

# 2012 Annual Report



**Forestry**  
University of British Columbia

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

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Tolko Industries Ltd

# **2012 Annual Report**

## **Faculty of Forestry**

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University of British Columbia

April 1, 2012 – March 31, 2013

Front cover – *Sequoiadendron giganteum* giant sequoia, cone.

Back cover – *Chamaecyparis lawsoniana* Lawson's cypress.

Page 29 – *Quercus glauca* ring-cupped oak.

Page 35 – *Arbutus menziesii* Madrone.

The photographs, by John Innes and Jamie Myers, were part of the exhibit **Climate Change and Trees** which ran from March 21 – June 9 as an educational display in the Visitor Centre of the VanDusen Botanical Gardens in Vancouver. The exhibit consisted of 19 interpretative photos and panels, each representing a species of tree growing in the Garden, that explored how those trees are adapting (or not) to the climatic changes occurring in their natural habitats.

Editor: Susan B Watts, PhD, RPF

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The Faculty of Forestry is fortunate to have many outstanding faculty members and staff. We are delighted that Simon Ellis was awarded the 3M National Teaching Fellowship in recognition of his teaching excellence.

This is the first time that this prestigious award for teaching has been given to a Forestry Faculty member in Canada. A number of other Faculty members were also recognized over the course of the year, including Nicholas Coops (UBC Killam Faculty Research Fellowship), Suzie Lavallee (Killam Teaching Prize 2011/2012), Peter Arcese (Doris Huestis Speirs Award for ornithology), Robert Guy (David J Gifford Award in Tree Physiology), Maja Krzic (Canadian Society of Soil Science), and Ian de la Roche (Dr Don Rix Award for Lifetime Achievement in the Life Sciences).

Our students are also remarkable, and notable successes included Jennifer Burt (Best Master's thesis in the Faculty of Forestry, and Governor General's Gold Medal), Natalie Sopinka (Three-Minute Thesis winner, UBC), Olivia Sanchez (CIF Gold Medal), Ira Sutherland (Wesbrook Scholarship),

Margaret Branton (Best PhD Dissertation in the Faculty of Forestry), and Fernanda Tomaselli (Edward JC Hossie Leadership Award).

This past year has seen our largest enrolment of undergraduate students (714) to date. Approximately 24% of these students are international. The Wood Products Processing and the Forest Resources Management programs have experienced approximately 50% growth (over 2011) in international student enrolment whereas the other two programs have about 25% increase. Total graduate student enrolment for 2012/13 was 249 students with 55% international originating from 37 countries.

We successfully completed a second year of the Transfor-M dual degree Masters program with our Canadian and European partners. We also launched our "UBC Forestry Summer Study Course in China" in May of 2012. This course, offered via an exchange agreement with Nanjing Forestry University, provides a unique opportunity for students to better understand forestry and conservation issues in China. Twelve UBC students (11 from the Faculty of Forestry and 1 from the Faculty of Science) participated this year.

Another off-campus opportunity for our students is the Haida Gwaii semester. This has recently been expanded to include a second semester, and the 2 semesters now run

Faculty of Forestry activities, 2002/03 – 2012/13

	02/03	03/04	04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13
Undergraduate enrolment <sup>1</sup>	441	448	453	454	467	504	507	557	589	689	714
Distance education (fte)	14	9	9	10	10	10	9	7	7	7	6
Graduate enrolment <sup>1</sup>	163	170	197	242	252	265	261	268	244	238	249
Teaching Evaluation Index <sup>2</sup>	1.88	1.90	1.99	1.89	2.00	4.26	4.29	4.32	4.11	4.12	4.07
Extramural funding (\$000)	11,370	11,379	10,427	12,101	11,699	13,296	13,493	12,229	10,918	12,590	11,206
Endowment income (\$000)	2,031	1,981	1,706	1,698	1,575	1,902	1,843	1,207	1,075	1,050	1,043
Extramural funding per GPOB-funded faculty member (\$000)	274	295	260	304	286	365	374	307	279	308	276

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

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



from September to April. The first semester concentrates on physical and biological aspects of forests, whereas the second semester is more oriented towards the social, cultural and economic aspects. The semesters are open to students from anywhere in the world, but all courses receive credits from the UBC Faculty of Forestry. The courses have been popular, as they involve full immersion in the nature and culture of the Haida Gwaii.

Our undergraduate and graduate student bodies have been taking an active interest in the International Forestry Students Association (IFSA). They will host the annual meeting of IFSA in 2014, and have already started planning for this important event. At the 2012 meeting in Turkey, our students were elected into a number of positions: Katie Gibson became Vice-President, Lisa Hansen has been appointed Head of Commission for the IUFRO World Congress Commission and IFSA News Commissioner, Anna Stemmerger has been appointed North America Regional Representative and Education Commissioner, and Andrea Vasquez has been appointed Latin America Regional Representative and FAO Liaison Officer.

At the November 21st convocation ceremony, Dr Mike Wingfield, Director of the Forest and Agriculture Biotechnology Institute at the University of Pretoria in South Africa received an honorary degree from UBC. Mike is not only one of the foremost forest pathologists in the world, but has succeeded in advancing forest pathology significantly throughout Africa, Asia and South America. We are now cooperating with his Institute in a number of areas.

The Canadian Forestry Accreditation Board reviewed our Forest Resources Management and Forest Operations programs in the April of 2012 and both programs were officially accredited in September 2012. Our new professional Master's program in Sustainable Forest Management was successfully initiated, with a 100% employment record for its graduates. A review team from the Canadian Forestry Accreditation Board visited in April, and we await a decision on the accreditation of the program.

Several changes took place with the departments. The Department of Forest Sciences changed its name to the Department of Forest and Conservation Sciences, which will better reflect its mandate and the interests of its department members and students. Dr Yousry El-Kassaby was appointed Head of the Department of Forest Resources Management. Dr Janette Bulkan joined the Department of Forest Resources Management as Assistant Professor for Indigenous Forestry. Dr Suzie Lavalley was appointed as an Instructor 1 in the Natural Resources Conservation program. Dr Chris Gaston has been seconded from FPInnovations to the position of honorary associate professor for a 5 year term. Dr John Kadla resigned from the Department of Wood Science.

In the Dean's Office, Andrea Lyall was appointed as the First Nations Coordinator. She is continuing in her role of sessional instructor for Aboriginal forestry. Janna Kellett transitioned from development coordinator to manager of alumni relations. Denise Wong joined the student services team as an undergraduate programs assistant, replacing Ana Curcin who transitioned to our officer, international

recruitment role. John Palmer was appointed to lead the new Master's program in International Forestry. Anita Chiu has replaced Leisa Belanger, who is on maternity leave, and Laura Cottle performed the same function for Eli Koleva. Robert Kwei was recruited to help with the increasing numbers of on-line activities undertaken by the Faculty.

Our links with China continue to grow, and despite interest from other institutions, we continue to concentrate on our existing partner universities: Beijing Forestry University, Nanjing Forestry University, Fujian Agriculture and Forestry University and Zhejiang Forestry University. Several Faculty members have spent time at one or more of these universities over the past year.

Three groups of Indian Forest Service foresters came to UBC for mid-career training in 2012. This completed the current project which was comprised of a total of 8 groups (30 participants in each group). These training programs were planned and coordinated by a consortium consisting of the UBC Faculty of Forestry, the Maxwell School of Citizenship & Public Affairs at Syracuse University, the Indian Institute of Management (Bangalore) and the Indira Gandhi National Forest Academy in Dehradun. We have also developed links with the Wildlife Institute of India. Six of their officers visited UBC for a prolonged period in 2013, hosted primarily by the Department of Forest and Conservation Sciences.

The Faculty was invited to co-host this year's international leadership training seminar entitled "Global Issues in Governing Natural Resources: Next Generation Leadership of Public Forest Agencies" that took place in the first week of June in Whistler. The training, organized by the US NGO Rights and Resources, the US Forest Service and Natural Resources Canada/Canadian Forest Service, targets promising mid-career officers in agencies from around the world. Several faculty members gave talks to the participants.

We signed an important MoU with the Forestry and Forest Products Research Institute (FFPRI) in Japan. UBC Forestry has a long tradition of research cooperation with Japan, largely because Japan represents an important market for BC forest products. Our re-invigorated collaboration will enable us to work in partnership with FFPRI in a number of research areas.

Our Development team continues to be very successful, and their hard work is beginning to bear fruit. Peter Bentley and his family made a lead gift towards the building of a new dining facility at Loon Lake Research and Education Centre at the Malcolm Knapp Research Forest. A private foundation and the Koerner Foundation confirmed their support for this project also, resulting in \$2 M of the \$3 M goal being raised. We also raised money for a number of other projects over the course of the year.



**John Innes**  
Dean, Faculty of Forestry

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### 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 2012 – 13

Implemented a new in-house Forestry Communications course to replace 3 credits of the first year English requirement. This pilot course was offered to some of the students in the Wood Products Processing Program.

### PLANS FOR 2013 – 14

- We will continue to explore the concept of a "Forest Sciences Honours Program" with entry after completion of second year.
- Implement multiple sections of the Forestry Communications course to allow more students from all of the programs offered by the Faculty to have the opportunity to benefit from it.



## Co-op Programs



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

2012-13 marked a continued increase in the number of work terms and job postings over previous years. There is cautious optimism as the economy and job market continues to recover from the recession which began in 2008. Tempering this optimism are fiscal challenges facing the British Columbia public sector, including a provincial government hiring freeze. This has negatively impacted the availability of co-op positions in the provincial government. There was renewed interest from employers outside traditional sectors recruiting Forestry Co-op students; illustrating the diverse skill set and knowledge co-op students offer employers.

### ACHIEVEMENTS IN 2012 – 13

- 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 BC, Alberta, Saskatchewan, Ontario, Yukon; internationally in Australia, Chile, Costa Rica, Germany, Singapore, South Africa and the United States.
- International co-op work terms were completed with employers including Arizona Conservation Corps, California Department of Forestry and Fire Protection, Great Basin Institute, Hawai'i Youth Conservation Corps (United States); Universiteit Stellenbosch (South Africa); National University of Singapore; Hochschule Rosenheim (Germany); Australian National University; Arauco (Chile).
- New co-op employers included: Agriculture and Agri-Food Canada - Pacific Agri-Food Research Centre, Alberta Innovates - Technology Futures, Arizona Conservation Corps (Flagstaff), Atomic Energy of Canada Limited (Chalk River, ON), BC Conservation Foundation, ES Cropconsult Ltd (Surrey), Footprint Sustainable Housing Corporation (Vancouver), Hawai'i Youth Conservation Corps (Honolulu), Huber's Furniture (Vernon), M&J Woodcrafts Ltd (Richmond), National University of Singapore, Pacific Forestry Inc (Vancouver), Stor-X Organizing Systems (Richmond), Vancouver Aquarium, Westridge Cabinets Ltd (Red Deer, AB) and Yukon Department of Energy, Mines and Resources – Forest Management Branch (Whitehorse).
- The geographical distribution of co-op work terms was 30% lower mainland of BC; 37% remainder of BC; 20% rest of Canada; and 13% international.
- Expansion of co-op opportunities in other natural resource sectors such as oil and gas, mining and energy.

### Number of work terms completed

	09/10	10/11	11/12	12/13
Forestry	3	9	8	7
Forest Sciences	2	2	4	2
Natural Resources Conservation	20	27	33	49
Wood Products Processing	32	27	35	44
<b>Total</b>	<b>57</b>	<b>65</b>	<b>80</b>	<b>102</b>

- In February 2013, Geoff Anderson spoke at the Association of BC Forest Professionals AGM and Annual Conference in Prince George on the value of mentorship and how forestry employers can use mentoring to more effectively engage with students and young professionals as well as strategically use mentoring as part of their recruitment process. Samantha Smolen, Natural Resources Conservation Co-op student, shared her experience of participating in a mentoring program from a student perspective.
- Three well-attended Co-op Presentation Evenings were held during the year which provided students the opportunity to showcase their learning and experience from their co-op work terms and to network with employers.
- Forestry Co-op students achieved academic success in 2012-13. Chantelle Grills and Lise Gleasure were named top graduating students in the Wood Products Processing and Forest Resources Management programs respectively. Olivia Sanchez, a Natural Resources Conservation Co-op student, was awarded the Canadian Institute of Forestry Gold Medal as this year's most outstanding graduating student. Congratulations to Chantelle, Lise and Olivia!

### PLANS FOR 2013 – 14

- 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; co-op policies and procedures.
- As a member of the UBC Co-op Council, continue to partner with other UBC Co-op programs to develop joint employer marketing initiatives.
- Submit an accreditation application in August 2013 to the Canadian Association for Co-operative Education.

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

## Student Services and Recruitment



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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 2012 – 13

#### 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.

To improve our services to our students we have adopted OAMS (Online Advising Management System) which allows us to see all of our interactions with students stored in one place accessible by not only all of Student Services staff but also by all of the Program Directors and our Associate Dean of Undergraduate Studies. This new practice has allowed us to all be on the same page and avoid miscommunication between us as well as with students.

#### Recruitment Activities

Ana Curcin 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. 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. Xinxin Zhu, has been working directly with Dr Guangyu Wang, Director of Asian Strategies, to support these students in their transition to UBC as well she coordinates the study group to China. Currently, Chinese students represent the largest proportion of our international students.

#### Outstanding Students

**Olivia Sanchez**, a Natural Resources Conservation student (Major in Global Perspectives), 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. Aside from her strong academics, Olivia has been an active student member and an outstanding ambassador for the Faculty of Forestry. Examples of her UBC involvement include being part of the International Forestry Students Association and coordinator of the Tandem UBC Language Exchange. In addition, Olivia has never turned down an opportunity to speak with current and prospective UBC students about her experience in this Faculty.

#### Forestry Mentoring Program

This year's program was the largest yet with 20 triads participating. Most of the mentors were Forestry alumni and co-op employers including industry and government professionals, natural resources and forestry consultants, entrepreneurs and retirees. The program encourages students to build professional networks, and improve their time management, leadership and communications skills. Mentors further develop their leadership and coaching skills, while strengthening their connections to UBC and the Faculty of Forestry.

