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

Mr George Weyerhaeuser (Chair)
Retired Weyerhaeuser Senior VP

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

Dr Clark Binkley
Managing Director
International Forestry Investment Advisors

Dr Bill Bourgeois
President
New Direction Resource Management Ltd

Mr Reid Carter
Managing Partner
Brookfield Asset Management Inc

Mr David Gandossi
Executive Vice President, CFO & Secretary
Mercer International

Ms Anne Giardini
President
Weyerhaeuser Company Ltd

Ms Sharon Glover
CEO
Association of BC Forest Professionals

Ms Dana Hayden
Deputy Minister
BC Ministry of Jobs, Tourism and Innovation

Mr Ken Higginbotham
Vice President, Forestry and Environment
Canfor

Ms Alana Husby
President
Coast EcoTimber Ltd

Mr Rick Jeffery
President and CEO
Coast Forest Products Association

Mr Doug Konkin
Deputy Minister
Ministry of Forests, Lands and Natural Resource Operations

Ms Brenda Kuecks
President
Ecotrust Canada

Mr Pierre Lapointe
President and CEO
FPInnovations

Mr Dave Lehane
Vice President, Woodlands
West Fraser Timber Co Ltd

Mr Dave Lewis
Executive Director
Truck Loggers Association

Mr Garry Merkel
Principal
Forest Innovations

Mr Bruce McIntyre
Incorporated Partner, Advisory Services
PricewaterhouseCoopers LLP

Mr Eduardo Rojas-Briales
Assistant Director General
FAO Forestry Department

Mr Tom Rosser
Assistant Deputy Minister
Canadian Forest Service, Natural Resources Canada

Mr Gerry Salembier
Assistant Deputy Minister, Western Economic Diversification
Government of Canada

Ms Frances Seymour
Director General
Centre for International Forestry

Mr Allan Thorlakson
Executive Chairman
Tolko Industries Ltd

Mr Doug Walker
President and CEO
The Nature Trust of British Columbia
Front cover – Natural Resources Conservation (Global Perspectives Major) student Christine Terpsma on her international exchange at Bangor University, UK.

Back cover – Natural Resources Conservation (Global Perspectives Major) student Sam Smolen on her international exchange in Norway.

Editor: Susan B Watts, PhD, RPF
In-house design and desktop publishing at the Faculty of Forestry by Jamie Myers

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This year, the world celebrated the 2011 International Year of Forests. Significant events took place around the world, and I am pleased to report that a number of these took place within the UBC Faculty of Forestry. Two events were of particular note. In April 2011, we hosted a “Forestry Leaders’ Summit”, where the links between research, education and forest policy were explored. The event was supported by the Canadian Forest Service and other sponsors. Delegates came from all over the world, and included the President of the International Union of Forest Research Organizations and the Director of the United Nations Forum on Forests. The outcome of the meeting was a communiqué that will be fed into policy processes considering forests.

A second major event was held to wrap up the International Year of Forests. Rather than inviting established leaders in forestry, as was done for the first event, we invited forestry’s future leaders to come together. The delegates consisted primarily of graduate students, with our students being joined by others, principally from the University of Washington. With the generous support of the BC Ministry of Forests, Lands and Natural Resource Operations, we were able to showcase the work of our exceptionally talented graduate students. Further details of both events are provided on page 19 of the Annual Report.

Within the Faculty, a great deal of effort over the past year has gone into reviewing our current status and developing plans for the future. All three Departments were assessed by external review bodies, and a number of recommendations were presented. In addition, our undergraduate programs in forest resource management were examined by an external accreditation group on behalf of the Canadian Forestry Accreditation Board. Discussions about our current and future role were held with the Faculty Advisory Council, with our First Nations Council of Advisors and with our alumni. The result of all these activities was the development of a new Strategic Plan for the Faculty, available at: www.forestry.ubc.ca/general-information/strategic-plan/.

A number of changes have occurred within the Faculty over the past year. Dr Rob Kozak was appointed as Head of the Department of Wood Science and Dr John Richardson as Head of the Department of Forest Sciences, both on January 1, 2012. Dr Yousry El-Kassaby took up the position of Acting Head of the Department of Forest Resources.

### Faculty of Forestry activities, 2001/02 – 2011/12

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<th>Academic Year</th>
<th>Undergraduate enrolment</th>
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1 Headcount unless otherwise noted
2 Average numerical score of several criteria used by students to assess teaching performance of faculty members.

Scale used up to an 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
Management on July 1, 2011, replacing Dr Bruce Larson who has stepped down after five years in the position.

Within the Dean’s Office, Deepti Mathew Iype and Janna Kellett joined the development team and are now working with Emma Tully on meeting the Faculty’s campaign goals. Jenna McCann took maternity leave, and has been replaced temporarily by Caely-Ann McNabb. Candace Parsons decided to take a year’s unpaid leave of absence, and was replaced temporarily by Chiara Longhi. Yuko Ikegami Lee moved into the international recruiter’s position, and Ana Curcin joined the team in Student Services. Colin Sharwood stepped down as Director of Finance, and was replaced by Leisa Belanger.

Unlike many forestry schools, the numbers of students in the UBC Faculty of Forestry has been increasing for several years. In 2011, we saw the largest number of undergraduates ever, with total enrollment increasing from 589 in 2010/11 to 689 in 2011/12. Of these, 127 were international students, and the Faculty’s complement of international undergraduate students now represents 18% of the total. A highlight of our undergraduate teaching was the introduction of a new specialization in “Community and Aboriginal Forestry”, something that reflects the Faculty’s deep commitment to Aboriginal engagement. While it is perhaps ignominious to single out any particular individual, one student deserves particular mention. Ira Sutherland received the Wesbrook Scholar and Premier Undergraduate Award for outstanding academics, leadership and involvement in student academics.

The number of graduate students declined slightly, partly because of the reduced provincial funding available to support students. However, we still have a strong and vibrant graduate program, with 244 students enrolled. More than half of our graduate students are international. Just over half of these students are enrolled in PhD programs. Jenn Burt distinguished herself and added stature to the Faculty’s graduate programs by winning the Best Master’s Thesis Award and the Governor General’s Gold Medal for the best UBC MSc thesis. Natalie Sopinka, on the other hand, won the UBC “Three Minute Thesis” competition – a fascinating campus-wide event in which students have to summarize the results of their thesis research within three minutes.

The Faculty continued to be very active in the international arena. In addition to the two conferences mentioned earlier, the Faculty continued to build its links with forestry universities in China and Europe. Our international links continue to grow, and may be one of the reasons for the tremendous increase in interest in our programs internationally. We are encouraging our students to engage internationally, and three students, Katie Gibson, Fernanda Tomaselli and Richard Shuster held offices within the International Forestry Students Association. This is the first time that our students have done so.

As mentioned above, the Faculty places a great deal of weight on our Aboriginal engagement. This suffered a major blow in 2011 when Dr Ron Trosper left UBC to take up an appointment as Head of the American Indian Studies Program at the University of Arizona. We are fortunate in having been able to recruit Dr Janette Bulkan as Assistant Professor in Indigenous Forestry, and in the interim are delighted that Andrea Lyall, a Registered Professional Forester from the Kwiksutainuek Nation, was able to instruct our undergraduate course in Aboriginal Forestry.

The Faculty’s three research forests continued to play an important role in supporting the mission of the Faculty and the University. The forests not only host both research and teaching but are also important in terms of links to the broader community. For example, Loon Lake Camp hosted 400 children and 300 volunteers at the 8th annual Canadian Cancer Society Camp Goodtimes, and Ken Day and his staff at the Alex Fraser forest worked closely with the BC Community Forest Association on a range of extension services.

With the appointment of a full development team, including an alumni relations manager, we have been able to move forward on several new initiatives aimed at improving our research, teaching and outreach activities. While fund-raising is extremely difficult in the current economic climate, we benefited significantly from the generosity of our many supporters, raising a total of $2.65 million during the course of the year.

Over the coming year, our focus will be on implementing some of the many strategies outlined in our strategic plan. This is an exciting time to be involved in forestry, and in forestry research and education in particular. I expect to see the Faculty grow over the coming years, increasing its reputation both locally and internationally. It is an honour to be able to play such an important part in making this happen.

John Innes
Dean, Faculty of Forestry
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.

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 management of forests to yield a variety of desirable products in the context of ecological, social, and economic objectives. Specializations are offered in International Forestry and Community and Aboriginal Forestry.

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 can add courses to create eligibility for registration as a Professional Engineer. A Minor in Commerce is offered through the UBC Sauder School of Business.

Forest Sciences
BSc (Forest Sciences)

This program develops individuals 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. Areas of concentration 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. A 4-year International Forestry Specialization is also available.

Wood Products Processing
BSc (Wood Products Processing)

This program is a fusion of science, engineering and business. 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. 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.

Natural Resources Conservation
BSc (Natural Resources Conservation)

This trans-disciplinary program provides students with a solid foundation in the function, process, and structure of natural ecosystems, with an appreciation for the political, legal, and socio-economic 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. 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.

ACHIEVEMENTS IN 2011 – 12

The “Community and Aboriginal Forestry” specialization within the BSF program was implemented in September 2010 and there are currently 5 students enrolled in this specialization. There are also other students within Forestry and from across the UBC campus who are taking some of the courses offered in this specialization as electives.

PLANS FOR 2012 – 13

- We will continue to explore the concept of a “Forest Sciences Honours Program” with entry after completion of second year.
- Implement a new in-house Forestry Communications course to replace 3 credits of the first year English requirement. The course curriculum has been designed and a pilot offering will occur in the 2012-13 academic year.
Welcome Sudeh.

CO-OPERATIVE EDUCATION (Co-op) enables students to combine their classroom learning with practical and relevant work experience. Since its beginning in 1996, the UBC Forestry Co-op Program has secured work term opportunities for students locally, nationally and throughout the world. Students are able to explore different career options through a variety of work terms, while employers have the opportunity to recruit, train and assess potential future employees.

2011-12 marked an increase in both the number of completed work terms and job postings over the previous year. This is a very positive sign as it indicates the economy and job market is continuing to recover from the recession which began in 2008. There was a renewed interest from employers outside the traditional sectors wanting to recruit Forestry Co-op students. This illustrates the diverse skill set and knowledge that co-op students can offer employers.

There were some staff changes in 2011-12. Linda Dom left the Faculty in December 2011. Sudeh Jahan joined the Faculty in February 2012 as the new Co-op Coordinator/Recruitment Officer (Wood Products Processing). Sudeh came from MOSAIC in February 2012 as the new Co-op Coordinator/Recruitment Officer (Wood Products Processing). Sudeh came from MOSAIC in February 2012 as the new Co-op Coordinator/Recruitment Officer (Wood Products Processing).

ACHIEVEMENTS IN 2011 – 12

• Forestry Co-op students completed work terms with a variety of employers including consultants, government, industry and non-governmental organizations.

• Co-op work terms were completed in British Columbia, Alberta, Ontario, Chile, Ecuador, South Africa, Uganda, and the United States.

• International co-op work terms were completed with a variety of employers including California Department of Forestry and Fire Protection, Great Basin Institute (United States); Universität Stellenbosch (South Africa); TAG Africa (Uganda); Arauco (Chile).

• New co-op employers included: Canadian Bavarian Millwork (Chemainus, BC), City of White Rock - Department of Engineering and Municipal Operations (White Rock, BC), Diacon Technologies (Richmond, BC), Environment Canada (Vancouver), John Walker Consulting (Williams Lake, BC), LP (Dawson Creek, BC), Ministry of Energy & Mines (Vancouver), Moulding & Millwork (Maple Ridge, BC), North of Sixty (Dwight, ON), Parks Canada – Kootenay National Park (BC) & Yoho National Park (BC), Sinclair Group (Prince George, BC), Suncor (Calgary & Fort McMurray, AB), Syncrude (Fort McMurray, AB), Teck (Sparwood, BC) and Wood Manufacturing Council (Ottawa).

• The geographical distribution of co-op work terms was 32% Lower Mainland of BC; 38% remainder of BC; 12% rest of Canada; and 18% international.

• A Forestry Co-op Presentation Evening/Mentoring event was held in October which provided the opportunity for students to share their learning and experiences from their summer co-op work terms; as well as to network with employers.

• In conjunction with the other UBC Co-op programs, 3 employer marketing events were held: April 2011 – a UBC Co-op information session was hosted at the Public Service Commission office in Vancouver for Lower Mainland-based hiring managers of the federal public service; June 2011 – UBC Co-op was an exhibitor at the annual symposium of the Association of Professional Executives of the Public Service of Canada (APEX) held in Ottawa; October 2011 – UBC Co-op hosted a luncheon in Palo Alto, California for area co-op employers, with UBC President Stephen Toope as keynote speaker. Attending employers learned more about UBC as well as ways to further engage with UBC Co-op.

• A well-attended Co-op Presentation Evening for Wood Products Processing students was co-hosted with an Open House for the Centre for Advanced Wood Processing (CAWP) in October which provided the opportunity for students to share their learning and experience gained from their summer work terms as well as network with industry employers.

PLANS FOR 2012 – 13

• Continue the development of international co-op opportunities to broaden students’ cultural awareness and understanding of global issues related to their degree and future career.

• Increase the number of new employers participating in co-op; particularly non-traditional employers.

• Review employer and student marketing strategies.

• As a member of the UBC Co-op Council, continue to work with other UBC Co-op programs to develop joint marketing initiatives targeted to employers.

• Apply for accreditation from the Canadian Association for Cooperative Education (CAFCE).

www.forestry.ubc.ca/co-op

Number of work terms completed

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<th>11/12</th>
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<td>9</td>
<td>8</td>
</tr>
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<td>Forest Sciences</td>
<td>7</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Natural Resources Conservation</td>
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<td>Total</td>
<td>73</td>
<td>57</td>
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THE 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 the student experience, and raising the profile of the Faculty of Forestry at UBC and beyond.

ACHIEVEMENTS IN 2011 – 12

Student Services

Student Services staff provide many different types of assistance, including admissions and registration support, orientations and tours, personal and program advising, referrals to other UBC services and more. We pride ourselves on our personalized approach. Graduate Program staff are located in adjacent office space, creating “one-stop shopping” student services for all Forestry students.

Recruitment Activities

Yuko Ikegami Lee and Chiara Longhi are the staff members dedicated to recruiting and advising both international and domestic students, as well as visiting and exchange students, supported by the rest of the Student Services Team as required. Linda Dom provided both co-op and recruitment activities for the Wood Products Processing program until the end of December 2011 and, Sudeh Jahan is now in that role. Our Faculty-wide international recruitment priority again this year has been to increase student enrolment and retention, from China and the US in particular. The 2+2 transfer agreements with several Chinese universities are resulting in increased numbers of international students from China entering our programs and a new position was created with the main purpose of supporting those students from the our 2+2 agreements. This role has been filled by Xinxin Zhu, who holds an MF from our Faculty and joined our team in December under Dr Niddrie.

Outstanding Students

Ira Sutherland, a Natural Resources Conservation student (Major in Global Perspectives), received one of UBC’s most prestigious undergraduate student awards – the Wesbrook Scholar and the Premier Undergraduate Award for outstanding academics, leadership and involvement in student and community activities. Ira was also a co-recipient of the Clark Binkley Award in recognition of sustained and outstanding contributions to the enhancement of the Natural Resources Conservation program.

Janice Burns, a BSF Forest Resources Management student, was chosen to receive this year’s Canadian Institute of Forestry Gold Medal, recognizing her as the most outstanding student of this year’s graduating class. Janice was an active member of the Graduating Committee and worked closely with the other committee members and the Faculty to organize the Silver Ring graduation ceremony, once again an evening to remember.

Forestry Mentoring Program

This was the third year of our Mentoring Program. The mentoring groups are comprised of 1 alumnus/professional mentor plus 1-3 students (senior and junior). This program helps students to develop their skills in career planning and provides links to the job market. Mentors included entrepreneurs, retirees and industry and government representatives; participation provided the opportunity to inspire future colleagues, to enhance coaching skills, to network with other mentors and to maintain a connection with the UBC community. This year’s program was well received by all participants. We had 14 groups involved this year and project 15-20 groups next year. We are always looking for more mentors – to learn more, please contact Geoff Anderson at geoff.anderson@ubc.ca.

