in research funding. This represents an increase of 1.5% over the previous year.

Federal funding was down by 10.6% and represented 36.9% of our total funds received. Members of the faculty held 18 NSERC Strategic grants, 2 Collaborative Research and Development grants, 2 Special Research Opportunity grants, 1 Industrial Research Chair, 31 Discovery grants, 2 SSHRC grants and 15 Networks of Centres of Excellence awards, mostly from the Sustainable Forestry Management NCE. Natural Resources Canada contributed \$1.1 million, mostly in support of research related to the mountain pine beetle problem. Canada Research Chair awards (Grayston, Coops, Mansfield, Kadla) contributed another \$400,000.

Provincial funding increased again this year for a total of over \$6.9 million, an increase of 23.1% from 2007/08. Provincial funding represented 51.5% of our total research funding. One third of our provincial funding was in the form of research awards through the Forest Sciences Program (49 projects totaling over \$2.3 million). The BC Ministry of Forests and Range funded an additional 21 projects for a total of \$1,570,811 (a rise of 126% from 2007/08). Forestry Innovation Investment funds supported 4 projects related to mountain pine beetle research for a total of \$679,884. Four research projects (Guy, Hinch, Saddler, Simard) were funded through Genome BC for a total of over \$1.5 million.

Private funding support for research contributed almost \$1.3 million through 38 projects. The largest industry supporters were the Coast Forest Products Association who funded 2 projects for a total of \$80,000 (Barrett and Avramidis), FP Innovations who funded 2 projects (Nelson and Maness) for a total of \$178,092 and Novoenzymes Inc. who

<i>Extramural funding sources 2008 – 09*</i>			
Source	\$000	Count	%
<b>Federal</b>			
Tri-Council	2,592	57	19.2
Natural Resources Canada	1,112	16	8.2
Network Centres of Excellence	498	15	3.7
Canada Research Chairs	400	4	3.0
Environment Canada & Parks Canada	228	5	1.7
Other	144	5	1.1
<i>Subtotal</i>	<i>4,974</i>	<i>102</i>	<i>36.9</i>
<b>Provincial</b>			
Forest Science Program	2,302	49	17.1
BC Ministry of Forests & Range	1,571	21	11.6
Genome BC	1,522	4	11.3
Forestry Innovation Investment - MPB	680	4	5.0
Forest Genetics Council	220	1	1.6
BC Ministry of Environment	180	4	1.3
SRD Alberta	100	1	0.7
BC Investment Council	92	1	0.7
Other	283	9	2.1
<i>Subtotal</i>	<i>6,950</i>	<i>94</i>	<i>51.5</i>
<b>Private</b>			
Industry	785	24	5.8
Other	471	14	3.5
<i>Subtotal</i>	<i>1,256</i>	<i>38</i>	<i>9.3</i>
<b>International</b>			
	314	6	2.3
<b>Total</b>	<b>13,493</b>	<b>240</b>	<b>100.0</b>

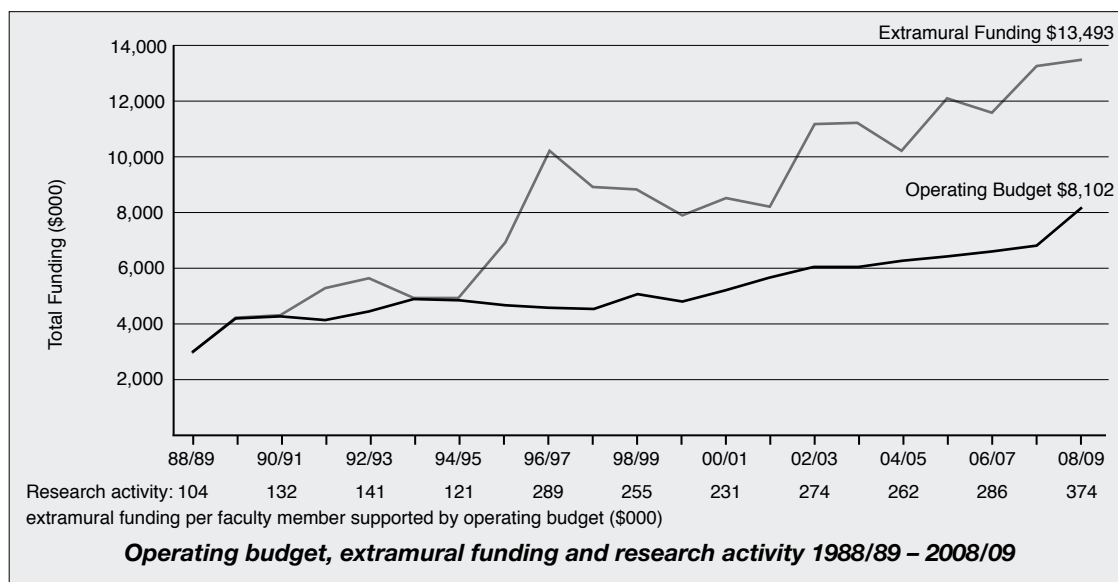
funded a \$149,040 project on the bioconversion of lignocellulosics to ethanol (Saddler).

International research support was down in 2008/09 to \$314,010, equivalent to 2.3% of our total research funding.

We also received endowment income of \$1.8 million for 2008/09, down by 3.1% from the previous year. This funding is provided by endowments originally set up by Forest Renewal BC in support of five chairs, as well as from private sectors.



**Cindy E. Prescott**  
BSc (Hons), MSc, PhD  
Associate Dean  
Graduate Studies and Research  
604-822-4701  
cindy.prescott@ubc.ca



## OUTCOMES

In the past year faculty members authored 178 articles in 104 scientific peer-reviewed journals.

Faculty members serve as senior editors for six international peer-reviewed journals (Canadian Journal of Remote Sensing, TREES – Structure and Function, Journal of Wood Chemistry and Technology, Journal of Forest Products Business, Forestry: An International Journal and the Canadian Journal of Forest Research). As well, eight faculty members serve as associate editors of ten different journals and 23 individuals serve on editorial boards of over 30 journals across the spectrum of forest-related journals.

Faculty members made presentations at over 50 scientific conferences outside Canada including Japan, Finland, France, China, Australia, Sweden,

Slovenia, England, Germany, Portugal, Belize, Argentina, Austria, India and the USA. Over 80 talks were given to professional groups within Canada.

During the past year 28 faculty members welcomed 80 visiting researchers from 27 countries. Twenty four of our faculty members hosted a total of 44 post-doctoral fellows.

Twenty five of our faculty members were engaged in a total of 55 grant reviews for outside funding agencies during the year.

Faculty members have made 13 presentations to the media on diverse topics including Aboriginal timber rights, short-rotation fibre plantations, forest-dependent communities, carbon offsets, eagle habitat loss global warming, grain gasoline and sustainability.

The following list reflects research funding obtained between April 1, 2008 and March 31, 2009.

### AITKEN, S.N.

- Proposal to establish a Centre for Forest Gene Conservation at the University of British Columbia (**BCMof&R, \$303,000**)
- Population genomics of cold adaptation in spruce (**NSERC, \$34,000**)
- Niche-model approaches for projecting climate change impacts on BC's ecosystems and native tree species (**BCMof&R, \$25,000**)
- Potential impacts of climate change on the distribution of ecosystems and tree species in BC (**BCMof&R, \$40,000**)
- Climate BC (**BCMof&R, \$12,000**)
- Conifer forest health genomics (**co-investigator**) (**Genome British Columbia, \$1,349,107**)

### ALILA, Y.

- Forest management effects on flooding in rain-on-snow coastal British Columbia: an innovative experimental-numerical modelling approach (**NSERC, \$39,000**)
- Hydrometric stations in Baker Creek watershed (**BCMofE, \$15,000**)

### ARCESE, P.

- Capital improvements and support to field research on Mandarte Island (**Donation, \$15,000**)
- Application of ecological and evolutionary theory to the conservation of populations and species (**NSERC, \$48,300**)
- Forest science ecosystem research pilot project (**BCMofE, \$125,000**)
- Reconstructing historic diets and population dynamics of the Marbled Murrelet (**FSP, \$46,872**)
- 150 years of ecological change in the Georgia Basin: historic reconstruction of seabird diets and demography (**UBC Killam Faculty Research Fellowship, \$3,000**)

### AVRAMIDIS, S.

- Modeling of wood thermo-sorptive behavior with artificial neural networks (**NSERC, \$28,000**)
- Modeling stress development in wood drying for process optimization (**NSERC, Forintek Canada Corp., \$30,000**)
- Development of novel hollow core composite panels (**NRC, \$65,435**)
- Reducing grain rise from waterborne finishes (**NRC, \$49,800**)
- Pasteurization of lumber using dielectric heating (**COFI, \$37,170**)
- Eliminating wet-spots in BC coastal hemlock lamstock. Phase 2: evaluation of NIR technology to detect wet-spots (**CFPA, \$60,000**)
- Assessment and optimization of radio frequency heating technology as treatment to protect Canadian green log and timber exports by killing microbes and other pests (**NSERC, \$126,600**)
- Moment resistance of timber connections with perpendicular to grain reinforcements (**NRC, \$50,600**)
- Reducing variation in stained veneer panels used by furniture and cabinet industries (**NRC, \$43,470**)
- Value to wood scheme; reducing colour variation in stained veneer panels used by furniture and cabinet industries (**co-investigator**) (**NRCAN, \$43,470**)

### BARRETT, D.

- Machine evaluated hemlock lamina trial (**CFPA, \$20,000**)

### BEATSON, R.

- Genetic control of arabisopsis fibre properties (**NSERC, \$26,000**)

### **BOLHLMANN, J.**

- Mountain pine beetle epidemic-Using genomics of the interacting bark beetles, fungal pathogens and host trees to improve forest ecological risk models (**co-investigator**) (**Genomes British Columbia and Alberta, \$4,063,500**).
- Conifer forest health genomics (**co-investigator**) (**Genome British Columbia, \$1,349,107**)

### **BREUIL, C.**

- Exploring how the mountain pine beetle fungal associate *Ophiostoma clavigerum* overcomes lodgepole pine defenses (**NSERC, \$30,000**)
- Indicators of conifer forest health in bark beetle-vectored fungal epidemics (**NSERC, \$80,000**)
- Mountain pine beetle epidemic-Using genomics of the interacting bark beetles, fungal pathogens and host trees to improve forest ecological risk models (**co-investigator**) (**Genomes British Columbia and Alberta, \$4,063,500**).
- Assessment and optimization of radio frequency heating technology as treatment to protect Canadian green log and timber exports by killing microbes and other pests (**NSERC, \$126,600**)

### **BULL, G.Q.**

- Biodiversity conservation in Afghanistan project (**U.S. AID, \$21,395**)

### **BUNNELL, F.L.**

- Future vegetation structure and vertebrate distributions based on changes in moisture balance and temperature (**FSP, \$49,140**)
- Evaluating effectiveness of forest management practices at sustaining biological diversity in northeastern British Columbia (**FSP, \$43,308**)
- Quantitative synthesis of abundance, fall rates and decay rates of snags and down wood in BC's forests (**FSP, \$9,720**)
- Developing and validating habitat-based management models for species at risk in northeastern BC (**FSP, \$40,435**)
- Using few species to assess the sustainability of many species (**FSP, \$46,157**)
- Assessing the effects of climate change on wetlands and waterfowl in the BC Interior (**Environment Canada, \$40,000**)

### **CHAN-MCLEOD, A.**

- Decision support tool for managing biodiversity and ecosystem resilience in mountain pine beetle susceptible landscapes (**NRC, \$130,700**)
- An experimental study of variable-retention harvest methods on forest birds (**Western Forest Products Ltd., FSP, \$69,501**)

### **CHANWAY, C.P.**

- Nitrogen balance in pine forests: comparing the efficacy of nitrogen fixing endophytes above and below ground (**NSERC, \$15,000**)

### **COHEN, D.**

- From forest certification to corporate responsibility: adapting to changing global factors (**co-investigator**) (**NRC, \$37,500**)

### **COOPS, N.C.**

- Canada Research Chair in Remote Sensing (**CRC, \$100,000**)
- Monitoring to reduce the future risk of mountain pine beetle attack: Aerial and satellite image processing methods (**NRC, \$60,000**)
- Predicting forest growth potential and climate change impacts using a MODIS satellite-constrained physiological model (**NSERC, \$95,528**)
- Canadian Carbon Program: 3-PG modelling (**Canadian Foundation for Climate and Atmospheric Sciences, \$30,000**)
- Image analysis to support grizzly bear mountain pine beetle research (**Foothills Model Forest, \$80,000**)
- Mapping of composite burn index for Canadian parks from remote sensing (**Parks Canada Agency, \$40,000**)
- The Forest and Range Evaluation Program – remote sensing scoping report (**BCMof&R, \$15,000**)
- Detection of vegetation canopy stress dynamics using integrated near-ground, and airborne remote sensing data over coastal and boreal forests (**NSERC, \$71,500**)

### **DAI, C.**

- Modeling bonding properties of wood-based composites (**NSERC, \$23,100**)

### **DAY, K.**

- Alex Fraser Research Forest (**FSP, \$32,778**)

### **EL-KASSABY, Y.A.**

- Industrial Research Chair in Applied Forest Genetics and Biotechnology (**FERIC, NSERC, industry, \$307,400**)
- Molecular breeding using forest trees as a model (**NSERC, \$39,000**)
- Applied forest genetics and biotechnology (**Forest Genetics Council of BC, \$220,000**)
- Quantitative genetic analyses of complex pedigrees with REML and GIBS sampling approaches (**BCMof&R, \$46,000**)
- Molecular breeding using forest trees as a model (**NSERC, \$39,000**)
- Elucidating conifer juvenility through functional genomics (**co-investigator**) (**BCMof&R, Minister of Sustainable Resource Development, Alberta, \$600,000**)