#### Student Events

This year's Forestry Undergraduate Society (FUS) executive and representatives were: Barbara Wong, Margarete Dettlaff, Owen Johnston, Vince Luu, Hannah Tench, Dominique Dirocco, Ashley Aperocho, Joyce Ip, Carolyn King, Elizabeth Gleasure, Anthony Melnick, Maddie Crowell, Duncan Walters and Parker Grimes. Student Services worked with the FUS to organize and support the following student events:

- "Imagine" – the university-wide orientation session on the first day of classes;
- Forestry Week – our week to showcase our Faculty to the campus;
- Trip to Quebec City – for the Canadian Institute of Forestry (CIF) conference and the nationwide Forestry Student Quiz Bowl competition;
- Dean's Welcome Back BBQ – a well-attended annual function;
- CIF Chili Cookoff – this year won by 2 of our dual citizens from the beautiful island of Hawaii;
- International Food Extravaganza – a sampling of student-prepared dishes from the world over;
- CIF Silver Ring Ceremony – our graduation celebration held each spring and once again joined by students graduating from the BCIT forestry program. This year, graduates of the new Master of Sustainable Forest Management program were also awarded silver rings; and
- "Coconut" – the legendary year-end event, held again this year at the UBC Farm.

### PLANS FOR 2013 – 14

- Send a Forestry Quiz Bowl team to Corner Brook, Newfoundland for the 105th 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.

## Enrolment Statistics

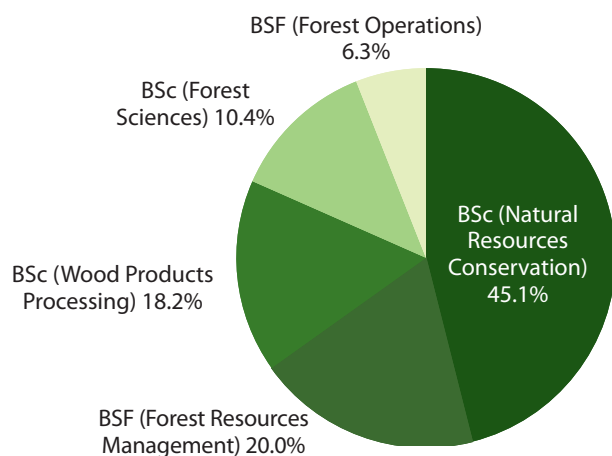
### New Student Enrolment

New student enrolment this year was 252. 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.

New students 2012 – 13

Year of study	Number of new students entering
1	222
2	14
3	15
4	1
<b>Total</b>	<b>252</b>



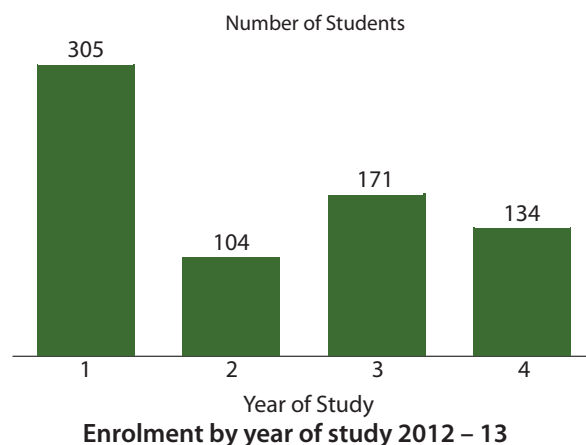
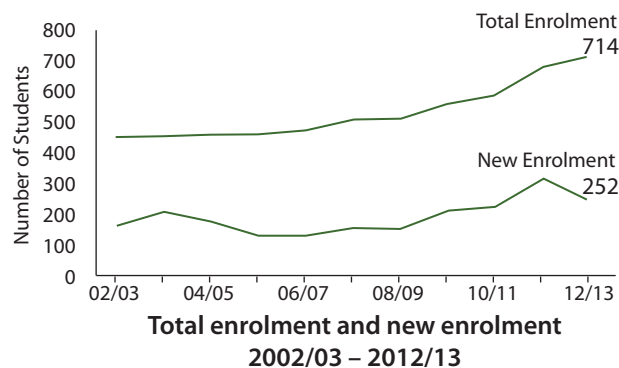
Breakdown of new enrolment 2012 – 13

### Total Enrolment

Total undergraduate enrolment grew to 714, an increase of 29 students over the previous year and an overall increase of 118 students over the past two years. 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 13 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 170 international students, up from 127 the previous year. 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. In addition, we are currently in the process of solidifying a partnership agreement with Zhejiang Agriculture and Forestry University.

The percentage of female students in our undergraduate programs is 39.5%. This percentage varies considerably among our programs, from about 53% for the Natural Resources Conservation program to about 9% for the Forest Operations Major.



Enrolment by program 2012 – 13

	Number enrolled	% of total
Forest Resources Management (BSF)	143	20
Forest Operations (BSF)	45	6.3
Forest Sciences (BSc)	74	10.4
Wood Products Processing (BSc)	130	18.2
Natural Resources Conservation (BSc)	322	45.1

## Awards

### First Year Students

Chen, Xinze	JOHNSON <sup>1</sup>
Chi, Yao	WOOD
Fujiwara, Koki	WOOD
Han, JongHyun	WOOD
Hawkins, Timothy	ALUMNI <sup>2</sup>
Hill, Micah	WOOD
Huang, Jiangfeng	FUJIAN
Lee, Jordan	TRUCK <sup>1</sup>
Lu, Yuhao	TRUCK <sup>1</sup>
Wang, Huizi	WOOD

### Second Year Students

Alba, Kelsea	SODERMAN
Burnside, Nyla	ABCFP <sup>1</sup>
Chen, Jennifer Ying Lin	BURCH
Chen, Kate Boyi	WOOD
Clark, Rachel	GOLOUBEV, KUAN
Ng, Weillas	TRUCK <sup>2</sup>
Sklar, Daniel	SODERMAN

### Third Year Students

Aljanaby, Dana	GARDNER, SODERMAN
Breeweg, Anton	WOOD, CANADIAN
Chance, Curtis	McINTOSH <sup>1</sup> , BANKS
Degner, Jonathan	SIDDOO <sup>2</sup> , WORRALL
Demir, Dinc	WOOD
Dobko, Ashley	KENWOOD, BINKLEY

**ABCFP** Scholarship in Forestry<sup>1</sup>, Graduating Prize in Forestry<sup>2</sup>, UBC-O Award<sup>3</sup>

UBC Forestry **ALUMNI** Division Scholarship<sup>1</sup> and Entrance Scholarship<sup>2</sup>

**BACMAN** 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

Canadian Institute of Forestry (**CIF**) Medal

Robert J **CRAIG** Memorial Scholarship

August and Cristina **CRUCIL** Scholarship in Forestry

**DEAN** of Forestry Scholarship

Galt **ELKINGTON** Memorial Scholarship

Barry **ENGLISH** Memorial Prize

United Benefit Group **FUJIAN** Forestry Scholarship

Joseph & Joyce **GARDNER** Scholarship in Forestry

Fraser, Elijah	CARIBOO
Foerter, Reid	WOOD
Herbert, Dylan	WOOD
Holt, Oliver	ALUMNI <sup>1</sup>
Jackman, Thomas	McINTOSH <sup>2</sup> , DEAN, BANKS, MACMILLAN <sup>3</sup>
Lai, Tse-Cheng	KNAPP
Lee, Joanna	NORTHWOOD
Liu, Zhu Feng	WOOD
Magalski, Madison	MACMILLAN <sup>3</sup>
Martin, Christopher	WOOD
McGillvray, James	WOOD
Morrell, Nina	ROLLER, BANKS, MACMILLAN <sup>3</sup>
Radu, Alexandru	SODERMAN
Romanchych, Benjamin	WOOD, CANADIAN
Tench, Hannah	MILLS <sup>2</sup>
Third, Laura	LITTLE, MILLS <sup>1</sup>
Ye, Ziyu	LUMBER, MACMILLAN <sup>3</sup>

### Fourth Year Students

Belvas, Romain	GOLOUBEV, DEAN, JOHNSON <sup>2</sup>
Bissell, Charles	WOOD, MACHINERY
Chen, Xu	WOOD
Crowell, Madison	GRADUATING
Errico, Claire	ELKINGTON

Peter Andrew **GOLOUBEV** Scholarship in Forestry

**GRADUATING** Class of Forestry 1957 Prize

Phil **HADDOCK** Prize in Silviculture

Harry **HOBSON** Memorial Prize

Charlie and Sue **JOHNSON** Forestry Entrance Scholarship<sup>1</sup>

Ted **JOHNSON** Scholarship in Forestry<sup>2</sup>

Bart van der **KAMP** Prize in Forestry

Gary and Louise **KENWOOD** Forestry Award

Malcolm **KNAPP** Spring Camp Prize

Tony **KOZAK** Scholarship in Forest Measurement

Mann **KUAN** Scholarship

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 Forestry<sup>1</sup>, Forest Harvesting<sup>2</sup>, Scholarship in Forestry<sup>3</sup>

Jim and Gerry **McINTOSH** Award in Forestry<sup>1</sup> and Scholarship in Forestry<sup>2</sup>

James Russell **MILLS** Memorial Award<sup>1</sup>

Gleasure, Elizabeth	KOZAK, DEAN, BACKMAN
Grills, Chantelle	WOOD, WELLWOOD
Kho, Alexis	SOPRON
Lam, Trueman	SIDDOO <sup>1</sup> , STEINER
Leclerc, Marc-Antoine	CRUCIL, DEAN
Li, Jun	WOOD
Li, Junyi	WOOD
Matute Arrieta, Pamela	BACKMAN
McGregor, Rob Roy	SISCO, DEAN, SPLAN, BIER
Nethercut-Wells, Acacia	HADDOCK
Pedersson, Brita	CRAIG
Prpic, Ivan	WOOD
Trachuk, Karl	WOOD
Walters, Duncan	SMITH, ENGLISH, KAMP, ABCFP <sup>3</sup>
Xiong, Huan	WOOD
Zhang, Kunqian	LUMBER

### Graduating Awards

(Spring 2012)

Burns, Janice	CIF
Kofoed, Michael	MACMILLAN <sup>1</sup> , LARRE
Langley, Benjamin	HOBSON, MACMILLAN <sup>2</sup>
Middleton, Colin	ABCFP <sup>2</sup>
Wahn, Eric	ABCFP <sup>2</sup>

Robert E **MILLS** Memorial Award<sup>2</sup>

**NORTHWOOD** Pulp and Timber Limited Scholarship

KJ **ROLLER** Sopron Scholarship in Forestry

Kapoor Singh **SIDDOO** Scholarships in Forestry<sup>1</sup> and Forest Ecology<sup>2</sup>

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 Scholarship<sup>1</sup> and Scholarship in Harvesting<sup>2</sup>

Mary and Robert **WELLWOOD** Memorial Scholarship in Wood Science and Industry University of BC **WOOD** Products Processing Awards

John **WORRALL** "Tree Enthusiast" Prize



## Graduation Statistics

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

## DEGREES CONFERRED, MAY 2012 AND NOVEMBER 2012 CONGREGATIONS

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

Ashbaugh, Kathleen  
Baker, Sydney  
Cassady, Adam  
Chao, Katherine  
Eddy, Ian  
Gaudet, Adam  
Griffiths, Hannah  
Guo, Keri  
Haas, Andrea  
Huang, Cheng  
Johal, Sharondeep  
Kang, Sin Wook  
Kang, Sin Woong  
Kim, Kyuwon  
Luchsinger, Jade  
Manitius, Anita  
Pachkowski, Christine  
Pan, Yu-Jou  
Ristic, Milica  
Schoeler, Rachel  
Skordas, Cristina  
Sung, Tiffany  
Sutherland, Ira  
Terpsma, Christine  
Yuen, Ivy  
Zhu, Rui

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

Arnett, John  
Ballard, Megan  
Bickerton, CheyAnne  
Cottone, Mario  
Dekleer, Lisa  
Durand, Charisse  
Fionda, Enrico  
Frederickson, Alexandra  
Grigg, Jesse  
James, Samantha

Katamay-Smith, Tanya  
King, Brittany  
Lau, Jeanne  
Lewis, Kaylah  
Middleton, Collin  
Pustina, Andrew  
Rickbeil, Greg  
Roy-Jauvin, Raphael  
Schlenker, Nora  
Sherlock, Allison  
Shinde, Matthew  
Smith, Ivy  
Storey, Cassandra  
Towers, Thomas  
Weir, Lauren  
Wotten, Tracy  
Yehle, Kaitlin  
Zhang, Da Xin  
Zustovic, Matthew

**BSc (Wood Products Processing)**

Ahmadi, Varya  
Chan, Wing Fung  
Chiu, Tse-Lun  
Gierc, Braden  
Hansen, Kell  
Huang, Wilson  
Kit, Wilson  
Kofoed, Michael  
Kostiwi, Mark  
Lister, Caleb  
Tam, Janice  
Tan, Rynehvee  
Ukpabi, Houston  
Wong, Jonathan  
Yun, Tae Young  
Zhao, Xin

**BSc (Forest Sciences)**

Beaudoin Nadeau, Martin  
Fung, Jason  
James, Todd  
Low, Dale  
Marciniak, Amberly

Nelson, Brett  
Slade, Tristan

**BSF (Forest Operations)**

Chow, Laiyi  
Chow, Winnie  
Dehouwer, Jonathan  
Housser, Richard  
Langley, Benjamin  
Lewynsky, Martin  
Van Buskirk, Robert

**BSF (Forest Resources  
Management)**

Albrecher, Stefan  
Bruemmer, Matthew  
Burdikin, Derek  
Burk, Karen  
Burns, Janice  
Chow, Leeanne  
English, Kathlene  
Fegyverneki, James  
Hallaway, Marissa  
Harper-Heir, Benjamin  
Harvey, Amanda  
Howard, Stephanie  
Huang, Ye  
Mackay, Benjamin  
Nethercut-Wells, Acacia  
Niddrie, Nicholas  
Reyden, Jeff  
Rowan, Marco  
Sakamoto, Janelle  
Shearer, Mark  
Shepherd, Allison  
Stevenson, Loreen  
Todd, Jamie  
Tsai, Tim  
Tu, Siqian  
Wahn, Eric  
Wang, Xukun  
Woods, Sarah  
You, Xin Zong



## Enrolment Statistics



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THE FACULTY OF FORESTRY offers five graduate degrees:

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

## Enrolment and Graduation Trends

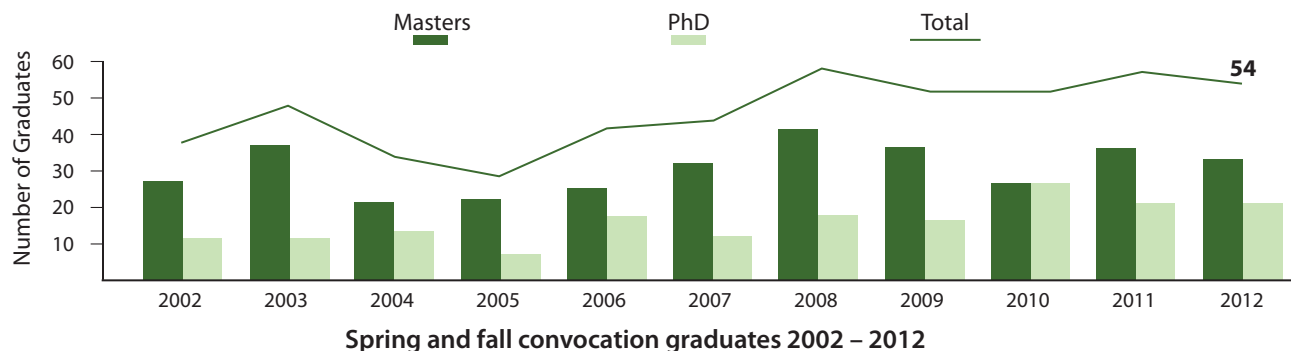
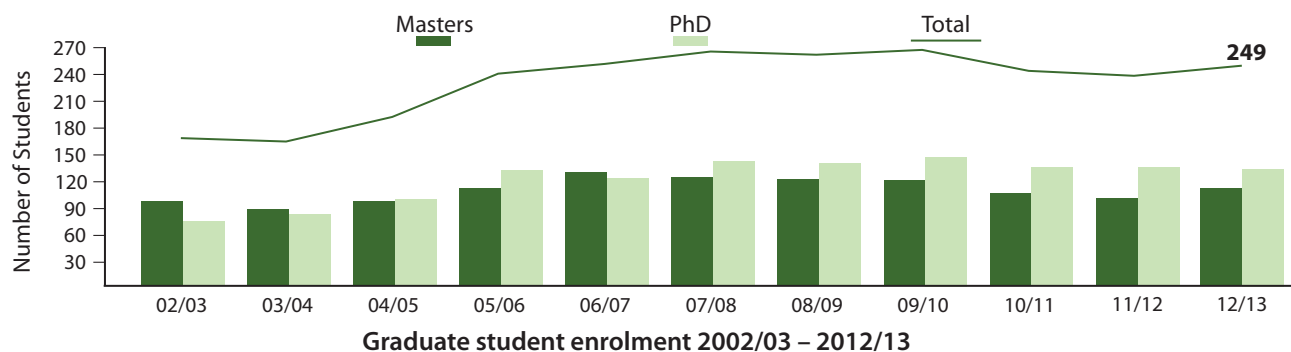
The Forestry Graduate Program had 249 registered students this past year, with 55% enrolled in PhD programs. Women comprised 47% of our master's and 46% of our doctoral students. We welcomed 29 new PhD students and 24 new MASc and MSc students in 2012/13. In addition, 14 new students registered in the MSFM program and 7 began the MF program, which included the TRANSFOR-M program.

The average thesis-based graduate student complement of supervising faculty members is 5. Fifty-four students successfully completed their graduate programs last year, 33 with master's degrees and 21 with PhD degrees. Average time-in-program of students finishing their programs in 2012 was 3 years for research-based master's students, and 5.6 years for doctoral students.

Distribution of students by degree program 2012 – 13\*

	Male	Female	Total
PhD	73	63	136
MSc	39	39	78
MASc	4	3	7
MF	9	5	14
MSFM	8	6	14
<b>Total</b>	<b>133</b>	<b>116</b>	<b>249</b>

\*As of October, 2012

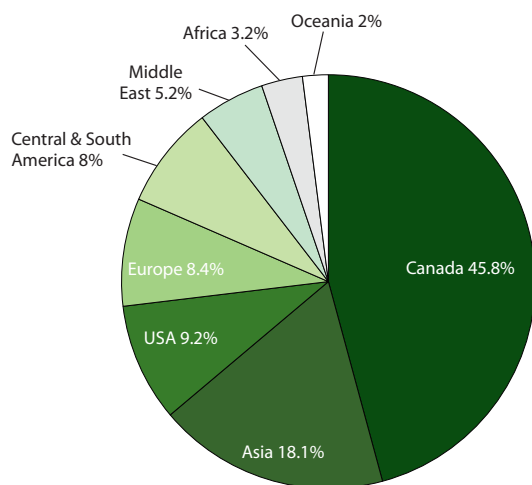


## Achievements and Plans

### The Forestry Graduate Program – An International Community

This year marked the inauguration of the Master's program in Sustainable Forest Management (MSFM). This is a one-year intensive course-based program that prepares students for careers as forestry professionals in North America and overseas. The program is designed to satisfy the academic standards for accreditation administered by the Canadian Forestry Accreditation Board and to enable graduates to meet the core academic requirements for certification of the member agencies of the Canadian Federation of Professional Foresters Associations. The program is ably run by the Director, Dr Steve Mitchell, and Coordinator and Lecturer Ms Deborah DeLong, with teaching contributions by many members of the Faculty of Forestry. The first cohort consisted of 14 students – 10 from Canada and the others from China, Japan, Spain and Taiwan.

We also successfully completed the second 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 the Faculty of Forestry hosted 3 European students who took courses and were active members of the graduate student community.



Origins of graduate students 2012/13

The Faculty of Forestry continues to attract excellent graduate students from around the world. This year, 54% of our graduate students were from countries other than Canada – we had students from 38 different countries – continuing to make Forestry one of the most culturally diverse graduate programs on campus. This year 20 current students served as “buddies” for incoming students from China, Colombia, France, Egypt, India, Korea and the United Kingdom. The Forestry Graduate Student Association (FGSA) hosted the fifth annual Global Tea House talk series with presentations by students from Bulgaria, Canada, Indonesia, Mexico, Romania, South Africa and Sweden, about the forests and culture in their native countries.

### ACTIVITIES AND ACHIEVEMENTS IN 2012 – 13

The FGSA once again played a key role in helping us provide a sense of community for our graduate students. In collaboration with the Faculty, the FGSA hosted the 2nd Annual FGSA Future Forestry Leaders Symposium in December, which included student presentations and posters, as well as a networking evening with industry and government professionals. They also organized several large social events, including the wine and cheese night, open-mic evening, international food night, and year-end BBQ, as well as numerous sporting activities throughout the year, including ping-pong and soccer tournaments, and weekly salsa dancing lessons.

The FGSA executive and representatives were Yaseen Mottiar, Amanda Johnson, Jose Ruiz-Esquide, Estefania Milla, Henry Yang, Seena Linoj, Mehdi Piltan, Sofiya Lazarova, Devyani Singh, Jean-Michel Beaudoin, Robyn Hooper, Gwen Huber, Shalom Addo-Danso, and Lorien Nesbitt.

The FGSA also worked closely this year with IFSA-UBC, a local committee of the International Forestry Student Association (IFSA). IFSA organized a range of activities for forestry students with the aim of fundraising to attend the IFSA Symposium in Spain in August 2013. IFSA-affiliated events included forestry-themed movie nights, “Countries in Focus: An Evening In Guyana”, and the International Day of Forests OrientTREEing Scavenger Hunt. IFSA-UBC has also started to actively plan for the 42nd IFSA Symposium in 2014, which they will host at UBC. This is the largest forestry and conservation student conference in the world and will bring over 130 students to Vancouver from across the globe. Members of the IFSA-UBC executive are Simon Nadeau, Olivia Sanchez, Felipe Vasquez, Rob Mack, Gabrielle Schittecatte, and Marie Nosten.

Our students participated in the third annual UBC “Three Minute Thesis” (3MT) competition, with the Forestry graduate program heat attracting 11 competitors, and several others participating in the TerreWeb heat. Forestry heat finalists were: Douglas Bolton (Coops), Chelsea Nilausen (Bull) and Amadeus Pribowo (Saddler); Forestry MSc student Meghan Laidlaw (Prescott) was a finalist from the TerreWeb heat. The 3MT presentations can be viewed on the Faculty YouTube page ([www.youtube.com/user/UBCForestry](http://www.youtube.com/user/UBCForestry)).

Fernanda Tomaselli (PhD, Kozak) received the Edward Hossie Award for Student Leadership at UBC. Richard Schuster (PhD, Arcese) received the Faculty of Forestry Best Graduate Teaching Assistant Award. Ken Jeffries (PhD, Hinch) received the Best PhD Thesis Award and Beth MacDonald (MSc, Martin) received the Best Master's Thesis Award.

Dr Phil Evans again offered a 12-workshop series on advanced scientific writing for graduate students and postdoctoral fellows. Our graduate students also continued to benefit from graduate courses in oral presentation and technical writing offered by Dr Susan Watts. Our dedicated graduate program staff continued to provide excellent multi-faceted service to both prospective and current graduate students and their supervisors.

### PLANS FOR 2013 – 14

- Continue development of the course-based Master of International Forestry degree program for launch in 2015.
- Continue participation in the TRANSFOR-M dual degree master's program with Canadian and European university partners (year 3 of 3) and explore possible renewal of the program.

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

## Scholarships, Fellowships & Awards

### Graduate Student Funding 2012 – 13

Adequate funding of our graduate students is a priority in the Faculty of Forestry. More than \$4.3 million was invested in graduate student stipends in 12/13. The average annual stipend for doctoral students (during the first 4 years of their program) was just over \$24,000; for research-based master's students (during the first 2 years of their program) it was just over \$19,000. Graduate research assistantships (\$1,868,435) were the secondary source of student stipends for PhD students, and primary source of stipends for master's students, while graduate teaching assistantships contributed about 8% of our student funding (\$323,190). Competitive awards (not including tuition awards) contributed about half of doctoral student stipends and about 39% of master's student stipends (\$2,118,684).

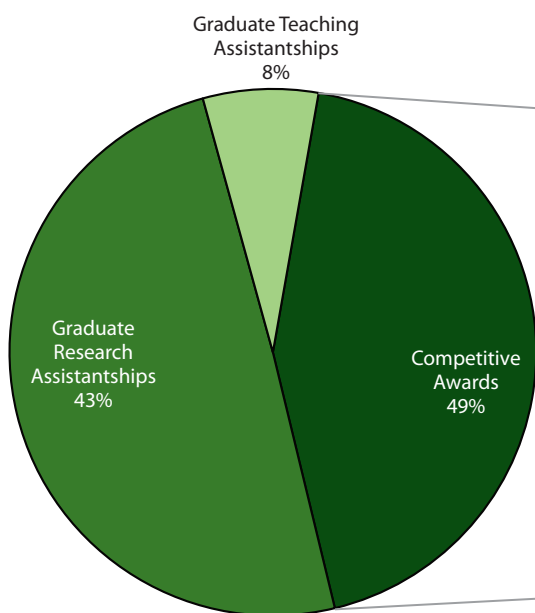
Eighteen Forestry graduate students received Tri-Council (NSERC and SSHRC) scholarships. Tri-council scholarships accounted for 31% of the \$2.1 million received by our graduate students in competitive awards in 12/13. Sara Fryer Barron was announced as the first recipient of the Future Forests Fellowship. Jose Arias received the Kloshe Tillicum Aboriginal Health Research Master's Award. The Faculty of Forestry allocation of Four Year Fellowship – Graduate Entrance Scholarships (FYF-GES) were awarded to incoming doctoral students Shalom Addo-Danso, Nathan Furey, Anya Reid, Devyani Singh, and Kai Tsuruta. 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 31 incoming MSc and PhD students. The SRF program is funded through the Graduate Student Initiative program at UBC. A total of 56 Forestry graduate students received University Awards (FYF-GES, FYF, SRF or Affiliated Fellowships) worth \$747,612, which accounted for 50% of the total received in competitive awards.

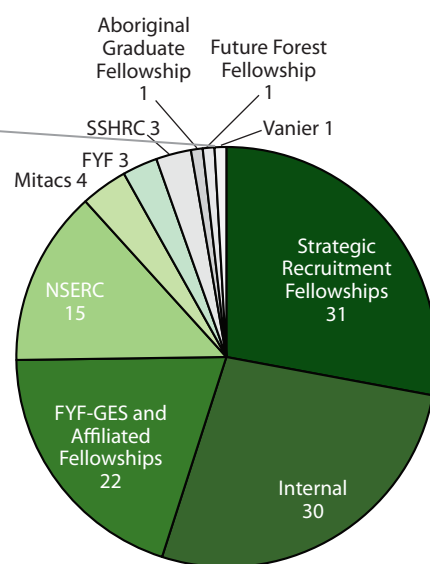
Endowed, merit-based, Faculty of Forestry awards continue to be a vital resource for our graduate students; this year 30 students received part of their stipend from these internal awards. Louise Blight held the Graduate Fellowship in Sustainable Forestry, sponsored by the Koerner Foundation. Research Forest Internships (supported through a private foundation) were awarded to Christian David and Timothy Philpott.

In keeping with our international student body, several of our graduate students received funding from international scholarships; these include the Chinese Scholarship Council (8 students), National Council for Science and Technology of Mexico (CONACYT – 3 students), National Commission for Scientific and Technological Research of Chile (CONICYT – 5 students), Brazilian Scholarship (1), Colombian Government Scholarship (1) and a Canadian Rhodes Scholarship (UK – 1).

Additional student support came from programs such as TerreWeb (NSERC CREATE – 5), MITACS (4) and Pacific Institute for Climate Solutions (1).