Student Events

This year’s Forestry Undergraduate Society (FUS) executive and representatives were Amanda Harvey, Katie Gibson, Nick Niddrie, Allison Hunt, Maddie Crowell, Richard Schwendener, Allison Chen, Barbara Wong, Kaylah Lewis, Janice Burns. Student Services worked with the FUS to organize and support the following student events:

• “Imagine” – the university-wide orientation session held on the first day of classes;
• Forestry Week – our week to showcase our Faculty to the rest of campus;
• Trip to Huntsville, Ontario for the Canadian Institute of Forestry (CIF) 103rd annual conference, including the nationwide Forestry Student Quiz Bowl competition;
• Dean’s Welcome Back BBQ, a well-attended annual function;
• CIF Chili Cookoff – this year we also had the BCIT forestry students participate;
• International Food Extravaganza, a sampling of student-prepared dishes from the world over;
• CIF Silver Ring Ceremony, a sampling of student-prepared dishes from the world over;
• CIF Chili Cookoff – this year we also had the BCIT forestry students participate;
• “Coconut” – the legendary year-end event, held again this year at the UBC Farm.

PLANS FOR 2012 – 13

• Send a Forestry Quiz Bowl team to Quebec City, Quebec for the 104th CIF Conference and AGM, where they will compete against college and university forestry teams from across Canada and, hopefully, bring back the Quiz Bowl trophy to UBC!
• Find ways to improve and streamline Student Services activities to maximize recruitment and the overall student academic experience.
• Continue to enhance the reputation of the Faculty of Forestry and increase awareness of our undergraduate programs, both on campus and beyond.
New Student Enrolment

New student enrolment this year was 308, up by over 30%. Our admission GPA for students entering directly from secondary school increased slightly to 80% for the Forest Sciences and Natural Resources Conservation programs. It remained at 75% for Wood Products Processing and BSF Forest Resources Management and Forest Operations majors.

New students entering into different program years are tabulated below.

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<td><strong>Total</strong></td>
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Total Enrolment

Total undergraduate enrolment grew to 689, an increase of 100 students over the previous year. This is the largest group of undergraduate students we have ever had! 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 14 visiting and exchange students. 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 125 international students, up from 102 the previous year. We remain second in the university to the Sauder School of Business in terms of the proportion of international students in our undergraduate programs.

The primary sources of our growing number of international students are the United States and China. The Faculty of Forestry has partnership arrangements with Nanjing Forestry University, Fujian Agriculture and Forestry University, and Beijing Forestry University and memoranda of understanding with several other Chinese universities which have helped us with attracting suitably qualified students.

The percentage of female students in our undergraduate programs is 43.5%, up just over a percent from the previous year. This percentage varies considerably among our programs, from about 59% for the Natural Resources Conservation program to about 12% for the Forest Operations major.

Enrolment Statistics

Breakdown of New Enrolment 2011 – 12

- BSF (Forest Operations): 6.0%
- BSc (Forest Sciences): 12.4%
- BSc (Wood Products Processing): 16.5%
- BSF (Forest Resources Management): 19.1%
- BSc (Natural Resources Conservation): 46.1%

Enrolment by Year of Study 2011 – 12

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Enrolment by Program 2011 – 12

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Awards

First Year Students

Alba, Kelsea Lauren CS JOHNSEN
Dao, William WOOD
Scholfield, Oliver William ALUMNI²
Wright, William TRUCK¹

Second Year Students

Harrap, Samuel James CANADIAN
Larock, Fraser Michael CARIBOO
Liu, Charmaine ABCFP³
Sunter, Emily Judith BURCH
Trommel, Steven Jeffrey TRUCK²
Zwiebel, Aaron Batson CHISHOLM

Third Year Students

Bellis, Tyler Hugh KENWOOD
Belvas, Romain MAC³, McINTOSH²
Bennett, Derek WOOD
Errico, Claire TRUCK³
Field, Samuel Patrick Lennon DEAN
Gleasure, Elizabeth Anne ROLLER, HADDOCK
Ip, Joyce GOLUBEF, WRIGHT
Jorgensen, Alexis LITTLE, McINTOSH²
Lam, Trueman MAC², SIDDOO¹, STEINER, WOOD
Lesko, Melissa Alexandra GOLUBEF WRIGHT

Fourth Year Students

Malo, Jessica TRUCK¹
Pederson, Brita Kathryn WRIGHT
Sanchez, Olivia MAC³, SODERMAN
Trachuk, Karl Ernest WOOD
Wiersma, Ryan Paul WOOD, CANADIAN
Xiong, Huan WOOD

Four Year Students

Bissell, Charles David WOOD
Bruegger, Matthew Russell ENGLISH ALUMNI¹
Burns, Janice RE MILLS, BACKMAN KOZAK, SMITH
Cassady, Adam Nicholas KAMP
Gier, Braden WOOD
Grills, Chantelle MACHINERY, WELLWOOD, SODERMAN
Hiebert, Matthias WOOD
Katamay-Smith, Tanya DEAN
Kit, Wilson WOOD
Kofoed, Michael James BANKS, WOOD
Kostiw, Mark Taras WOOD, LUMBER
Langley, Benjamin TRUCK², SPLAN, SISCO
Lewis, Kaylah MILLS
Lister, Caleb Andrew WOOD
Mackay, Benjamin KETCHAM, BINKLEY
Marciniak, Amberly Rae MAC³, SIDDOO²
Mellstrom, Charlotte KNAPP
Moore, Kevin Scott DEAN, GRADUATING

Graduating Awards

Barra, Michael LARRE
Cimolai, Tomas Loren ABCFP²
Hole, Blair Edwin ABCFP²
Hooper, Robyn Nicole MAC¹
Matthies, Brent David MAC²
Scott, Brian Martin CIF, HOBSON

ABCFP Scholarship in Forestry¹, Graduating Prize in Forestry², UBC-O Award³
UBC Forestry ALUMNI Division Scholarship¹ and Entrance Scholarship³
BACKMAN Scholarship in Forest Resources Management
Charles and Jane BANKS Scholarship
John E BIER Memorial Prize in Forest Pathology
Emily and Francis BINKLEY Scholarship
Gerry BURCH Scholarship in Forest Sciences
CANADIAN Woodworking Machinery Distributors Association Prize
CARIBOO Woodlot Education Society Scholarship in Forestry
Hugh RD 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 JOHNSEN Forestry Entrance Scholarship
DEAN of Forestry Scholarship
Galt ELKINGTON Memorial Scholarship
Barry ENGLISH Memorial Prize
Joseph & Joyce GARDNER Scholarship in Forestry
Peter Andrew GOLUBEF Scholarship in Forestry
GRADUATING Class of Forestry 1957 Prize
Phil HADDOCK Prize in Silviculture
Harry HOBSON Memorial Prize
Ted JOHNSON Scholarship in Forestry
Bart van der KAMP Prize in Forestry
Gary and Louise KENWOOD Forestry Award
Janet KETCHAM Scholarship
Malcolm KNAPP Spring Camp Prize
Tony KOZAK Scholarship in Forest Measurement
Charles LARRE Memorial Graduating Prize
David Bell LITTLE Memorial Scholarship
Independent LUMBER Remanufacturers Association Scholarship in Wood Products
MACHINERY and Supply Companies Group Forestry Scholarship
H R MACMILLAN Prizes in Forestry¹, Forest Harvesting², Scholarship in Forestry³
Jim and Gerry McINTOSH Award in Forestry¹ and Scholarship in Forestry²
James Russell MILLS Memorial Award

NORTHWOOD Pulp and Timber Limited Scholarship
PACIFIC Regeneration Technologies Inc Silviculture Scholarship
Robert E MILLS Memorial Award
KJ ROLLER Sopron Scholarship in Forestry
Kapoor Singh SIDDOO Scholarships in Forestry¹ and Forest Ecology³
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
TRUCK Loggers Association Scholarship¹ and Scholarship in Harvesting³
WELDWOOD of Canada Ltd Scholarship in Forestry
Mary and Robert WELDWOOD Memorial Scholarship in Wood Science and Industry
University of BC WOOD Products Processing Awards
John WORRALL "Tree Enthusiast" Prize
WRIGHT Scholarship in Forestry

Undergraduate Students
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.

- British Columbia KILN Association Bursary in Forestry
- Canfor Corporation Bursary
- Coastal Silviculture Committee Bursary
- Doris M Dowling Memorial Bursary
- EG & WD Touzeau Bursary
- Eurocan Pulp & Paper Co Bursary
- Gerry and Jack Burch Bursary
- Henri J Pigeon Bursary in Wood Science and Industry
- Herschel H Boydston, Jr Memorial Bursary in Forestry
- Ian T Cameron Memorial Bursary
- JD Hetherington Memorial Bursary
- Jeanette Lindsay Memorial Bursary
- John Worrall Alumni Bursary in Forestry
- Norris-Mebius Bursary
- Oscar Soderman Memorial Bursary
- Oscar Sziklai Memorial Bursary in Forestry
- PL Northcott Memorial Bursary
- Tommy Burgess Memorial Forestry Bursary
- Tudor Ommaney Memorial Bursary in Forestry
- Vinten Fund Forestry Bursary

DEGREES CONFERRED, MAY 2011 AND NOVEMBER 2011 CONGREGATIONS

BSc (Natural Resources Conservation, Global Perspectives Major)
- Berthin, Alexander
- Cen, Shao Dan
- Chandola, Shreya
- David, Christian
- Erdle, Lisa Michelle
- Grabowski, Meagan
- Haysom, Claire
- Hooper, Robyn
- Jolley, Jessica
- Leung, Nicole Man Lai
- Loewen, Katherine
- Lu, Cynthia Fane
- Moshofsky, Molly
- Myfield, Cassondra
- Stewart, Paulette
- Wohrizek, Laura
- Wong, Janson Chun Yu
- Irvine, Meghan
- Kirkby, Melody
- Lawrence, Michael
- Manhas, Rajbir
- Meier, Helen
- Ng, Tracy Wen Hun
- Pang, Olivia
- Park, Jong Kyu
- Pauley, Rachel
- Rickard, JoAnna
- Russell, Kelsey
- Tam, Kevin Tsz Kit
- Toews, Mary
- Trieu, Hong Diem
- Wong, Kingsley King-Gee

BSc (Wood Products Processing)
- Barra, Michael
- Cheung, Wan Lung Wayne
- Cho, Dae Don
- Czapiewski, Christopher
- Goldsmith, Fraser
- Hole, Blair
- Lee, Andrew Sze Chung
- Lee, Charles
- Limantono, Arnold
- Marshall, Jody
- Moon, Yonghun Andy
- Nie, Xin
- Rippon, Jordan
- Roberts, Aaron
- Sidharta, Andre
- Yang, YuanYan

BSc (Forest Sciences)
- Beier, Clayton
- Chalmers, Eric
- Munter, Eireen
- O’Meara, Devon
- Pkorn, Stanley

BSF (Forest Operations)
- Cimolai, Tomas
- Ferguson, Jeffrey
- Ip, Jerome Chi Hang
- Matthies, Brent
- Motsa, Cornelius
- Scott, Brian
- White, Michael
- Wong, Calvin Kar Hon

BSF (Forest Resources Management)
- Bennett, Curtis
- Boulton, Christopher
- Burke, Christopher
- Chen, Yanyan
- Chiu, Horton
- Coe, Janelle
- Fraser, Stephen
- Guo, Xuan
- Hodgins, Jesse
- Lau, Gabrielle Ka Bui
- Lee, Dickson Chuen Shun
- Lepine, Maxime
- MacDonald, Curtis
- Majidian, Maryam
- Mellstrom, Charlotte
- Nash, Robert
- Ponnambalam, Kumary
- Priclesky, Vojtech
- Pu, Ting
- Sparrow, Lori
- Strimbu, Vlad
- Toda, Emily
- Wildeman, Jesse
- Wong, Jack Ho Leung
- Wu, Renchuan
- Yu, Joe
Enrolment Statistics

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

Enrolment and Graduation Trends

The Forestry Graduate Program had 238 registered students this past year, with 58% enrolled in PhD programs. Women comprised 49% of our master’s and 41% of our doctoral students. We welcomed 24 new PhD students and 34 new master’s students in 2011/12.

The average graduate student complement of supervising faculty members is 5. Fifty-seven students successfully completed their graduate programs last year, 36 with master’s degrees and 21 with PhD degrees. Average time-in-program of students finishing their programs in 2011 was 3.3 years for research-based master’s, 1.6 years for course-based master’s and 5.3 years for doctoral students.

### Distribution of students by degree program 2011 – 12*

<table>
<thead>
<tr>
<th>Degree Program</th>
<th>Male</th>
<th>Female</th>
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<tr>
<td>PhD</td>
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<td>MSc</td>
<td>44</td>
<td>40</td>
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</tr>
<tr>
<td>MF</td>
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<td>12</td>
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<tr>
<td><strong>Total</strong></td>
<td>133</td>
<td>105</td>
<td>238</td>
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</tbody>
</table>

*As of October, 2011

### Graduate student enrolment 2001/02 – 2011/12

- **PhD:**
  - 2001/02: 57
  - 2002/03: 60
  - 2003/04: 60
  - 2004/05: 70
  - 2005/06: 60
  - 2006/07: 80
  - 2007/08: 90
  - 2008/09: 90
  - 2009/10: 90
  - 2010/11: 90
  - 2011/12: 90

- **Masters:**
  - 2001/02: 180
  - 2002/03: 180
  - 2003/04: 180
  - 2004/05: 180
  - 2005/06: 180
  - 2006/07: 180
  - 2007/08: 180
  - 2008/09: 180
  - 2009/10: 180
  - 2010/11: 180
  - 2011/12: 180

- **Total:**
  - 2001/02: 238
  - 2002/03: 238
  - 2003/04: 238
  - 2004/05: 238
  - 2005/06: 238
  - 2006/07: 238
  - 2007/08: 238
  - 2008/09: 238
  - 2009/10: 238
  - 2010/11: 238
  - 2011/12: 238

### Spring and fall convocation graduates 2001 – 2011

- **Total:**
  - 2001: 57
  - 2002: 40
  - 2003: 40
  - 2004: 50
  - 2005: 50
  - 2006: 50
  - 2007: 50
  - 2008: 50
  - 2009: 50
  - 2010: 50
  - 2011: 40

*UBC Faculty of Forestry*
The Forestry Graduate Program – An International Community

The Faculty of Forestry continues to attract excellent graduate students from around the world. Forty-four percent of our graduate students are from countries other than Canada – we have students from 40 different countries – continuing to make Forestry one of the most culturally diverse graduate programs on campus. Each year we link incoming international students with a current student from the same country or region, to ease their transition to UBC and Vancouver. In 2011/12, 19 current students served as “buddies” for incoming students from Australia, Chile, China, Ecuador, France, Iran, Korea, Mexico, New Zealand, Peru, South Africa and Sweden. The FGSA hosted the fourth annual Global Tea House talk series with presentations by students from Nepal, Bangladesh, Britain and Korea about the forests and culture in their native countries.

We also successfully completed the first year of the TRANSFOR-M dual degree master’s program with our Canadian and European university partners. Three UBC students spent the year studying in Europe (SLU in Sweden and Freiburg University in Germany) and two European students spent the year at UBC.

ACTIVITIES AND ACHIEVEMENTS IN 2011 – 12

Phil Grace (MSc, H Nelson) and Andrew Innerd (PhD, Daniels) received the Faculty of Forestry Graduate Teaching Assistant Award. Margaret Branton (PhD, Richardson) received the Best PhD Thesis Award and Jenn Burt (MSc, Hinch) received the Best Master’s Thesis Award and the Governor General’s Gold Medal for best UBC MSc Thesis.

The Forestry Graduate Student Association (FGSA) once again had an excellent executive council this year and played a key role in helping us provide a sense of community for our graduate students. The FGSA organized several large social events, including the wine and cheese evening in the fall, as well as the much-anticipated musical ‘coffee house’ in March. Special monthly socials included snowshoeing and hiking on the North Shore, a Beer, Trivia and Salsa Dancing evening, and International Food Night. The FGSA also organized and hosted several workshops for students, including a breakfast workshop on document organization and citation software, and a networking skills training workshop. FGSA also co-hosted the Faculty of Forestry’s lunchtime dialogue on ‘Gender and Forestry’ for International Women’s Day. Most notable of the FGSA events this year was the “Networking Night: Promoting Professional Careers” evening held in February that brought our grad students together with professionals in the forest and environmental sectors. This night was a pre-cursor to the Faculty’s “Future Forestry Leaders” graduate student symposium, which was organized to recognize the conclusion of the International Year of Forests, and was sponsored by BC Ministry of Forests, Lands and Natural Resource Operations, UBC and the University of Washington. The symposium was a day of graduate student research presentations, followed by a poster session and awards presentation. Nine of our graduate students presented talks and 27 presented posters. Awards for outstanding posters were presented to Ms Ana Elia Ramon Hidalgo and Ms Seena L Kumar, and awards for outstanding talks were presented to Mr Justin Bull and Ms Ling Li.