### **EVANS, P.D.**

- Wood products processing education (**AUCC, \$161,002**)
- Wavelength dependent photodegradation of wood (**NSERC, \$30,030**)

- Improving the stability of OSB manufactured from mountain pine beetle killed wood (NRC, \$143,800)
- Finishing of mountain pine beetle affected lodgepole pine wood (FII Ltd., \$64,312)
- ForValueNet project 4.3: Improving the performance of natural finishes on Canada's boreal wood species (NSERC, \$7,900)
- ForValueNet Project 4.1: Plasma treatment to improve the surface finishing characteristics of boreal wood species (NSERC, \$16,333)
- Value to wood scheme; reducing colour variation in stained veneer panels used by furniture and cabinet industries (co-investigator) (NRC, \$43,470)
- Value to wood scheme; reducing grain raising during the finishing of wood with water-borne coatings (NRC, \$49,800)

#### FANNIN, R.

- Piping erosion, and landslide travel distance (NSERC, 28,000)

#### FELLER, M.C.

- Recovery of stream physical and chemical properties from clearcutting and partial harvest riparian management (FSP, \$18,122)
- UBC Malcolm Knapp Research Forest experimental watersheds (FSP, \$7,560)
- Forest management to minimize impacts of forestry operations on streamwater quality - synthesis of the literature (FSP, \$2,500)
- Fire hazard research in Mount Revelstoke and Glacier National Parks (Parks Canada Agency, \$20,000)

#### GERGEL, S.E.

- Yeendoo nanh nakhweenjit k'art' ahanahyaa – Environmental change and traditional use of the Old Crow flats in northern Canada (NSERC, \$43,839)
- Analysis of historical aerial photos of the Interior Columbia Basin (National Oceanographic and Atmospheric Administration, \$19,110)
- Multi-scale assessment of river-floodplains (NSERC, \$17,500)
- Vegetation monitoring and protocol development (Indian and Northern Affairs Canada, \$23,730)

#### GRAYSTON, S.J.

- Canada Research Chair in Soil Microbial Ecology (CRC, \$100,000)
- Plant-microbe interactions in forest soils (NSERC, \$40,000)
- Green Crop Research Network – 2d Transforming plant carbon into soil carbon: process level controls on carbon sequestration (NSERC, \$32,250)
- Impact of nitrogen fertilization of coastal Douglas-fir stands in British Columbia on forest productivity, carbon sequestration and greenhouse gas emissions (NSERC, \$2,600)

- Potential of forest fertilization to alleviate effects of climate change-induced insect infestation (NSERC, \$40,450)
- Developing a new indicator of soil functioning for use in designing variable-retention harvesting (co-investigator) (FSP, \$66,068)
- Stable isotope and molecular biology laboratory for the identification and development of indicators of forest sustainability (CFI, \$119,989)
- Carbon-flux and plant-microbial community dynamics in low-Arctic tundra (co-investigator) (NSERC, \$128,814)
- In situ characterization of soil microbe function in an ICH chronosequence (BCMof&R, \$44,280)
- Green tree retention as a tool to maintain soil microbial diversity and function after harvest (co-investigator) (NSERC, \$96,000)
- Using a novel approach to determine when ICH forest soils become functionally mature (BCMof&R, \$25,000)
- SCHIRP: ecology and management of salal-dominated ecosystems in coastal B.C. (co-investigator) (BCMof&R, \$24,650)
- Nutrient biochemistry in Athabasca Oil Sands reclamation (co-investigator) (NSERC, \$15,000)

#### GUY, R.D.

- Comparative physiology of plant adaptation: C and N isotope discrimination and trade-offs in traits related to resource acquisition in black cottonwood (NSERC, \$44,000)
- Identification and selection of fast-growing poplar genotypes for carbon sequestration and biomass production (co-investigator) (BIOCAP, \$35,982)
- Optimized populus feedstocks and novel enzyme systems for a British Columbian bioenergy sector (co-investigator) (Genome BC, \$88,407)
- Elucidating conifer juvenility through functional genomics (co-investigator) (BCMof&R, Minister of Sustainable Resource Development, Alberta, \$600,000)

#### HAEUSSLER, S.

- Towards a framework for the operational assessment of ecological resilience in temperate and boreal ecosystems (BCMof&R, \$30,000)
- Ecosystem recovery after disturbance: thresholds for biodiversity and resiliency indicators (FSP, \$32,970)

#### HAMELIN, R.

- Risk assessment of *Septoria musiva* (BCMof&R, \$65,340)
- Identification of nursery disease casual agent (WFP, \$8,100)

### HARSHAW, H.

- Beaver lodge lands outdoor recreation visitor survey (**BCMof&R, \$25,000**)
- Sustainable forest management public option survey: Prince George TSA (**Canadian Forest Products Ltd., \$34,629**)

### HINCH, S.G.

- Energetics, behaviour and fitness of anadromous migrating fish (**NSERC, \$26,100**)
- Investigations to determine the cause of early migration behaviour and magnitude of in-river survival and losses above Mission for adult late-run Fraser River sockeye (**Pacific Salmon Commission, \$19,300**)
- Stream habitat and bull trout (*Salvelinus confluentus*) responses to mountain pine beetle riparian salvage harvesting in north-central British Columbia (**BCMof&R, \$27,591**)
- Climate warming and high salmon migration mortality (**NSERC, \$263,000**)
- Genomics tools for fisheries management (**Genome BC, \$35,800**)

### HOBERG, G.

- Research area leader assistance (**SFM, NCE, \$20,000**)

### HUMBLE, L.

- Canadian Barcode of Life Network (**NSERC, \$12,500**)

### INNES, J.L.

- Shared land use: management of cumulative resource development in the Treaty 8 region of Canada (**SFM NCE, \$16,000**)
- Project #1: Coarse/fine filter biodiversity linkages in the Champagne and Aishihik Traditional Territory (**Government of the Yukon, \$6,000**)
- Project #2: Identification of management indicators for the Teslin Tlingit traditional territory and application to State of Yukon Forests reporting (**Government of the Yukon, \$6,000**)
- Role of disturbance in increasing the sensitivity of northern forest ecosystems to climate change (**NSERC, \$98,400**)
- Development of indicators of sustainable forest management for the Teslin Tlingit traditional territory and application to state of Yukon forests reporting (**SSHRC, \$20,000**)
- Development of the Chinese national sustainable forest management systems and the national forest certification standard (**British Columbia Innovation Council, \$91,849**)
- Project 3: SFM in beetle affected forests of the Yukon: confronting rapid ecological and socio-economic change (**Government of the Yukon, \$6,000**)
- Improvement of social, economic and other indicators of sustainable forest management and tools for their integration (**FSP, \$30,132**)

- Development of appropriate economic and social indicators of sustainable forest management (**BCMof&R, \$27,108**)
- Analysis of biodiversity data from the Forest and Range Evaluation Program (**FSP, \$27,000**)
- Common knowledge, values, and perceptions of sustainable forest management held by First Nations communities (**BCMF&R, \$106,618**)

### KADLA, J.F.

- Canada Research Chair in Advanced Biomaterials (**CRC, \$100,000**)
- Self-assembly of ordered microporous materials from wood-based biopolymers (**NSERC, \$57,000**)
- SENTINEL research network - Nanoscale fibrous structures through electrospinning of novel cellulosic systems (**NSERC, industry, \$85,500**)
- Lignocellulosics as precursors of high performance biopolymer structures (**USDoA, \$30,608**)
- Advanced materials from natural polymers (**NSERC, \$76,000**)
- Processing of pyrolysis oils for co-product development and improved oil characteristics: pyrolytic lignin for foams, films and advanced composites (**NSERC, NRC, 69,732**)
- Development of high performance mountain pine beetle wood composites through nanotechnology (**Forestry Innovation Investment Ltd., \$175,500**)

### KIMMINS, J.P.

- Development and evaluation of an integrated modeling approach for a risk analysis of alternative oil sands reclamation strategies (**MITACS NCE, \$15,000**)
- Defining boreal mixedwoods and exploring their response to management and natural disturbance through spatially-explicit ecosystem management modeling (**FSP, \$57,240**)

### KOZAK, R.A.

- Forest conservation and poverty alleviation in Central and West Africa (**Hampton Research Endowment Fund, \$69,964**)
- From forest certification to corporate responsibility: adapting to changing global factors (**co-investigator**) (**NRC, \$37,500**)
- Pensando en Tapulpa (**Consejo Coordinador de Jornenes Empresarios de Julisco, Mexico, \$43,000**)
- Using interactive forest planning models and visualization to assess public preferences for trade-offs among possible SFM futures (**SFM, (NCE, \$139,500)**)

### KRCMAR-NOZIC, E.

- Framework to support impact analyses of renewal strategies of forestlands affected by mountain pine beetle (**NRC, \$78,400**)

### KRZIC, M.

- Cost-effective indicators of soil physical condition: natural variation in the relative bulk density and associated tree growth as measures of forest productivity and ecosystem resilience (FSP, \$28,188)

### LAM, F.

- Advanced structural analysis program for metal plated wood truss systems (MiTek Canada Inc., NSERC, \$41,000)
- Reliability of timber structural system under seismic loading (NSERC, \$35,000)
- Development of cross lamination technology for mountain pine beetle engineered wood products (FII Ltd., \$207,360)
- Development of innovative preheating technology for Mountain pine beetle engineered wood products (FII Ltd., \$232,712)
- Performance of OSB, Rimboard, and OSL (Ainsworth Engineered Canada LP, \$13,300)
- Development of value-added massive plate building systems (NRC, \$98,900)
- Development of high performance mountain pine beetle wood composites through nanotechnology (co-investigator) (FII Ltd., \$175,000)

### LARSON, BC

- Crown competition, crown efficiency, tree growth and site type: quantification with terrestrial LIDAR (FSP, \$68,040)
- Promotion and coordination of research under adaptation and impacts research division (Environment Canada, \$60,000)
- Assessing the effectiveness of forest certification as a means to achieving sustainable forest management (SFM NCE, \$56,528)

### LAWSON, P.

- Malcolm Knapp Research Forest (FSP, \$15,120)

### LEMAY, V.M.

- For ValueNet: Theme 1 – Modelling tree mortality and ingrowth using meta-modelling and meta-analysis approaches (NSERC, \$20,619)
- Modelling the development of coastal BC stands: an individual tree model linked to a variable retention microclimate model (Island Timberlands, \$22,464)
- Estimating natural regeneration and yield in pine-dominated stands following mountain pine beetle attack using SORTIE-ND and Prognosis BC in a hybrid modelling approach (FSP, \$28,707)
- Regeneration in thinned and unthinned uneven-aged interior Douglas-fir stands (BCMof&R, \$47,210)
- Collection and analysis of individual tree growth and yield data (BCMof&R, \$53,080)

### LYONS, C.K.

- Testing remotely operated hydraulic flange spreaders for manual tree falling (WorkSafe BC, \$76,590)

### MANESS, T.C.

- Feasibility and conceptual design of a highly flexible manufacturing facility (Forintek Canada Corp., \$12,000)
- Using interactive forest planning models and visualization to assess public preferences for trade-offs among possible SFM futures (SFM NCE, \$139,500)
- Development of a just-in-time manufacturing system driven by value-chain optimization for the Canadian solid wood products industry (FPInnovations, \$142,992)
- An agent based integrated production model of the BC coastal forest sector (NSERC, \$161,245)

### MANSFIELD, S.D.

- Canada Research Chair in Wood & Fibre Quality (CRC, \$100,000)
- Conifer forest health genomics (co-investigator) (Genome British Columbia, \$1,349,107)
- Genetic engineering of cellulose biosynthesis in hardwood and softwood trees (USDoA, \$2,035)
- Identification and selection of fast-growing poplar genotypes for carbon sequestration and biomass production (co-investigator) (NSERC, BIOCAP Canada Foundation, \$41,988)
- Biomass improvement through genomics in poplars (NSERC, \$78,000)
- Instrument for analysis of dynamic events in plant cells (co-investigator) (NSERC, \$48,000)
- Developing tools to select for robust Populus genotypes capable of adapting to environmental change (NSERC, \$80,250)
- Green crop research network – 2a Manipulating lignin deposition (NSERC, \$10,000)
- From source to sink – carbon allocation in poplar (NSERC, \$30,000)
- Modelling the impacts of silvicultural treatments on the wood quality of interior spruce (BCMof&R, \$66,000)
- Elucidating conifer juvenility through functional genomics (co-investigator) (BCMof&R, Minister of Sustainable Resource Development, Alberta, \$600,000)
- Laboratory for wood cell wall characterization (BC Knowledge Development Fund, \$162,533)
- Optimized populus feedstocks and novel enzyme systems for a British Columbian bioenergy sector (co-investigator) (Genome BC, \$1,044,506)
- Eliminating wet-spots in BC coastal hemlock lamstock. Phase 1: Evaluation of NIR technology to detect wet-spots (co-investigator) (CFPA, \$60,000)

#### **MARSHALL, P.L.**

- Regeneration in thinned and unthinned uneven-aged interior Douglas-fir stands (**FSP, \$56,652**)
- Collection and analysis of individual tree growth and yield data (**BCMof&R, \$53,080**)
- Development of the Prognosis model for the complex stands in southern and central interior of BC (**FSP, \$8,000**)
- Estimating natural regeneration and yield in pine-dominated stands following mountain pine beetle attack using SORTIE-ND and PrognosisBC in a hybrid modelling approach (**BCMof&R, \$28,707**)
- Collection and analysis of individual tree growth and yield data (**BCMof&R, \$53,080**)