Breakdown and percentages of all graduate funding sources (\$4,310,309) 2012/13



Breakdown of major competitive awards 2012/13

## Scholarships, Fellowships &amp; Awards

## Doctoral Students

Abraham, Yonas	FYF-GES	Jack, David	BUCKLAND, FMIBC, SMITH
Addo-Danso, Shalom	FYF-GES	Jaung, Wanggi	SRF
Ahmed, Suborna	HANSON, MACAREE, MCPHEE	Jeffries, Kenneth	Best PhD Dissertation
Appleton, Robyn	SRF	Kalcsits, Lee	VANIER
Atwood, Trisha	FYF-GES	Kenawy, Ahmed	SRF
Baker, Kahlil	FQRNT, MACAREE	Klady, Rebecca	FYF, SSHRC, MACAREE
Beaudoin, Jean-Michel	SSHRC, MITACS, MCPHEE	Korehei, Reza	MACAREE
	MACAREE, WRIGHT	Levy-Booth, David	FYF, NSERC
Bett, Nolan	FYF, NSERC, SRF	Li, Yuan	HELLER
Blight, Louise	KOERNER	Masse, Jacynthe	NSERC, BASSETT, MACAREE
Bolton, Douglas	SRF	Mathys, Amanda	TerreWEB, SRF
Bull, Justin	FYF, NSERC, LUMBER, MACAREE	Mottiar, Yaseen	NSERC, SRF
Burke, Jordan	SRF	Nadimi, Fattane	FYF-GES
Cambero, Claudia	CONACYT	Nesbitt, Lorien	SRF
Campbell, Kirsten	FYF-GES	Oaten, Dustin	FYF
Carr, Hollie	Canadian Rhodes Scholar, SRF	Philpott, Timothy	NSERC, SRF
Chara, Ana	Colombian Government Scholarship		Research Forest Internship
Churchland, Carolyn	NSERC	Piltan, Mehdi	MACAREE
David, Christian	Research Forest Internship	Powers, Ryan	NSERC, SRF, ESRIS
Devi, Shalima	FYF-GES	Ramey, Tonya	FYF-GES, IMAJO
Dou, Xiaoli (Emily)	CSC	Ramon Hidalgo, Ana Elia	FYF-GES, MACAREE
Drenner, Matthew	FYF-GES	Read, Wolf	ALLEN, MACAREE
Ebadian, Mamood	MACAREE	Reid, Anya	FYF-GES
	Best Student Poster	Reyes, Rene	RUFF
Elleouet, Joane	SRF	Rossetti de Paula, Felipe	Brazilian Scholarship
Ferster, Colin	AFFILIATED	Sam-Brew, Solace	FYF-GES
Frazier, Ryan	FYF-GES	Schuster, Richard	AFFILIATED-HESSE
Fryer Barron, Sara	Future Forests Fellowship		Best Graduate Teaching Assistant Award
Furey, Nathan	FYF-GES	Shabani, Nazanin	SRF
Germain, Ryan	NSERC, MACAREE, HOFFMEISTER	Singh, Devanyi	FYF-GES
Gourlay, Keith	FYF-GES	Sopinka, Natalie	FYF, NSERC
	Biotechnology for Fuels &		Jan Smith Award
	Chemicals Outstanding Student Poster Award	Tomaselli, Fernanda	FYF-GES, AFFLECK, MACAREE
Greene, Gregory	SRF, PICS, WEBER, MACAREE		Student Leadership Award
Greenwood, Jennifer	NSERC, SRF	Tomscha, Stephanie	CANFOR, SRF
Halperin, James	SRF	Tooke, Rory	MACAREE, FYF
Haghdan, Shayesteh	SRF	Tsai, Ying-Li	Poster Prize
Hansen, Lisa	SRF, MACAREE	Tsuruta, Kai	FYF-GES
He, Wenchang	CSC	Tysor, Susannah	FYF-GES
Hilsendager, Kyle	Aboriginal Graduate Fellowship	Varhola, Andres	FYF, NSERC, MACAREE
	West Coast Energy Inc First Nations Fellowship	Wytrykush, Debra	GRAHAM, CHISHOLM, MCPHEE
Hooper, Robyn	VANDUSEN, MCPHEE	Xi, Li	CSC
Hu, Jinguang	CSC	Xu, Lianzhen	CSC
Ibarra, Tomas	CONICYT, MACAREE	Zhai, Rui	CSC
	RUFF	Zhang, Xiaoyue	CSC
Innerd, Andrew	VANDUSEN	Zhong, Na	CSC

## Scholarships, Fellowships & Awards

### Master's Students

Amerongen Maddison, Julia	SRF
Anderson, Jeffrey	NSERC IPS
Arias, Jose	SRF, TerreWEB, JOHAL, MACAREE Kloshe Tillicum Aboriginal Health Research Award
	CONICYT
Asay, Amanda	SRF
Barreau, Antonia	NAMKOONG, CONICYT
Boag, Angela	NSERC, SRF
Byrd, Jason	SRF
Castro-Miravalles, Claudia	CONACYT
Chavardes, Raphael	NSERC IPS, MACAREE
Cheng, Kenny	Poster Prize
Da Ros, Letitia	SRF
Hammett, Craig	SRF
Hooper, Robyn	VANDUSEN, MCPHEE
Kent, Hannah	SSHRC

Laidlaw, Meghan	TerreWEB
Liu, Jingshu (Angela)	MCPHEE
Madero, Alvaro	CONACYT
Mahony, Colin	NSERC
Marciniak, Amberly	SRF
Milla, Estafania	CONICYT
Molina, Carlos	Int'l Student Fellowship in Sustainable Resource Management
Nielsen, Jennifer	NSERC
Pledger, Sean	MITACS
Pu, Ting	SRF
Rickbeil, Greg	NSERC
Robinson, Anthony	MITACS
Ruiz-Esquide Enriquez, Maria Jose	CONICYT
Sparrow, Lori	MITACS
Vasquez Fernandez, Andrea	SRF, MACAREE, TerreWEB
Yao, Danyu	CSC
Zustovic, Matthew	TerreWEB

### 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

China **Scholarship Council**

Hugh Robert Duncan **CHISHOLM** Scholarship in Forestry

Ralph and Elizabeth **COCHRAN** Scholarship

**CONACYT** National Council of Science and Technology (Mexico)

**CONICYT** National Commission for Scientific and Technological Research (Chile)

**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**

**IMAJO** 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

**RUFFord** Small Grants Foundation

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

**Strategic Recruitment Fellowship**

**Social Science and Humanities Research Council of Canada**

**Terrestrial Research on Ecosystems & World-wide Education & Broadcast (NSERC CREATE)**

**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 2012 AND NOVEMBER 2012 CONGREGATIONS

## MASc

**Max Closen***Dr Frank Lam*

Self-tapping screw assemblies under monotonic and reverse cyclic load

**Diyan Xian***Dr Greg Smith*

Effect of nanoclay fillers on wood adhesives and particle board properties

## MF

**Dan Henegar***Dr Peter Marshall*

Wildlife-urban interface management in West Vancouver

**Joan Bittroff***Dr Howard Harshaw*

The survival of non-profit camps in challenging economic times: A case study of Camp Olave Girl Guide Camp

**Sara Farid***Dr Michael Meitner*

An overview of GIS applications in supply chain management of forest-based products industry

**Anders Johansson***Dr Gary Bull*

European bioenergy policy

## MSc

**Kahlil Baker***Drs Val Lemay and Gary Bull**Gliricidia sepium* and *Caesalpinia velutina* plantations in Nicaragua**Daniel Berheide***Dr Michael Meitner*

Public support for managing the mountain pine beetle

**Laura Bird***Dr George Hoberg*

Making the new relationship work: Crown-First Nations shared decision-making in the "Great Bear Rainforest"

**Simren Brar***Dr Richard Hamelin*Landscape genetics of *Cronartium ribicola***Allyson Clark***Dr Harry Nelson*

Barriers and drivers to sustainability for small to medium sized businesses in the value-added wood sector

**Alison Collins***Dr Scott Hinch*

Acoustic tagging effects on juvenile sockeye salmon swimming performance, growth, survival and metabolic rate in freshwater and saltwater

**Irena Fundova***Dr Yousry El-Kassaby*

In situ wood quality assessment in interior spruce

**Ella Furness***Dr Harry Nelson*

Climate change: Assessing the adaptive capacity of community forests

**Marika Gale***Dr Scott Hinch*

Influences of temperature on the mortality and physiological impairment of sockeye salmon after simulated capture and release

**Richard Hewitt***Dr Taraneh Sowlati*

Evaluation of strategic software investments in the Canadian cabinet industry

**Maggie Hryniewicz-Moczulski***Dr Shawn Mansfield*Role of two *Populus trichocarpa* Endo-Beta-1,4-Glucanases and their *Arabidopsis* orthologs in plant cell-wall development**Cheyney Jackson***Dr Peter Arcese*First year site fidelity and survival in reintroduced captive-bred Vancouver Island marmots (*Marmota vancouverensis*)**Tony Kess***Dr Yousry El-Kassaby*

Reproductive dynamics and fingerprinting effort in a Douglas-fir seed orchard

**Patrick Little***Drs Younes Alila and John Richardson*

Hydrogeomorphic disturbance, landscape development and riparian vegetation dynamics of an alluvial, temperate rainforest in the Carmanah River Valley, British Columbia, Canada

**Elizabeth (Beth) MacDonald***Drs Kathy Martin and Jill Jankowski*

Songbird incubation dilemmas in the alpine: Managing parent-offspring trade-offs in a variable thermal environment

**Jean-Simon Michaud***Dr Nicholas Coops*

Characterising moose habitat, abundance and ecosystem variability using satellite-derived indicators

## Degrees Granted

### Victor Nery

*Dr Cindy Prescott*

Productivity analysis of silvicultural treatments in cedar and hemlock stands on northern Vancouver Island

### Natalie Noel

*Dr Rob Kozak*

Material selection by architects for green building design

### Guy O'Loughnane

*Dr Gary Bull*

Evaluating the role of financial institutions in monetizing forest ecosystem values: Existing arrangements and the viability of new arrangements

### David Perez

*Dr John Innes*

Reforestation under climate change in British Columbia, an institutional assessment

### Timothy Philpott

*Dr Sue Grayston*

Translocation and accumulation of organic and inorganic nitrogen in wood resources colonized by the mycelial cord systems of the decay fungus *Hypholoma fasciculare*

### Anna Shcherbinina

*Dr Peter Marshall*

Validation of the jack pine version of CroBas-PipeQual

### Pano Skrivanos

*Dr John Innes*

Comparison of techniques for measuring forest carbon in British Columbia

### Yoriko Suzuki

*Dr Cindy Prescott*

The effects of millipedes (*Harpaphe haydeniana*) on microbial decomposition of leaf litter

### Arthur Tsai

*Dr Dave Cohen*

US housing projection: Perceptions from population growth and demographic factors

### Charlotte Whitney

*Dr Scott Hinch*

Variation in embryonic thermal tolerance among populations of sockeye salmon: Offspring survival, growth, and hatch timing in response to elevated incubation temperature

### Tomoko Yoshida

*Dr John Innes*

The collaborative forest management user group's perceptions and expectations on REDD+ in Nepal

## PhD

### Kevin Beiler

*Drs Suzanne Simard and Daniel Durrall*

The complex socio-spatial architecture of *Rhizopogon spp* mycorrhizal networks in xeric and mesic old-growth interior Douglas-fir forest plots

### Joe Bennett

*Dr Peter Arcese*

Multi-scale comparison of native and exotic communities in the Garry oak ecosystem of British Columbia

### Drew Brayshaw

*Drs Younes Alila and Marwan Hassan*

Bankfull and effective discharge in small mountain streams of British Columbia

### Baozhang Chen

*Dr Nicholas Coops*

Towards an understanding of coupled carbon, water and nitrogen dynamics at stand, landscape and regional scales

### Faustino Chi

*Dr Stephen Mitchell*

Long-term changes in mangrove forests and cays following hurricanes at Turneffe Islands, Belize

### Amanda De la Torre

*Dr Sally Aitken*

Genetic structure, gene flow and local adaptation in the interior spruce hybrid zone

### Michael Donaldson

*Drs Scott Hinch and Kristina Miller*

Understanding the consequences of fisheries-related stressors on adult migrating Pacific Salmon

### Bill Floyd

*Drs Nicholas Coops and Marcus Weiler*

Snowmelt energy balance recovery in regenerating forests frequented by rain-on-snow events

### Tomas Funda

*Dr Yousry El-Kassaby*

Population genetics of conifer seed orchards

### Jill Hamilton

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Genomic and phenotypic architecture of a spruce hybrid zone (*Picea sitchensis* x *P. glauca*)

### Robbie Hember

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Impacts of environmental change on tree productivity in temperate-maritime forest ecosystems

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Role of non-decay fungi in the weathering of wood

**Arash Jamali***Dr Phil Evans*

Etching of wood by glow-discharge plasma

**Ken Jeffries***Drs Scott Hinch and Kristina Miller*

The effects of elevated water temperature on adult Pacific Salmon gene expression, blood physiology and mortality

**Kate Kirby***Dr Sara Gergel*

Relative influence of cultural identity and market access on agricultural biodiversity in swidden-fallow landscapes of eastern Panama

**Sang Seop Lim***Dr John Innes*

Development of forest aesthetic indicators in sustainable forest management standards

**Ian Moss***Dr Val Lemay*

Stand structure classification, succession and mapping using LiDAR

**Andrea Norris***Dr Kathy Martin*

Mechanisms regulating ecological responses to resource pulses within cavity-nesting bird communities

**Faride Unda***Dr Shawn Mansfield*Evaluating the role of the raffinose family of oligosaccharides in hybrid poplar (*Populus alba* × *grandidentata*)**Saba Vahid***Dr Thomas Maness*

An agent-based supply-chain model for strategic analysis in forestry

**Patrick Waeber***Dr John Innes*

Integrated dual filter framework for forest management planning: A case study in the southwest Yukon montane landscape



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THE FACULTY OF FORESTRY at UBC is characterized by its large and growing number of international undergraduate and graduate students as well as a range of significant international research and teaching activities. We are committed to further internationalization and better communicating our ongoing successes within UBC, our community and globally. The challenges faced by forests around the globe affect people locally and the issues facing local forests have global impacts.

## International Students and Student Exchange

The Faculty has one of the most diverse student bodies on campus, with 24% of our undergraduate students and 54% of our graduate students coming from outside Canada. Although many of our international students come from the USA and China, there is still considerable diversity. In the past year, our undergraduates represented 25 countries and our graduate students represented 38 countries. We provide students with opportunities for international experiences through Go Global programs. 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 (11 of our students took part in the "Exploring forestry and conservation in China" summer study program), Denmark, Netherlands, New Zealand, Sweden, and United Kingdom. We hosted 14 international exchange/visiting students from Australia, China, Germany, New Zealand, United Kingdom and United States.