Our students also participated in the second annual UBC “Three Minute Thesis” (3MT) competition, with the Forestry graduate program heat attracting 15 competitors. Forestry Heat finalists were: Natalie Sopinka (Hinch), Linoj Kumar (Saddler), Martha Essak (Arcese) and Mahmood Ebadian (Sowlati). We are very proud to announce that Natalie Sopinka made it through to the campus-wide 3MT final and was chosen as the winner of the UBC competition. The 3MT presentations can be viewed on the Faculty YouTube page (www.youtube.com/user/UBCForestry).

The FGSA executive and representatives were Ana Elia Ramon Hidalgo, Fernanda Tomaselli, Angela Liu, Amanda Johnson, René Reyes, Andrea Vasquez, Jean-Michel Beaudoin, Henry Yang, Antonia Barreau, Richard Schuster, Gwen Huber, Colin Ferster, Suborna Ahmed, and Andrea Rivers.

Dr Phil Evans offered a 12-workshop series on advanced scientific writing for graduate students and postdoctoral fellows. Our graduate students also continue to benefit from graduate skills-training courses in oral presentation and technical writing offered by Dr Susan Watts. Faculty of Forestry Research Seminars were presented by faculty members Rob Guy, Lori Daniels and Harry Nelson. Our excellent graduate program staff continue to provide multi-faceted service to both prospective and current grad students and their supervisors.

PLANS FOR 2012 – 13

- Welcome the first class of students in the course-based Master’s of Sustainable Forest Management (MSFM) program beginning July 2012.
- Continue development of the course-based Master of International Forestry degree program for launch in 2013.
- Continue participation in the TRANSFOR-M dual degree master’s program with Canadian and European university partners (year 2 of 3).

www.forestry.ubc.ca/programs/grad
Graduate Student Funding 2011 – 12

Adequate funding of our graduate students is a priority in the Faculty of Forestry. More than $3.6 million was invested in graduate student stipends in 11/12. The average annual stipend for doctoral students (during the first four years of their program) was just over $19,000; for research-based master’s students (during the first two years of their program) it was just over $15,000. Graduate research assistantships ($1,842,856) are the primary source of student stipends, especially for master’s students, while graduate teaching assistantships contribute about 8% of our student funding ($285,087). Competitive awards (not including tuition awards) contribute about half of doctoral student stipends and about one-quarter of master’s student stipends ($1,567,488).

Thirteen Forestry graduate students received Tri-Council (NSERC and SSHRC) scholarships. Tri-council scholarships accounted for 19% of the $1.5 million received by our graduate students in competitive awards in 11/12. Lee Kalsits is now in the 2nd year of his 3-year Vanier Canada Graduate Scholarship. Kyle Hilsendager won a 1.5-year Aboriginal Graduate Fellowship. Richard Schuster won a 1-year Werner and Hidegard Hesse Fellowship in Ornithology and a 6-month Australian Endeavor Research Award. The Faculty of Forestry allocation of 6 Four Year Fellowship – Graduate Entrance Scholarships (FYF-GESs) were awarded to incoming doctoral students Fernanda Tomaselli, Susannah Tysor, Tonya Ramey, Yonas Abreham, Kirsten Campbell, and Ryan Frazier. FYF designations are given to students who win Tri-Council scholarships and students who were awarded UGF in 2009/10 transitional year. Faculty of Forestry Strategic Recruitment Fellowships (SRF) were awarded to an additional 16 incoming MSc and PhD students. The SRF program is funded through the Graduate Student Initiative program at UBC. A total of 58 Forestry graduate students received University Awards (FYF-GES, FYF, SRF or Affiliated Fellowships) worth $674,848, which accounted for 43% of the total received in competitive awards.

Endowed, merit-based, Faculty of Forestry awards continue to be a vital resource for our graduate students; in 11/12 38 students received part of their stipend from these internal awards, despite the downturn in endowment values. A one-time gift through Mary and David Macaree Fellowship was awarded to 20 MSc and PhD students. Louise Blight holds the Graduate Fellowship in Sustainable Forestry, sponsored by the Koerner Foundation. Research Forest Internships (which were also sponsored by the Koerner Foundation) were awarded to Ella Furness, Maria De La Fuente Diez and Douglas Bolton.

All graduate funding sources ($3,695,431) 2011/12

Competitive awards ($1,567,488) 2011/12
### Doctoral Students

- **Abreham, Yonas**
  - FYF-GES

- **Ahmed, Suborna**
  - HANSON, MACAREE

- **Appleton, Robyn**
  - SRF

- **Atwood, Trisha**
  - FYF-GES

- **Beaudoin, Jean-Mitchel**
  - SSHRC, SRF

- **Bett, Nolan**
  - FYF, NSERC, SRF

- **Blight, Louise**
  - KOERNER

  Graduate Fellowship in Sustainable Forestry

- **Bolton, Douglas**
  - Research Forest Internship, SRF

- **Branton, Margaret**
  - Best PhD Dissertation

- **Bull, Justin**
  - FYF, NSERC, Best Presentation

- **Burke, Jordan**
  - SRF

- **Cambero, Claudia**
  - SRF

- **Campbell, Kirsten**
  - FYF-GES

- **Chandran, Ajith**
  - Int’l Research Mobility Award

- **Chen, Baozhang**
  - NSERC

- **Churchland, Carolyn**
  - NSERC

- **Devi, Shalima**
  - FYF-GES, MACAREE

- **Donaldson, Michael**
  - FYF, MACAREE, SRF

- **Drenner, Matthew**
  - FYF-GES

- **Ebadian, Mamood**
  - FYF, 3MT People’s Choice

- **Eddington, Margaret**
  - MACAREE

- **Ferster, Colin**
  - FYF-GES

- **Frazier, Ryan**
  - Int’l Research Mobility Award

- **Funda, Tomas**
  - ALLEN, FYF-GES, MACAREE

- **Germain, Ryan**
  - MITACS

- **Gonzalez, Julian**
  - FYF-GES

- **Gourlay, Keith**
  - Best Grad Teaching Assistant Award

- **Grace, Phil**
  - SRF

- **Greene, Gregory**
  - SRF

- **Haghdan, Shayesteh**
  - SRF

- **Hamilton, Jill**
  - FYF

- **Hansen, Lisa**
  - SRF

- **He, Wenchang**
  - CSC, IMAJO

- **Hilsendager, Kyle**
  - Aboriginal Graduate Fellowship, SRF

- **Hu, Jinguang**
  - CSC

- **Huang, Yu**
  - CSC, MACAREE, SRF

- **Ibarra, Tomas**
  - CONICYT, Int’l Research Mobility Award, RUFF

- **Innerd, Andrew**
  - Best Graduate Teaching Assistant Award, LUMBER, SRF

- **Jack, David**
  - BUCKLAND, GRAHAM, MACAREE

- **Jamali, Arash**
  - RIX

- **Jeffries, Kenneth**
  - MACAREE

- **Kalcits, Lee**
  - VANIER

- **Klady, Rebecca**
  - FYF, SSHRC

- **Korehei, Reza**
  - MACAREE

- **Kumar, Linoj**
  - 3MT Second Place

- **Levy-Booth, David**
  - FYF-GES, NSERC

- **Lim, Hyung-Suk (Thomas)**
  - HELLER

- **Masse, Jacynthe**
  - FRQNT, SRF

- **Mobini Dehkordi, Mohammad Mahd**
  - FYF, MACAREE

- **Nadimi, Fattane**
  - FYF-GES

- **Oaten, Dustin**
  - FYF

- **Paudel, Shyam**
  - FYF

- **Piltan, Mehdi**
  - SRF

- **Powers, Ryan**
  - SRF

- **Ramey, Tonya**
  - FYF-GES

- **Ramon Hidalgo, Ana Elia**
  - Best Poster, FYF-GES, SRF, MACAREE

- **Read, Wolf**
  - CANFOR, MACAREE

- **Sam-Brew, Solace**
  - FYF-GES

- **Schuster, Richard**
  - Australian Endeavor Research Award, HESSE, MACAREE

- **Sopinka, Natalie**
  - 3MT First Place, FYF, NSERC

- **Stephen, James**
  - MACAREE

- **Tomaselli, Fernanda**
  - FYF-GES, NAMKOONG, SRF

- **Tomscha, Stephanie**
  - VANDUSEN

- **Tooke, Rory**
  - FYF, MACAREE, NSERC

- **Tsai, Ying-Li**
  - MCPHEE

- **Twieg, Brendan**
  - NSERC

- **Tysor, Susannah**
  - FYF-GES

- **van Leeuwen, Martin**
  - Affiliated Fellowship, MACAREE

- **Varhola, Andres**
  - MITACS

- **Xu, Li**
  - CSC

- **Xu, Lianzhen**
  - CSC

### Master’s Students

- **Akhtari, Shaghaygh**
  - MCPHEE

- **Asay, Amanda**
  - SRF

- **Baker, Kahlil**
  - JOHAL, MACAREE, MCPHEE, SRF

- **Barreau, Antonia**
  - CONICYT

- **Byrd, Jason**
  - SRF

- **Burt, Jennifer**
  - Best Thesis Award, Governor General’s Gold Medal

- **Chavrades, Raphael**
  - SRF

- **Clossen, Max**
  - MITACS

- **De La Fuente Diez, Maria**
  - Research Forest Internship

- **Demiille, Gregory**
  - FMIBC, MACAREE, SMITH

- **Dettmer, Joern**
  - SRF

- **Essak, Martha**
  - HOFFMEISTER, MACAREE, SRF

- **Fundova, Irena**
  - Int’l Research Mobility Award

- **Fundova, Irena**
  - MCPHEE
## Scholarships and Fellowships

<table>
<thead>
<tr>
<th>Scholarship Name</th>
<th>Institution/Program</th>
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<tr>
<td>Furness, Ella</td>
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**AFFILIATED** Fellowships
- Peter N **AFFLECK** Memorial Graduate Scholarship in Forest Policy
- George S **ALLEN** Memorial Scholarship
- Edward W **BASSETT** Memorial Scholarship in Reforestation
- 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
- **CONICYT** National Commission for Scientific and Technological Research
- Environmental Systems Research Institute Scholarship
- Forest Management Institute of British Columbia
- Four Year Fellowship
- Four Year Fellowship – Graduate Entrance Scholarship
- **FRQNT** Fonds de recherche du Québec – Nature et technologies
- Kenneth **GRAHAM** Memorial Scholarship
- Brenda **HANSON** Memorial Scholarship in Forestry
- Paul **HELLER** Fellowship
- Werner and Hildegard **HESSE** Fellowship in Ornithology
- Bert **HOFFMEISTER** Scholarship in Forest Wildlife
- International Doctoral Research Centre Awards
- **IMAGO** Cedar Management Fund
- Asa **JOHAL** Graduate Fellowship in Forestry
- **KILLAM** Graduate Teaching Assistant Award
- **KOERNER** Foundation
- **LUMBER** Inspector’s Benevolent Society Scholarship
- Mary and David **MACAREE** Fellowship
- Donald S **MCPHEE** Fellowships
- Michael Smith Foreign Study Supplement
- **MITACS** Accelerate Program
- **NAMKOONG** Family Fellowship in Forest Sciences
- Natural Sciences and Engineering Research Council of Canada
- **NSERC** Industrial Postgraduate Scholarships
- Organization of American States Scholarships
- Pacific Institute for Climate Solutions
- **RIX** Family Leading Edge Student Awards
- Kathleen and Sheldon **ROTHWELL** Fund
- **RUFF**ord Small Grants Foundation
- J Harry G **SMITH** Scholarship in Forest Resources Management
- Strategic Recruitment Fellowship
- Social Science and Humanities Research Council of Canada
- **VANDUSEN** Graduate Fellowships in Forestry
- **VANIER** Canada Graduate Scholarship
- Adrian **WEBER** Memorial Scholarship in Forest Ecology
- **WELDWOOD** of Canada Limited Scholarship in Forestry
- **WRIGHT** Fellowship in Forestry
MAY 2011 AND NOVEMBER 2011 CONGREGATIONS

MSc

GEHLOFF Maik  
Dr Frank Lam  
Pull-out resistance of self-tapping wood screws with continuous thread

ROBERTSON, Adam  
Drs Frank Lam and Ray Cole  
A comparative life cycle assessment of mid-rise office building construction alternatives: Laminated timber or reinforced concrete

SIANCHUK, Robert  
Dr Paul McFarlane  
Identifying barriers to waste diversion: Improving collection and quality of construction and demolition waste flow information

MF

ARNOTT, Jillian  
Dr Younes Alila  
Unravelling the relationship between forests and floods: The effects on rural Asian livelihoods

BOYES, Matthew  
Dr Howie Harshaw  
An examination of recreation involvement theory and its application to Metro Vancouver and Fraser Valley Regional District's major outdoor recreation study

CAMERON, Andrew  
Dr Beyhan Amichev  
Biomass: Electric and ethanol biomass from Canadian willow and poplar plantations compared for vehicle transportation.

DING, Junyan  
Dr Nicholas Coops  
Understanding the mechanism linking water supply, vegetation composition and primary productivity in Serengeti using MODIS products

De La FUENTE DIEZ, Maria Teresa  
Dr Yousry El-Kassaby  
Linkages and synergies between community forestry, forest carbon projects and poverty alleviation

ISRAR, Mohammad  
Dr Ron Trosper  
Gitksan and Wet’suwet’en’s subsistence activities and resource conservation

KANWAR, Mita  
Dr Tom Sullivan  
The impact of climate change on Eastern Himalayas and adaptation strategies for combating it

NORDEN, Andrew  
Dr Rob Kozak  
Pine mushrooms in BC: A market analysis

TANG, Dingying  
Dr John Innes  
Toward the end of history: Ecological modernization

THA, Andrea  
Dr Suzie Lavallee  
Importance of habitat connectivity for conserving biological diversity: Climate change considerations on the fragmentation of mountain caribou habitat in British Columbia

ZHU, Xinxin  
Dr Howie Harshaw  
Using the knowledge management framework to improve ecotourism management in protected areas

MSc

BENNETT, Shauna  
Dr John Richardson  
Stream invertebrates in northwest BC: An assessment of the relative importance of forest harvesting and environment factors at local and landscape scales

BUFFO, Mike  
Dr Stephen Mitchell  
Meeting management goals in an urban forest: Vegetation dynamics and prescriptions in Stanley Park

BURKE, Andrew  
Dr Paul McFarlane  
A life cycle carbon balance for electricity produced from forest residues: A British Columbian case study

BURT, Jennifer (Jenn)  
Dr Scott Hinch  
Influences of parental identity and elevated incubation temperature on the survival, development and early life history traits in sockeye salmon

EDWORTHY, Amanda  
Drs, Kathy Martin and Karen Weibe  
Survival of tree cavities: A critical resource for cavity-nesting communities

FAYED, Manal  
Dr Yousry El-Kassaby  
Metabolite variation in ecologically diverse black cottonwood, Populus trichocarpa Torr & A Gray

GATES, Jodie  
Dr David Tindall  
Public support for climate justice: A survey of British Columbia residents
Degrees Granted

GOBERTI, Enrico
Dr Peter Marshall
Regeneration in thinned and unthinned uneven-aged interior Douglas-fir stands

HAASE, Jonathan
Dr Phil Evans
Plasma modification of wood to improve the performance of clear coatings

HIRATA, Felipe
Dr Stephen Mitchell
Mapping and modelling the probability of tree-related power outages using topographic, climate, and stand data

HSIEH, Chia-Wen Carmen
Dr John Kadla
Effect of molecular structure on the viscoelastic properties of cellulose acetate in a ternary system

KHADEMPOUR, Lily
Dr Colette Breuil
Changes in fungal associate abundance over mountain pine beetle lifecycle using target-specific primers and quantitative PCR

KLEMMER, Amanda
Dr John Richardson
The influence of stream-derived detritus subsidies on lake benthic community composition and trophic interactions

LIU, Chunling
Dr Phil Evans
Use of confocal profilometry to quantify erosion of wood and screen chemicals for their ability to photostabilize wood

MALKINSON, Leah
Dr Kermit Ritland
Local population structure of white pine weevil (Pissodes strobi [Peck]) in Interior and Sitka spruce stands in British Columbia

QIN, Wei
Dr John Kadla
Effect of organoclay reinforcement on pyrolytic-lignin-based carbon fibres

SCOTT, Adrienne
Drs Maja Krzic & David Scott
Soil water repellency after wildfire in southern British Columbia: Comparison of methodologies and predictive indicators

SWITZER, Joshua
Dr Cindy Prescott
Thinning and prescribed fire for ecosystem restoration in Rocky Mountain forests of British Columbia: Changes in physical, chemical and biological properties of forest floors and soil

TOMASELLI, Maria Fernanda
Dr Rob Kozak
Limitations and opportunities for small and medium forest enterprises in The Gambia: An exploration of the business environment, business development services and financial services

VOLLMER, Stephen
Dr Phil Evans
High performance clear-coat systems for wood used outdoors

WOO, Chelsea
Drs Colette Breuil and Paul Morris
Efficacy of tebuconazole and DDAC in shell-treated wood

WYTRYKUSH, Debra
Dr Kermit Ritland
Local population structure of white pine weevil (Pissodes strobi [Peck]) in Interior and Sitka spruce stands in British Columbia

PhD

ALBOUYEH, Rokneddin (Rockney)
Dr Kermit Ritland
Phylogenetic analysis of the transcriptome of spruce (genus Picea)

ANAND, Richa
Drs Chris Chanway and Sue Grayston
Endophytic colonization and nitrogen fixation by Paenibacillus polymyxa in association with lodgepole pine and Western redcedar

BARKER, Jason
Dr Suzanne Simard
Natural regeneration potential of Douglas-fir following wildfire and clearcut harvesting

BINGHAM, Marcus
Dr Suzanne Simard
The role of ectomycorrhizal networks in plant-to-plant facilitation across climatic moisture gradients

BRANTON, Margaret (Maggie)
Dr John Richardson
Can conservation strategies for a single species be used to inform and guide restoration of ecological structure and function in floodplain ponds?