#### **MARTIN, K.M.**

- Alpine and forest landbird ecology and conservation research (**Environment Canada, \$67,500**)
- Ecology of alpine and forest birds (**NSERC, \$35,300**)
- Avian ecology and climate variability in Kluane alpine ecosystems (**NSERC, \$20,000**)
- Support for an NSERC – International Polar Year award entitled “Climate forcing of alpine tundra ecosystems (**UBC VPR Research Development Fund, Dean’s Office Dept. \$2,500**)
- Developing science-based policy guidelines for biodiversity maintenance in unhealthy mature conifer forest ecosystems (**NSERC, \$82,080**)

#### **MARTIN, T.**

- Smart decision-making for interacting species at risk (**World Wildlife Fund Canada, \$13,000**)

#### **McFARLANE, P.**

- Fellowship grant for post doc fellow/research associate (**SFM NCE, \$20,000**)
- Impacts of technological innovations in the forest products value chain on sustainable forest management (**SFM NCE, \$103,400**)

#### **McLEAN, J.**

- Adelgid studies: taxonomy and life history (**BCMof&R, \$33,800**)
- Survey of insect biodiversity in Stanley Park, Vancouver (**Canadian Food and Inspection Agency, City of Vancouver, \$33,555**)
- Evaluation of the impact of nitrogen fertilization on mountain pine beetle success in mature lodgepole pine stands at the leading edge of an infestation (**BCMof&R, \$130,000**)

#### **MEITNER, M.**

- Development of multi-criteria decision support and analysis tools to assist community economic development and environmental planning (**MITACS NCE, \$15,000**)

#### **MITCHELL, S.J.**

- Incorporating the effects of tree-to-tree variability and upwind wind field conditions on mechanistic windthrow models and growth and yield models (**FSP, \$49,248**)
- Drag and resistance in mangroves (**NSERC, \$22,910**)
- Windthrow modeling with BC Transmission Corp. power outage database (**BC Transmission Corp., BCMof&R, \$134,572**)
- Endemic windthrow probability models and maps for the BCTS Chilliwack, Squamish and Queen Charlotte management units (**FSP, \$46,120**)
- Prediction of power outage locations due to weather and tree impacts on BC transmission corporation transmission lines (**MITACS NCE, \$7,500**)

#### **MOORE, R.**

- Western Canadian Cryospheric Network (**Canadian Foundation for Climate and Atmospheric Sciences, \$71,898**)
- Hydroecological landscapes of Canada’s forests (**SFM, NCE, \$42,000**)
- Catchment hydrology and the stream environment (**NSERC, \$24,200.00**)
- Support funds – Western Canadian Cryospheric Research Network (**UBC, VPR Research Development Fund, \$10,000**)
- Cotton Creek Phase II: Multi-scale, spatially explicit studies of Mountain Pine Beetle impacts on watershed function (**BCMof&R, \$113,400**)
- Synoptic climatology of forest fire in British Columbia (**NRC, \$50,000**)
- Forest hydrology (**donation, \$10,000**)

#### **NELSON, H.W.**

- Assessing alternative forest management strategies under climate change (**FSP, \$60,480**)
- Assessing the potential socio-economic consequences of Mountain pine beetle in Alberta (**FPIInnovations, \$35,100**)
- Deriving and testing a methodology to estimate the damage and control costs of forest pest outbreaks in novel habitats within Canada (**NRC, \$37,500**)
- Analysis of timber market contract data (**NRC, \$12,000**)

#### **NELSON, H**

- Assessing alternative forest management strategies under climate change (**BCMof&R, \$60,480**)
- Assessing the potential socio-economic consequences of MPB in Alberta (**FPIInnovations, \$35,100**)

#### **NELSON, J.D.**

- Decision support systems for forest land use planning (**NSERC, \$25,000**)

#### **NITSCHKE, C.**

- Assessing the impacts of climate change on the regeneration of British Columbia’s temperate and boreal ecosystems (**BCMof&R, \$20,000**)

### PRESCOTT, C.E.

- Nutrient availability and late-stage decomposition (NSERC, \$42,000)
- Impact of uncontrolled wildfire and selected wildfire mitigation strategies on soil biotic properties. (BCMof&R, \$32,000)
- Potential of forest fertilization to alleviate effects of climate change-induced insect infestation (NSERC, \$40,450)
- Developing a new indicator of soil functioning for use in designing variable-retention harvesting (co-investigator) (FSP, \$66,068)
- Stable isotope and molecular biology laboratory for the identification and development of indicators of forest sustainability (CFI, \$119,989)
- Green tree retention as a tool to maintain soil microbial diversity and function after harvest (co-investigator) (NSERC, \$96,000)
- SCHIRP: ecology and management of salal-dominated ecosystems in coastal B.C. (co-investigator) (BCMof&R, \$24,650)

### RICHARDSON, J.S.

- Conservation genetics and ecology of the threatened coastal giant salamander in managed forests of BC: setting priorities for an integrative species recovery plan (FSP, \$93,133)
- Resource heterogeneity and the environmental basis of productivity in flowing waters (NSERC, \$19,700)
- Long-term trends in amphibians in riparian reserves: are riparian reserves effective for their conservation? (FSP, \$25,498)
- Downed wood in riparian areas and its contribution to stand-level biodiversity (FSP, \$37,949)
- Alternative indicators of the integrity of stream function as an assessment of sustainable forest management (FSP, \$60,431)
- Biogeochemical indicator and threshold for assessing ecological impacts of riparian forest management on downstream ecosystems (FSP, \$77,004)
- Assessing the sensitivity of streams to riparian changes: Does channel geomorphology determine how tightly forests and small streams are linked to downstream reaches? (FSP, \$67,000)
- Ecosystem functioning in small streams and their riparian areas in response to partial harvest riparian management (FSP, \$75,420)
- Recovery processes of small streams and their riparian areas from clear-cutting and partial harvest riparian management (FSP, \$110,462)
- Fungus – invertebrate interactions in leaf litter decomposition in aquatic ecosystems – request for compound microscope (RTI, \$39,574)

### RITLAND, K.

- Population genomics of plants (NSERC, \$80,000)
- Conifer forest health genomics (co-investigator) (Genome British Columbia, \$1,349,107)

### RUDDICK, J.N.R.

- Enhancing wood durability for above ground structures (NSERC, \$24,670)
- Wood preservation (BASF Aktiengesellschaft, \$6,861)

### SADDLER, J.N.

- Linking the process steps in the bioconversion of lignocellulosics to ethanol (Novozymes, Inc., \$149,040)
- Bioconversion of beetle killed lodgepole pine to bioethanol (NRC, \$171,335)
- Elucidating the substrate and enzyme factors that control the hydrolysis of lignocellulose (NSERC, \$28,870)
- Optimizing hydrolytic enzymes and lignocellulosic substrates toward maximizing the saccharification and fermentation of lignocellulosic biomass for bioethanol production. (Genome British Columbia, \$177,778)
- IEA Bioconversion Task (IEA, \$234,000)
- ABIP Network: Cellulosic Biofuel Network (Agriculture and Agri-Food Canada, \$69166)

### SEELY, B.

- An interactive tool for evaluating the impacts of spatially explicit mountain pine beetle salvage alternatives on multiple forest resource values (NRC, \$88450)
- Representation of climate change impacts on forest growth in FORECAST (FSP, \$76,194)
- Forest ecosystem recovery following disturbance: a retrospective analysis of historic disturbances on the southern BC coast (FSP, \$68,796)
- The application and evaluation of an ecosystem model to project the recovery of old-growth attributes in second-growth stands (FSP, \$52,164)

### SHEPPARD, S.R.J.

- Visualizing the industrial north: exploring new ways to engage and inform the public on extremely large projects (SSHRC, \$26,100)
- Local climate change visioning tools and process for community decision-making (GEOIDE NCE), \$44,000)
- Local climate change visioning tools and process for community decision-making (British Columbia Integrated Land Management Bureau, \$25,000)
- Columbia Basin climate change visioning case study (Real Estate Foundation of Vancouver, \$40,000)
- Kimberley's climate change visioning pilot and regional template (City of Kimberley, \$50,000)
- Prince George biomass/renewable energy capacity assessment and downtown planning (NRC, \$24,000)
- Climate change visioning workshops for Citizen Conservation Councils (BC Climate Actions Secretariat, \$15,000)

- Metro Vancouver climate change visioning case study (Delta) (BCMoe, \$25,000)
- Metro Vancouver climate change visioning case study (North Shore) (Metro Vancouver, \$25,000)
- Using interactive forest planning models and visualization to assess public preferences for trade-offs among possible SFM futures (SFM NCE, \$139,500)

#### SIMARD, S.W.

- Role of common mycorrhizal networks in plant community dynamics (NSERC, \$35,000)
- Cultivation of *Toona ciliata var. australis* (F. Muell.) in subtropical mixed species plantations in Misiones, Argentina (Danzer Forestacion S.A., \$4,805)
- Carbon-flux and plant-microbial community dynamics in low-Arctic tundra (co-investigator) (NSERC, \$128,814)
- Effects of climate change on high-elevation plant communities and their ecological processes (FSP, \$29,901)
- Mycorrhizal fungi: unlocking its ecology and role for the establishment and growth performance of different conifer species in coastal ecosystems (FSP, \$32,836)
- Biogeoclimatic ecosystem site series classification of the interior mountain-heather alpine and the engelmann spruce (BCMof&R, \$22,000)
- Determining stand level structures in dry Douglas-fir forests that maintain appropriate levels of ectomycorrhizal genetic diversity to facilitate Douglas-fir regeneration (FSP, \$59,184)
- Analysis of insect, disease, and abiotic factors affecting post-free growing lodgepole pine in southern interior British Columbia (FSP, \$69,217)
- Effects of partial retention and common mycorrhizal networks on seedling recruitment in Douglas-fir forests across British Columbia (FSP, \$54,000)
- Modelling light, site quality and crowding effects on growth of understory subalpine fir in lodgepole pine forests (FSP, \$29,808)
- Conifer/broadleaf mixture experiments in the southern interior of BC (FSP, \$16,200)
- Predicting development and productivity of southern interior mixed species stands following mountain pine beetle attack (FSP, \$65,610)
- Predicting changes in early growing season water availability contributed as snowmelt following mountain pine beetle attack (MITACS NCE, \$15,000)
- Mycorrhizal fungal ecology: a genomic approach for improved forest management (Genome British Columbia, \$37,460)
- Carbon flux within plant communities at a low-arctic site, Toolik Lake AK (UBC Northern Scientific Training Program, \$8,450)

- Infrastructure operating funds (CFI, \$8,769)
- Federico Osorio: Biogeoclimatic ecosystem site series classification of the interior mountain-heather Alpine and the Engelmann spruce (BCMof&R, \$22,000)

#### SMITH, G.D.

- Investigation of the resination process for oriented strand board (NSERC, \$25,100)
- Development of novel hollow core composite panels (NRC, \$65,435)
- Development of high performance MPB wood composites through nanotechnology (FII Ltd., \$175,500)
- Development of novel hollow core composites (FII Ltd., \$65,435)

#### SOWLATI, T.

- Efficiency measurement and improvement in the Canadian wood industry (NSERC, \$12,000)
- Modeling of off-gassing for wood pellets (co-investigator) (NSERC CRD, \$108,400)

#### SULLIVAN, T.P.

- Vole populations, grass seeding, and management of feeding damage to trees in forest plantations (BCMof&R, \$217,680)
- Dry forests and grasslands: stand structures, habitat, and small mammals as indicators of biodiversity (FSP, \$45,360)
- Creation of habitat for small mammal prey and their predators on clearcuts: coarse woody debris in piles and windrows (FSP, \$38,880)
- 15-year re-measurement of crop trees and advanced coniferous regeneration in thinned-fertilized stands of lodgepole pine (BCMof&R, \$30,000)
- Influence of forest harvesting and succession on vole populations and feeding damage to plantations (FSP, \$49,680)

#### TINDALL, D.

- Understanding perspectives and resolving conflicts over the ethical treatment of food animals (SSHRC, \$50,343)

#### TROSPER, R.

- Gifts, chiefs and contingency – research associate funding (SFM NCE, \$20,000)
- Common knowledge, values, and perceptions of sustainable forest management held by First Nations communities (FSP, \$61,752)
- A participatory approach to aboriginal tenure reform in Canada (SFM NCE, \$13,500)
- Contemporary and traditional values of a landless Cree First Nation in northern Ontario.” (SSHRC, \$87,937)
- Tools for generating maps of hydrologically sensitive areas for use in forest operations planning (SFM, NCE, \$35,600)

**WEILER, M.**

- Tools for generating maps of hydrologically sensitive areas for use in forest operations planning  
(**SFM NCE, \$35,600**)
- Integrated sensor web infrastructure for watershed monitoring (**GEOIDE NCE, \$18,000**)
- Innovative stormwater management  
(**CWN NCE, \$15,000**)
- A physically-based approach to dynamically model hydrological sensitive areas and runoff source area contributions in snowmelt-dominated catchments  
(**MITACS NCE \$7,500**)
- Development of a hydrologic process model for mountain pine beetle affected areas in BC  
(**Pacific Salmon Foundation, \$50,000**)
- Tools for generating maps of hydrologically sensitive areas for use in forest operations planning  
(**Alberta Pacific Forest Industries Inc., \$5,000**)
- Equivalent clear cut area thresholds in large-scale disturbed forests (**FSP, \$70,200**)

**WOOD, P.**

- Conifer forest health genomics (**co-investigator**)  
(**Genome British Columbia, \$1,349,107**)
- Genomic tools for fisheries management  
(**Genome British Columbia, \$161,107**)

**T**HIS LIST INCLUDES documents published between April 1, 2008 and March 31, 2009. Names appearing in **bold-face** type are those of UBC Forestry Faculty members. For further information on any of these publications (many of which are available in libraries), please contact the appropriate Faculty member directly.