**China:** The Faculty continues to strengthen collaboration with Chinese forestry universities. We have successfully developed transfer programs with Nanjing Forestry University, Beijing Forestry University and Fujian Agriculture and Forestry Universities with approval from the Ministry of Education of China. The programs cover Forest Sciences, Natural Resources Management, Forest Resources Management and also Wood Products Processing. In coping with the growing need for supporting the transfer and exchange students, the Faculty has developed online support resources, including a lecture series with 20 short videos to allow students to get familiar with our teaching before coming to UBC. Six faculty members went to China to teach students at the partnering universities over the past year. We have also developed a 6-week summer bridging course which provides students with an intensive training prior to starting at UBC. We have recently developed 2 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. This program includes various activities, including lectures, service learning, field trips, and visits to local industries and to world natural heritage and cultural sites. Twelve students went to China in May 2012. During their visit they also studied forestry and conservation practices in China, as well as business and wood product promotion in China. Two newly developed scholarship programs from the Canadian Fujian Friendship Association and the Fujian United Benefits Group supported 20 students in the undergraduate transfer programs. Currently, there are 56 students from China involved in the transfer programs and 6 students in exchange programs.

**Europe:** This was the second year of implementation of our Transatlantic Forestry Master dual-degree program (TRANSFOR-M). This 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. In August 2012, our European partners organized a 3-week field course covering Wales, Germany, Sweden and Finland. This provided students excellent opportunities to compare forest policies and management practices in each country.

## International Partnership for Forestry Education

The International Partnership for Forestry Education (IPFE, [www.ipfe.fi](http://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. In October 2012, IPFE co-organized the Third International Forestry Education Symposium in Joensuu, Finland with the University of Eastern Finland. The symposium covered several important topics; IT in Forestry Education, Real Life Connections and Employability of Forestry Students and The Image of Forestry Education - How to Make Forestry Education Innovative and Attractive. Through IPFE, Hosny El-Lakany and Jorma Neuvonen participated in the management committee of "Improving of forestry education in Kenya". This project was a collaboration between the University of Eastern Finland (UEF) and Chepkoilel University College, with support from UEF. The project was successfully completed.

### International Events and Collaboration

In June 2012, the Faculty co-organized an important training event for promising mid-career officers in public forest agencies from countries as diverse as Brazil, Peru, Cameroon, South Sudan, Liberia, Democratic Republic of Congo, Indonesia and China. This MegaFlorestais 2012 event was jointly organized with Canadian Forest Service, the BC Ministry of Forests, Lands and Natural Resource Operations and Rights and Resources Initiative. The event focused on governance issues, and participants had the opportunity to learn about the rich diversity of British Columbia's forests and their governance.

Since August 2012, our students have been actively engaged with the International Forestry Students Association (IFSA). Four UBC students attended the 40th annual International Forestry Students' Symposium (IFSS 2012) in Turkey and were elected to official positions within IFSA World: Katie Gibson is the Vice-President, Anna Stemberger is the North American Regional Representative, Andrea Vasquez is the IFSA Liaison Officer to the UN-FAO and Lisa Hansen is the Head of the IUFRO-World Congress Commission. These students also helped BC to win the bid to host the 42nd annual International Forestry Students' Symposium (IFSS 2014). This 2-week event will be co-organized with the newly established local committees of IFSA at Thompson Rivers University and the University of Northern British Columbia. IFSA-UBC representatives also attended the Society of American Foresters (SAF) National Convention in Spokane in 2012 and have since established a memorandum of understanding between IFSA and the SAF.

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 chair of the latter) and the Asian Pacific Network for Sustainable Forest Management and Rehabilitation.

The Faculty established collaboration with the Wildlife Institute of India (WII), which is an autonomous institution under the Ministry of Environment and Forests, Government of India. Dr Suzie Lavallee was a visiting scholar at WII for a 1 month period in May-June 2012 and in February-March 2013 we organized a six-week capacity building program at UBC for 8 WII faculty members.

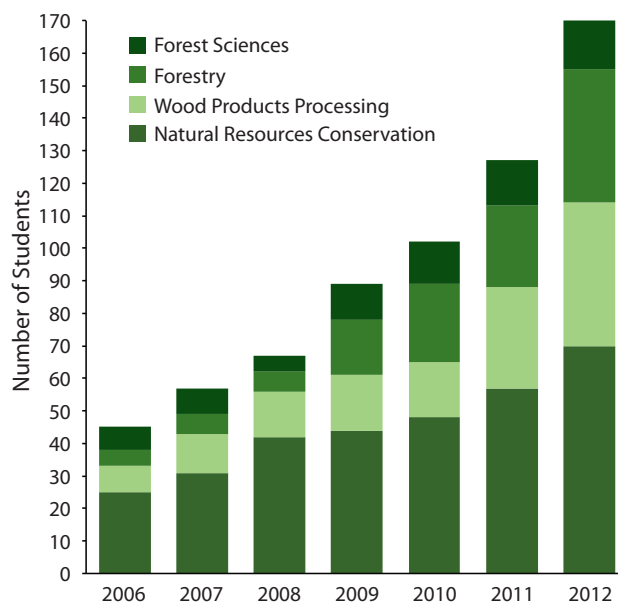
### Mid-career Training for the Indian Forestry Service

For the past 3 years we have provided top-level leaders of the Indian Forest Service (IFS) 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. Eight groups of 30 participants each were trained in the period 2010-2012. The purpose of these programs was to provide participants with an increased knowledge of strategic planning, policy making and governance aspects of forest management. The programs were 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. By the time this first cycle of this training programs was completed in autumn of 2012, UBC and its partners had trained 480 senior officers of the Service, which in total employs 2700 officers. In February 2013, UBC and its consortium partners participated in an international competition organized by the Indian Ministry of Environment and Forest for the next cycle of mid-career training. The consortium was successful in winning the tough competition and secured the contract once again for years 2013-2016. We are expecting 9 more groups participating in the training during the next 3 years.

### Master of International Forestry

During the year we continued to develop our new course-based Master of International Forestry (coordinated by John Palmer) to be launched in 2015.



Undergraduate international student enrolment  
by program 2006 – 12

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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 in 2005. 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. 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 fifteen percent of the harvesting rights in British Columbia. A new forest tenure was announced in 2011, the First Nations Woodland Licence, and is hailed as superior to the previous Forest and Range Opportunities, because area-based is a long term and replaceable agreement.

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 2012 – 13

- Dr Janette Bulkan has been successfully recruited as Assistant Professor, Indigenous Forestry. She started her appointment July 1, 2012. She has spent the past 2 decades engaged with indigenous communities of different language groups and cultural traditions.
- Andrea Lyall, Registered Professional Forester and alumna from the Faculty of Forestry, was successfully recruited as the First Nations Coordinator effective September 1. Andrea also serves as a sessional instructor to instruct Conservation 370 Aboriginal Forestry for the winter term of 2013. Andrea is a Faculty of Forestry alumna and has indigenous heritage from the Kwiksutainuek Nation.
- The First Nations Council of Advisors met January 21, 2013. The group reviewed a draft implementation plan and discussed aboriginal initiative goals for 2013-2015.
- Garry Merkel was awarded honorary alumnus at the UBC Alumni achievement awards. He has been involved with UBC for more than 2 decades. Prior to his arrival in 1986, only 2 students of Aboriginal ancestry were known to have graduated from the Faculty of Forestry at UBC. Under Mr Merkel's guidance the faculty hired a coordinator of Aboriginal Initiatives and soon afterwards the First Nations Council of Advisors was appointed, with Mr Merkel doing the bulk of recruitment and taking on responsibility of chair.
- A total of 7 undergraduate students and 2 graduate students self identified as Aboriginals enrolled in forestry programs in 2012-2013. Graduating from the Faculty of Forestry this year are 2 undergraduates and 1 graduate student.

## PLANS FOR 2013 – 14

Continued effort will be directed towards funding and implementing of the Faculty of Forestry 2012 strategic plan and the new community and Aboriginal forestry specialization in the forest resources management degree program.

*Strategic Plan – Commitment 4 Aboriginal Engagement “Our commitment: We will work with Aboriginal peoples interested in partnerships, including First Nations, Metis, and Inuit in Canada, and indigenous peoples from around the world, to help solve challenges associated with the conservation and management of forests and the goods and services they provide”.*

## First Nations Council of Advisors

<b>Keith Atkinson</b>	FNCOA Co-Chair, CEO BC First Nations Forestry Council
<b>Tyler Bellis</b>	Undergraduate Student
<b>Jeremy Boyd</b>	Forester and Operations Forester Sasquatch Forest Products LLP
<b>John Innes</b>	Dean of Forestry, UBC
<b>Lennard Joe</b>	Forester and Owner-Operator, Grizzly-man Resource Management Ltd
<b>Linc Kesler</b>	Director, First Nations' House of Learning Professor and Head Dep't of Indigenous Studies
<b>Peter Marshall</b>	Associate Dean of Forestry, UBC
<b>Garry Merkel</b>	FNCOA Co-Chair, Forester, Forest Innovations
<b>Jim Munroe</b>	President, Maiyoo Keyoh Society
<b>David Nordquist</b>	Forester, Adams Lake Indian Band
<b>Angeline Nyce</b>	Lawyer and Forester, Davis LLP, Vancouver
<b>Gordon Prest</b>	ABCFFP Honorary Member
<b>Darrell Robb</b>	Director, Aboriginal Affairs Branch, Ministry of Forests, Lands and Natural Resources
<b>Brian Robinson</b>	Forester, Association of BC Forest Professionals
<b>Carleigh Smart</b>	Teacher, Coquitlam Coordinator, Aboriginal Programs UBC Okanagan
<b>Matt Wealick</b>	Forester and Manager of Forest Operations Ch-ihl-kway-uhk Forestry Limited Partnership
<b>Adrienne Vedan</b>	Director of Aboriginal Programs and Services, UBC Okanagan

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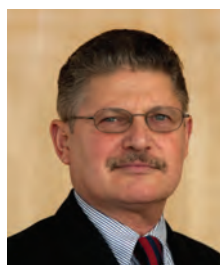
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### New Appointment

Dr Janette Bulkan joined us as Assistant Professor, Indigenous Forestry, effective July 1, 2012. She replaces Dr Ron Trospen. Janette was previously 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 2 decades engaged with indigenous communities of different language groups and cultural traditions.

## Achievements and Plans

### ACHIEVEMENTS IN 2012 – 13

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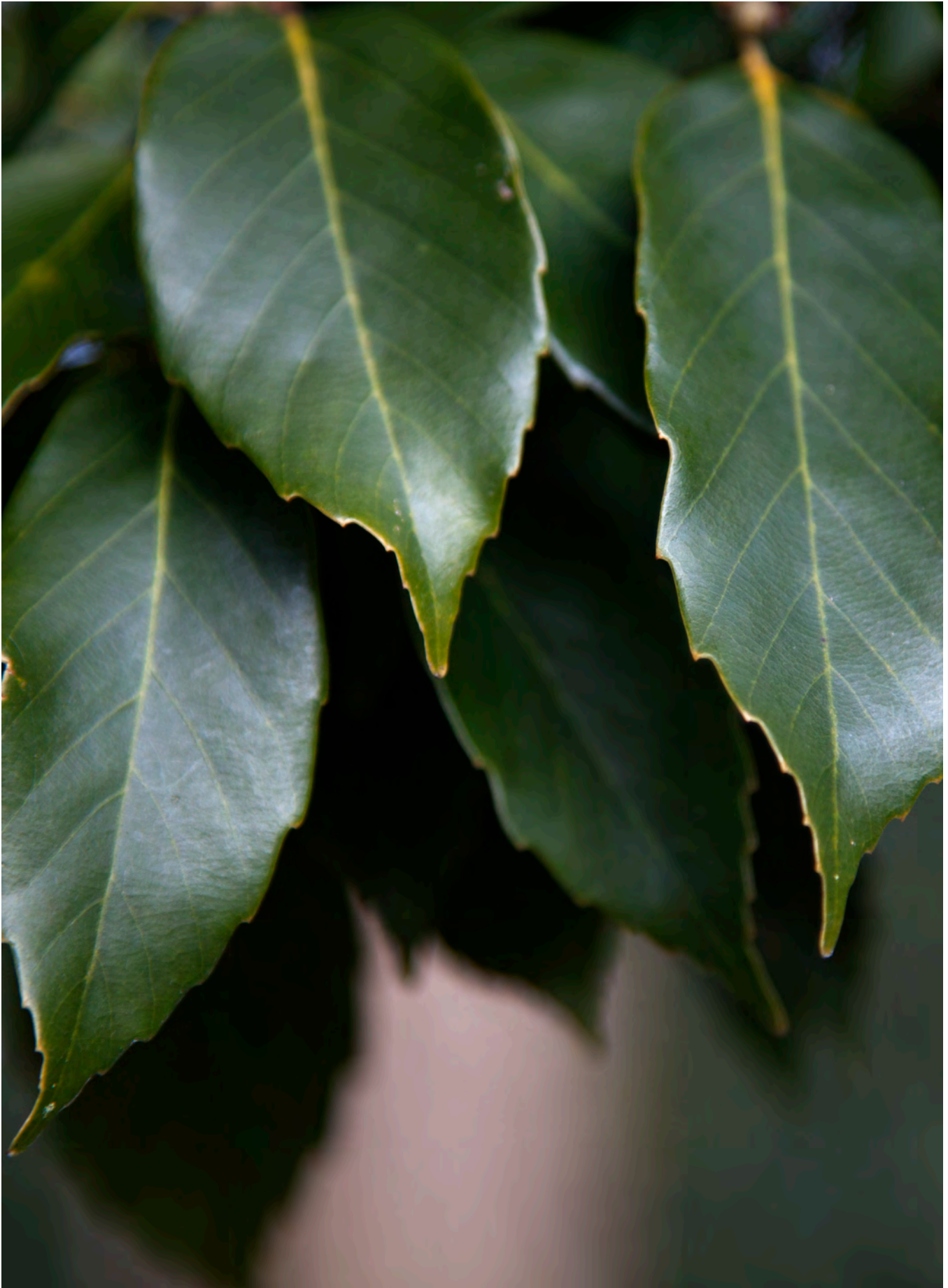
- Dr Yousry El-Kassaby was appointed Department Head, effective July 1, 2012.
- Dr Coops was awarded a CRC Tier 1 and will receive a new CFI grant.
- Dr Innes received new and ongoing SSHRC funding. Dr Sheppard received new SSHRC funding.
- Drs Harshaw and H Nelson received ongoing SSHRC funding. Drs Alila, Coops, and Meitner received ongoing NSERC funding.
- Dr Coops received an NSERC Tools grant and two NSERC Collaborative grants.
- Drs Bull and El-Kassaby received ongoing Genome funding.
- Dr Tindall was selected to be trained by Al Gore as a Climate Reality presenter.
- Dr Coops hosted the SilviLaser Conference at the Sheraton Wall Centre in Vancouver, 16-19 September 2012. The conference was aimed at bringing together research scientists and practitioners from around the world to share their experience in the development and application of LiDAR for forest and vegetated environments.
- The new course-based Masters of Sustainable Forest Management program was launched with 14 students in the first year.
- Dr Werner Kurz, Adjunct Professor, received the Queen's Diamond Jubilee Medal award from the Right Honourable David Johnston, Governor General of Canada, in a ceremony held in Ottawa on June 13, 2012.
- Dr Mike Wulder from the Canadian Forest Service (CFS), an Adjunct Professor, is part of the Landsat Science Team and was part of the NASA press conference about the launch and the significance of the Landsat series of satellites.
- Andrea Lyall, the Faculty's new First Nations Coordinator, continues to teach CONS 370, Aboriginal Forestry.