BYRNE, Kenneth
Dr Stephen Mitchell
Mechanistic modelling of windthrow in spatially complex mixed species stands in British Columbia
CHAMBERLAIN, Brent  
*Dr Mike Meitner*  
Toward human-centered approaches in landscape planning: Exploring geospatial and visualization techniques for the management of forest aesthetics

CHANG, Feng-Cheng (Aries)  
*Dr Frank Lam and John Kadla*  
Creep behaviour of wood-plastic composites made with mountain pine beetle attacked wood

CHEN, Yue (Jessie)  
*Drs Frank Lam and J. Barrett*  
Structural performance of box based cross laminated timber system used in floor applications

CHEN, Juan (Candice)  
*Dr John Innes*  
An examination of challenges and issues facing sustainable forest management and forest certification in China

COGGINS, Samuel  
*Dr Nicholas Coops*  
Integration of multi-source, multi-scale remotely sensed imagery with ground survey information to provide forest health and inventory data

CURTIS-MCLANE, Sierra  
*Dr Sally Aitken*  
Establishment and growth responses of whitebark and lodgepole pine populations in a changing climate

DEWAARD, Jeremy  
*Drs El-Kassaby and Leland Humble*  
Forest biomonitoring, biosecurity and DNA barcoding

GHAFGHAZI, Saeed  
*Drs Taraneh Sowlati and Shahab Sokhansanj*  
Multi criteria evaluation of wood pellet utilization in district heating systems

HAJJAR, Reem  
*Dr John Innes*  
Community forests for forest communities: An examination of power imbalances, challenges and goals in Brazil and Mexico

JONES, Trevor  
*Dr Nicholas Coops*  
Employing advanced airborne remotely sensed data to improve terrestrial ecosystem mapping

MCDONNELL, Lisa  
*Dr Shawn Mansfield*  
Investigating the role of cellulose synthases in the biosynthesis and properties of cellulose in secondary cell walls

NAKAGAME, Seiji  
*Dr Jack Saddler*  
The influence of lignin on the enzymatic hydrolysis of pretreated biomass substrates

NORTHWAY, Steven  
*Drs Gary Bull and John Nelson*  
Improvements to the standard forest products trade model

RATHBUN, Leah  
*Drs Val LeMay and Nick Smith*  
Growth of British Columbia coastal species in response to thinning and fertilization treatments

SOOLANAYAKANAHALLY, Raju  
*Dr Rob Guy*  
Latitudinal gradients in adaptive traits of *Populus*

SZEFTEL, Pascal  
*Drs Markus Weiler and Dan Moore*  
Stream-catchment connectivity and streamflow dynamics in a montane landscape
Academic exchange programs offer partner institutions in 36 countries that share formal agreements with UBC. During the past year, 20 of our students took advantage of this study abroad program and studied in Australia, China, Philippines, Netherlands, New Zealand, Singapore, Spain, Sweden, United Kingdom and the United States. We hosted 11 international exchange/visiting students from China, Denmark, Netherlands, New Zealand, Philippines, Switzerland, United Kingdom and United States.

Twelve students will go to China in May 2012. During their visit they will also learn how to do business and promote wood products in China. A recent gift from United Benefits Group (UBG) has endowed a scholarship to support students in the undergraduate "2+2" transfer program. It is the first time in UBC's history that a mainland Chinese company has endowed a scholarship that funds mainland Chinese students to study at UBC. Currently, there are 41 students from China in the Faculty through the 2+2 transfer program. In November 2011 we hired Ms Xinxin Zhu as our China Program Coordinator.

Europe: The Transatlantic Forestry Master dual-degree program (TRANSFOR-M) is a 2-year program leading to a European and a Canadian master's degree in forestry and environmental management. Starting September 2011, 44 students – 24 from Canadian and 20 from European universities – will have an opportunity to participate in the TRANSFOR-M program and earn a dual Canadian and European degree. TRANSFOR-M is funded by the European Commission and Human Resources and Skills Development Canada. TRANSFOR-M is a consortium that comprises 3 Canadian and 4 European universities: University of British Columbia, University of New Brunswick, University of Alberta, Albert-Ludwigs-University (Freiburg, Germany), Bangor University (Wales), University of Eastern Finland, and the Swedish University of Agricultural Sciences.

China: The Faculty continues to strengthen collaboration with Chinese forestry universities. After successfully developing a 2+2 transfer program with 3 major forestry universities in China, we have now developed 2 new undergraduate exchange programs with Beijing Forestry University and Nanjing Forestry University through the UBC Go Global Program. The exchange program with Beijing Forestry University allows UBC students to study specific forest subjects in China with scholarships from the Chinese Government to cover tuition and living allowances while in China. The exchange with Nanjing Forestry University enables a group of students to go to China for 4 weeks to explore forestry and conservation issues. The program includes various activities, including lectures, service learning, field trips, visits to local industries and to world natural heritage and cultural sites.

The International Partnership for Forestry Education (IPFE, www.ipfe.fi) is a global network that assists university-level forestry educators to meet society's needs. Our Faculty has a leadership role in IPFE through Dr Hosny El-Lakany, elected Chair, and by hosting the network's secretariat jointly with the University of Eastern Finland. IPFE strengthened collaboration with the UBC Chapter of the International Forestry Students Association (IFSIA). The Chair of IPFE participated in the Regional Forestry College Deans Meeting in The Asia-Pacific Region, held in Beijing November 2011 and lectured graduate students at CATIE, Costa Rica on International Forest Policy via video conferences. IPFE is co-planning the Third International Forestry Education Symposium with the University of Eastern Finland in October 2012.
International Events and Collaboration

In April 2011 we organized and hosted a “Forestry Leaders’ Summit” at UBC as part of our celebration of the International Year of Forests. The meeting focused on the need to improve the skill set of forestry graduates in order for them to be able to effect forest policy decisions and the need for forestry research to be responsive to global forest policies. The communiqué resulting from the Summit is a collectively agreed upon official document that will be presented in future events related to forest governance and policy – such as the Rio + 20 Conference in 2012 and the 2013 UNFF session. In February 2012, our Faculty hosted a series of “Future Forest Leaders” events as a fitting culmination of BC’s activities celebrating the International Year of Forests. The events, which included a networking session, conference, poster session and field trip, focused on graduate students as the future leaders of forestry both locally and globally.

In August 2011, several members of Faculty travelled to Yichun in northern China to attend the international conference on ‘Response of Forests and Adaptation Management to Climate Change.’ The Faculty was one of the co-sponsors of the meeting. In November 2011, the 2nd meeting of the Asia Pacific Forestry College Deans provided an opportunity for forestry deans from around the Pacific to network, compare notes and assess regional trends in forestry education. Dean John Innes was elected as the Co-Chair of the organization’s Steering Committee. Drs Sheppard and Coops were appointed as adjunct professors at the Nanjing Forestry University.

For the first time, UBC Forestry students attended the annual meeting of the International Forestry Students Association (IFSA), held in Helsinki, Finland. Katie Gibson was appointed as the IFSA Liaison Officer with the Commonwealth Forestry Association and Fernanda Tomaselli was appointed as the Liaison Officer with the UN. Richard Shuster was appointed as the new Web Commissioner and the Regional Representative of North America. We also facilitated collaboration between major international research institutions such as CIFOR and ICRAF through Hosny El-Lakany who is a board member of both organizations. The Faculty is also well represented in IUFRO and in the Commonwealth Forestry Association (Dr John Innes serves as its chair) and the Asian Pacific Network for Sustainable Forest Management and Rehabilitation.

In the past year, the Faculty received several delegations from around the world including 16 delegations from government agencies, research institutes and universities from China. We also received delegations from Germany, Finland, Lesotho and Korea.

Mid-career Training for the Indian Forestry Service

We are providing top-level leaders of the Indian Forest Service with mid-career training through programs delivered jointly by the UBC Faculty of Forestry, BC Ministry of Forests, Lands and Natural Resource Operations, BC Ministry of Environment, and the Canadian Forest Service. Two groups of 30 participants each were trained in the summer of 2010 and 3 groups in 2011. Three more groups will be visiting British Columbia in 2012. The training participants will occupy the leading posts in both state and federal level forest administration within the next 3-4 years. The purpose of the programs is to provide them with an increased knowledge of strategic planning, policy making and governance aspects of forest management. The programs are coordinated by a consortium consisting of the UBC Faculty of Forestry, the Maxwell School of Citizenship & Public Affairs at Syracuse University in New York, the Indian Institute of Management in Bangalore and the Indira Gandhi National Forest Academy in Dehradun. When the first cycle of this training program is completed this fall, UBC and its partners will have trained 480 senior officers of the Service, which in total employs 2700 officers.

On-line Learning

We have developed and launched an on-line resource “Contemporary Topics in Forestry and Natural Resource Conservation”. This new learning resource offers an introductory video lecture series on a variety of topics. Viewers can watch lectures by experts (many of whom are professors from the UBC Faculty of Forestry). The site includes 30 modules covering the broad disciplines of forestry and natural resource conservation from forest genetics, sustainable forest management, engineered wood products and marketing to international forest policy. This on-line resource has provided an invaluable contribution to the “Introduction to Contemporary Forestry and Conservation” course between UBC’s Faculty of Forestry and Nanjing Forestry University.

Awards

On November 29th, 2011, Dr Hosny El-Lakany, Adjunct Professor, Department of Forest Resources Management and Director of International Forestry at UBC’s Faculty of Forestry, was recognized by fellow UBC alumni for his work in supporting communities around the world with sustainable forest practices. He received the Global Citizenship Award at the annual UBC Alumni Achievement Awards celebration.
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.

In British Columbia, the need for First Nations involvement in forested land activities is 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. This eventually led to a land planning agreement. In other cases, BC courts have continued to insist that the government consult and accommodate Aboriginal rights, whether proved or likely to be proved.

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. Implementing the policy in legislation has not occurred, however. Although the extent of the practical effect of the New Relationship remains to be determined, First Nations are gaining greater access to forest resources and currently hold over ten percent of the harvesting rights in British Columbia. A new forest tenure was announced, the First Nations Woodland Licence and is hailed superior to the previous Forest and Range Opportunities, because they are area-based, long term and replaceable agreements. Much remains uncertain, however, because the forest sector is in an extended economic slump, and the consequences of the mountain pine beetle infestation remain uncertain.

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 2011 – 12**

- The position of manager of aboriginal initiatives remained vacant this year. Gordon Prest, formerly employed full-time, provided some recruitment activities under contract. During his “retirement” he continued to serve as co-chair of the First Nations Advisory Council. The other co-chair is Keith Atkinson.
- The First Nations Council of Advisors met June 6, 2011. The group reviewed the 2007-2010 Faculty of Forestry Strategic Plan “Furthering Aboriginal Forestry”. The Faculty has met many of the specific targets it set for Aboriginal Forestry. First Nations Council of Advisors discussed goals for 2015. The First Nations Council of Advisors also discussed the formation of a Centre for Indigenous Forests.
- Dr Ronald Trosper from the Salish and Kootenai Tribes of the Flathead Reservation, Montana, after seven years with the faculty moved on to lead the American Indian Studies Department at the University of Arizona as Program Head and Professor accepted a new position as Head of the American Indian Studies Program at the University of Arizona in Tucson. He began that position on July 1, 2011.
- Andrea Lyall, Registered Professional Forester from the Kwikwetlem Nation, BC was successfully recruited as sessional instructor to instruct Conservation 370 Aboriginal Forestry for the winter term of 2012.
- A total of 9 undergraduate students, 1 graduate student and 1 doctorate student self identified as Aboriginals in forestry programs in 2011-2012. Three Aboriginal students will receive their bachelor’s degree in forestry in 2012.
- Current Faculty First Nations initiatives include the Haida Semester. Students have the option to go to Haida Gwaii for one full semester and immerse in local culture – aboriginal and non-aboriginal.
PLANS FOR 2012 – 13

Dr Janette Bulkan has been successfully recruited as Assistant Professor, Indigenous Forestry. She will begin her appointment July 1, 2012. Janette is currently a social scientist in the South America program of ‘Environment, Culture, and Conservation’ (ECCo), a Division of Science, at The Field Museum in Chicago. She has spent the past two decades engaged with indigenous communities of different language groups and cultural traditions.

Continued effort will be directed towards funding and implementing of the strategic plan and the new community and Aboriginal forestry specialization in the forest resources management degree program.

The 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 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.

First Nations Council of Advisors

<table>
<thead>
<tr>
<th>Name</th>
<th>Title and Organizational Affiliations</th>
</tr>
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<tbody>
<tr>
<td>Keith Atkinson</td>
<td>FNCOA Co-Chair, CEO BC First Nations Forestry Council</td>
</tr>
<tr>
<td>Gordon Prest</td>
<td>FNCOA Co-Chair, ABCFP Honorary Member</td>
</tr>
<tr>
<td>Jeremy Boyd</td>
<td>Forester and Operations Forester, Sasquatch Forest Products LLP</td>
</tr>
<tr>
<td>John Innes</td>
<td>Dean of Forestry, UBC</td>
</tr>
<tr>
<td>Lennard Joe</td>
<td>Forester and Owner-Operator, Grizzly-man Resource Management Ltd</td>
</tr>
<tr>
<td>Linc Kesler</td>
<td>Director, First Nations’ House of Learning Professor and Head Dep’t of Indigenous Studies</td>
</tr>
<tr>
<td>Bruce Larson</td>
<td>Professor FRM, UBC</td>
</tr>
<tr>
<td>Maxine Lepine</td>
<td>Undergraduate Student</td>
</tr>
<tr>
<td>Andrea Lyall</td>
<td>Forester, Dzunukwa Resource Management</td>
</tr>
<tr>
<td>Peter Marshall</td>
<td>Associate Dean of Forestry, UBC</td>
</tr>
<tr>
<td>Jim McGrath</td>
<td>Forester, Kamloops Indian Band</td>
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<tr>
<td>Garry Merkel</td>
<td>Forester, Tahltan Nations</td>
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<tr>
<td>Debbie Miller</td>
<td>Treaty Officer, Katzie First Nation</td>
</tr>
<tr>
<td>Lyle Mueller</td>
<td>Coordinator, Aboriginal Programs, UBC Okanagan</td>
</tr>
<tr>
<td>David Nordquist</td>
<td>Forester, Adams Lake Indian Band</td>
</tr>
<tr>
<td>Angeline Nyce</td>
<td>Lawyer and Forester, Davis LLP, Vancouver</td>
</tr>
<tr>
<td>Darrell Robb</td>
<td>Director, Aboriginal Affairs Branch, Ministry of Forests, Lands and Natural Resources</td>
</tr>
<tr>
<td>Brian Robinson</td>
<td>Forester, Association of BC Forest Professionals</td>
</tr>
<tr>
<td>Carleigh Smart</td>
<td>Teacher, Coquitlam</td>
</tr>
<tr>
<td>Ivan Tallio</td>
<td>Director of the Nuxalk Nation’s Integrated Resources Office</td>
</tr>
<tr>
<td>Georgina Thomas</td>
<td>Tlowitsis First Nation</td>
</tr>
<tr>
<td>Matt Wealick</td>
<td>Forester and Manager of Forest Operations Ch-iil-kway-uhk Forestry Limited Partnership</td>
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Aboriginal Forestry

Research Associates

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GUO, Fu Tao
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Sustainable Forest Management

HAJJAR, Reem
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Community-based Forest Management in Developing Countries

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SCHROTH, Olaf
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Ecosystem and Biodiversity Conservation

DE LA ROCHE, Ian
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BSc, MSc, PhD
Forest Industry Policy

EL-LAKANY, Hosny
(Former Head Forestry Department, FAO/UN)
BSc, MSc, PhD, DSc
International Forest Policy

ELLIOTT, Chris
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Forest Policy, Biodiversity and Certification

HOI, Paul
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BSc, MSc, PhD
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BSc (Hons), MSc, PhD
Forest Hydrology

ILES, Kimberley
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BSc, MSc, PhD
Forest Inventory

KURZ, Werner
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Dip Holzwirt, PhD
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LECKIE, Donald G
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BSc, PhD
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MAGNUSSEN, Steen
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Biometrics, Inventory, Silvicultural Investment Analysis, Growth and Yield

TROSPER, Ronald
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CHAMBERS, AD
Associate Professor Emeritus (1997)

DOOLING, PJ
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GOLDING, DL
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HALEY, D
Professor Emeritus (2004)

KOZAK, A
Professor Emeritus (2001)

MUNRO, DD
Professor Emeritus (1995)
MERTHA, PA  
Professor Emeritus (2003)

PEARSE, PH  
Professor Emeritus (1997)

REED, FLC  
Professor Emeritus (1993)

YOUNG, GG  
Associate Professor Emeritus (1996)

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VERWOERD, Harry  
Computer Support Specialist

ACHIEVEMENTS IN 2011 – 12

• Dr Yousry El-Kassaby was appointed Head Pro Tem. A search for an external Head is underway.