- Aitken K.E.H., and **K. Martin**. 2008. Resource selection plasticity and community responses to experimental reduction of a critical resource. *Ecology* 89:971-980.
- Albouyeh, R., and **K. Ritland**. 2009. Estimating heritability of gene expression using parent-offspring regression with two-channel microarrays. *J. Heredity* 100:114-118.
- Alteyrac, J., E. Ackom, and **P.N. McFarlane**. 2008. Wood fibre flows in the British Columbian forest products industry. pp. 73-80 *in* Proc. 3rd International Ecowood Conference on Environmentally Compatible Forest Products. Universidade Fernando Pessoa, Porto, Portugal.
- Assadi, P., and **T. Sowlati**, 2009. Design and manufacturing software selection in the wood industry using analytic hierarchy process. *Int. J. Bus. Innov. Res.* 3(2):182-198.
- Aukema, B., A.L. Carroll, Y. Zheng, J. Zhu, K.F. Raffa, **R.D. Moore**, K. Stahl, and S.W. Taylor. 2008. Movement of outbreak populations of mountain pine beetle: Influences of spatiotemporal patterns and climate. *Ecography* 31:348-358. DOI: 10.1111/j.2007.0906-7590.05453.x.
- Aydinel, M., **T. Sowlati**, X. Cerda, E. Cope, and M. Gerschman. 2008. Optimization of production allocation and transportation of customer orders for a leading forest products company. *Math. Comp. Model.* 48(7/8):1158-1169.
- Bar-Nir, B., and **J.F. Kadla**. 2009. Synthesis and characterization of regiospecific ethylene oxide cellulose derivatives. *Carbohydr. Polym.* 76:60-67.
- Barrett J.D., F. Lam**, and Y. Chen. 2008. Comparison of machine grading methods for Canadian Hemlock. *In* Proc. CD-Rom. 10th World Conference on Timber Engineering,, Miyazaki, Japan.
- Bater, C., **N.C. Coops**. 2009. Evaluating error associated with lidar-derived DEM interpolation under dense forest canopy. *Comput. Geosci.* 35: 289-300.
- Bears, H., **K. Martin**, and G.C. White. 2009. Breeding in high-elevation habitat results in shift to slower life-history strategy within a single species. *J. Anim. Ecol.* 78:365-375.
- Bendickson, D.** 2007. The gas or diesel debate. *Truck Logger.* 30(3):40-41.
- Bergeron, C., J.-C. Ruel, J.-G. Élie, and **S.J. Mitchell**. 2008. Root anchorage and stem strength of black spruce (*Picea mariana*) trees in regular and irregular stands. *Forestry.* 82:29-41.
- Bérubé Y., J. Zhuang, D. Rungis, S. Ralph, **J. Bohlmann**, and **K. Ritland**. 2007. Characterization of EST-SSRs in loblolly pine and spruce. *Tree Genet. Genom.* 3:251-259.
- Blouin, V.M., M.G. Schmidt, C.E. Bulmer, and **M. Krzic**. 2008. Effects of compaction and water content on lodgepole pine seedling growth. *Forest Ecol. Manag.* 255:2444-2452.
- Bomal, C., F. Bedon, S. Caron, **S.D. Mansfield**, C. Levasseur, S. Blais, L. Tremblay, M.-J. Morency, N. Pavy, J. Grima-Petenatti, J.E.K. Cooke, A. Séguin, and J. MacKay. 2008. Involvement of *Pinus taeda* MYB1 and MYB8 in phenylpropanoid metabolism and secondary cell wall biogenesis: a comparative in plant analysis. *J. Exp. Bot.* 59(14):3925-3939.
- Bondar, C.A., and **J.S. Richardson**. 2009. Effects of ontogenetic stage and density on the ecological role of the signal crayfish (*Pacifastacus leniusculus*) in a coastal Pacific stream. *J. N. Am. Benthol. Soc.* 28:294-304.
- Bowyer, J.L., H. Resch, and F. Hirsch with N.G. Vidal, and **R.A. Kozak**. 2008. Policy issues related to forest products markets in 2007 and 2008. pp. 23-32 *in* Forest Products Annual Market Review. United Nations Publications, Geneva. Timber and Forest Study #23.
- Bull G.Q.** 2008. Global carbon markets and the forest sector. *Silviculture Magazine.* May. pp. 6-10.
- Bull G.Q.** 2008 The role of trees in future civilization: lessons from the past and present. *Forests and Culture.* 17(4):32-37. Seoul, Korea.
- Bull G.Q.** 2008 Forest carbon institutions, markets, management and models. pp. 39-70 *in* K. Tak (ed.). International Workshop on Building Institutional Framework on Forest Sector National Carbon Accounting. Institute for Forest Science, Kookmin University, Seoul, Korea.
- Bulmer, C., K.H. Venner, and **C.E. Prescott**. 2007. Forest soil rehabilitation with wood waste: tree growth and characteristics of rehabilitated and untreated soils. *Can. J. For. Res.* 37:1894-1906.
- Bunnell, F.L.** 2007. Indicators for sustaining biological diversity in Canada's most controversial forest type – coastal temperate rainforest. *Ecological Indicators* 8(2):149-157.

- Bunnell, F.L.**, and G.B. Dunsworth, (eds.). 2009. Forestry and Biodiversity. Learning How to Sustain Biodiversity in Managed Forests. UBC Press.
- Bunnell, F.L.**, D.F. Fraser, and A.P. Harcombe. 2009. Increasing effectiveness of conservation decisions: a system and its application. *Nat. Area. J.* 29:79-90.
- Bunnell, F.L.**, T. Goward, I. Houde, and C. Bjork. 2007. Larch seed trees sustain arboreal lichens and encourage re-colonization of regenerating stands. *Western J. Appl. Forest.* 22(2):94-98.
- Bunnell, F.L.**, T. Spribille, I. Houde, T. Goward, and C. Björk. 2008. Lichens on down wood in logged and unlogged forest stands. *Can. J. For. Res.* 38:1033-1041.
- Canam T., F. Faride Unda., and **S.D. Mansfield.** 2008. Heterologous expression and functional characterization of two hybrid poplar cell-wall invertases. *Planta* 228:1011-1019.
- Canam, T., S.W.Y. Mak, and **S.D. Mansfield.** 2008. Spatial and temporal expression profiling of three cell-wall invertase genes during early development in hybrid poplar. *Tree Physiol.* 28:1059-1067.
- Chamberlain, B., and **M. Meitner.** 2009. Automating the visual resource management and harvest design process. *Land. Urban Plan.* 90(1-2):86-94.
- Chamberlain, B., and **M. Meitner.** 2008. Visual aesthetics and forest harvest design: an automated approach. *In Proc. CD-Rom. ESRI Education Users Conference.* San Diego, USA.
- Chau, J., **T. Sowlati**, S. Sokhansanj, F. Preto, S. Melin, and T. Bi. 2009. Economic sensitivity of wood biomass utilization for greenhouse heating application. *Appl. Energ.* 86(5):616-621.
- Chau, J., **T. Sowlati**, S. Sokhansanj, F. Preto, S. Melin, and X. Bi. 2009. Optimizing the mixture of wood biomass for greenhouse heating. *Int. J. Energy Res.* 33(3):274-284.
- Chau, J., **T. Sowlati**, S. Sokhansanj, F. Preto, S. Melin, and X. Bi. 2009. Techno-economic analysis of wood biomass biolers for the greenhouse industry. *Appl. Energ.* 86(3):364-371.
- Chen B., A. Black, **N.C. Coops**, T. Hilker, T. Trofymow, Z. Nestic, and K. Morgenstern. 2009. Assessing tower flux footprint climatology and scaling between remotely sensed and eddy covariance measurements. *Bound.-Lay. Meteorol.* 130:137-167.
- Chen C., C. Liewlaksaneeyanawin, T. Funda, A. Kenawy, C.H. Newton, and **Y.A. El-Kassaby.** 2009. Development and characterization of microsatellite loci in western larch (*Larix occidentalis* Nutt.) 9(3):843-844.
- Chen Z.Y., E.C. Zhu, and **F. Lam.** 2008 Sampling of dimension lumber for on-site testing in China – background study. *In Proc. CD-Rom. 10th World Conference on Timber Engineering.* Miyazaki, Japan.
- Clason, A.J., P.M.F. Lindgren, and **T.P. Sullivan.** 2008. Comparison of potential non-timber forest products in intensively managed young stands and natural/old-growth forests in south-central British Columbia. *For. Ecol. Manage.* 156:1897-1909.
- Coggins, S., **N.C. Coops**, and MA Wulder. 2008. Parameterisation of insect infestation spread models using tree structure and spatial characteristics derived from high-spatial resolution digital aerial imagery. *Can. J. Rem. Sens.* 34:485-502.
- Coggins, S.B., MA Wulder, **N.C. Coops**, and J.C. White. 2008. Linking survey detection accuracy with ability to mitigate populations of mountain pine beetle. *Forest. Chron.* 84(6):900-909.
- Cohen, D.**, I. Eastin, C. Gaston, and R. Braden. 2008. Wood Market Trends in China. FP Innovations, CFS Ottawa or CINTRAFOR University of Washington, FP Innovations. [www.cintrafor.org/publications/specialpapers.shtml](http://www.cintrafor.org/publications/specialpapers.shtml).
- Coleman, H.D., A.L. Samuels, **R. Guy**, and **S.D. Mansfield.** 2008. Perturbed lignification impacts tree growth in hybrid poplar – a function of sink strength, vascular integrity and photosynthetic assimilation. *Plant Physiol.* 148:1229-1237.
- Cooke, S.J., **S.G. Hinch**, G.T. Crossin, D.A. Patterson, K.K. English, M.C. Healey, J.S. Macdonald, J.M. Shrimpton, J.L. Young, A. Lister, G. Van Der Kraak, and A.P. Farrell. 2008. Physiological correlates of coastal arrival and river entry timing in late summer Fraser River sockeye salmon (*Oncorhynchus nerka*) *Behavioural Ecol.* 19:747-758.
- Cooke, S.J., **S.G. Hinch**, A.P. Farrell, D.A. Patterson, K. Miller, D.W. Welch, M.R. Donaldson, K.C. Hanson, G.T. Crossin, I. Olsson, M.S. Cooperman, M.T. Mathes, K.A. Hruska, G.N. Wagner, R. Thomson, R. Hourston, K.K. English, S. Larsson, J.M. Shrimpton, and G. Van der Kraak. 2008. Developing a mechanistic understanding of fish migrations by linking telemetry with physiology, behaviour, genomics and experimental biology. *Fisheries* 33:321-338.
- Coops, N.C.**, C.J. Ferster, R.H. Waring, and J. Nightingale. 2009. Three model comparison of predicted gross primary production across and within forested portions of 84 ecoregions in the contiguous United States. *Rem. Sens. Environ.* 113:680-690.

- Coops, N.C.**, R.H. Waring, M.A. Wulder, A.M. Pidgeon, and V.C. Radeloff. 2009. Bird diversity: A predictable function of satellite-derived estimates of seasonal variation in canopy light absorbance across the United States, *J. Biogeog.* 36(5):905-918.
- Coops, N.C.**, R.H. Waring, M.A. Wulder, and J.A. White. 2009. Prediction and assessment of bark beetle-induced mortality of lodgepole pine using estimates of stand vigor derived from remotely sensed data. *Rem. Sens. Environ.* 113:1058-1066.
- Coops, N.C.**, M.A. Wulder, and D. Iwanicka. 2008. Exploring the relative importance of seasonal variation in production and land cover for satellite derived predictions of breeding bird distributions over Ontario, Canada. *Rem. Sens. Environ.* 113:668-679.
- Coops, N.C.**, M.A. Wulder, and D. Iwanicka. 2008. Large area monitoring with a satellite-based disturbance index sensitive to annual and seasonal variations. *Rem. Sens. Environ.* 113:1250-1261.
- Coops, N.C.**, M.A. Wulder, and D. Iwanicka. 2009. An environmental domain classification of Canada using earth observation data for biodiversity assessment. *Ecol. Infomatics* 4:8-22.
- Coops, N.C.**, M.A. Wulder, and D. Iwanicka. 2009. Demonstration of a satellite-based methodology to monitor habitat at a continental-scale. *Ecol. Indic.* 9:948-958.
- Davidson, P., P. Smith, S. Wilson, and **K. Martin**. 2008. Poleward bound arctic birds and their habitats. *Bird Watch Canada* 45:4-7.
- Deguisse, I., and **J.S. Richardson**. 2009. Prevalence of the chytrid fungus (*Batrachochytrium dendrobatidis*) in western toads in southwestern British Columbia, Canada. *NorthWest. Nat.* 90:35-38.
- Dordel, J., **M.C. Feller**, and **S.W. Simard**. 2008. Effects of mountain pine beetle (*Dendroctonus ponderosae* Hopkins) infestations on forest stand structure in the southern Canadian Rocky Mountains. *Forest Ecol. Manag.* 255:3563-3570.
- Drever, M., K.E.H. Aitken, A.R. Norris, and **K. Martin**. 2008. Woodpeckers are reliable indicators of forest bird richness. *Picoides* 21:13.
- Drever, M.C., J.R. Goheen, and **K. Martin**. 2009. Species-energy theory, pulsed resources and the regulation of avian richness during a mountain pine beetle outbreak. *Ecol.* 90:1095-1105.
- El-Kassaby, Y.A.**, D. Koletolo and D. Reid. 2009. Understanding logepole pine seed biology: improved utilization. *Seed Sci. Technol.* 37:316-328.
- El-Kassaby, Y.A.**, and D. Lindgren. 2007. Increasing the efficiency of Breeding Without Breeding through phenotypic pre-selection in open pollinated progenies. pp. 15-19 *in* Proc. Joint Meeting of the South. For. Tree Improve. Conf. and the Western For. Genetics Association. Galveston, Texas.
- El-Kassaby, Y.A.**, and M. Lstiburek. 2009. Breeding without breeding. *Genet. Res.* 91:111-120.
- El-Kassaby, Y.A.**, and D. Reid. 2007. Is randomization necessary in seed orchards? pp. 63-67 *in* Proc. Joint Meeting of the South. For. Tree Improve. Conf. and the Western For. Genetics Association. Galveston, Texas.
- Evans, P.D.**, 2008. Weathering and photoprotection of wood. *In: Development of Wood Preservative Systems*, Schulz, T., Nicholas, D. (Eds). American Chemical Society Symposium Series, American Chemical Society. 480 pp.
- Evans, P.D.**, and I. Cullis, 2008. Effect of sanding and coating with UV-cured finishes on the surface roughness, dimensional stability and fire resistance of oriented strandboard. *Holz als Roh und Werkstoff* 66(3):191-199.
- Evans, P.D.**, R.D. Heady, , and R.B. Cunningham, 2008. Identification of yellow stringybark (*E. muelleriana*) and silvertop ash (*E. sieberi*) wood is improved by canonical variate analysis of ray anatomy. *Aust. Forest. J.* 71(2):94-99.
- Evans, P.D.**, H. Matsunaga, and M. Kiguchi. 2008. Large-scale application of nanotechnology for wood protection. *Nature Nanotechnology* 3(10):577.
- Evans, P.D.**, O. Morrison, T.J. Senden, and M.A. Knackstedt, 2008. Three-dimensional visualization of UF resin distribution in particleboard using X-ray micro-computed tomography. pp. 35-48 *in* Proc. 9th Pacific Rim Bio-based Composites Symposium. Rotorua, New Zealand.
- Evans, P.D.**, K. Urban, M.J.A. Chowdhury. 2008. Surface checking of wood is increased by photodegradation caused by ultraviolet and visible light. *Wood Sci. Technol.* 42:251-265.
- Evans, P.D.**, K.J. Schmalzl, C.M. Forsyth, G.D. Fallon, S. Schmid, B. Bendixen, and S. Heimdal. 2008. Formation and structure of metal azole complexes. International Research Group on Wood Protection Document. IRG/ WP 08-30469.
- Fang, Z., **J.N.R. Ruddick**, and **G.D. Smith**. 2009. Selected wood preservatives for use with OSB. part 2: mechanical properties of boards. *J. Int. Wood Sci.* 18(2):75-81.