### PLANS FOR 2013 – 14

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- Hire a 12-month Lecturer in Human Dimensions in Forestry and Natural Resources to develop 2 new courses: Introduction to the Human Dimensions of Natural Resources and Human Dimensions of Forests: Outdoor Recreation and Public Participation.
- Start development of the new course-based Masters in International forestry program.







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BSc, MSc, PhD  
*Gene Conservation*

## Faculty Associates

### CLARK, Timothy

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BSc, PhD  
*Ecophysiology and Behavioural Energetics  
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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)

### KLINKA, K

Professor Emeritus (2002)

### LAVENDER, D

Professor Emeritus (1992)

### McLEAN, JA

Professor Emeritus (2008)

### NORTHCOTE, T

Professor Emeritus (1992)

### van der KAMP, B

Professor Emeritus (2006)

### WEETMAN, G

Professor Emeritus (1998)

### WORRALL, J

Associate Professor Emeritus (2003)

## Staff

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### BEAUSEIGLE, Stephanie

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Financial Clerk

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### CHENG, Rosemarie

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### LIAO, Limin

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### LOTTO, Andrew

RMOT (Malaspina)  
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### WILSON, Julie Elizabeth

BSc, MSc (Brit Col)

### YUEH, Hesther

BSc (McGill)  
Project Manager

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Research Assistant/Technician

## Achievements and Plans

### New Appointment

Dr Suzie Lavallee was appointed as Instructor I effective August 1, 2012. Dr Lavallee was also the 2011-2012 recipient of the Killam Teaching Prize in the Faculty of Forestry, reflecting her strong interest in and dedication to teaching excellence. In her new role she will have expanded responsibilities within the faculty, particularly in relation to the Natural Resources Conservation program.

### ACHIEVEMENTS 2012 – 13

- Effective January 1, 2013, we have changed our name from the "Department of Forest Sciences" to the "Department of Forest and Conservation Sciences". This new name reflects the broader mission of the department and addresses the external perceptions of the department expressed in the 2011 external review.
- Effective April 1, 2012, Dr Scott Hinch's appointment was transferred to 100% within the Department having been previously shared with the College for Interdisciplinary Studies.
- Drs Aitken, Arcese, Chanway, Daniels, El-Kassaby, Gergel, Grayston, Guy, Hamelin, Martin, Mitchell, Prescott, Richardson, Ritland and Simard hold ongoing NSERC Discovery grants.
- Drs Hinch and Grayston were successful in securing NSERC Strategic grant funding in the most recent competition.
- Drs Richardson and Gergel are part of a successful NSERC Strategic Network grant for the Canadian Network for Aquatic Ecosystem Services.
- Dr Robert Guy received the David J Gifford Award in Tree Physiology from the Canadian Society of Plant Biologists. The Award is given for outstanding research contributions in tree physiology, primarily in Canada. Special consideration is given to originality and independence of thought.
- Dr Maja Krzic received the Canadian Society of Soil Science award. This award is given by the Society to a scientist who has made an outstanding contribution towards promoting soil science to the general public.
- Dr Peter Arcese received the Doris Huestis Speirs Award from the Society of Canadian Ornithologists. This is the most prestigious award given by the Society, presented annually to an individual who has made outstanding lifetime contributions in Canadian ornithology.
- Dr John Richardson helped organize the 7th World Congress of Herpetology in Vancouver from 8-14 August 2012. This conference was hosted by UBC, UVic and the City of Vancouver.
- Dr Kathy Martin organized and chaired the 5th North American Ornithological Conference at UBC, 14-18 August, 2012. The meeting featured a full range of topics on research and management of birds in North and Central America.
- Dr Margaret Branton received the Best PhD Dissertation Award of the year in the Faculty of Forestry. Her thesis was entitled, "Can conservation strategies for a single species be used to inform and guide restoration of ecological structure and function in flood plain ponds?" Margaret was supervised by Dr John Richardson.

- Jennifer Burt was the recipient of the Best Master's Thesis Award of the year in the Faculty of Forestry. Her thesis was entitled "Influences of parental identity and elevated incubation temperature on the survival, development and early life history traits in sockeye salmon". Jennifer was supervised by Dr Scott Hinch.
- Jennifer Burt was also the recipient of the Governor General's Gold Medal. This Medal is awarded to the student who has achieved the most outstanding academic record in the graduating class for the Master's degree with thesis.
- The Department held a very successful symposium on April 12, 2012 and continued a successful weekly seminar series.

### PLANS FOR 2013 – 14

- Conduct the search for a Tier 2 Canada Research Chair.
- Plan for a new, introductory course in genetics (genomics) with Dr Kermit Ritland.
- Continue to maintain a high level of proposals to NSERC and other funding agencies.
- Convene an annual Open House on April 12, 2013 to include all faculty, staff, post-docs, research associates, graduate and undergraduate students.
- Continue our weekly departmental seminar series.
- Dr Sally Aitken will co-chair the Forest Genetics 2013 conference to be held July 22-26 in Whistler.
- Dr Allan Carroll will organize a joint meeting of IUFRO working groups 7.03.05 and 7.03.07 to be held in Banff on September 16-20, 2013.







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*Wood Physics and Drying*

### PORTH, Ilga

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*Genomics, Plant Biochemistry*

### SAKAGAMI, Hiroki

JSPS (Japan) Fellowship, Faculty of Agriculture, MSc, PhD (Kyoshu)

*Wood Material Science*

### TIMKO, Joleen

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*Social Equity and Ecological Integrity*

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*Biochemistry and Molecular Biology*

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*Biocomposites and Textile Chemistry*

### CHANG, Feng-Cheng

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*Wood-Based Composite Materials*

### CHEN, Yue

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*Timber Engineering and Applied Mechanics*

### CHOWDHURY, Sudip

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*Structure and Viscoelasticity of Lignocelluloses*

### GUANGZHENG, Gao

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### KARAASLAN, Muzaffer

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*Nanocrystalline Cellulose, Surface Modification of Biomaterials*

### KARATZOS, Sergios

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*Biorefining Technologies and Bioenergy Policy*

### LAH, Ljerka

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*Molecular biology of plant-pathogenic fungi*

### LI, Minghao

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*Structural Engineering*

### MAI, Mirjam

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*Hydrolysis and Derivatisation of Cellulose*

### MALONEY, Victoria

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*Plant/Tree Physiology, Molecular and Conservation Biology*

### NIKOLAKIS, William

BBus (LTU), Graduate Diploma in Legal Practice (ANU), LLB (CDU), PhD (Southern Australia)

*Socially Responsible Investment, Indigenous Economic Development*

### PANAGIOTIDIS, Kosmas

BSc (Athens), MSc, PhD (Liverpool)

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### PANAGIOTOPOULOS, Ioannis

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*Biomass Pretreatment, Biofuels and Wood Chemistry*

### PIDDOCKE, Maya

BSc (Sofia), MSc (MAICh Greece and DTU, Denmark), PhD (DTU, Denmark)

*Fermentation of Lignocellulosic Feedstocks*

### ROACH, Melissa

BSc, PhD (Alberta)

*Plant cell wall phenotyping and biochemistry*

### SELLA KAPU, Nuwan

BSc (Peradeniya, Sri Lanka), MS, PhD (Penn State)

*Lignocellulose to Ethanol/Co-Products Bioconversion*

### SKYBA, Oleksandr (Alex)

BSc, MSc (Kyiv Polytechnic Institute, Ukraine), PhD (Swiss Fed Institute of Tech, Switzerland)

*Genomic Analysis of Wood*

### UNDA, Faride

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*Plant cell wall phenotyping and biochemistry*

### XU, Kuanyong

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*Advanced Biomaterials*

### XU, Zhi Ming (William)

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*Chemical and Biochemical Engineering*

### ZHANG, Xuelian

BE, MS, (Beijing, China)

*Wood Based Composites, Nano Composites*

## Visiting Scholars

### SUN, Fubao

BSc (NIT), MSc (DTU), PhD (Chinese Academy of Sciences)

### MARZZIALETTI, Teresita

Professor, Universidad de Chile

## Adjunct Professors

### BEATSON, Rodger

(BC Institute of Technology)

BSc, PhD

*Pulp and Paper Chemistry*

### DAI, Chunping

(FPIInnovations)

BSc, MSc, PhD

*Wood Composite Products & Processing, Computer Modeling*

### MORRIS, Paul

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BSc, PhD

*Preservation and Protection*

### OLIVEIRA, Luiz

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BSc, MSc, PhD

*Wood Drying*

## Professors Emeriti

### BARRETT, DJ

Professor Emeritus (2005)

### GARDNER, JA

Dean Emeritus (1985)

### KENNEDY, R

Dean Emeritus (1992)

### PASZNER, L

Professor Emeritus (1999)

## Staff

### CHIU, Jason

BSc (Brit Col)

Training and Continuing Education

### CHUNG, Pablo

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### FUNG, Ivy

BBA (S Fraser)

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### GO, Genevieve

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### HUNDLE, Neeta

BA (Brit Col)

Administration Support

### JOHNSTON, Wendy

Research Group Administrator

### KANN, Christine

Administrative Support

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### QIN, Wei

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Research Scientist

### TECSON, Gladys

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Project Manager

### YAN, Hui Jun

BS (Shandong Inst, China), MAS (Harbin, China)

Research Engineer

### ZHANG, Chao

BSc (Tsinghua, China) MSc (Brit Col)

Research Engineer



## Achievements and Plans

### New Appointment

Dr Chris Gaston, formally National Group Leader, Markets & Economics at FPInnovations, has joined the Department of Wood Science for a 5-year secondment as an Honorary Associate Professor. Chris will be working closely with faculty, staff, and students to develop a research program related to forest products markets, economics, and policy that will serve to benefit both UBC and FPInnovations. This is a natural extension of Chris' appointment (since 1999) as an Adjunct Professor in the Department, wherein he was instrumental in fostering close collaborative ties between our respective institutions. Chris has over 30 years' experience in agribusiness and forestry, having been employed in both academia and industry. His work has focused on price risk management strategies, market research, econometrics, and trade modeling, and recent research efforts have revolved around value chain management and product development for Canada, the United States, Japan, China, and Europe. We are very excited by the prospect of Chris bringing his expertise to the Department of Wood Science and look forward to working closely with him and FPInnovations on this important strategic research initiative.

### ACHIEVEMENTS IN 2012 – 13

- Our total WPP enrolment (130) and international student numbers (44) are all-time highs. The new student intake (49) represents the second largest cohort of new students.
- Our co-op program continued as an integral and highly successful component of the WPP program with 44 co-op work placements completed.
- A comprehensive review of the curriculum of the WPP program was performed during 2012-2013 leading to proposed curriculum changes.
- Seventy-eight graduate students were supervised by department members during the year.
- The Department/CAWP received a generous gift from the Moss Rock Park Foundation to help purchase a Hundegger K2-ROBOT, a computer-controlled heavy timber processing machine that represents the latest technology. This gift was supplemented by a CFI award to Dr Tannert.
- CAWP has continued to expand its range of industry services and training, including capacity-building projects with manufacturers of engineered wood products, furniture and cabinets, doors and windows and other value-added wood products, and with 3 BC First Nations. CAWP continued to deliver certificate programs in industrial wood finishing, kiln drying and management skills, and a course on Green Marketing and Business Practices to its online portfolio.
- Drs Cohen, Gaston, Kozak, Saddler and Sowlati received new and ongoing NSERC Strategic Network support.
- Dr Ellis was awarded a 3M National Teaching Fellowship in recognition of his teaching excellence.
- Drs Ellis and Kozak travelled to Nanjing Forestry University in China to teach an introductory wood products and marketing course to prospective 2+2 students. They met with UBC students in Shanghai at the end of the Go Global Exploring Forestry and Conservation in China field tour and served as assessors of the students' final presentations.
- Dr Evans continued as a Visiting Fellow at the Australian National University Department of Applied Mathematics and Ecobuild (SP Tratek and KTH, Stockholm, Sweden). Dr Evans was also a Guest Lecturer at University of Gottingen,

and a recipient of a Fellowship from the International Office of University of Gottingen. He was a keynote speaker at the second EC Cost Action Meeting at the Salzburg University of Applied Sciences, Austria and an invited speaker at the 6th European Conference on Wood Modification and 3rd EC Cost Action Meeting in Ljubljana, Slovenia.