• Drs Alila, Coops, and Meitner received ongoing NSERC funding. Drs H Harshaw and H Nelson received SSHRC funding.

• Drs Bull and J Nelson received funding from Value Chain Network; Dr Marshall received on-going ForValueNet funding.

• The Department underwent an External Review, May 9-11, 2011.

• Dr Janette Bulkan was successfully recruited as Assistant Professor, Indigenous Forestry, effective July 1, 2012. She replaces Dr Ron Trosper.

• Dr John Innes received a $1 million grant from the Asia Pacific Network.

• CONS 370 (Aboriginal Forestry) was taught by Andrea Lyall, First Nations Council of Advisors.

• Deb DeLong was appointed as a 12-month Lecturer to help launch the new course-based Masters of Sustainable Forest Management program. She will also teach in the program.

• Environment Canada scientists Drs Stewart Cohen and Yongyuan Yin and Bing Rong, previously located in our Department, have been relocated to other Environment Canada offices. We will continue our association with Drs Cohen and Yin in their capacity as Adjunct Professors.

• Dr Younes Alila’s paper (Forest harvesting effects on the magnitude and frequency of peak flows can increase with return period) was selected by the American Geophysical Union (AGU) to be a Spotlight Research Paper.

• Dr Gary Bull was part of a research team awarded the Aboriginal Partnership Research Award 2012, by the Lakehead University Office of Research Services, Office of Aboriginal Initiatives and the Ogimaawin-Aboriginal Governance Council.

• Dr Hosny El Lakany, Adjunct Professor, winner of the 2011 UBC Alumni Achievement Award for Global Citizenship. Dr El Lakany was recognized at a dinner, hosted by UBC President, Professor Stephen Toope.

• Dr Ian de la Roche, Adjunct Professor, will be the 2012 recipient of the Dr Don Rix Award for Lifetime Achievement at the LifeSciences BC Awards on April 19.

• Nicholas Coops was awarded a Senior Killam Research Award.

• Dr Stephen Sheppard was appointed a UBC Sustainability Research Fellow by the Research Partnership Office.

• Dr Stephen Sheppard published a new book entitled “Visualizing Climate” from Earthscan/Routledge.

PLANS FOR 2012 – 13

• Appoint new Department Head.

• A strategic planning process is being undertaken following the release of the Faculty’s strategic plan. Dr John Nelson is heading this process.

• The new course-based Masters of Sustainable Forest Management program will launch in September.

• Start development of the new course-based Masters in International program.
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Advanced Generation Seed Orchards

YANCHUK, Alvin  
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DURALL, Daniel  
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BSc, PhD  
Mycorrhizal Ecology

Professors Emeriti

BUNNELL, FL  
Professor Emeritus (2007)

FELLER, M  
Associate Professor Emeritus (2009)

KIMMINS, JP  
Professor Emeritus (2007)

KLINNA, K  
Professor Emeritus (2002)

LAVENDER, D  
Professor Emeritus (1992)

McLean, JA  
Professor Emeritus (2008)

NORTHCOSE, T  
Professor Emeritus (1992)

van der KAMP, B  
Professor Emeritus (2006)

WEETMAN, G  
Professor Emeritus (1998)

WORRALL, J  
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CHENG, Rosemarie  
BSIE (UP, The Philippines)  
Financial Coordinator

DEL BEL, Kate  
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DESCALZO, Rolando  
MPM, PhD (S Fraser)  
Collections Manager

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RMOT (Malaspina)  
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MANESS, Katherine  
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MISCAMPELL, Allyson  
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MOY, Arnold  
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MUTIA, Christine  
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QUAMME, Linda  
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SETO, Carrie  
BA (HK)  
Administrator

THOMPSON, Natasha  
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Departmental Secretary

TUYTEL, Joanne  
BSc (Brit Col)  
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YUEH, Hesther  
BSc (McGill)  
Project Manager

YUEN, Agnes  
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New Appointment

Dr Lori Daniels joined the Forest Sciences Department as an Associate Professor with tenure in July 2011. Prior to joining our department, she held a full time appointment in the Geography Department at UBC. Her research interests include forest dynamics, disturbance regimes and dendrochronology.
Achievements and Plans

ACHIEVEMENTS IN 2011 – 12

• Dr John Richardson was appointed as Department Head effective January 2012, replacing Dr Robert Guy who ably led the department for the past 6 years.

• A full external review of the department was undertaken in May 2011. This external review provided a strong and positive endorsement for the department.

• Drs Aitken, Hamelin and Ritland were awarded new Genome BC grants over 3 years, while Drs El-Kassaby, Guy and Hamelin received continuing grants from Genome B.C.

• Drs Aitken, Arcese, Chanway, Daniels, El-Kassaby, Gergel, Grayston, Guy, Hamelin, Hinch, Martin, Mitchell, Prescott, Richardson, Ritland and Simard hold ongoing NSERC Discovery grants.

• Drs Grayston and Prescott were awarded a new NSERC CRD grant for 4 years.

• Dr Simard received a new NSERC Collaborative Research and Training (CREATE) Program grant for 6 years.

• Dr Yousry El-Kassaby was made Professor Honoris Causa at the Czech University of Life Sciences Prague. Yousry has collaborated with several forest geneticists from the Czech University’s Department of Dendrology and Forest Tree Breeding including supervising graduate students and hosting visiting professor. Several research papers were published during this collaboration.

• Dr Scott Hinch received the 2011 Excellence in Fisheries Education Award by the American Fisheries Society. The award is given “in recognition of continuous dedication to the teaching profession and personal contributions to the education of fisheries professionals”.

• Dr Suzie Lavallee will be awarded the 2011/12 Killam Teaching Award for the Faculty of Forestry at the Convocation Ceremony for Forestry in late May.

• Richard Schuster (PhD – Peter Arcese) was awarded an Australian Endeavour Research Fellowship which is an internationally competitive, merit-based scholarship program providing opportunities for citizens of the Asia Pacific, the Middle East, Europe and the Americas to undertake study, research and professional development in Australia.

• The Centre for Applied Conservation Research and Faculty of Forestry hosted Nancy Baron, renowned science communicator for an evening lecture and two half day workshops designed to get environmental and conservation scientists ‘out of the Ivory Tower’ and increase their ability to communicate research results to media professionals and the public.

• The Department hosted the Schaffer Lecture on February 24, 2012. Tiina Vähänänen, Team Leader, Climate, Energy and Tenure Division of Food and Agriculture Organization of the United Nations, Rome, Italy, gave a presentation on “Safeguarding Natural Resources: Forestry in International Debates”.

• The Department carried on its weekly seminar series for the third year, featuring our graduate students and post-doctoral fellows.

PLANS FOR 2012 – 13

• A search is underway for an instructor in Natural Resources Conservation (NRC). The instructor will be involved in the teaching, coordination, and development of undergraduate and graduate courses in the NRC Program.

• The Department will be convening a 1-day research symposium on April 12, 2012 for all department members to meet and talk about their research.

• Dr John Richardson will help organizing the 7th World Congress of Herpetology in Vancouver from 8-14 August 2012.

• Dr Kathy Martin will organize and chair the 5th North American Ornithological Conference at UBC, 14-18 August, 2012 to be held for the first time in Canada. This meeting is held every 4 years, and features a full range of topics on research and management of birds in The Americas.

• We will maintain a high rate of proposal submissions to NSERC, Genome BC/Genome Canada and other funding agencies.

• We will continue our weekly departmental seminars.
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Wood Drying
Achievements and Plans

ACHIEVEMENTS IN 2011 – 12

• The Wood Products Processing program achieved an enrolment of 114 undergraduates (31 international students) with a new student intake of 53. Each of these metrics represents an all-time high, and our hope is to continue to grow the undergraduate program.

• The co-op program continued as an integral and highly successful component of the Wood Products Processing Program with 35 co-op work placements completed.

• The graduate student population continued to grow moderately. During the year, 76 graduate students were supervised by department members.

• The Centre for Advanced Wood Processing provided an increasing range of industry services and training, including a large number of training workshops and e-learning courses, and more than 20 capacity-building projects with value-added manufacturers and First Nations.

• Drs Avramidis, Cohen, Lam, Mansfield and Sowlati received new NSERC funding. Drs Breuil, Evans, Kadla, Kozak, Lam, Mansfield, Saddler, Smith and Sowlati received ongoing funding.

• Drs Avramidis, Evans, Lam and Smith continue to receive research funding from the Natural Resources Canada Value-to-Wood program.

• Dr Evans was keynote speaker at the International Academy of Wood Science Conference and the Workshop on Materials and Complexity held in Sweden and Australia, respectively.

• Drs Evans, Smith and Sowlati were nominated for the Killam Teaching Prize, with Dr Sowlati receiving runner-up honours.

• Dr Kadla continued his role as the Scientific Director for the NSERC Biomaterials and Chemical Strategic Network, and also received research funding from AUTO21, Canada’s automotive R&D program.

• Drs Kadla, Kozak and Mansfield were successful collaborators on 3 large-scale Genome Canada projects.

• Dr Kozak became Head of the Department in January, 2012

• Dr Kozak received new and ongoing SSHRC funding, and continued his role as Theme Leader for the NSERC Value Chain Optimization Strategic Network.

• Dr Saddler continued his role as Co-Director of the NSERC Bioconversion Network, and continued to receive research support from Genome BC, the US Department of Energy, and the International Energy Agency.

• Arash Jamali, a PhD student with Dr Phil Evans, was awarded the Robert W Stephen’s Memorial Prize at the Annual Meeting of Canadian Wood Preservation Association for his paper on “Water Vapor Plasma Processing of Wood”. Wei Xie, a PhD student in Chemistry with Dr John Ruddick, was given the Gareth Williams Award at the International Research Group on Wood Protection for her presentation on “Quantification of Mobile Copper(II) Levels in Micronized Copper Treated Wood”.

• An external review of the Department was undertaken in June, 2011. The review was extremely positive, noting it was “a world class leader” and citing its excellence in research and teaching.

PLANS FOR 2012 – 13

• We will continue to use the recommendations of the external review to help guide strategic initiatives that will allow us to maintain and grow our position as an internationally renowned academic unit.

• One of the key aims of the Department continues to be increasing the enrolment levels of our undergraduate program. Based on feedback from our review, we are exploring the possibility of creating new undergraduate program streams to attract more students. We are also continuing with our 2+2 program, and to date, have 12 students from partner universities in China.

• In May 2012, Drs Ellis and Kozak will travel to Nanjing Forestry University in China to teach introductory Wood Science courses to prospective students.

• We will continue to actively pursue funding opportunities from diverse sources, including research agencies, governments, industry, international organizations, and through industry extension activities.
THE 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 Industry 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. A number of manufacturing companies also support CAWP annually through cash contributions to our industry partnership program.

CAWP has an internal Management Committee to allow faculty members in the Department of Wood Science to provide input into the activities of CAWP, and it is active in 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 is the largest degree program in wood technology/wood science in North America. In 2011-12 there were 35 co-op work terms completed by our students. Students worked throughout British Columbia and also in Alberta and Ontario. 2011-12 represented the first time that no students worked internationally. The WPP has seen a slight increase in the number of applications in 2011-12. As of March 2012 there were 160 applicants to the program, up by 10 students from last year, which represents a new high.

A permanent exhibition space, created in 2010 in the classroom adjacent to our High Head Manufacturing Lab, showcases the many innovative student projects that have been carried out in collaboration with our academic units, educational institutions and industry. The space currently features the prototype model of the Winter Olympic medal podium as well as numerous other projects.

Continuing Education, Communication and Extension

CAWP offers 2 UBC Certificate programs to industry professionals – the Industrial Finishing Certificate and the Kiln Drying Certificate. The Industrial Finishing program attracted its highest attendance on record in 2012, with learners participating from BC, Alberta, Ontario, Washington State and as far away as Texas. Our Kiln Drying Certificate is currently being redesigned as a blended learning program to facilitate greater industry participation. For the past 3 years CAWP has also delivered a Management Skills Certificate program in partnership with the Wood Manufacturing Council, a national body that represents the skills and training needs of the secondary wood processing industry. The program consists of 8 35-hour online course modules that can be taken by entrepreneurs and management-track employees of wood manufacturing businesses to acquire key management skills. The courses attract over 100 learners per year, and an additional course module on Green Marketing has been commissioned for development in 2012.

For a third year CAWP delivered an industry product development program in 2011-12, working one-on-one with a dozen value-added manufacturing companies and two First Nations bands on 18 separate technical assistance projects. Most of these were supported with funding provided by Forestry Innovation Investment as part of CAWP’s role in the Business Innovation Partnership (BIP), a joint program delivered in cooperation with BC Wood Specialties Group and FPInnovations to provide business development services to the value added wood products industry in British Columbia. A further 2 projects were supported by a provincial value-added wood processing funding program for First Nations.

The projects included: evaluating engineering values for new glued LVL beams; prototyping oversized wood windows, chairs, tables, wooden connector toys, stair treads with stone and tile inlays, and decorative wall panels; improving product quality and process efficiency in a mid-size window and door plant; and creating flooring and wall panel products from recycled shipping pallet material. CAWP also held technical seminars for the log home and timber frame sector on job costing, timber structure assessment and monitoring, and heavy timber connection systems. In the coming year CAWP will expand these industry-focused technical support activities and provide additional training opportunities for architects, designers, engineers and building contractors as part of the Province’s new Wood First initiative.
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. In 2012 additional projects on weathering resistance, fire resistance and glue strength will be carried out under the Wood First initiative.

PLANS FOR 2012 – 13

• Increase industry support for CAWP through our industry partnership program.
• Increase technical support activities delivered to manufacturing companies and industrial designers through the Wood First initiative.
• Increase awareness and uptake of the WMC Management Training Certificate Program and deliver and offer a new module on Green Marketing.
• Launch a new introductory-level e-learning course on the forest products value chain.
• Obtain funding for new education and training capacity-building projects in West and Francophone Africa.
• Leverage existing curricula and educational technologies to offer innovative new training programs in response to industry needs.

Centre Associates

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<tr>
<th>Name</th>
<th>Institution</th>
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<td>Yellowly, Ian</td>
<td>UBC</td>
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HIGHLIGHTS OF 2011 – 12

New Faculty: Natural Disturbance Regimes and Changing Climate

CACR is excited to welcome Dr. Lori Daniels who joins us from the Department of Geography and brings her expertise in linking fire dynamics and climatic variability using dendrochronology and permanent research plots. Her timely research program and enthusiasm has helped coalesce new collaborations in natural disturbance and she has helped organize a joint discussion group with the Insect Ecology (Carroll) and Landscape Ecology (Gergel) groups.

3rd Annual BC Parks and Recreation Forum

CACR helped secure MITACS funding in collaboration with Dr. Tory Stevens of BC Parks and in December 2011 hosted two jam-packed days of parks and protected areas talks, discussions and workshops. Hard work by CACR’s graduate student volunteers as well as a Plenary by Peter Arcese engaged >150 biologists and academics from five British Columbia universities as well as regional, provincial and federal governments. Huge thanks to Conference Chair Tory Stevens, as well as Jessica Miles and Pam Wright (UNBC) who carried the lion’s share of duties. For paper and poster abstracts please see www.unbc.ca/bcparf/.