- Farrell, A.P., **S.G. Hinch**, S.J. Cooke, D.A. Patterson, G.T. Crossin, M. Lapointe, and M.T. Mathes. 2008. Pacific salmon in hot water: applying aerobic scope models and biotelemetry to predict the success of spawning migrations. *Physiol. Biochem. Zool.* 82:697-708.
- Flanders, D., **S.R.J. Sheppard**, S. Burch, and A. Shaw. 2009. Hot in my backyard – climate change comes home to roost. *Landscapes, Landscape Archit. Can.* 11(1):10-16.
- Flanders, D., **S.R.J. Sheppard**, A. Shaw, and S.Burch. 2008. Hot in my backyard: Visualisations of our future landscape can help landscape architects plan for climate change. *Landscape Archit.* 98(5):82-87.
- Funda, T., C. Chen, C. Liewlaksaneeyanawin, A. Kenawy, and **Y.A. El-Kassaby**. 2008. Pedigree and mating system analyses in a western larch (*Larix occidentalis* Nutt.) *Mol. Ecol. Res.* doi: 10.1111/j. 1755-0998.2008.02289.x
- Gardiner, B. K.E. Byrne, S. Hale, K. Kamimura, **S.J. Mitchell**, H. Peltola, and J.-C. Ruel. 2008. A review of mechanistic modeling of wind damage risk to forests. *Forestry* 81:447-463.
- Gillanders, S., **N.C. Coops**, N. Goodwin, and MA Wulder, 2008. Application of Landsat satellite imagery to monitor land cover changes at the Athabasca oil sands, Alberta, Canada. *Can. Geogr.* 52(4):466-485.
- Gillanders, S.N., **N.C. Coops**, MA Wulder, **S.E. Gergel**, and T. Nelson, 2008. Multitemporal remote sensing of landscape dynamics and pattern change: describing natural and anthropogenic trends. *Prog. Phys. Geog.* 32(5):503-528.
- Goodwin, N.R., **N.C. Coops**, MA Wulder, S. Gillanders, T.A. Schroeder, and T. Nelson. 2008. Estimation of insect infestation dynamics using spectral trajectories derived from a Landsat Time Series. *Remote Sens. Environ.* 112:3680-3689.
- Gough, A.D., **J.L. Innes**, and S.D. Allen. 2008. Development of common indicators of sustainable forest management. *Ecol. Indic.* 8:425-430.
- Greskiw, G.**, and **J.L. Innes**. 2008. Co-managing communication crises and opportunities between the Northern British Columbia First Nations and the Province of British Columbia. *Can. J. For. Res.* 38:1935-1946.
- Gu J.J., **F. Lam**, and C.C. Yao. 2008. Seismic analysis of probability based life cycle cost for wood frame structures. *In Proc. CD-Rom. 10th World Conference on Timber Engineering*, Miyazaki, Japan.
- Gu J.J., C.C. Yao, **F. Lam**, and P. Sutter. 2008. An application of panel web beams for long-span timber construction. *In Proc. CD-Rom. 10th World Conference on Timber Engineering*, Miyazaki, Japan.
- Haggenmueller, R., S.S. Rahatekar, J.A. Fagan, O.J. Chun, M. Becker, O.R.R. Naik, T. Krauss, L. Carlson, **J.F. Kadla**, P. Trulove, D.F. Fox, H.C. DeLong, Z. Fang, S.O. Kelley, and J.W. Gilman. 2008. Comparison of the quality of aqueous dispersions of single wall carbon nanotubes using surfactants and biomolecules. *Langmuir* 24:5070-5078.
- Hall, F.G., T. Hilker, **N.C. Coops**, A. Lyapustin, K.F. Huemmrich, E.M. Middleton, G.G. Drolet, H.A. Margolis, and T.A. Black. 2008. Can light-saturated reductions in canopy photosynthetic capacity be observed from space? *Rem. Sens. Environ.* 112:2777-2788.
- Hanson, K.C., S.J. Cooke, **S.G. Hinch**, G.T. Crossin, D.A. Patterson, K.K. English, M.R. Donaldson, J.M. Shrimpton, G. Van Der Kraak, and A.P. Farrell. 2008. Individual variation in migration speed of upriver migrating sockeye salmon in the Fraser River in relation to their physiological and energetic status at marine approach. *Physiol. Biochem. Zool.* 81:255-268.
- Heineman, J.L., **S.W. Simard**, D.L. Sachs, and W.J. Mather. 2009. Trembling aspen removal effects on lodgepole pine in southern interior British Columbia: 10 year results West. *J. Appl. Forest.* 24:17-23.
- Hickey, G.M., and **J.L. Innes**. 2007. Indicators for demonstrating sustainable forest management in British Columbia, Canada: an international review. *Ecological Indicators* 8(2):131-140.
- Hilker, T., **N.C. Coops**, S. Coggins, M.A. Wulder, M. Brown, T.A. Black, Z. Nestic, and D. Lessard. 2009. Detection of foliage conditions and disturbance from multi-angular high spectral resolution remote sensing. *Rem. Sens. Environ.* 113:421-434.
- Hilker, T., **N.C. Coops**, F.G. Hall, T.A. Black, B. Chen, P. Krishnan, MA Wulder, P.J. Sellers, E.M. Middleton, and K.F. Huemmrich. 2008. A modeling approach for upscaling gross ecosystem production to the landscape scale using remote sensing data. *J. Geophys. Res.* 113:G03006 DOI:10.1029/2007JG000666.
- Hilker, T., **N.C. Coops**, F.G. Hall, M. Wulder, and T.A. Black. 2008. Separating physiologically and directionally induced changes in canopy reflectance using BRDF models. *Rem. Sens. Environ.* 112:2777-2788.
- Hilker, T., **N.C. Coops**, M.A. Wulder, T.A. Black, and **R.D. Guy**. 2008. The use of remote sensing in light use efficiency based models of gross primary production: A review of current status and future requirements. *Sci. Total Environ.* 404:411-423.

- Hilker, T., M. Wulder, and **N.C. Coops**. 2008. Methods to extract and update forest inventory information using airborne LiDAR and high spatial resolution satellite imagery. *Can. J. Rem. Sens.* 34:5-12.
- Hoberg, G.** 2007. EBM and the politics of compromise. *BC Forest Prof.* 7(2):12.
- Holmes, D.J., and **K. Martin**. 2009. A bird's eye view of aging: what's in it for ornithologists? *The Auk* 126:1-23.
- Houde, I., S. Leech, **F.L. Bunnell**, T. Spribille, and C. Björk. 2007. Old forest remnants contribute to sustaining biodiversity: the case of the Albert River Valley. *BC J. Ecosyst. Manage.* 8(3):43-52.
- Ifuku, S., and **J.F. Kadla**. 2008. Preparation of a thermosensitive high regioselective cellulose/N-isopropylacrylamide copolymer through atom transfer radical polymerization. *Biomacromolecules* 9:3308-3313.
- Innes, J.L.** 2008. Forest sciences in the world of tomorrow. *iForest – Biogeosciences and Forestry* 1:140.
- Innes, J.L.** 2008. Book Review: A. Kangas, J. Kangas, and M. Kurttila. 2008. Decision support for forest management. *Int. Forest. Rev.* 10:701-702.
- Innes, J.L.** 2008. Book Review: FAO 2007 The world's mangroves 1980-2005. *Int. Forest. Rev.* 10:703-704.
- Innes, J.L.**, and J.A. Timko. 2007. Monitoring the effectiveness of biological conservation. *In Proc. www.forrex.org/events/mebc/papers.html*.
- Jung, B. and **R.A. Kozak**. 2008. Color testing of four canadian wood species. *Forest Prod. J.* 58(11):84-86.
- Kaneda, M., K.H. Rensing, J.C.T. Wong, B. Banno, **S.D. Mansfield**, and A.L. Samuels. 2008. Tracking monolignols during wood development in *Pinus contorta* var. *latifolia*. *Plant Physiol.* 147:1750-1760.
- Kim S.H., K.M-T. Cheng, **C. Ritland**, **K. Ritland**, and F.G. Silversides. 2007. Inbreeding in Japanese quail estimated by pedigree and microsatellite analyses. *J. Heredity* 98:378-381.
- Kim, J.-J., A. Plattner, Y.W. Lim, and **C. Breuil**. 2008. Comparison of two methods to assess the virulence of the mountain pine beetle associate, *Grosmannia clavigera*, to *Pinus contorta*. *Scand. J. Forest Res.* 23:98-104.
- Klenk N., **G.Q. Bull**, and **D. Cohen**. 2008. What is the END (Emulation of Natural Disturbance) in forest ecosystem management? An open question. *Can. J. For. Res.* 38:2159-2168
- Klenk, N., **G.Q. Bull**, and J. MacLellan. 2009. The emulation of natural disturbance management approach in Canadian forestry: a critical evaluation. *Forest. Chron.* 85(3):1-6.
- Klenner, W., and **T.P. Sullivan**. 2009. Partial and clearcut harvesting of dry Douglas-fir forests: implications for small mammal communities. *For. Ecol. Manage.* 257:1078-1086.
- Kozak, A., R.A. Kozak**, and C. Staudhammer, and **S.B. Watts**. 2008. Introductory Probability and Statistics: Applications for Forestry and the Natural Sciences. CAB International, Wallingford, Oxfordshire, UK. 448pp.
- Kozak, R.A.**, W.C. Spetic, H.W. Harshaw, **T.C. Maness**, and **S.R.J. Sheppard**. 2008. Public priorities for sustainable forest management in six forest dependent communities of British Columbia. *Can. J. For. Res.* 38(12):3071-3084.
- Kranabetter J.M., and **S.W. Simard**. 2008. Inverse relationship between understory light and foliar nitrogen along productivity gradients of boreal forests. *Can. J. For. Res.* 38:2487-2496.
- Krzic, M.**, R.F. Newman, and K. Broersma. 2008. Forested rangeland in British Columbia, Canada: an example of integrated land use. p. 360 *in Proc. EUROSOIL. Congress. Vienna, Austria.*
- Krzic M.**, K. Wiseman, L. Dampier, and D. Gaumont-Guay. 2008. SoilWeb: an interactive, on-line teaching tool. p. 128 *in Proc. EUROSOIL. Congress. Vienna, Austria.*
- Krzic, M.**, L. Zabek, C.E. Bulmer, B. Chapman, and C. Trethewey. 2009. Soil properties and lodgepole pine growth on forest landings rehabilitated by tillage and fertilizer application. *Can. J. Soil Sci.* 89:25-34.
- Krzic M.**, Y. Zhao, C.E. Bulmer, and M.G. Schmidt. 2008. Development of assessment method for forest soil compaction. p. 359 *in Proc. EUROSOIL. Congress. Vienna, Austria.*
- Kubo, S., and **J.F. Kadla**. 2008. Thermal decomposition study of isolated lignin using temperature modulated TGA. *J. Wood Chem. Technol.* 28:106-121.
- Lam F.**, M. He, and C.C. Yao. 2008. Example of traditional tall timber buildings in China – the Yingxian Pagoda. *J. Int. Assoc. Bridge Struct. Engin.* 229:289-127.
- Lam F.**, M. Li, S. Nakajima, and N. Kawai. 2008. Modeling 3-D response of Japanese post and beam structures. *In Proc. CD-Rom 10th World Conference on Timber Engineering, Miyazaki, Japan.*