- Dr Kozak received new and ongoing SSHRC funding, and continued his role as Theme Leader for the NSERC Value Chain Optimization Strategic Network.
- Dr Lam continued his role as Theme Leader for the NSERC NewBuilds Strategic Network.
- A timber engineering course developed for Tongji University in China by a team including Dr Lam received honours from the Shanghai Municipal Education Commission as a model university course taught in English.
- Drs Lam, Smith and Tannert received new NSERC funding. Drs Avramidis, Dai (Adjunct), Evans, Lam, Mansfield, Saddler, Smith and Sowlati received ongoing NSERC funding.
- Mr Macdonald received funding from Forestry Innovation Investment, on behalf of the Centre for Advanced Wood Processing, to support the ongoing Wood First Program.
- Dr Mansfield received new support from the Composites Innovations Centre (Manitoba) and the US Department of Energy. He has been appointed as the National Theme Leader for Feedstock Development in the newly formed BioFuelNet NCE.
- Drs Mansfield and Kozak continue to receive support from Genome Canada.
- Dr Saddler continued as co-director of the NSERC Bioconversion Network and received ongoing support from Genome BC, the US Department of Energy, and the International Energy Agency. He has also been recently named Western Platform Lead of the newly formed BioFuelNet NCE.
- Dr Tannert received a Martha Piper Research Fund Award.
- Kenny Cheng, an MSc student with Dr Evans, won the best poster award at the Pacific Rim Biobased Composites Symposium held in Shizuoka, Japan.
- Wei Xue, a PhD student with Dr Ruddick, won the 2012 student (best paper) award from the CWPA.

### PLANS FOR 2013 – 14

- The Department continues to use the recommendations of the 2011 external review to help guide strategic initiatives that will allow us to maintain and grow our position as an internationally renowned academic unit.
- With upcoming retirements, the Department is in the midst of a period of faculty renewal, as we seek out new appointments (both internally and in partnership with other academic units) in a wide range of disciplines related to wood science, advanced wood processing, and the emerging bioeconomy.
- One of the key aims of the Department continues to be increasing the enrolment levels of our undergraduate program. In order to attract more high-quality students, we are exploring the possibility of creating new undergraduate programs and/or streams within the broader domain of biomaterials. We are also continuing with our 2+2 program, and to date, have 25 students from partner universities in China.
- We will continue to actively pursue funding opportunities from diverse sources, including research agencies, governments, industry, international organizations, and through industry extension activities.





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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; there were 130 students registered this year. In 2012-13 there were 44 co-op work terms completed by our students. Students worked throughout British Columbia and also in Alberta, Ontario and Germany. The WPP program has seen a slight decrease in the number of applications in 2012-13 compared to the previous year. As of March 2013 there were 125 applicants to the program, but the overall enrolment total of 130 is the highest in the WPP program's history.

## 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 continues to attract learners from across Canada as well as the United States and other countries. Our Kiln Drying Certificate is currently being redesigned as a blended learning program to facilitate greater industry participation. Since 2010 CAWP has offered 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 a series of online course modules that can be taken part-time by entrepreneurs and management-track employees of wood manufacturing businesses over a six or eight-week period to acquire key management skills. The courses attract over 100 learners per year, and an additional course module on Green Marketing is being offered for the first time in 2013.

CAWP continues to play a key role in delivering education, training and technical assistance services to architects, industrial designers and manufacturers through the Wood First initiative, with funding from Forestry Innovation Investment, a BC crown corporation. In 2012-13 we worked with 12 BC companies on 18 separate technical assistance projects. A further 3 projects were supported by a provincial value-added wood processing funding program for First Nations. In 2012-13 CAWP pioneered the launch of a new industry group entitled Outside the Box, consisting of design and manufacturing professionals who meet monthly to explore new product development and market opportunities. CAWP has also widened the scope of its product development and technical assistance program to include technical mentoring for industrial designers who are interested in applying their creative energies to the wood products industry. Also in 2012, CAWP partnered with BC Wood Specialties Group to offer the Wood First Forum event to 90 architects in Whistler, BC, and repeated the popular Wood Building Design Tour to Switzerland and southern Germany, culminating in attendance of the Holzbau Forum, Europe's largest conference on wood construction. In 2014 a Canadian Holbau event will be held in Vancouver in partnership with Woodworks BC.

## 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 receive funding for research projects through the Wood First initiative. These projects cover themes such as timber structures and connector systems, weathering and durability of wood elements for exterior applications, and hybrid timber-steel building systems.

## PLANS FOR 2013 – 14

- Increase industry support for CAWP through our industry partnership program.
- Offer new training and technical assistance utilizing a new Hundegger ROBOT Drive CNC beam processing machine.
- Increase technical support activities delivered to manufacturing companies and industrial designers through the Wood First initiative.
- Offer a new management skills training module on Green Marketing.
- Carry out a capacity-building project on agroforestry and wood processing in Lesotho.
- Leverage existing curricula and educational technologies to offer innovative new training programs in response to industry needs.
- Organise a Holzbau Canada conference on timber construction, including a technical tour for visiting European delegates.

## Centre Associates

<b>Avramidis, Stavros</b>	UBC
<b>Barrett, David</b>	UBC
<b>Bell, Barbara</b>	Consultant, Canada
<b>Blyt, Christian</b>	Emily Carr University
<b>Breuil, Colette</b>	UBC
<b>Cohen, David</b>	UBC
<b>Dai, Chunping</b>	FP Innovations
<b>Ellis, Simon</b>	UBC
<b>Evans, Philip</b>	UBC
<b>Gmeiner, Sepp</b>	Consultant, Canada
<b>Hartley, Ian</b>	UNBC
<b>Köster, Heinz</b>	FH Rosenheim, Germany
<b>Kozak, Robert</b>	UBC
<b>Lam, Frank</b>	UBC
<b>Mansfield, Shawn</b>	UBC
<b>McFarlane, Paul</b>	UBC
<b>Meincken, Martina</b>	Stellenbosch Univ, South Africa
<b>Morris, Paul</b>	Forintek
<b>Mortimer, John</b>	Stellenbosch Univ, S Africa
<b>Romilly, Douglas</b>	UBC
<b>Ruddick, John</b>	UBC
<b>Rypstra, Tim</b>	Stellenbosch Univ, S Africa
<b>Schajer, Gary</b>	UBC
<b>Scholte, David</b>	Consultant, Canada
<b>Smith, Greg</b>	UBC
<b>Starling, Norm</b>	Consultant, Canada
<b>Tannert, Thomas</b>	UBC
<b>Yellowly, Ian</b>	UBC

### Centre for Advanced Wood Processing

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**Peter Arcese**  
BA, MSc, PhD  
Co-Director  
604.822.1886  
peter.arcese@ubc.ca



**Sarah Gergel**  
BS, MSc, PhD  
Co-Director  
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sarah.gergel@ubc.ca



FRED BUNNELL AND CLARK BINKLEY founded the Centre for Applied Conservation Biology in 1991 to promote science-based solutions to problems arising via demand for natural resources and concern for land use impacts on biological diversity and forest ecosystems around the world. By 1999, fueled by two Forest Renewal Chairs in Conservation Biology, the Centre led applied research initiatives in Tanzania, Ghana, New Zealand and BC Coast and Interior forests, adding to lessons from Clayoquot Sound, adaptive management and variable retention forestry, and the Land and Resource Management Planning process in BC. Our alumni now include, PhD graduates and Killam and NSERC postdoctoral fellows with reputations for excellence in applied research at the Universities of California-Berkeley, Louisiana and Kansas State, Victoria (BC), Aberdeen (UK) and Queensland (AU), and at Environment Canada, the Canadian Wildlife Service and CSIRO (AU). Our name changed to reflect our interdisciplinary focus in applied conservation research under John Innes, but CACR activities were curtailed by a loss of funding as fiscal pressures grew in the Faculty and Province in 2004. In 2005, Peter and Sarah assumed co-directorship and leveraged their talents and a \$20,000 seed grant from Dean Saddler to re-kindle symposia, attract Tara Martin as CACR's first postdoctoral fellow, and initiate a cross-disciplinary graduate courses and workshops in multi-stakeholder and multi-species conservation.

As we retire our joint directorship, we reflect on CACR's achievement evident in 250+ referred papers, chapters and books linked to our address and leave satisfied having contributed to CACR's worldwide reputation for solving complex problems in land management, conservation and recovery planning. Scientists publishing most regularly with a CACR affiliation include Kathy Martin (121 contributions), Peter Arcese (103), Fred Bunnell (83), Sarah Gergel (18) and graduating PhDs and post-docs including Kristina Cockle, Scott Wilson, Brett Sandercock, Brad Fedy, Lori Blanc, Andrea Norris, Katie Aitken, Trevor Lantz, Kathryn Kirby, Joe Bennett, Rebecca Best, Emily Gonzales, Amy Wilson, Ryan Norris, Stephanie Hazlitt, Sabrina Taylor, Tara Martin, Louise Blight and Dave Huggard. Over the years, CACR has been a home for a distinct group of top scientists in UBC Forestry and beyond, but we are also excited to focus on new opportunities in the Department of Forest and Conservation Sciences and the remaining FRBC Chair in Conservation Biology.

Particular highlights include our Forest Science Pilot Program (2007-10), which broke new ground by pairing forest practitioners, top graduate students and their mentors via 10 scholarships, ranked by private and public sector foresters as critical to the sector. According, Dr Art Tautz, a key FSPP supporter, "One of the biggest challenges we face in forestry in British Columbia is finding a way to ensure that our research dollars are directed towards proj-

ects that are both academically rigorous and relevant to the key issues being faced by forestry professionals." The FSPP did this by linking the groups above to contribute 31 papers on priority topics. Our 2011 public lecture and media workshop with Nancy Baron (Author of *Escape from the Ivory Tower*) brought leading journalists to UBC and was linked to 4 episodes on 'Quirks and Quarks' (hear Erica Eliason on Fraser River sockeye, Peter Arcese on overabundant deer, and Sally Aitken and Nicholas Coops on climate change and forest management dilemmas, by searching [www.cbc.ca/quirks/](http://www.cbc.ca/quirks/)).

CACR workshops and short courses reached local and international audiences by providing a blueprint for systematic conservation area design in BC's Great Bear Rainforest, contributing to recovery plans for the marbled murrelet and Vancouver Island marmot, and identifying historic ecosystem services in forests in Haida Gwaii and Clayoquot Sound. A workshop in high resolution remote sensing included reciprocal visits by UBC and Haida Heritage - Forest Guardians & Mapping Specialists. Former NSERC PDF Hilary Thorpe coordinated other initiatives on Haida Gwaii, including training workshops by the Landscape Ecology (Gergel) and Tree-Ring Labs (Daniels), and the Haida Gwaii Semester in Natural Resource Studies in 2010, an innovative undergraduate course that continues to grow. In Stockholm, the CACR and Resilience Centre hosted a workshop on concepts, tools and spatial resilience in landscape management, including advances in network analysis that will appear in an upcoming edition of *Learning Landscape Ecology*. The CACR also contributed fundamentally to [www.biodiversitybc.org](http://www.biodiversitybc.org), the first comprehensive survey for BC, and direction to the Nature Trust of BC and steering committees of the BC Protected Areas Research Forum and newly-formed Coastal Douglas Fir Conservation Partnership.

Stand-out accomplishments by graduates also drive progress worldwide. For example, Dr Kristina Cockle characterized the production and use of tree cavities critical to vertebrate communities in the Neotropical forests to show that, although woodpeckers create most cavities used by other species in North America, cavities in the endangered Atlantic forests of South America occur mainly in large live trees via insects and fungal decay. Because cavities can severely limit species diversity and abundance, Kristina is developing new forestry models for the Neotropics, where incentives are needed to retain large living trees as critical wildlife habitat. To further this work, Kristina founded Proyecto Selva de Pino Paraná in 2003 to encourage farmers to enhance habitat for 35 globally threatened bird species by engaging with over 1,000 elementary school children and teachers, rural families and park rangers, and planting over 1500 trees to restore native forest habitat.

## HIGHLIGHTS OF 2012 – 13

### Avian Biodiversity in Temperate and Tropical Forests

Kathy Martin delivered a Plenary Lecture to the Pan-African Ornithological Congress in Tanzania and extended her study of cavity-using vertebrates to include forests worldwide. Kathy's 'nest-web' concept has helped quantify interactions between cavity-using vertebrates, forest dynamics, management and insect outbreaks in Europe, Africa, North and South America, Australia and Asia.

### North American Ornithological Congress

Kathy also led a huge team of local volunteers to host 1,500 ornithological practitioners at UBC in August 2012. Dean Innes welcomed attendees of several ornithological societies at the Chan Centre, where Peter Arcese received the 2012 Doris Spiers Award for Contributions to Canadian Ornithology.

### Carbon and Biodiversity in the Georgia Basin

Peter and Richard Schuster collaborated with Environment Canada, Parks Canada and 3-Tree Consulting to provide the first predictive carbon maps for the Coastal Douglas-Fir Zone, now listed by Biodiversity BC as the Province's most imperiled ecosystem. The predictive maps employ 1 of 3 methods accepted by the Pacific Carbon Trust and now are in use by Federal, Provincial and NGO planners. Peter also gave plenary lectures on native and exotic species interactions to annual meetings of the Pacific Ecology Conference, BC Parks, Garry Oak Recovery Team, Invasive Species Council of BC, Pender Island Conservancy and SeaDoc Society (US).

### 2012 Werner and Hildegard Hesse Research Award

Werner and Hildegard Hesse supported research in the Arcese Lab for years and left over \$1m to UBC to support scholarships and research awards after their passing. Ryan Germain and Richard Schuster shared in this award to predict how climate change will affect habitat for birds and to conduct expert elicitations to prioritize conservation investments in the Coastal Douglas-Fir Zone (<http://hesse-award.sites.olt.ubc.ca/2010/11/18/werner-and-hildegard-hesse-research-award-in-ornithology/>).

### International Conservation Training with the Wildlife Institute of India

Many members of CACR were instrumental in teaching multi-day workshops on conservation and spatial planning in collaboration with the Wildlife Institute of India, including spatial statistics, programming, genetics, conservation planning, landscape change and remote sensing to advance Indian programs in endangered species management, conservation planning, sustainable livelihoods and climate change. An upcoming visit by Sarah Gergel will further develop long-term collaborative workshops in India.

### Achievements of Recent Graduate Students

Joe Bennett's PhD appeared as papers in *Invasion Biology*, *Conservation Biology* and *Perspectives in Plant Ecology and Evolution* to help re-focus invasive species management in the Georgia Basin. As a new Fellow at the Center for Environmental Decisions (UQ), Joe prioritizes species conservation in New Zealand, is identifying rules to balance sample size and taxonomic effort in environmental assessment, and leads research on environmental contaminants and fisheries in arctic environments.

Richard Schuster joins Joe at the CED as an Endeavour Fellow this fall to formalize models to maximize biodiversity conservation, carbon storage and the persistence of At Risk species, and also won a UBC Killam Teaching Assistant Prize for outstanding contributions to Forest Sciences, Natural Resource Conservation and Forest Resources Management.