2012 Werner and Hildegaard Hesse Research Awards

Peter Arcese helped secure a bequest of over $1m in support of research awards for conservation of wild birds at UBC, to be awarded by CACR and the Biodiversity Research Centre in alternate years. This year’s award totalled $12,000 and was divided among 3 awardees based on deliberations by CACR post-doctoral and doctoral candidates. Congratulations to Richard Schuster (Forest Sciences), Kira Delmore (Zoology) and Paolo Segre (Zoology). The program is open to all UBC graduate students and is described in detail at http://hesse-award.sites.olt.ubc.ca/2010/11/18/werner-and-hildegaard-hesse-research-award-in-ornithology/.

Graduate Training in Advanced Landscape Analysis (FRST 504: Landscape Ecology)

Sarah Gergel spent much of her recent sabbatical revising a co-edited textbook for teaching landscape ecology and then “beta-tested” these materials in CACR’s graduate course in Landscape Ecology & Resilience (Fall 2011). This course presented state-of-the art materials addressing network analysis, aerial photography, conservation planning, and more. Fifteen enthusiastic and dedicated students from Forestry and units across campus learned advanced tools and techniques not yet available in most landscape ecological curricula. More information can be found at: http://landscape.forestry.ubc.ca
Research Groups News

Salmon Migration and Fish/Forestry Research
Scott Hinch and colleagues use physiological assays, telemetry and lab experiments to study salmon migration and swim performance to reveal limitations on ocean and river survival. Recent and long-term field experiments by this research group have contrasted south coastal and northern interior stocks to study the impacts of climate change fish populations and the influence of recreational fishers on in-river survival. In case you missed it: see PhD student Erica Eliason’s Quirks & Quarks interview on the future of Fraser River sockeye at www.cbc.ca/quirks/episode/2011/04/02/april-2-2011/.

Conservation and Development in Africa
Rob Kozak, Joleen Timko and colleagues continued to develop AFRICAD to pursue conservation-based approaches addressing poverty alleviation and local livelihood development in forested areas of significant biodiversity value in sub-Saharan Africa. Visit www.africad.ubc.ca for full details.

Climate Change and Biodiversity
Fred Bunnell and colleagues continue work on climate change and biodiversity issues, and to assist BC Ministries and the forest industry with application of the Provincial Conservation Framework.

Remote Sensing, Biodiversity and Terrestrial Ecosystem Mapping
Nicholas Coops continues to lead the application of remote sensing to forest growth and biodiversity monitoring, including mapping mountain pine beetle damage and 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, and its application to predicting species avian richness and mapping of rare plant communities.

Wildlife Biodiversity in Temperate and Tropical Forests
Kathy Martin and students study wildlife biodiversity in interior mixed forests in British Columbia focusing on the ecological dynamics of cavity-nesting vertebrate communities in relation to habitat conditions, forest management and insect outbreaks. She compares cavity-using vertebrate communities in tropical and temperate forests, including examining the role of cavity formation, cavity tree persistence and resource pulses on nest web community dynamics.

The Ecology and Conservation of Alpine and Arctic Birds
Kathy Martin established The Centre for Alpine Studies (www.forestry.ubc.ca/alpine) to promote research investigating how animals survive and breed in alpine and arctic habitats that are currently experiencing climate warming and increasingly variable conditions. Students conduct research on the behaviour, ecology and genetic structure of birds breeding in alpine ecosystems.

Belowground Ecosystem Group’s Soil Biodiversity Research
Sue Grayston, Cindy Prescott, Suzanne Simard, Chris Chanway and students continue to demonstrate links between the composition and diversity of soil microbial communities and key processes in carbon and nutrient cycling in forest ecosystems, including fertilizing forests as a means of increasing sequestration of carbon in soil, recreating a functioning forest soil in reclaimed oil sands sites in Alberta, and using stable isotope probing to identify keystone species in soil food webs.

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. See the details of recent papers on these topics at http://faculty.forestry.ubc.ca/richardson/home.html.

Centre for Forest Gene Conservation
Sally Aitken and colleagues at the Centre study the population and ecological genetic structure of indigenous forest tree species to assess the current degree of genetic conservation in nature reserves and collections, and to evaluate genetic diversity in populations of forest trees to meet current and future environmental challenges. The CFGC is also the home of the climate model ClimateBC now being used by researchers internationally to conduct research on climate change mitigation strategies and conservation planning, and to predict the fate of BC’s native tree populations and ecological zones in a rapidly changing climate. See www.genetics.forestry.ubc.ca/cfgc/ for their most recent products.

Sustainable Forest Management Research Laboratory
Led by Dean John Innes, this lab pursues interdisciplinary research on sustainable forest management in human-modified and natural systems. Projects in Canada, China, India, Peru, Nepal, Australia and South Africa focus on forest certification, criteria and indicators, effectiveness monitoring, climate change, cumulative impact assessment, biodiversity and social and cultural indicators for resource-dependent and First Nation communities. For full details see http://sustain.forestry.ubc.ca/.

The Genetic Data Centre
Directed by Carol Ritland, the GDC 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.

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THE 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, this other post-secondary institutions and continuing education programs.

The location of the forests, covering eight diverse biogeoclimatic subzones and 3 tenure systems, offers a variety of research and education opportunities.

MALCOLM KNAPP FOREST
Paul Lawson
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ALEX FRASER FOREST
Ken Day
BScF (Hons), MF, RPF
Manager
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ACHIEVEMENTS IN 2011 – 12

• Initiated 8 new research projects.
• Employed 3 forestry undergraduate students and 1 forestry graduate student on 4-month internships.
• Completed a study of forest users and their opinions on recreational use and restrictions at MKRF.
• Increased timber harvest to 32,695 m³, (up 61% from 2010).
• Hosted Loon Lake facility use to 17,571 overnight stays in 2011 (down 7% from 2010).
• Opened Facebook page for Loon Lake.
• Hosted the Faculty’s Spring Field School in April and Conservation Field School in October.
• Hosted over 400 children and 300 volunteers at the 8th annual Canadian Cancer Society Camp Goodtimes held at Loon Lake.
• Milled over 360,000 board feet of lumber at our sawmill facility, an increase of 3% from 2010.
• Completed silviculture surveys on 175 ha, brushing and deer protection installation on 43.9 ha, and planting of 14,540 trees on 9.5 ha.
• Completed a feasibility study and costing for installation of bioenergy heat and power at Loon Lake.
• Maintained full time staff at 4.

PLANS FOR 2012-13

• Increase Loon Lake visitor days by 5%.
• Revise Loon Lake website and employ a sales representative.
• Install natural gas pipeline to Loon Lake and convert facility from propane to natural gas
• Employ 2 undergraduate and 2 graduate students for 4 month internships.
• Decrease timber harvest levels 12% to 29,000 m³.
• Prepare a Woodlot License Plan for Woodlot 37.
• Complete a carbon management strategy for the Forest.

• Begin fundraising for new Loon Lake Dining Hall.
• Upgrade fire preparedness, suppression and detection equipment and infrastructure
• Measure 2005 High Density Silviculture experiment and re-measure 1957 Douglas-fir Provenance Trials

ALEX FRASER FOREST
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ACHIEVEMENTS IN 2011 – 12

• Initiated 4 new research projects.
• Recorded 727 contact days for extension with 645 attendees, including Fall Field School.
• Provided 11 tours and 7 presentations for researchers, professionals, students, and the public from British Columbia and around the world. Presented at an international forestry conference in China.
• Hired 2 undergraduate and 2 graduate interns for 4 months.
• Continued collaboration with the BC Community Forest Association to provide extension services and promote Faculty expertise regarding forest management planning, forestry administration, data management, timber sales and wood products manufacturing.
• Re-measured 4 long-term research projects.
• Carried out the final harvest of a replicated uniform shelterwood experiment established in 1989.
• Carried out silviculture activities including pre-commercial thinning on 20.6 ha; fill planting 2,400 trees on 2.3 ha; and silviculture surveys and free growing declaration on 39.4 ha.
• Maintained recognition for consulting expertise regarding woody biomass management for biofuels, as well as urban/wildland interface fire hazard reduction planning and implementation.
• Continued managing the application process for the Williams Lake Community Forest in cooperation with the Williams Lake Indian Band.
• Participated on boards for the Gavin Lake Forest Education Society, local Invasive Plant Committee, and Southern Interior Silviculture Committee.
PLANS FOR 2012-13

- Celebrate 25 years of forest research and education in the Cariboo.
- Continue diversifying revenue streams, including sales, services and funded projects.
- Continue to provide consulting services in fuel reduction treatments and select projects.
- Employ 2 undergraduate interns in silviculture and harvest planning.
- Employ 1 graduate intern to develop a commercial thinning strategy for the 80 year old stands in the southeast portion of the Gavin Lake Block.
- Host two international interns for two-month work experience terms.
- Submit application and management plan for Williams Lake Community Forest.
- Work with the BC Community Forest Association to provide extension services and linkages to the Faculty of Forestry for Community Forests.
- Return to large numbers of students for the annual fall field school.
- Return to full timber harvesting program, including the overstory removal of partially harvested stands where mountain pine beetle salvage was carried out a decade ago.
- Plan for harvesting in original mule-deer research blocks, to be cut in 2014 (30 years after the previous research treatments).
- Promote research opportunities.

**ALEZA LAKE FOREST**

Michael Jull
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ACHIEVEMENTS IN 2011 – 12

- Established 5 new research projects, including 2 PhD projects.
- Hosted 1 undergraduate field forestry summer internship.
- Hosted Fall 2011 field camp and undergraduate field courses.
- Finalized a new 4-year partnership agreement with Dunkley Lumber Ltd, for ongoing collaboration on log purchasing, and associated operational management.
- Completed sub-grade construction and improvements of 1.7 km of new winter-access forest road, and new bridge installation. Completed road ditching and drainage improvements on an additional 1.1 km of road.
- Maintained and upgraded 4 km of interpretive trails for ongoing use by regular field tours and forestry classes.
- In Spring, 2011, planted 105,995 seedlings including spruce, lodgepole pine, and western redcedar for reforestation of 61 hectares. Completed manual-brushing conifer release on 32.6 hectares of a 28-year old mixed spruce-aspen stand, supported by the provincial Land-based Investment Program.
- Harvested 15,400 m³ in the winter 2010/11 harvest season, including 5% via partial cut systems and 95% via clearcut with reserves regeneration system.

The Aleza Lake Research Forest recognizes the contributions of Melanie Karjala, long-time ALRF Research and Education Coordinator from 2003 to 2011. In April, 2011, Melanie accepted a new opportunity at the Resources North Association in Prince George. We wish Melanie all the best in her new endeavors.

PLANS FOR 2012 – 13

- Employ 3 undergraduate summer students.
- Undertake stream and fish-habitat restoration project, supported in part by the Habitat Conservation Trust Fund.
- Install new signage on 7 km of interpretive trails.
- Undertake remeasurement on 3 long-term research trials including 80-year-old growth and yield plots (est. 1920’s), a spruce shelterwood partial-cutting trial (est. 1995), and a road and landing rehabilitation trial (est 1996).
- Establish plantation trials of black spruce and tamarack (*Larix laricina*) seedling production for greater species options on colder wetter planting sites.
- Complete the ALRF Management Plan revisions and renewal.

<table>
<thead>
<tr>
<th>Research Forests harvesting 2011</th>
<th>Knapp</th>
<th>Fraser</th>
<th>Aleza</th>
<th>Total</th>
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<tbody>
<tr>
<td>Logging m³</td>
<td>23,929</td>
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<td>14,015</td>
<td>37,944</td>
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<tr>
<td>ha</td>
<td>34</td>
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<td>54.8</td>
<td>88.8</td>
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<tr>
<td>Commercial Thinning/ Partial Cutting m³</td>
<td>6,715</td>
<td>12,018</td>
<td>725</td>
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<tr>
<td>ha</td>
<td>24</td>
<td>121</td>
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<td>Road Right-of-Way m³</td>
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<tr>
<td></td>
<td>0</td>
<td>2.0</td>
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<tr>
<td>Salvage m³</td>
<td>0</td>
<td>1,061</td>
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</tbody>
</table>

**Malcolm Knapp Research Forest**
PO Box 21120
14500 Silver Valley Road
Maple Ridge, BC V2X 1P7
Phone: 604.463.8148
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**Alex Fraser Research Forest**
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Williams Lake, BC V2G 4N5
Phone: 250.392.2207
Fax: 250.398.570

**Aleza Lake Research Forest**
3333 University Way
Prince George, BC V2N 4Z9
Phone: 250.960.6674
ALONGSIDE 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, Sally**
- Co-Chair, Forest Genetics 2013 Conference (2 IUFRO WG, CFGA, WFGA)
- Associate Editor, Tree Genetics and Genomes
- Member, Editorial Board, Evolutionary Applications
- Member, North American Forestry Commission Forest Genetic Resources Working Group
- Co-chairperson, Forest Genetics 2013

**AVRAMIDIS, Stavros**
- Chair, Hellenic Quality Assurance Agency for Higher Education

**COHEN, David**
- Chair, Future Forest Leaders Planning Committee

**COOPS, Nicholas**
- Canada Research Chair in Remote Sensing
- Adjunct Professor, Oregon State University
- Adjunct Professor, Nanjing Forestry University
- Editor-in-Chief, Canadian Journal of Remote Sensing

**DANIELS, Lori**
- Council Member, Tree Ring Society

**EL-KASSABY, Yousry**
- Professor Honoris Causa, The Czech University of Life Sciences, Prague (2011)
- Associate Editor, International Journal of Forest Research
- Co-Editor-In-Chief, Forestry Sciences and Practices
- Associate Editor, Canadian Journal of Forest Research

**EVANS, Phil**
- Fellowship at University of Gottingen, Germany
- Ecobuild Professor KTH, Stockholm
- Visiting Fellow, Dept Applied Mathematics, The Australian National University
- Member of Editorial Board, Wood Science and Technology
- Member, Editorial Board, Journal of Forest Products
- Member, Editorial Board, Journal of International Wood Products
- Board Member, Executive Council International Research Group on Wood Protection
- Co-Chair, IRG Working Party 4.5 Coatings & Surface Aspects
- Board Member, Pacific Rim Biobased Composites Symposium Organizing Committee

**GERGEL, Sarah**
- Associate Editor, Landscape Ecology
- Faculty Opponent, PhD Examination Committee, Umea University

**GRAYSTON, Sue**
- Canada Research Chair in Soil Microbial Ecology
- Associate Editor, Canadian Journal of Forest Research

**GUY, Rob**
- Senior Director, Canadian Society of Plant Physiologists
- Secretary, BC Forest Genetics Society
- IUFRO Division Deputy (Physiology & Genetics)
- Editor-In-Chief, TREES Structure & Function

**HINCH, Scott**
- American Fisheries Society Excellence in Fisheries Education Award

**INNES, John**
- Minjiang Scholarship, Fujian, China
- Associate Editor, Journal of Environmental Management
- Associate Editor, Environmental Conservation
- Guest Editor, Forest Ecology and Management
- Member, Editorial Advisory Board, Dendrochronologia
- Member, Editorial Advisory Board, International Forestry Review
- Member, Board of Experts, Committee for Research Evaluation, Italy
- Member, Commonwealth Forestry Association - Publications Committee
- Chair, Commonwealth Forestry Association
- Member, Interdisciplinary Committee, World Cultural Council
- Member, IUCN/SSC Sustainable Use Specialist Group
- Member, Board of Trustees, Commonwealth Forestry Association
- Coordinator, IUFRO Task Force ‘Resources for the Future’
- Member, IUFRO Task Force on Forestry Education

**KADLA, John**
- Editor, Journal of Wood Chemistry and Technology
- Fellow, International Academy of Wood Science
- Canada Research Chair in Advanced Biomaterials
- Associate Member, Chemical and Biological Engineering
- FPInnovations Professorship
- Editor, Journal of Wood Chemistry and Technology
- Associate Editor, Holzforschung
- Member, Editorial Board, Journal of Wood Science
- Member, ACS Cellulose Renewable Materials (CELL) Division
- Member, ISWPC Scientific Program Committee
- Member, Lignotech II Symposium Scientific Committee
- Member, Organizing Committee, TAPPI International Conference on Nanotechnology
- Member, Organizing Committee, ACS Nanofibre Symposium
- Member, FiBRE – Council of NSERC Network Directors

**KOZAK, Rob**
- Winner, Top Teacher Award (Department of Wood Science, UBC)
- Fellow, Institute of Wood Science
- Associate Editor, Canadian Journal of Forest Research
- Member, Organizing Committee, ACS Nanofibre Symposium
- Member, FiBRE – Council of NSERC Network Directors