- Lam F.**, M. Schulte-Wrede, C.C. Yao, and J.J. Gu. 2008. Moment resistance of bolted timber connections with perpendicular to grain reinforcements. *In Proc. CD-Rom 10th World Conference on Timber Engineering*, Miyazaki, Japan.
- Lamagna S.F., **M. Krzic**, and R.F. Newman. 2008. Relationships among soil/vegetation properties and rangeland health indicators. p. 119 *in Proc. Annual Conference of the Canadian Society of Soil Science*. Prince George, Canada.
- Lazarescu, C., and **S. Avramidis**. 2008. Drying related strain development in restrained wood. *Dry. Technol.* 26(5):544-551.
- Leach, J.A., and **R.D. Moore**. 2008. Stream temperature response to riparian wildfire: lessons from Fishtrap Creek. *Streamline Watershed Manage. Bull.* 12(1):11-16.
- Li, M., and **F. Lam**. 2009. Lateral performance of nonsymmetric diagonal-braced wood shear walls. *J. Struct. Eng.* 135(2):178-186.
- Li M., and **F. Lam**. 2008. Modelling post-and-beam wooden buildings under seismic loads. 18th Analysis and Computation Specialty Conference. *In Proc. CD-Rom. American Society of Civil Engineers, Structural Congress, Crossing Borders*. Vancouver, Canada.
- Liewlaksaneeyanawin, C., J. Zhuang, M. Tang, N. Farzaneh, G. Lueng, C. Cullis, S. Findlay **C. Ritland**, **J. Bohlmann**, and **K. Ritland**. 2009. Identification of COS markers in the Pinaceae. *Tree Genet. Genomes* 5:247-255.
- Lippert, D.N., G.S. Ralph, M. Philips, R. White, D. Smith, D. Hardie, J. Gershenzon, **K. Ritland**, C.H. Borchers, and **J. Bohlmann**. 2009. Quantitative iTRAQ proteome and comparative transcriptome: analysis of elicitor-induced Norway spruce (*Picea abies*) cells reveals elements of calcium signaling in the early conifer defense response. *Proteomics* 9:350-67.
- Lstiburek M., C.D. Nelson, C.S. Echt, T.J. Mullin, **Y.A. El-Kassaby**, and R. Pong-Wong. 2007. Computer simulation of marker-directed population improvement. pp. 56-59 *In Proc. Joint Meeting of the South. For. Tree Improve. Conf. and the Western For. Genetics Association*. Galveston, Texas.
- Love, K. T., B.K. Nicholson, J. Lloyd, R.A. Franich, R.P. Kibblewhite, and **S.D. Mansfield**. 2008. Modification of kraft wood pulp fibre with silica for surface functionalisation. *Composites: Part A.* 39:1815-1821.
- Lyons, C.K.** 2008. An anisotropic heterogeneous beam with overspecified boundary conditions *J. Mech. Mater. Struct.* 3(8):1549-1559.
- Macdonald, I.**, and **P.D. Evans**. 2008. Integrating professional and undergraduate education using blended learning: creating pedagogical and operational synergies online. *Int. J. Learn.* 15(8):85-93.
- Mahmoudi, M., **T. Sowlati**, and S. Sokhansanj. 2009. The logistics of supplying biomass from a mountain pine beetle infested forest to a power plant in British Columbia. *Scand. J. For. Res.* 24(1):76-86.
- Mahon, C.L., **K. Martin**, and **V. LeMay**. 2008. Do cross-scale correlations confound analysis of nest site selection for chestnut-backed chickadees? *Condor* 110:563-568.
- Mahon, C.L., J.D. Steventon, and **K. Martin**. 2008. Cavity and bark nesting bird responses to partial cutting in northern conifer forests. *Forest Ecol. Manage.* 265:2145-2153.
- Mallik, A.U., and **J.S. Richardson**. 2009. Riparian vegetation change in upstream and downstream reaches of three temperate rivers dammed for hydroelectric power generation in British Columbia, Canada. *Ecol. Eng.* 35:810-819.
- Maness, T.C.** 2008. Forests as a potential feedstock for cellulosic ethanol. Policy Analysis Briefing Paper. USDA Forest Service. 1st Annual Symposium on American Forest Policy. Society of American Foresters. [www.x-cdtech.com/SAF2008/proff340.html](http://www.x-cdtech.com/SAF2008/proff340.html).
- Maness, T.C.** 2009. Forest management and climate change mitigation: good policy requires careful thought. *J. Forest.* 107(3):119-124.
- Mao, J., B. Grgic, W.H. Finlay, **J.F. Kadla**, and R.J. Kerekes. 2008. Wood pulp based filters for removal of nano-scale particles suspended in air. *Nord. Pulp Pap. Res. J.* 23(4):420-425.
- Marczak, L.B., and **J.S. Richardson**. 2008. Timing of a resource subsidy alters growth and development rates in a riparian spider. *Oecologia* 156:249-258.
- Marshall, P.L.** 2008. The president's perspective: doing it! *Forest. Chron.* 84(6):795.
- Marshall, P.L.**, P. Parysow, and S. Akindele. 2008. Evaluating growth models: A Case Study Using PrognosisBC. pp. 167-185 *in Proc. Havis, Robert N.; Crookston, Nicholas L., (comps.) Third Forest Vegetation Simulator Conference; Fort Collins, CO. Proceedings RMRS-P-54. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station.*
- Matsunaga, H., M. Kiguchi, and **P.D. Evans**. 2008. Microdistribution of copper carbonate and iron oxide nanoparticles in treated wood. *J. Nanoparticle Res.* DOI:10.1007/s11051-008-9512-y.

- Matsunaga, H., M. Kiguchi, B. Roth, and **P.D. Evans**. 2008. Visualisation of metals in pine treated with preservative containing copper and iron nanoparticles. *Int. Assoc. Wood Anatomists J.* 29(4):387-396.
- Meitner, M.** 2007. Remote sensing reveals protected forests not so protected. ESRI Press, Fall 2007. 5 pp.
- Meitner, M., D. Berheide, J. Nelson, and S.R.J. Sheppard.** 2008. Public perceptions of mountain pine beetle management alternatives. Mountain Pine Beetle Working Paper 2008-06 ISBN 978-0-662-48196-6 Natural Resources Canada, Canadian Forest Service, Victoria.
- Mellina, E., and **S.G. Hinch.** 2008. Stream habitat and bull trout (*Salvelinus confluentus*) responses to MPB riparian salvage harvesting in north-central British Columbia. Final Report, Project Number Y091046, submitted to BC Forest Science Program, Victoria, BC. 12pp.
- Mitchell, S.J.** 2007. The 15 December 2006 windstorm: what happened, and will Stanley Park recover? *Discovery* 36:15-18.
- Mitchell, S.J.** 2008. Riparian buffers: Do they protect small streams in coastal British Columbia forests? *Discovery* 37:16-19.
- Moore, R.D., S.W. Fleming, B. Menounos, R. Wheate, A. Fountain, K. Stahl, K. Holm, and M. Jakob.** 2009. Glacier change in western north America: implications for hydrology, geomorphic hazards and water quality. *Hydrol. Process.* 23:42-61.
- Moore, R.D., A. Story, and G. Richards.** 2008. Electrical conductivity as an indicator of water chemistry and hydrological processes. *Streamline Watershed Manage. Bull.* 11(2):25-29.
- Moore, R.D., R. Winkler, D. Carlyle-Moses, D. Spittlehouse, T. Giles, J. Phillips, J. Leach, B. Eaton, P. Owens, E. Petticrew, W. Blake, B. Heise, and T. Redding.** 2008. Watershed response to the McLure forest fire: Presentation summaries from the Fishtrap Creek Workshop. *Streamline Watershed Manage. Bull.* 12(1):1-11.
- Munoz, C., R. Menoca, J. Baeza, A. Berlin, **J.N. Saddler,** and J. Freer. 2007. Bioethanol production from bi-organosolv pulps of *Pinus radiata* and *Acacia dealbata*. *J. Chem. Technol. Biotech.* 82(8):767-774.
- Murray, S., and **J.L. Innes.** 2009. The effects of environment on fish assemblage structure in the MacKenzie River drainage basin in northeast British Columbia. *Ecol. Freshwater Fish* 18:183-196.
- Negrave, R., and **C.E. Prescott.** 2007. Growth and nutrition of juvenile conifer plantations with different fertilization and stand density combinations on northern Vancouver Island. *Can. J. For. Res.* 37:2587-2599.
- Nelson, H.** 2007. Does a crisis matter? Forest policy responses to the mountain pine beetle epidemic in British Columbia. *Can. J. Agr. Econ.* 55(4):459-470.
- Nelson, H.** 2008. Alternative tenure approaches to achieve sustainable forest management: lessons for Canada. Synthesis Report Sustainable Forest Management Network. [www.sfmnetwork.ca/docs/e/Nelson\\_Alternative\\_Tenure\\_Approaches.pdf](http://www.sfmnetwork.ca/docs/e/Nelson_Alternative_Tenure_Approaches.pdf). 40pp.
- Nitschke, C.R., G.M. Hickey, and **J.L. Innes.** 2007. Effectiveness monitoring of biodiversity in dynamic environments: is it possible? pp. 33-45 in Proc. **Innes, J.L.,** Timko, J.A. (eds.) Monitoring the effectiveness of biological conservation. [www.forrex.org/events/mebc/papers.html](http://www.forrex.org/events/mebc/papers.html).
- Nitschke, C.R., and **J.L. Innes.** 2008. Climate change and fire potential in south-central British Columbia. *Can. Glob. Change Biol.* 14(4):841-855.
- Nitschke, C.R., and **J.L. Innes.** 2008. Integrating climate change into forest management in south-central British Columbia: an assessment of landscape vulnerability and the development of a climate smart framework. *Forest Ecol. Manage.* 256(3):313-327.
- Northway S., **G.Q. Bull,** A. Shvidenko, and L. Bailey. 2009. Recent developments in forest products trade between Russia and China: potential production, processing, consumption and trade scenarios. 15pp. in Synthesis Report. Forest governance, markets and trade: Implications for sustainability and livelihoods. Forest Trends, Washington, D.C.
- Nouvet, S., S. Wilson, and **K. Martin.** 2008. Confirmed breeding of four shorebird species, the surfbird, upland sandpiper, American golden plover, and wandering tattler, in the Ruby Mountains of the southwest. *Yukon Territory Western Birds* 39:22-30.
- O'Connell L, **K. Ritland,** and S.L. Thompson. 2008. Post-glacial colonization of western redcedar (*Thuja plicata*, *Cupressaceae*) revealed by microsatellite markers. *Bot.* 86:194-203.
- Ogden, A.E., and **J.L. Innes.** 2008. Climate change adaptation and regional forest planning in southern Yukon, Canada. *Mitigation and Adaptation Strategies for Global Change* 13:833-861.

- Oudjehane, A., J. Wang, C. Zhang, **G.D. Smith**, and **F. Lam**. 2008. Development of thick strand-based mountain pine beetle wood composites: duration of load and permeability analyses. *BC J. Ecosyst. Manage.* 9(3):178-180.
- Palma, C., and **J. Nelson**. 2008. A robust optimization approach protected harvest scheduling decisions against uncertainty *Can. J. For. Res.* 39 20:342-3555.
- Pavel, M., J. Fannin, and **J. Nelson**. 2008. Replication of terrain stability mappings using artificial neural networks. *Geomorphology* 97:356-373.
- Pavel, M., J. Fannin, and **J. Nelson**. 2008. Comparing an artificial neural network and a physically-based model for landslide hazard zonation. pp. 447-453 *in Proc. 61st Canadian Geotechnical Conference, GeoEdmonton'08*, Edmonton, Canada.
- Pearson, S.F., A.F. Camfield, and **K. Martin**. 2008. Streaked horned lark (*Eremophila alpestris strigata*) fecundity, survival, population growth and site fidelity: research progress report. Washington Department of Fish and Wildlife, Wildlife Science Division.
- Philip, L.J., and **S.W. Simard**. 2008. Minimum pulses of stable and radioactive carbon isotopes to detect belowground carbon transfer between plants. *Plant Soil* 308:23-35.
- Plattner A, J-J Kim, S. Diguistini, and **C. Breuil**. 2008. Variation in pathogenicity of a mountain pine beetle-associated blue-stain fungus, *Grosmannia clavigena*, on young lodgepole pine in British Columbia. *Can. J. Plant Pathol.* 30:1-10.
- Predick, K.I., **S.E. Gergel**, and M.G. Turner. 2009. Effect of flood regime on tree growth in the floodplain and surrounding uplands of the Wisconsin River. *River Res. Appl.* 25:283-296
- Prescott, C.E.** 2008. Heat-proof carbon compound. *Nature Geoscience* 1:815-816.
- Ralph S.F., H.J.E. Chun, N. Kolosova, D. Cooper, C. Oddy, **C. Ritland**, R. Kirkpatrick, **R. Moore**, S. Barber, R.A. Holt, S.J.M. Jones, MA Marra, C.J. Douglas, **K. Ritland**, and **J. Bohlmann**. 2008. A conifer genomics resource of 200,000 spruce (*Picea spp.*) ESTs and 6,464 high-quality, sequence-finished full-length cDNAs for Sitka spruce (*Picea sitchensis*). *BMC Genomics.* 2008:9:484.
- Rangel-Salazar, J.L., **K. Martin**, **P. Marshall**, and R.W. Elner. 2008. Habitat variation, nest-site selection and parental behaviour influences on breeding success of the ruddy-capped nightingale thrush (*Catharus frantzii*) in Chiapas, Mexico. *Auk* 125:358-367.
- Rangel-Salazar, J.L., **K. Martin**, **P. Marshall**, and R.W. Elner. 2008. Population dynamics of the Ruddy-capped nightingale thrush (*Catharus frantzii*) in Chiapas, Mexico: influences of density, productivity and survival. *J. Trop. Ecol.* 24:583-593.
- Ratu, R., and **P.D. Evans**. 2008. Development of a weatherometer to accelerate the surface checking of wood. International Research Group on Wood Protection Document IRG/WP 08-20388.
- Rayirath, P., and **S. Avramidis**, 2008. Some aspects of western hemlock air permeability. *MADERAS: Ciencia y Tecnologia* 10(3):185-193.
- Rayirath, P., **A. Avramidis**, and **S.D. Mansfield**. 2008. The effect of wood drying on crystallinity and microfibril angle in black spruce (*Picea mariana*). *J. Wood Chem. Technol.* 28:167-179.
- Redding, T., R. Winkler, D. Spittlehouse, **R.D. Moore**, A. Wei, and P. Teti. 2008. Mountain pine beetle and watershed hydrology: a synthesis focused on the Okanagan Basin. pp. 17-30 *in Proc. One Watershed – One Water*. Canadian Water Resources Association and Okanagan Basin Water Board.
- Richardson, J.S.** 2008. Aquatic arthropods and forestry: large-scale land-use effects on aquatic systems in nearctic temperate regions. *Can. Entomol.* 140:495-509.
- Richardson, J.S.**, and R.M. Thompson. 2009. Setting conservation targets for freshwater ecosystems in forested catchments. pp. 244-263 *in Villard, M.-A. & B.-G. Jonsson (Eds.) Setting Conservation Targets for Managed Forest Landscapes*. Cambridge University Press.
- Robichaud, F., **R.A. Kozak**, and A. Richelieu. 2009. Wood use in nonresidential construction: a case for communication with architects. *For. Prod. J.* 59(1/2):57-65.
- Robichaud, F., A. Richelieu, and **R.A. Kozak**. 2008. Branding as a lever in emerging market segments: a framework for wood products in non residential construction. 8 pp. *in Proc. #15792 European Marketing Academy, 37th Annual EMAC Conference: Marketing Landscapes – A Pause for Thought (Product and Brand Management, Session 6)*, Brighton, UK.
- Robinson, J.L., and **D.B. Tindall**. 2008. Defending the Forest: Chronicles of protest at Clayoquot Sound. pp. 232-247 *in Christine Lowther and Anita Sinner (eds.), Writing the West Coast: In Love with Place*. Vancouver, BC: Ronsdale Press.

- Roscoe D.W., and **S.G. Hinch**. 2008. Fishway passage, water diversion and warming temperatures: factors limiting successful spawning migration of Seton-Anderson watershed sockeye salmon. Final Report for the Bridge Coastal Restoration Program, Project 07.BRG01. [www.bchydro.com/bcrp/projects/docs/07.BRG.01.pdf](http://www.bchydro.com/bcrp/projects/docs/07.BRG.01.pdf). 99pp.
- Ruddick, J.N.R.** 2008. Alkaline copper treated wood for use in residential decking. *Int. Res. Group Wood Protect.* IRG/WP 08-30490 9pp.
- Ruddick, J.N.R.** 2008. Corrosion of fasteners and connector in contact with alkaline copper treated wood – is it a problem. *Int. Res. Group Wood Protect.* IRG/WP 08-40437 15 pp.
- Sackey, E.K., **K.E. Semple**, and **G.D. Smith**. 2008. Development of improved panel core strength properties through core particle redistribution in particleboard manufacturing. *Wood Fiber Sci. Tech.* 40(2):214-224.
- Sakamaki, T., and **J.S. Richardson**. 2008. Effects of small rivers on chemical properties of sediment and diets for primary consumers in estuarine tidal flats: a comparison between forested and agricultural watersheds. *Mar. Ecol. Progress Series* 360:13-24.
- Salazar, J., and **T. Sowlati**. 2008. Life cycle assessment of windows for the residential market in North America. *Scand. J. Forest Res.* 23(2):121-132.
- Salazar, J., and **T. Sowlati**. 2008. A review on life cycle assessment of windows. *Forest Prod. J.* 59(10):91-96.
- Saravi, A.A., P.D. Lawrence, and **F. Lam**. 2008. Estimating the strength of boards using mixed signals of MOE and X-ray image *IEEE Transactions on Instrumentation and Measurement* 57(11):2616-2622.
- Sattler, D., **V. LeMay**, and **P. Marshall**. 2008. A hybrid modelling approach to estimating establishment and growth of advanced regeneration. *BC J. Ecosyst. Manage.* 9(3):93-97.
- Seely, B., **J. Nelson**, P. Vernier, R. Wells, and A. Moy. 2008. Exploring opportunities for mitigating the ecological impacts of current and future mountain pine beetle outbreaks through improved planning: a focus on northeastern British Columbia mountain pine beetle Working Paper 2008-08 ISBN 978-0-662-48888-0 Natural Resources Canada, Canadian Forest Service.
- Seely B., C. Welham, J. Blanco, O. Schwab, and **G.Q. Bull**. 2008. Assessment of the impacts of climate change and improved weevil resistance in spruce on volume production: Forest management unit scenario analyses. Department of Forest Sciences and Department of Forest Resource Management. Faculty of Forestry, University of British Columbia. Vancouver. 45pp.
- Shea, J.M., **R.D. Moore**, and K. Stahl. 2009. Derivation of melt factors from glacier mass balance records in western Canada. *J. Glaciol.* 55(189):123-130.
- Sheppard, S.R.J.** 2008. Local climate change visioning: a new process for community planning and outreach using visualization tools. *Plan. Canada* 48(1):36-40.
- Sheppard, S.R.J.**, and P. Cizek. 2009. The ethics of Google-Earth: crossing thresholds from spatial data to landscape visualization *J. Environ. Manage.* 90:2102-2117.
- Sheppard, S.R.J.**, E. Pond, and C. Campbell. 2008. Low-carbon attractive, resilient communities: New imperatives for sustainable redevelopment. pp. 42-58 *in* Conference reader. Climate Change and Urban Design Council for European Urbanism.
- Simard S.W.** 2009. Response diversity of mycorrhizas in forest succession following disturbance. Chap. 13. pp. 187-206 *in* C. Azcon-Aguilar, J.M. Barea, S. Gianinazzi, and V. Gianinazzi-Pearson. (eds.) *Mycorrhizas: functional processes and ecological impacts*. Springer-Verlag, Heidelberg.
- Smiley, BC, R.A. Franich, and **P.N. McFarlane**. 2008. Innovative methods in wood tracking: the Chemi-code concept. pp. 81-88 *in* Proc. Third International Ecowood Conference on Environmentally Compatible Forest Products. ISSN 978-989-643-016-00. Universidade Fernando Pessoa, Porto, Portugal.
- Smith, A., R. Wynne, and **N.C. Coops**. 2008. Remote characterization of vegetation structure and productivity: plant to landscape scales. Introduction. *Can. J. Rem. Sens.* 34 S2:3-6.
- Song X., and **F. Lam**. 2008. Stability analysis of eccentrically loaded wood beam-columns. 18th Analysis and Computation Specialty Conference. American Society of Civil Engineers Structural Congress Crossing Borders. Vancouver, Canada.
- Song X., and **F. Lam**. 2008. Stability analysis of eccentrically loaded wood beam-column. *In* Proc. CD-Rom. 10th World Conference on Timber Engineering, Miyazaki, Japan.
- Spribile, T., G. Thor, **F.L Bunnell**, T. Goward, and C.R. Björk. 2008. Lichens on dead wood: species-substrate relationships in the epiphytic lichen floras of the Pacific northwest and Fennoscandia. *Ecography* 31:741-750.
- Strimbu, B., G.M. Hickey, V.G. Strimbu, and **J.L. Innes**. 2009. On the use of statistical tests with non-normally distributed data in landscape change detection. *For. Sci.* 55:72-83.

- Strivelli, R.A., **M. Krzic**, L.M. Lavkulich, and C. Crowley. 2008. An innovative, teaching tool for soil formation. p. 193 *in* Proc. Annual Conference of the Canadian Society of Soil Science.
- Sullivan, T.P.**, and D.S. Sullivan. 2009. Are linear habitats in agrarian landscapes source areas for beneficial or pest rodents? *Agr. Eco. Environ.* 129:52-56.
- Tanaka, T., **S. Avramidis**, and S. Shida. 2009. Evaluation of moisture content distribution in wood by soft x-ray imaging. *Wood Sci. J.* 55:69-73.
- Teste F.P., and **S.W. Simard**. 2008. Mycorrhizal networks and distance from mature trees alter patterns of competition and facilitation in dry Douglas-fir forests. *Oecologia* 158:193-203.
- Teste, F.P., **S.W. Simard**, and D.M. Durall. 2009. Role of mycorrhizal networks and tree proximity in ectomycorrhizal colonization of planted seedlings. *Fungal Ecol.* 2(1):21-30.
- Teste F.P., **S.W. Simard**, D.M. Durall. 2009. Role of mycorrhizal networks and tree proximity in ectomycorrhizal colonization of planted seedlings. *Fungal Ecol.* 2(1):21-30.
- Thoews, S.E., **T.C Maness**, and C. Ristea. 2008. Using flow simulation as a decision tool for improvements in sawmill productivity. *Maderas. Ciencia y tecnología.* 10(3):229-242.
- Thompson S.L., Y. Bérubé, A. Bruneau, and **K. Ritland**. 2008. Three-gene identity coefficients demonstrate that clonal reproduction promotes inbreeding and spatial relatedness in yellow-cedar, *Callitropsis nootkatensis*. *Evolution* 62:2570-2579.
- Thompson S.L., G. Choe, **K. Ritland**, and J. Whitton. 2008. Cryptic sex within male-sterile polyploid populations of the Easter daisy, *Townsendia hookeri*. *Int. J. Plant Sci.* 169:183-193.
- Thompson, S.D., and **S.E. Gergel**. 2008. Conservation implications of mapping rare habitats using high spatial resolution imagery: recommendations for heterogeneous and fragmented landscapes. *Landscape Ecology* 23(9):1023-1037.
- Thompson, S.D., **S.E. Gergel**, and **N.C. Coops**. 2008. Classification of late seral coastal temperate rainforests with high spatial resolution QuickBird imagery. *Can. J. Rem. Sens.* 34(S2):460-470.
- Tikina, A., and **J.L. Innes**. 2008. A framework for assessing the effectiveness of forest certification. *Can. J. For. Res.* 38:1357-1365.
- Timko, J., and **J.L. Innes**. 2009. Evaluating the effectiveness of national parks: case studies from Canada and South Africa. *Biolog. Cons.* 142:676-688.
- Tindall, D.B.**, F.M. Kay, D.M. Zuberi, and K.L. Bates. 2008. Urban and community studies. pp. 2224-2244 *in* L.R. Kurtz. (ed.), *Encyclopedia of Violence, Peace, and Conflict*, Second Edition. Elsevier.
- Tindall, D.B.**, and T.E. Malinick (eds.). 2008. *Teaching About Social Networks: A Collection of Syllabi, Assignments, and Other Resources*. American Sociological Association, Washington, DC, USA. 251 pp.
- Tooke, R., **N.C. Coops**, N.R. Goodwin, and J.A. Voogt. 2009. The influence of vegetation characteristics on spectral mixture analysis in an urban environment. *Rem. Sens. Environ.* 113:398-407.
- Trenholm, R., V. Lantz, and **T. Maness**. 2009. A brief overview of techniques for valuing non-market ecosystem services policy briefing note. The Forum on Conservation Economics and Policy. Vancouver, BC.
- Trosper, R.** 2009. *Resilience, Reciprocity and Ecological Economics: Northwest Coast Sustainability*. London and New York: Routledge.
- Ukrainetz, N. K., K.-Y. Kang, **S.N. Aitken**, M. Stoehr, and **S.D. Mansfield**. 2008. Heritability, phenotypic and genetic correlations of coastal Douglas-fir (*Pseudotsuga menziesii*) wood quality traits. *Can. J. Forest Res.* 38:1536-1546.
- Vahid, S., and **T. Sowlati**. 2008. Productivity changes of the wood product manufacturing sector in the US. *Appl. Math. Sci.* 2(17):799-816.
- Vernier, P., and **F.L. Bunnell**. 2007. Using species monitoring and map-based data in a coarse-filter approach to sustaining biodiversity. *BC J. Ecosyst. Manage.* 8(3):29-44.
- Vidal, N.G., and **R.A. Kozak**. 2008. Corporate responsibility practices in the forestry sector: definitions and the role of context. *J. Corp. Citizen.* 31:59-75.
- Vidal, N.G., and **R.A. Kozak**. 2008. The recent evolution of corporate responsibility practices in the forestry sector. *Int. Forest. Rev.* 10(1):1-13.
- Vyse A., and **S.W. Simard**. 2008. Broadleaved species in the southern interior of British Columbia. Forest Genetics Council of BC. [www.llbc.leg.bc.ca/public/PubDocs/bcdocs/443323/Interior\\_Broadleaf\\_Report\\_Feb08.pdf](http://www.llbc.leg.bc.ca/public/PubDocs/bcdocs/443323/Interior_Broadleaf_Report_Feb08.pdf). 44pp.