**KRZIC, Maja**
- CNIE Award of Excellence in the Innovation in Web Design category awarded by the Canadian Network for Innovation in Education
- Member, Organizing Committee for Canadian Society of Soil Science and American Society of Soil Science
LEMAY, Valerie
• Associate Editor, Forestry Chronicle
• Deputy co-ordinator, IUFRO 4.01.03 (Experiments)
• External reviewer, U Melbourne
LYONS, Kevins
• Member, Editorial Board, International Journal of Forest Engineering
MANSFIELD, Shawn
• Associate Editor, Biotechnology for Biofuels
• International Advisor, Current Biotechnology
• International Advisor, Frontiers in Plant Biotechnology
• International Advisor, Frontiers in Plant Development
• Associate Editor, BioEnergy Research
• International Advisor, Holzforschung
MARTIN, Kathy
• Chair, 5th North American Ornithological Conference
• Member (representative for Canada), International Ornithological Committee
• Member, 2014 Scientific Program Committee, International Ornithologist’s Union
• Member, Council of Canadian Society of Ecology and Evolution
• Associate Editor, Avian Conservation and Ecology
• Associate Editor, Frontiers in Ecology and The Environment
• Associate Editor, Studies in Avian Biology
McFARLANE, Paul
• Member, Editorial Board, APPITA
• Member, Editorial Board, NZ Journal of Forestry Science
• Member, Japan Prize Nominating Committee, The Science and Technology Foundation of Japan
• Member, Bioproducts and Bioenergy Advisory Committee, BC Innovation Council
• International Member, Review Committee for NZ Forest Owners Association Science & Innovation Plan
• International Reviewer, Review of the Intensive Forestry Systems program, Future Forests Research, NZ
• International Member, New Zealand Ministry of Agriculture and Forestry Greenhouse Gas Footprinting
MITCHELL, Stephen
• Editor, Forestry: an International Journal of Forest Research
• Coordinator, IUFRO Unit 8.03.06, Wind and Trees
• Killam Teaching Award Nominee
MOORE, Dan
• Chair, Canadian National Committee for the International Association of Hydrological Sciences
• Senior Representative for Canada, International Association of Hydrological Sciences
• Associate Editor, Canadian Water Resources Journal
• Member, North American Stream Hydrographers
• Member, Organizing committee, Putting PUB into Practice, International Association of Hydrological Science
PRESCOTT, Cindy
• Associate Editor, Ecosystems
• Deputy Editor in Chief, Canadian Science Publishing
RICHARDSON John S
• Associate Editor, Journal of Applied Ecology
• Associate Editor, Canadian Journal of Fisheries and Aquatic Sciences
RITLAND, Kermit
• Associate Editor, Heredity
• Associate Editor, AoB Plants
SHEPPARD, Stephen
• Member, Real Estate Institute of BC, Climate Change Committee
• Member, Editorial Advisory Board, Landscape Journal
• Fellow, Institute for Social Sustainability Research, University of Plymouth
• Theme Leader/Chair, Social Mobilization Research Subcommittee, PICS
SIMARD, Suzanne
• Chair, Southern Interior Silviculture Committee
• Chair, TerreWEB Executive Committee
• Member, Editorial Board, Forest Ecology & Management
• Associate Editor, PLOS One
SMITH, Greg
• Nominated for Killam Teaching Award in Forestry March 2012
• Member, ASTM International Technical Committees D1430 and D0703
SOWLATI, Taraneh
• President, Canadian Operational Research Society Vancouver Chapter
• Member, Canadian Operational Research Society
• Member, MITACS – College of Reviewers
• Senior Member, Institute of Industrial Engineers
• Membership Committee Chair, Canadian Operational Research Society Council
• Member, Institute of Operations Research and Management Sciences
• Member, Association of Professional Engineers and Geoscientists in British Columbia
• UBC Killam Teaching Prize Faculty of Forestry Nominee: Runner Up
BETWEEN APRIL 1, 2011 and March 31, 2012 members of our faculty were awarded a total of $12.59 million in research funding. This represents an increase of 15.3% over the previous year, but still below our peak funding level of $13.49 million in 2008/09.

Federal funding was down by 22.1% but still represented 48.6% of our total funds received. Tri-Council (NSERC and SSHRC) award amounts were down 10%, which is attributable to the reduction in support for the Strategic Grants program in 2011/12. Members of the faculty held 30 Discovery grants, 16 ongoing NSERC Strategic grants, 3 Collaborative Research grants, 2 Engage grants, 2 Insight Development grants, 1 Industrial Research Chair, 1 Partnership Workshop grant, 1 Promoscience grant and 4 SSHRC grants for a total Tri-Council funding of $3.4 million. Natural Resources Canada and Environment Canada contributed a combined total of $793,706 in support of 9 research projects. The Network of Centres for Excellence provided $356,724 (through MITACS, GEOIDE, GRAND and AUTO21) in support of 10 research projects. This represented a 38.4% increase in support over the previous year. Canada Research Chair awards (Coops, Grayston, Kadla, Mansfield) contributed another $333,333.

The steep decline in provincial funding during the previous 2 years was arrested – increasing by 83.5% in 2011/12. Overall provincial funding was $5.58 million, up from $3.04 million in the previous year. Much of the increase in provincial funding reflected the success of our faculty members in securing funding for genomics research, although all provincial sources increased relative to 2010/11 levels. Over 65% of our provincial funding was in the form of research awards through Genome BC (13 projects totaling $3.63 million), while Genome Quebec provided an additional $504,966 in support of 2 research projects. The British Columbia Ministry of Forests & Range supported 10 projects for a total of $499,867, an increase of 15.5% over funds received in 2010/11, but still well below historic levels. Forestry Innovation Investment funds supported 2 projects for a total of $347,950, an increase of 47% over funds received in 2010/11. Provincial funding represented 25.7% of our total research funding, still well below contributions of 40-50% that were common before 2010.

Private funding support for research contributed $938,014 through 38 projects. The largest industry supporters were Alberta Pacific Forest Industries Ltd who funded one project (Kadla) and BC Oil and Gas Commission who funded one project (Harshaw). Overall, private funding for research was down by 27.1% over the previous year.

International funds in support of research were up by 267.3% for a total of $1.19 million backing 8 projects (up from 4 projects and $323,545 in the previous year).

We also received endowment income of $1.08 million (down by 2.7% from the previous year). This funding is provided by endowments originally set up by Forest Renewal BC, as well as from private sectors.
OUTCOMES

In the past year faculty members authored 195 articles in 124 peer-reviewed journals. Our faculty members also served the scientific community through voluntary peer review, reviewing 866 journal articles for publication during the year. Coops, El-Kassaby, Guy, Kadla, and Mitchell served as senior editors for 5 international peer-reviewed journals (Canadian Journal of Remote Sensing, Forests and Genetically Modified Trees, TREES – Structure and Function, Journal of Wood Chemistry and Technology and Forestry: An International Journal of Forest Research). One faculty member (Prescott) served as the Deputy Editor-in-Chief of Canadian Science Publishing. As well, 14 faculty members served as associate editors of 20 different journals and 6 individuals served on editorial boards of 10 journals across the spectrum of forest-related journals. Faculty members also reviewed about 400 research grant proposals for over 30 research funding agencies around the world, including US, Denmark, Sweden, Finland, Chile, Mexico, South Africa, New Zealand, UK, Switzerland Greece, Netherlands, Italy, Portugal, Czech Republic, Israel, Norway, France and Canada.

In addition to BC and Canada, faculty members, graduate students and postdoctoral fellows in the Faculty of Forestry were conducting research in Ethiopia, Chile, Kenya, Peru, India, China, UK, USA, Panama, Philippines, Brazil, Sweden, Argentina, Portugal, South Africa, Australia, Malawi, Ethiopia, The Gambia, Cameroon, Mexico, Ghana, Tasmania, Costa Rica, Madagascar, Indonesia, Congo Basin, Nicaragua, Nepal, Mozambique, Namibia, France, Taiwan, Zimbabwe, Botswana and the Czech Republic.

Faculty members made presentations at 78 scientific conferences outside Canada including (USA, Italy, Finland, China, Austria, Czech Republic, France, Japan, Brazil, Argentina, South Africa, Germany, Australia, New Zealand, India, Korea, Chile, Denmark, Estonia and the UK. One hundred and twenty six talks were given to professional groups within Canada.

During the past year 22 faculty members welcomed 34 visiting researchers from 14 countries. Twenty faculty members hosted a total of 43 post-doctoral fellows from 19 countries.

During the past year, researchers in the Faculty of Forestry were cited 57 times in the media. These research stories included such diverse topics as visualization of climate change scenarios, forest exports to China, inter-plant communication, cavity nester needs for old trees, wood biofuel as a competitor to corn, and effects of water warming on spawning of Pacific salmon.
The following list reflects research funding obtained between April 1, 2011 and March 31, 2012.

A I T K E N, Sally
- Proposal to establish a Centre for Forest Gene Conservation at the University of British Columbia (BCMoF, L&NRO $150,000)
- Genomics-enhanced forecasting tools to secure Canada’s near-term lignocellulosic feedstock supply for bioenergy using the mountain pine Beetle – *Pinus* spp system (co-investigator) (Genome BC, $1,480,127)
- Climate change adaptation planning for Northwest Skeena communities (co-investigator) (MITACS/NCE $12,689)
- Adaptation of harvested wood products from climate action regions (co-investigator) (MITACS/NCE $15,000)
- Development of carbon storage and emission flow diagram for harvested wood (co-investigator) (MITACS/NCE $15,000)
- Analysis of the potential for carbon offsets in NA tribal lands (co-investigator) (MITACS/NCE $30,000)
- Strategic network grant on value chain optimization (co-investigator) (NSERC $150,416)
- Scenario planning tools for forest industry markets and trade (NSERC $34,583)

A R C E S E, Peter
- Phenotypic, genetic and demographic responses to environmental variation and inbreeding in the song sparrow (NSERC $101,000)
- Diagnosing causes of decline and re-distribution of western grebes (Environment Canada $20,000)
- Awards for graduate student research in ornithology (UBC Hesse Research Award in Ornithology $12,000)

A V R A M I D I S, Stavros
- Synergistic wood drying modeling based on multiple-scale anatomical and physical attributes (NSERC $25,000)
- Reducing colour variation of woods used for furniture and cabinets (NRC $85,038)
- Assessment and optimization of radio frequency teating technology as treament to protect Canada green log and timber exprots by killing microbes and other pests (NSERC $132,000)

B O H L M A N N, Joerg C
- Genomics-enhanced forecasting tools to secure Canada’s near-term lignocellulosic feedstock supply for bioenergy using the mountain pine beetle – *Pinus* spp system (co-investigator) (Genome BC $587,039)
- Smartforest: Spruce marker technologies for sustainable forest (Genome BC, Genome Quebec $887,793)

B R E U I L, Colette
- Genomics-enhanced forecasting tools to secure Canada’s near-term lignocellulosic feedstock supply for bioenergy using the mountain pine Beetle – *Pinus* spp System (co-investigator) (Genome BC $1,480,127)
- Exploring how the mountain pine beetle fungal associate *Ophiostoma clavigerum* overcomes lodgepole pine defenses (NSERC $30,000)

B U LL, Gary
- Development of carbon storage and emission flow diagram for harvested wood products within British Columbia (MITACS/NCE/NCE, Province of British Columbia, Carbon Credit Corp $10,500)
- Geomatics solutions for conservation of Canada’s boreal forests (GEOIDE/NCE, Nature Conservancy of Canada $51,250)
• Linking long term AVHRR satellite-derived indicators of biodiversity to species distributions and movements (NRC $20,000)
• Developing forest inventory datasets of tree growth, mortality and climate to forecast forest carbon stock dynamics in BC (NRC $20,000)
• Tsitika summit landslide features and Russell Creek experimental watershed (BCMoF, L&NRO $8,500)
• Workshop on the development of a strategic plan for assessment of wood fibre attributes using remote sensing (NSERC $24,905)

DANIELS, Lori
• Examination of yellow-cedar decline mortality using dendrochronology pilot project (BCMoF, L&NRO $47,400)
• Fire regimes in mountain landscapes and global environmental change: Top-down versus bottom-up (NSERC $24,000)
• Climate and the decline of yellow-cedar along the north coast of British Columbia (PICS $47,500)

EL-KASSABY, Yousry
• Industrial Research Chair in Applied Forest Genetics and Biotechnology (Forest Genetics Council of BC, NSERC, Johnson’s Family Forest Biotechnology Fund, Industry, $364,000)
• Applied forest genetics and biotechnology (Forest Genetics Council of BC $137,000)
• Molecular breeding using forest trees as a model (NSERC $39,000)
• Popcan: Genetic improvement of poplar trees as a Canadian bioenergy feedstock (co-investigator) (Genome BC $1,471,596)
• Development of integrated forest management and wood manufacturing decision-support systems for a value-added forest industry: Mapping wood density variation in white spruce stems for use in sawing models (NSERC $25,000)

EVANS, Phil
• Wavelength dependent photodegradation of wood (NSERC $30,030)
• Plasma treatment to improve the surface finishing characteristics of boreal wood species (NSERC $2,792)
• Integrated approach to creating durable clear finishes for wood (NSERC $79,000)
• Optimizing the atomization of adhesives and coatings for manufacture of composites, cabinets and furniture (NRC $65,555)

GERGEL, Sarah
• Multi-scale assessment of river-floodplains (NSERC $17,500)
• Operationalizing resilience over the long-term: learning from ecosystem baselines (PICS $20,000)

GRAYSTON, Sue
• Canada Research Chair in Soil Microbial Ecology (CRC $100,000)
• Microbial diversity and function in forest soils and the influence of rhizosphere carbon flow (NSERC $71,000)
• Stable isotope and molecular biology laboratory for the identification and development of indicators of forest sustainability (CFI $13,366)
• Carbon and nitrogen fluxes in reconstructed oil sands soils (co-investigator) (NSERC $59,625)
• Biodiversity as influenced by forestry practices: An enriched virtual educational experience (co-investigator) (UBC TLEF $49,218)

GUY, Rob
• Comparative physiology of plant adaptation; resource acquisition and constraints of growing season length in balsam poplar from temperate, boreal and arctic environments (NSERC $82,000)
• Community fire interface biomass utilization for heating fuel (PICS $30,000)
• Optimized Populus feedstocks and novel enzyme systems for a British Columbian bioenergy sector (co-investigator) (Genome BC $76,566)
• Popcan: Genetic improvement of poplar trees as a Canadian bioenergy feedstock (co-investigator) (Genome BC $1,471,596)

HAMELIN, Richard
• Risk assessment of Septoria musiva (BCMoF, L&NRO $31,500)
• Elucidation of rust life-cycle using molecular approaches (NSERC $20,000)
• Genomics-based forest health diagnostics and monitoring (Genome BC $959,702)
• Fungal assays of paper birch (BCMoF, L&NRO $8,921)
• Genomics-enhanced forecasting tools to secure Canada’s near-term lignocellulosic feedstock supply for bioenergy using the mountain pine beetle – Pinus spp System (co-investigator) (Genome BC, $1,480,127)

HARSHAW, Howard
• Social attitudes toward hydrocarbon development in British Columbia (BC Oil and Gas Commission $122,955)
• Role of social networks and recreation specialization in understanding rock climbers attitudes towards the environment (SSHRC $16,500)

HAMELIN, Richard
• Popcan: Genetic improvement of poplar trees as a Canadian bioenergy feedstock (co-investigator) (Genome BC $1,471,596)

HINCH, Scott
• Increasing the sustainability of multi-sector pacific salmon fisheries in coastal rivers of British Columbia by quantifying and reducing mortality of released fish (co-investigator) (NSERC $118,350)
• Understanding species movements, interactions, and environmental variability across Canada’s three oceans (NSERC $246,500)
• Behavioural physiology and fitness of anadromous migrating fish (NSERC $40,000)

INNES, John
• Impacts of forestry property markets on the livelihoods of local people in China (SSHRC $41,860)
• Adaptation of Asia-Pacific forests to climate change (Asia-Pacific Network for Sustainable Forest Management and Rehabilitation $380,702)
Extramural Funding & Sponsored Research

- Securing safe passage in a warming arctic: sustainable development of commercial shipping along the northwest passage (UBC Northern Scientific Training Program $3,200)
- Assessing attitudes of architects and builders towards forest certification in British Columbia (BC Ministry of Small Business, Technology and Economic Development, MITACS/NCE, Coast EcoTimber Inc $15,000)