- Wallace, B.M., **M. Krzic**, T.A. Forge, K. Broersma, and R.F. Newman. 2009. Biosolids increase soil aggregation and protection of soil carbon five years after application on a crested wheatgrass pasture. *J. Environ. Qual.* 38:291-298.
- Watanabe, K., Y. Saito, **S. Avramidis**, and S. Shida. 2008. Non-destructive measurement of moisture distribution in wood during drying using digital X-ray microscopy. *Dry. Technol.* 26(5):590-595.
- Weber, S., **R. Trospen**, and **T.C. Maness**. 2009. Evaluation of two forest governance models based on Stelat'en First Nation goals. Changing the culture of forestry in Canada: engaging Canada's aboriginal peoples in sustainable forest management. M.G. Stevenson and D. Natcher (eds.), Canadian Conservation Institute. Ottawa, Canada.
- Wilson, S., and **K. Martin**. 2008. Breeding habitat selection of sympatric rock, white-tailed, rock and willow ptarmigan in the southern Yukon Territory. *J. Ornithol.* 149:629-637.
- Wood, P.M.**, and J. Bailey. 2007. Ethical issues in forest genomics: stakeholder perspectives in British Columbia. p. 60 *in* Proc. 4th CESAGen/CSG International Conference: Genetics and Society - Retrospects and Prospects. The Royal Society, London.
- Wood, P.M.**, and L. Waterman. 2008. Sustainability impeded: ultra vires environmental issues. *Environ. Ethics* 30(2):159-174.
- Wood, S.L.R., and **J.S. Richardson**. 2009. Impact of sediment and nutrient inputs on growth and survival of tadpoles of the western toad. *Freshwater Biol.* 54:1120-1134. Wang, G.-Y., **J.L. Innes**, S.-Y. Dai, and G.-H. He. 2008. Achieving sustainable rural development in Southern China: the contribution of bamboo forestry. *Int. J. Sust. Devel. World Ecol.* 15:484-495.
- Wulder, M.A., C.W. Bater, **N.C. Coops**, T. Hilker, and J.C. White. 2008. The role of lidar in sustainable forest management. *Forest. Chron.* 84(6):807-826.
- Wulder, M.A., S. Magnussen, D. Harding, **N.C. Coops**, P. Boudewyn, and D. Seemann. 2008. Stability of surface LIDAR height estimates on a point and polygon basis, *J. For. Plan.* 13:279-286.
- Wulder, M.A., S.M. Ortlepp, J.C. White, and **N.C. Coops**. 2008. Impact of sun-surface-sensor geometry upon multi-temporal high spatial resolution satellite imagery. *Can. J. Rem. Sens.* 34(5):455-461.
- Wulder, M.A., S.M. Ortlepp, J.C. White, **N.C. Coops**, and S.B. Coggins. 2008. Monitoring tree-level insect population dynamics with multi-scale and multi-source remote sensing. *J. Spatial Sci.* 53(1):49-61.
- Wulder, M.A., J.C. White, A.L. Carroll, and **N.C. Coops**. 2009. Challenges for the operational detection of mountain pine beetle green attack with remote sensing. *Forest. Chron.* 85(1):32-38.
- Wulder, M.A., J.C. White, **N.C. Coops**, and C. Butson. 2008. Multi-temporal analysis of high spatial resolution imagery: Issues, investigation, and application. *Rem. Sens. Environ.* 112:2729-2740.
- Wulder, M.A., J.C. White, D. Grills, T. Nelson, **N.C. Coops**, and T. Ebata. 2009. Aerial overview survey of the mountain pine beetle epidemic in British Columbia: communication of impacts. *BC J. Ecosyst. Manage.* 10(1):45-58.
- Wulder, M.A., J.C. White, T. Han, **N.C. Coops**, J.A. Cardille, T. Holland, and D. Grills. 2008. Monitoring Canada's forests – Part 2: National forest fragmentation and pattern. *Can. J. Rem. Sens.* 34: 563-584
- Zaini, P., R. Korehei, Y-S. Kim, and **J.F. Kadla**, 2008. Dynamic mechanical analysis of mountain of pine beetle infested lodgepole pine: effect of time-since-death. *J. Wood Chem. Technol.* 28:180-193.
- Zaini, P., S. Sokansanj, X. Bi, S. Mani, and **J.F. Kadla**. 2008. Density of pellets made from lodgepole pine (*Pinus contorta* Douglas) infested with Mountain Pine Beetle (*Dendroctonus ponderosae* Hopkins). *Can. Biosyst. Engin.* 50:3.47-3.55.
- Zhao, Y., **M. Krzic**, C.E. Bulmer, M.G. Schmidt, and **S.W. Simard**. 2008. Characterization of soil compaction and tree growth in BC forests by relative bulk density. p. 214 *in* Proc. Annual Conference of the Canadian Society of Soil Science. Prince George, Canada.
- Zhou, C., C. Dai, and **G.D. Smith**. 2008. A generalized mat consolidation model for wood composites. *Holzforschung* 62(2):201-208.



Sycamore maple, *Acer pseudoplatanus* L.  
Vegetative buds.

## FACULTY DEVELOPMENT AND ALUMNI



**Christoph Clodius**  
BA, MEd

Director, Development  
604-822-8716  
christoph.clodius@ubc.ca



**Jenna McCann**  
BA

Officer, Development  
604-822-8787  
jenna.mccann@ubc.ca



**Katherine Quinn**  
BA

Coordinator, Development  
604-822-0898  
katherine.quinn@ubc.ca

**M**AINTEINING AND ESTABLISHING connections with our many alumni, friends, community partners, and donors continues to be a high priority for Forestry. These relationships help Forestry be a world-leader in sustaining, managing and conserving our precious forests and their products.

This year was a financially challenging one for many in the sector. We are at a crucial time in our development, so investing in forest and wood scholarship and research is more important than ever.

For the period of April 2008 to March 2009, the Faculty of Forestry raised over \$6 million in gifts, contributions and pledges. On behalf of faculty, students and staff, thank you for your outstanding support.

### Forestry Alumni Support

The Faculty of Forestry would like to specifically thank forestry alumni for their generous and continued support of our programs and students. This year's annual appeal raised \$78,890 in support of projects such as the Loon Lake Redevelopment (\$27,465), the John Worrall Alumni Bursary in Forestry (\$4,195), and the Dean of Forestry Scholarship Fund (\$16,585).

The Faculty would also like to recognize the contributions of the numerous alumni volunteers and thank them for their continued dedication to the many events and forestry activities throughout the year. We hope you will join us again in 2009.

### HIGHLIGHTS IN 2008 – 09

This past year, continued generosity for research program funding, student award creation, and contributions to capital projects, has enabled Forestry to not only uphold its position as a world leader in forestry education and research, but also strengthen our presence, both in Canada and abroad.

The following activities, events and milestones were reached:

- Redevelopment continued at the Loon Lake Research and Education Centre, with the completion of the new Charlie and Sue Johnson Cabins and the start of the Norm and Betty Pelton Rotary Field, which will be completed soon. These new additions have certainly changed the face of Loon Lake and will allow for an even greater number of community groups, students, and scientists to utilize the ever-expanding facilities. We are very grateful for the support of Charlie and Sue Johnson and the Haney Rotary Club for the above facilities.
- On April 28, 2008, a number of alumni and friends were present for the annual Malcolm Knapp Research Forest Spring Camp Tour and

Dean's BBQ. Highlights of the tour included a visit to the student thinning project and viewing of the liquid mirror observatory. Following the tour, guests were treated to a special presentation by Ken Day, Manager of the Alex Fraser Research Forest, on the Williams Lake Community Forest, as well as a comical farewell presentation by the Malcolm Knapp Research Forest staff to retiring professor, Dr John McLean. Alumni and friends then made their way to the camp Dining Hall, where the traditional, yet always crowd-pleasing, barbeque dinner was served.

- A large crowd was present on May 24, 2008 in the Forest Sciences Centre, to help the Faculty celebrate Alumni Weekend. In special attendance were members celebrating their 50th and 60th class reunions – the classes of 1958 and 1948, respectively. After lunch in the atrium, attendees were presented with a talk by Dr Sally Aitken on climate change and its impact on native tree populations, followed by a building tour by Dr John McLean.
- The Faculty proudly watched as Gordon Prest, Co-Chair of the Faculty's First Nations Council of Advisors, was awarded a National Aboriginal Achievement Award on March 6, 2009. Gordon has been a dedicated volunteer to the Faculty and has guided us in implementing a First Nations Initiative. We are so pleased to see him honored with this prestigious award.
- On March 17, 2009, we were proud to host the official announcement of the establishment of the BC Leadership Chair in Advanced Forest Products Manufacturing Technology. Minister of Forests and Range Pat Bell announced that funding provided by the Ministry of Technology, Trade and Economic Development was matched by industry supporters such as FPInnovations and Viance to establish this endowed Chair in Forestry's Department of Wood Science. Internationally renowned scholar Dr Phil Evans is the inaugural chairholder. Evans' research focuses on the structure and properties of wood at the macroscopic, microscopic and nanoscopic levels. He works with universities and corporations around the world on novel technologies for modifying and improving the properties of wood, as well as with BC communities that have relied on mills and are diversifying their economies.
- A new program was launched in 2008 to help students help each other, as well as to benefit from experienced and committed alumni volunteers. The Forestry Tri-Mentoring Program matched community mentors with a junior and senior student, with the goal that students would gain career advice, sector contacts, and first-hand accounts of what is really involved in working in

forestry. We were fortunate to have 7 mentors and 14 students this year, all of whom came together for a final time on March 19, 2009 at a wrap-up evening in the Centre for Advanced Wood Processing. The program was a great success and we look forward to welcoming an increased number of mentors and students next year. The Tri-Mentoring Program has been a success in other faculties at UBC, and we were proud to have begun it this year.

- The Class of 1958 held its 50th reunion in Vancouver in May 2008, which included events such as a celebratory class dinner and attendance at the Faculty's Alumni Weekend lunch.
- The Class of 1965 held a reunion from August 19-20, 2008 at the Loon Lake Research and Education Centre. When the class members weren't busy socializing and reminiscing about their years as UBC students, they were out and about, visiting tree stands they planted as students in 1964 and challenging one another to bocce tournaments.
- The Class of 1983 celebrated its 25th reunion at the Loon Lake Research and Education Centre from August 15-17, 2008. The weekend's festivities included a wine and cheese evening, as well as a daytime barbeque and farewell brunch, all while having exclusive use of the Koerner Centre. A great time was had by all.
- Finally, the following new student awards were established this past year:
  - Gerry Burch Scholarship in Forest Sciences
  - Kenneth and Keith William Haley Memorial Bursary in Forestry
  - Tyler O'Farrell Memorial Prize in Sustainable Forest Management

Thank you to everyone who supported our students this year, be it through a new or established award.

## PLANS FOR 2009 – 10

In the coming year, the Faculty's Development and Alumni program will continue to provide our friends with the opportunity to reconnect with fellow alumni, learn about developments in forestry research and teaching, and attend special events. We also seek your assistance in securing resources and community connections to build on existing priority projects and develop new projects as detailed below:

- Continue to strengthen our relations with our alumni and existing supporters and build many new partnerships with community members and potential supporters.
- We are also keen to explore new areas where our alumni can be more involved in the Faculty, such as guest speaking opportunities and through an expanded mentoring program.
- Work to finalize funding for long-term projects, such as the redevelopment of Loon Lake. For recent pictures, construction updates, and a virtual panoramic tour of the facilities please visit [www.loonlake.ubc.ca](http://www.loonlake.ubc.ca).
- Strengthen our CAWP Industry Partnership Program by inviting new members and building more public awareness. CAWP - The Centre for Advanced Wood Processing - is Canada's national centre of excellence for education and research related to wood products processing and advanced wood products manufacturing.
- Maintain the good work that has been done by the Faculty and its First Nations Council of Advisors, in implementing our Aboriginal Forestry Strategy.
- We look forward to holding the second annual Forestry Lecture in Sustainability on September 17, 2009, a key event for the Faculty that brings together scientists, students, alumni and the general community, in discussion. Supported by the Koerner Foundation, we will soon be announcing this year's lecture details.

Once again, thank you for your continued support of the Faculty of Forestry over the past year and we look forward to partnering with all our alumni, friends, and community members again in 2009/10.

## **Production Information**

This Annual Report was designed on an Apple iMac using Adobe's InDesign CS3.

**Cover:** Carolina Cover 10pt C1S.  
**Text:** Benchmark Dull 80lb book.

Questions concerning this report or requests for mailing list updates, deletions or additions should be directed to:

**Dr Susan Watts, RPF**  
Annual Report Editor  
Faculty of Forestry, Dean's Office  
Forest Sciences Centre  
University of British Columbia  
2005 – 2424 Main Mall  
Vancouver, BC V6T 1Z4  
CANADA

**Phone:** 604–822–6316  
**Fax:** 604–822–8645  
**E-mail:** [sue.watts@ubc.ca](mailto:sue.watts@ubc.ca)

Printed in Canada using acid-free, elemental chlorine free paper.

# UBC Faculty of Forestry website

www.forestry.ubc.ca



## The Faculty of Forestry web site features:

- academic program outlines and registration guides;
- profiles of Faculty members;
- department and allied program descriptions;
- Faculty newsletters, Annual Reports and special event announcements;
- course materials and educational multimedia;
- general interest articles and web feature presentations.

Any comments or suggestions about our web site can be addressed to our Education and Web Technology Coordinator at 604-822-0024.



Office of the Dean  
**Faculty of Forestry**  
University of British Columbia  
Forest Sciences Centre  
2005 – 2424 Main Mall  
Vancouver, BC, V6T 1Z4  
CANADA

Phone: 604-822-2727  
Fax: 604-822-8645  
[www.forestry.ubc.ca](http://www.forestry.ubc.ca)

09/06/6500