KADLA, John
- Canada Research Chair in Advanced Biomaterials (CRC $100,000)
- SENTINEL research network - Nanoscale fibrous structures through electrospinning of novel cellulosic systems (NSERC, industry $51,300)
- Advanced materials from natural polymers (NSERC $36,000)
- Renewable, recyclable and lightweight structural prototype greener auto parts (The Automobile of the 21st Century (AUTO21)/NCE $17,250)
- Lignin-based advanced materials as part of a pulp and paper biofinery (NSERC $130,500)
- Biomaterials and Chemicals NSERC Research Network Agreement (NSERC, industry $485,000)
- Harnessing microbial diversity for sustainable use of forest biomass resources (co-investigator) (Genome BC $2,022,932)

KOZAK, Robert
- Assessing the enabling conditions and constraints facing alternative business models on publicly held forestlands: case studies in Canada and central west Africa (SSHRC $43,400)
- Adaptree: Assessing the adaptive portfolio of reforestation stocks for future climates (co-investigator) (Genome BC $123,403)
- Rethinking sustainable supply chains: A case study of paper and digital media (NSERC $22,720)
- Workshop organization: Life cycle analysis and sustainability (NSERC $10,000)

KRZIC, Maja
- Soil: charting new territory in high school education (NSERC $15,000)

LAM, Frank
- Reliability of timber structural system under seismic loading (NSERC $35,000)
- Performance of OSB, Rimboard, and OSL (Ainsworth Engineered Canada LP $21,000)
- Market survey for SHERPA timber connectors for United States and Canada (Vinzenz Harrer GmbH $9,187)
- Moment resisting self-tapping screw assembly under monotonic and reverse cyclic load (British Columbia Ministry of Small Business, Technology and Economic Development, MITACS/NCE, Chiu Hippmann Engineering Inc Consulting Structural Engineers $30,000)
- Size Effects in Glulam Beams (FII Ltd $76,450)
- Seismic performance of mid-rise timber structures – collapse prevention (FII Ltd $58,300)
- Influence of manufacturing parameters and boundary conditions on cross laminated timber fire resistance (FII Ltd $123,200)
- Performance of SWG ASSY self tapping wood screws (SWG Schraubenwerk Gaisbach GmbH $138,900)
- Performance of massiv-holz-mauer-cross laminated timber panels with aluminum nailing (NSERC $25,000)
- New Builds (co-investigator) (NSERC $1,060,000)
- Performance of glulam columns (Government of Canada, National Research Council $63,250)
- Sustainable building science program (co-investigator) (NSERC $300,000)

LARSON, Bruce
- Promotion and coordination of research under Adaptation and Impacts Research Division (Environment Canada $80,000)
- A climate change strategy for red alder in British Columbia (FFESC $91,173)
- Forest fertilization trial in a Mildred Lake jack pine stand (Syncrude $110,131)

LYONS, Kevin
- Can attributes identified at the harvest planning stage be used to predict the frequency of close calls and severe injuries when manually falling trees? (WorkSafe BC $56,916)

MACDONALD, Iain
- Business Innovation Partnership (FII Ltd $90,000)

MANSFIELD, Shawn
- Canada Research Chair in Wood & Fibre Quality (CRC $33,333)
- From source to sink – carbon allocation in poplar (NSERC $30,000)
- Great Lakes Bioenergy Research Centre (US Department of Energy $152,433)
- For ValueNet – Development of integrated forest management and wood manufacturing decision-support systems for a value-added forest industry (co-investigator) (NSERC $174,768)
- Optimized Populus feedstocks and novel enzyme systems for a British Columbian bioenergy sector (co-investigator) (Genome BC $76,566)
- Popcan: Genetic improvement of poplar trees as a Canadian bioenergy feedstock (co-investigator) (Genome BC $1,471,596)
- Working on Walls (WOW) (co-investigator) (NSERC $300,000)

MARTIN, Kathy
- Alpine and forest landbird ecology and conservation research (Environment Canada $67,500)
- Ecology and life history of alpine birds (NSERC $54,000)
- Northern alpine avian ecology and climate variation (NSERC $15,000)
- Individual variation in breeding ecology of alpine breeding horned larks (UBC Northern Scientific Training Program $4,600)

McFLARLANE, Paul
- Estimating carbon storage and emissions from harvested wood products from British Columbia (PICS $50,000)

MEITNER, Michael
- Integrated modeling and assessment of forest harvest patterns (NSERC $24,000)
- Where do we want to go? have we arrived? improving transparency, rigour and knowledge in complex multi-stakeholder planning contexts (MITACS/NCE, Province of British Columbia, EcoPlan International $30,000)
• Managing visual resources in visually sensitive regions within TFL S2 (NSERC $25,000)

MITCHELL, Stephen
• Drag and resistance in mangroves (NSERC $22,910)
• Cultivating forest stewardship (UBC TLEF $46,870)
• Root anchorage mechanics (TreeFund $10,000)

NELSON, Harry
• Preparing for changes in hydrological cycles and surface hydrology in BC (NRC $105,300)
• Bioenergy demonstration at UBC Loon Lake Research and Education Centre (British Columbia Ministry of Small Business, Technology and Economic Development, MITACS/NCE, BC Bioenergy Network Association, Green-Erg Technologies Ltd $15,000)
• Are all the pieces of the puzzle there? Payment for ecosystem services for first nations in British Columbia (SSHRC $34,500)
• Climate change: assessing the adaptive capacity of community forests (UBC Peter Wall Solutions Initiative $15,000)

NELSON, John
• Optimal facility location and supply chain design for the BC coastal sector using agent-based integrated production modelling (NSERC $22,720)
• Integrated model for operational decision support in the forest and sawmilling supply chain with focus on log quality and lumber recovery (NSERC $5,368)

PRESCOTT, Cindy
• Nutrient availability and late-stage decomposition (NSERC $42,000)
• Compilation of literature and data on the impacts of intensive biomass harvesting on soil and site productivity (NRC $20,000)

RICHARDSON, John
• Resource heterogeneity and the environmental basis of productivity in flowing waters (NSERC $19,700)
• Determining critical instream flow needs for Nooksack dace (Canadian Wildlife Federation, BC MoE $25,800)
• Assessing the potential aquatic habitat value of streams responding to a changing climate (PICS $20,750)
• Species at Risk Network (SARNET) development – pilot project (BCMoF, L&NRO $13,750)
• Identification of critical habitat for great basin spadefoot toads (Spea intermontana) within the southern interior of British Columbia (Canadian Wildlife Federation $22,000)
• Large-scale drivers of ecosystem perturbation and field tests of their effects on freshwater systems (CFI $75,821)

RITLAND, Kermit
• Population genomics of plants (NSERC $54,000)
• Canadian pollination initiative (CANPOLIN) (co-investigator) (NSERC $70,900)
• Smartforest: spruce marker technologies for sustainable forest (co-investigator) (Genome BC, Genome Quebec $887,793)

RUDDICK, John
• Wood preservation (Timber Specialties Co $29,669)

SADDLER, Jack
• For ValueNet: Development of integrated forest management and wood manufacturing decision-support systems for a value-added forest industry (NSERC $130,268)
• Elucidating the substrate and enzyme factors that control the hydrolysis of lignocellulose (NSERC $28,870)
• Conversion of lignocellulosic biomass to biofuels and chemicals (NSERC $231,567)
• Future Forest Ecosystems Scientific Council Projects (BCMoF, L&NRO $150,000)
• IEA Bioconversion Task (International Energy Agency (US) $314,214)

SHEPPARD, Stephen
• Local climate change visioning tools and process for community decision-making (GEOIDE/NCE $169,724)
• Delta flood planning and visioning, regional adaptation collaborative (NRC $97,750)
• PICS Climate change course modules II and III (Impacts & Adaptation) (PICS $10,000)
• PICS postdoctoral fellowship: Olaf Schroth (PICS $50,000)
• Visualizing urban futures: Geomatics decision support for community energy in Canadian urban regions (GEOIDE/NCE, Neptis Foundation) $65,000)
• District energy options visualization research proposal (British Columbia Hydro and Power Authority $22,000)
• Greenest City Conversations - Community Energy Workshops (MITACS/NCE, BCHydro $50,000)

SIMARD, Suzanne
• The role of mycorrhizae and mycorrhizal networks in tree species range shifts with climate change and disturbance (NSERC $50,000)
• TerreWEB: Terrestrial research on ecosystems & world-wide education & broadcast (NSERC $150,000)
• Carbon cycling by forest soil microbial communities in a time of climate change (co-investigator) (NSERC $196,680)

SMITH, Gregory
• Development of discrete element models for continuous rotary drum drying and blending for OSB (NSERC $20,000)
• Resin blending and modeling (National Science Foundation (US) $51,975)
• Evaluation of short properties of a new hybrid PSP panel made from particles and strands (NRC $76,000)
• Determination and prediction of lightweight hollow core panel under long term static loading and high cyclic humidity conditions (NRC $76,475)

SOWLATI, Taraneh
• Optimization of forest biomass supply chain – incorporating uncertainties (NSERC $24,000)
• CRA: Value chain optimization at Capital Power (Capital Power Corp $5,157)
• Evaluating potential partnership in forest products value chain (NSERC $22,720)

TANNERT, Thomas
• Sustainable disaster relief housing (UBC Martha Piper Research Fund $23,000)


Hu J, Arantes V, Saddler JN. 2011. The enhancement of enzymatic hydrolysis of lignocellulosic substrates by the addition of accessory enzymes such as xylanase: Is it an additive or synergistic effect? Biotechnol Biofuels 2011. 4:36.


2011–2012 WAS A YEAR of transition and rebuilding for the Development and Alumni team in Forestry. In April 2011 Emma Tully joined the Faculty as the Director of Development. In October 2011 Jenna McCann, Alumni Relations Manager started a year’s maternity leave, Caely-Ann McNabb started with the team on a one year secondment from the central UBC Alumni Affairs office to cover Jenna’s leave and Janna Kellett joined the team in the role of Development Coordinator. In November 2011, Deepti Mathew Iype joined the team as the new Development Officer rounding out the team. The Faculty was also saddened by the loss of Katherine Quinn in September 2011. Katherine had held the role of Development Coordinator at UBC for nine years, formerly with the Faculty of Applied Science and latterly with the Faculty of Forestry.

COMMUNITY SUPPORT AND ALUMNI ENGAGEMENT

UBC Forestry is extremely privileged to have a strong network of alumni and donors, who continue to support the Faculty through their generous contributions and their time. The public launch of UBC’s ‘Start an Evolution’ campaign in September 2011 has enabled the Faculty to focus its development activities in 3 priority areas – Enhancing Student Learning, Expanding Research Capacity and Building Community Engagement. In addition to our financial goals, through this campaign we aim to more than double the number of alumni who are engaged and involved in the Faculty through offering opportunities for meaningful involvement. We are pleased to report that for the period of April 1st 2011 to March 31st 2012 the Faculty of Forestry raised $2.65 million and successfully involved over 1000 alumni in various Faculty activities. Through the generosity of our alumni and donors we are now over the half way mark towards the Faculty’s campaign goals.

HIGHLIGHTS IN 2011 – 12

Development:

Several projects were supported by a private foundation including:

• Three graduate students had an opportunity to have hands-on work experience through an Internship Program for 4 months at the Faculty’s Research Forests.

• Six undergraduate students were supported to work at the Faculty’s Research Forests under co-op placements for 4 months.

• Three groups of Forestry undergraduate students in the Forestry 424 – Sustainable Forest Management course were funded to visit and conduct studies at 3 community forests (Wells Grey Community Forest, Cheakamus Community Forest and Tse loo K’as Keyoh) and create management plans that would then be presented to these communities for consideration.

• The Future Forests Fellowship was established. It is the most prestigious forestry graduate award available at any Canadian University and the largest single grant for a forestry student globally. This Fellowship will pay $60,000 per annum for 3 years, with an additional 4th year if required. The Future Forests Fellowship enables an outstanding graduate student to undertake doctoral research focused on one of the following areas of excellence for the Faculty:
  – Forest products biotechnology / bioenergy;
  – Business operations and management;
  – Forest genetics / forest genomics;
  – Belowground ecology;
  – River and landscape ecology;
  – Climate change and advanced landscape planning;
  – Forest management.

• On the student awards front a new student award to support Aboriginal students in the Faculty was established by Gary and Louise Kenwood. The Association of BC Forest Professionals provided additional support to its currently existing scholarship endowments and 2 new corporate
• The Alumni and Friends BBQ at Loon Lake was held on May 2, 2011 in conjunction with the annual undergraduate Spring Camp. Attendees enjoyed a condensed tour of the forest and a barbeque lunch. The event was shortened due to the date falling on an election day.

• Forestry Alumnus, Mike Apsey, BSF’61, LLD’09, donned regalia and joined the Faculty representatives on the Chan Centre stage for the spring convocation ceremony. Mr Apsey volunteered his time to ‘pin’ graduating Forestry students with a UBC alumni pin and welcome them into the alumni community.

• Alumni Weekend fell on May 28, 2011 and Forestry hosted a special alumni reception at the FSC in partnership with UBC Welcomes You. Twenty alumni had the pleasure of meeting future UBC Forestry students and visiting the CAWP lab while other Forestry alumni took advantage of other offerings across campus.

• On August 30, 2011 alumni and friends gathered at the Alex Fraser Research Forest near Williams Lake for a tour and BBQ with Dean John Innes and Dave Peterson, ADM, Ministry of Forests, Lands and Natural Resources Operations.

• Dean John Innes hosted an alumni breakfast on September 16, 2011 in Prince George at the COFI convention.

• Hosny El-Lakany, PhD’69, Adjunct Professor in the Department of Forest Resources Management and Director of International Forestry at UBC’s Faculty of Forestry, was recognized by fellow UBC alumni for his work in aiding communities around the world with sustainable forest practices. He was the recipient of the Global Citizenship Award at the annual UBC Alumni Achievement Awards on November 29, 2011.

• The Alumni Breakfast at the ABCFP conference has turned into an annual event after the success of it on February 24, 2012 in Victoria. Fifty-eight alumni and a handful of friends came together for a tasty breakfast in the Bengal Lounge at the Fairmont Empress Hotel and heard an update on the Faculty from Dean John Innes.

• Alumni Industry leaders came back to campus on February 24 for the Forestry Graduate Student Association Networking night. The evening gave the graduate students the opportunity to network with seasoned forestry professionals from a wide range of occupations.

• This past year saw four different graduation classes celebrate milestone reunions. The classes of 1951, 1961, 1971, and 1981 had volunteer committees of alumni organize each respective reunion. The class of 1961 came together to establish a lasting legacy by supporting future generations of students with an endowed class gift.

• In addition to alumni specific events in the Faculty, alumni were invited to attend other Faculty events such as the annual CIF Chili Night in November, the CAWP Open House in February, the Schaffer Lecture in February and the CIF Silver Ring Ceremony in March.

• The Forestry alumni e-newsletter was sent out monthly over the past year to all Forestry alumni with an email address. The newsletter contains information about events, Faculty and UBC news and highlights, programs, alumni news and job postings.

• The Forestry Alumni Linked:In group has grown to over 120 members over the last year and continues to attract new members every month.

PLANS FOR 2012 – 13

With 3 short years left in UBC’s ambitious Start an Evolution Campaign that aims to double both the funds raised and the number of alumni engaged in the life of the University, the team’s focus will be on continuing to advance the Faculty of Forestry’s Campaign. All of the fundraising and alumni engagement efforts are aligned with the Faculty of Forestry’s Strategic Plan and will be instrumental in helping the Faculty reach its goals and achieve its vision.

A number of priority projects have been identified by the Faculty that fall within the themes of Enhancing Student Learning; Expanding Research Capacity and Building Community Engagement. In the coming year we will continue to roll out these initiatives to the community and seek leadership support to bring these projects to fruition. We will continue to highlight projects in Branchlines and through the Faculty’s website; the campaign website; events and extensive proactive outreach.

We look forward to moving ahead on initiatives to increase our ability to financially support and reward students and support enhanced educational experiences such as field trips and exchange opportunities for all students. We are working towards the establishment of centres of excellence in Asian Forestry and Indigenous Forestry; increasing support for the Faculty’s research areas of excellence and seeking support to tackle current research knowledge gaps. We will continue to raise funds in support of the Loon Lake Redevelopment at the Malcolm Knapp Research Forest, with a focus on a new dining hall.

We will continue to look for additional opportunities for alumni and community partners to become involved and engaged in the Faculty through events and volunteer opportunities.

Once again, on behalf of the students, faculty and staff, thank you to all those who have contributed their time, interest and support for the Faculty throughout the last year. We look forward to working with you again in 2012/13.
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The Faculty of Forestry web site features:

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- 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.