Beth MacDonald MSc received the best thesis award in Forestry for 2012.

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**Bruce Larson**  
AB, MFS, PhD  
Chair, Research Forests  
Advisory Committee  
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THE FACULTY OF FORESTRY OPERATES 2 Research Forests: The Malcolm Knapp Research Forest near Maple Ridge on the coast, and the Alex Fraser Research Forest near Williams Lake in the central interior of BC. By mutual agreement, this year marked the end of UBC's official participation in the Aleza Lake Research Forest Society, which now manages the Aleza Lake Research Forest solely on behalf of UNBC.

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

The location of the forests, covering 8 diverse biogeoclimatic subzones and 3 tenure systems, offers a variety of research and education opportunities.



## MALCOLM KNAPP FOREST

**Paul Lawson**  
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**Cheryl Power**  
BSF, RPF  
Resident Forester  
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## ACHIEVEMENTS IN 2012 – 13

- Initiated 10 new research projects.
- Employed 2 forestry undergraduate students on 4-month internships and 1 forestry graduate student on 8-month internship.
- Decreased timber harvest to 30,042 m<sup>3</sup>, (down 9% from 2011).
- Hosted Loon Lake facility use of 16,837 overnight stays in 2012 (down 10% from 2011).
- Revised Loon Lake website and employed a part time sales representative.
- Hosted the Faculty's Spring Field School in April and Conservation Field School in October.
- Participated in teaching of Master of Sustainable Management Program both at the Knapp Forest and at UBC campus.
- Hosted over 400 children and 300 volunteers at the 9th annual Canadian Cancer Society Camp Goodtimes held at Loon Lake.
- Constructed one new 11 meter span permanent bridge over Spring Creek.
- Completed installation of 5.5 km of 100 mm diameter natural gas line to Loon Lake and converted all propane appliances in time for heating season.
- Milled over 362,000 board feet of lumber at our sawmill facility, an increase of 1% from 2011.
- Completed silviculture surveys on 114 ha, brushing and deer protection installation on 23 ha, and planting of 54,486 trees on 34.4 ha.
- Completed a feasibility study and costing for installation of bioenergy heat and power at Loon Lake.

- Upgraded fire preparedness, suppression and detection equipment and infrastructure.
- Re-measured 1957 Douglas-fir Provenance Trials.
- Maintained full time staff at 4.

## PLANS FOR 2013 – 14

- Increase Loon Lake visitor days by 4%.
- Employ 2 undergraduate and 2 graduate students for 4 month internships.
- Decrease timber harvest levels 10% to 29,000 m<sup>3</sup>.
- Supervise construction of new 500KV power line on 7 kilometer Right-of-Way through the Knapp Forest
- Prepare and submit a Woodlot License Plan for Woodlot 37.
- Complete a carbon management strategy for the Forest.
- Complete fundraising and begin construction of the new Loon Lake Dining Hall.
- Complete an update of the Malcolm Knapp Research Forest Management Plan.
- Hire 1 additional full time staff member as Assistant Operations Manager.
- Measure 2005 High Density Silviculture experiment for the first time.
- Plan for improvements to the silviculture demonstration area (teaching and learning enhancement fund supported)





## ALEX FRASER FOREST

### Ken Day

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Manager  
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### Cathy Koot

BSc, RPBio  
Research Coordinator  
cathy.koot@ubc.ca

## ACHIEVEMENTS IN 2012 – 13

- Initiated 8 new research projects.
- Recorded 725 contact days for extension with 447 attendees, including Fall Field School (62 students).
- Provided 12 tours and 12 presentations for researchers, professionals, students, and the public from British Columbia and around the world. Presented at community forest conferences in Nova Scotia and BC.
- Continued collaboration with the BC Community Forest Association to provide extension services and promote Faculty expertise.
- Hired 3 undergraduate and 2 graduate interns for 4 months. Hosted volunteer interns from England and Czech Republic.
- Carried out silviculture activities including pre-commercial thinning on 149 ha; planting of 7,800 trees on 7.5 ha; and silviculture surveys on 179 ha.
- Prepared a classification and inventory of 80-year old stands to develop a commercial thinning strategy for the Gavin Lake Block.
- Conducted final overstory removals of shelterwood systems initiated in the early 2000s and commenced a commercial thinning program at the Gavin Lake block.
- Built 1.82 km of new roads.
- Maintained recognition for consulting expertise regarding extension, forest management and silviculture.
- Continued managing the application process for the Williams Lake Community Forest in cooperation with the Williams Lake Indian Band and the City of Williams Lake.
- Participated on boards for the Gavin Lake Forest Education Society, local Invasive Plant Committee, Williams Lake TSA Silviculture Subcommittee, and Southern Interior Silviculture Committee.

## PLANS FOR 2013 – 14

- Work with Ministry of Forests, Land and Natural Resource Operations to revise our tenure arrangements.
- Employ 3 undergraduate interns in silviculture and harvest planning.
- Employ 2 graduate interns to plan for the 30-year harvest re-entry (2014) into a mule deer winter range harvesting experiment and develop an interface fire management plan.
- Plan for improvements to the silviculture systems demonstration area (Teaching and Learning Enhancement Fund supported).
- Expand road network and commercial thinning activities in the SE corner of the Gavin Lake Block.
- Submit final application and management plan for Williams Lake Community Forest.
- Continue work with the BC Community Forest Association to provide extension services and linkages to the Faculty of Forestry for community forests.
- Significantly increase harvest planning to provide an inventory of standing of timber ready for harvest.
- Continue diversifying revenue streams, including sales, services and funded projects.
- Continue to provide consulting services in fuel reduction treatments and select projects.
- Promote research opportunities.

### Research Forests harvesting 2012

		Malcolm Knapp	Alex Fraser	Total
Logging	m <sup>3</sup> ha	24,713 35	16,044 57.4	<b>40,757</b> <b>92.4</b>
Commercial Thinning/Partial Cutting	m <sup>3</sup> ha	3,846 8	6,344 69.4	<b>10,109</b> <b>77.4</b>
Road Right-of-Way	m <sup>3</sup> ha	1,449 2.2	1,599 3.6	<b>3,048</b> <b>5.8</b>
Salvage	m <sup>3</sup>	34	0	<b>34</b>

### Malcolm Knapp Research Forest

PO Box 21120  
14500 Silver Valley Road  
Maple Ridge, BC V2X 1P7  
Phone: 604.463.8148  
Fax: 604.463.2712

### Alex Fraser Research Forest

72 S 7th Avenue  
Williams Lake, BC V2G 4N5  
Phone: 250.392.2207  
Fax: 250.398.570

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
- Associate Editor, Tree Genetics and Genomes
- Member, Editorial Board, Evolutionary Applications
- Member, North American Forestry Commission Forest Genetic Resources Working Group

## **ARCESE, Peter**

- **Doris Huestis Speirs Award for Outstanding Contributions to Canadian Ornithology**
- Associate Editor, J Avian Biology
- Elected Councilor, Council of the American Ornithologists Union

## **AVRAMIDIS, Stavros**

- Member, Editorial Board, Drying Technology
- Member, Editorial Board, Wood Material Science and Engineering
- Member, Editorial Board, Prerada Drveta (Wood Processing)
- Member, Editorial Board, International Wood Products Journal
- Member, Editorial Board, ISRN Materials Science.
- Member, Committee for the evaluation of Greek Universities, Hellenic Quality Assurance Agency for Higher Education.
- Member, Society of Wood Science and Technology Education Committee

## **BULKAN, Janette**

- **Peter Wall Institute Research Mentoring Award**

## **COOPS, Nicholas**

- **Killam Faculty Research Fellowship**
- Canada Research Chair in Remote Sensing
- Adjunct Professor, Oregon State University
- Adjunct Professor, Nanjing Forestry University
- Distinguished Collaborator, Murdoch University
- Editor-in-Chief, Canadian J Remote Sensing

## **DANIELS, Lori**

- **CJFR Editors Choice for publication**
- Member Board of Directors, Tree Ring Society
- Member, Organizing Committee, External Advising Committee, AmeriDendro

## **EI-KASSABY, Yousry**

- Associate Editor, International J Forest Research
- Associate Editor, Canadian J Forest Research
- Coordinator, IUFRO Division 2

## **ELLIS, Simon**

- **3M National Teaching Fellow**

## **EVANS, Phil**

- Fellowship and Guest Professor, International Office, University of Gottingen, Germany
- Visiting Fellow, Department of Applied Mathematics, Australian National University
- Visiting Professor Ecobuild (Tatek & KTH), Stockholm, Sweden
- Member, Editorial Board, Forest Products Journal
- Member, Editorial Board, Wood Science & Technology
- Member, Editorial Board, International Wood Products Journal
- Member, Organizing Committee, Canadian Representative, Pacific Rim Biobased Composites Symposium
- Member, Executive Committee, International Research Group on Wood Protection

## **GERGEL, Sarah**

- Associate Editor, Landscape Ecology

## **GRAYSTON, Sue**

- Canada Research Chair in Soil Microbial Ecology
- Associate Editor, Canadian J Forest Research

## **GUY, Rob**

- **David J Gifford Award in Tree Physiology**
- Senior Director (pro tem), Canadian Society of Plant Biologists
- Deputy Director, IUFRO Division 2
- Editor-In-Chief, TREES Structure and Function
- Communicating Editor, TREES Structure and Function
- Chair, IPS VI Scientific Committee.
- Member, Local Organizing Committee, International Poplar Symposium VI

## **HAMELIN, Richard**

- **Queen Elizabeth II Diamond Jubilee Medal**
- Chair, Canadian Phytopathological Society, Regional Meeting Organizing Committee, Vancouver

- Associate Editor, Canadian J Plant Pathology
- Member, Scientific Advisory Board, Phytophthora Genome Sequencing Consortium
- Member, American Phytopathological Society
- Member, Canadian Phytopathological Society
- Coordinator IUFRO Tree Rust Working Group

## **INNES, John**

- **Minjiang Scholarship, Gov of Fujian Province, Fujian, China**
- Associate Editor, J 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, Program Committee, Board of Trustees
- Member, Interdisciplinary Committee, World Cultural Council
- Member, IUCN/SSC Sustainable Use Specialist Group
- Member, IUCN Species Survival Commission
- Coordinator, IUFRO Task Force 'Resources for the Future'
- Member, IUFRO Task Force on Forestry Education
- Chair, Standing Committee on Commonwealth Forestry
- Member, FAO Advisory Committee on Education
- Co-Chair, Asia-Pacific Forestry Deans Mechanism

## **KOZAK, Rob**

- **Winner, Top Teacher Award (Department of Wood Science)**
- Fellow, Institute of Wood Science.
- Deputy Coordinator, IUFRO Working Group 5.10.00
- Associate Editor, Canadian J Forest Research
- Associate Editor, J Forest Products Business Research

- Deputy Coordinator, IUFRO, Working Group 5.10.00
- Member, UN Economic Commission for Europe, Team of Specialists on Forest Products Marketing
- Member, Alternative Tenure and Enterprise Models Working Group, Rights and Resources Initiative
- Member, Forest Products Society, Internationalization Task Force

## **KRZIC, Maja**

- **Soil Science for Society Award.**
- **CNIE Award of Merit by the Canadian Network for Innovation in Education**

## **LAM, Frank**

- Fellow, International Academy of Wood Science
- Member, Association of Professional Engineers and Geoscientists of BC
- Member, Canadian Standards Association CSA 086 Technical Committee on Engineering Design in Wood
- Member, Canadian Standards Association CSA Technical Committee on Solid and Engineered Wood Products
- Member, Editorial Board J Architecture and Civil Engineering
- Guest Professor, Tongji University, China

## **LARSON, Bruce**

- Member, Stand Management Coop Policy Committee

## **LAVALLEE, Suzie**

- **Killam Teaching Prize in Forestry**

## **LEMAY, Valerie**

- Associate Editor, The Forestry Chronicle

## **LYONS, Kevins**

- Member, Editorial board, International J Forest Engineering
- Member, Editorial board, Advances in Forestry Letters

## **MANSFIELD, Shawn**

- Chairperson, IUFRO Working Party 2.4.06 – Tree Molecular Biology.
- Associate Editor, Biotechnology for Biofuels
- Member, International Advisory Board, Current Biotechnology
- Member, International Advisory Board, Frontiers in Plant Development,
- Member, International Advisory Board BioEnergy Research
- Member International Advisory Board, Holztorschung

## **MARTIN, Kathy**

- Chair, North American Ornithological Conference

- Member, Programme Committee, International Ornithological Committee
- Plenary Speaker, 13th PanAfrican Ornithological Conference
- Associate Editor, Frontiers in Ecology and The Environment
- Associate Editor, Avian Conservation and Ecology

## **MITCHELL, Stephen**

- Member, ABCFP Board of Examiners
- Coordinator, IUFRO Section 8.03.06, Impact of Wind on Forests
- Editor, Forestry: An International J Forest Research
- Member, Organizing Committee – International Conference on Soil Biological and Ecological Engineering
- Member, Scientific Committee, International Conference on Plant Biomechanics

## **MOORE, Dan**

- Associate Editor, Canadian Water Resources Journal
- Senior Representative for Canada, International Association of Hydrological Sciences

## **NELSON, Harry**

- Member, IUFRO Working Group on Adaptation
- Deputy Coordinator IUFRO Unit 4.04.08 – Adaptation to climate change
- Member, Task Force on Climate Change, Association of BC Forest Professionals
- Vice President, Western Forest Economists

## **PRESCOTT, Cindy**

- Editor in Chief, Forest Ecology and Management
- Associate Editor, Ecosystems
- Member, Editorial Board, Turkish J Agriculture and Forestry

## **RICHARDSON John S**

- Associate Editor, Canadian J Fisheries and Aquatic Sciences

## **RITLAND, Kermit**

- Co-chair, Professor subcommittee, Senior Appointments Committee
- Associate Editor, Heredity
- Associate Editor, Annals of Botany Plants

## **RUDDICK, John**

- Vice Chair, CSA 080 Wood Preservation Committee
- Technical Member, P4, P5, P6, Research, T2, T4 and T7, AWPA
- Member, IRG-IT Committee

## **SHEPPARD, Stephen**

- **Spotlight Teaching Award, UBC Sustainability Initiative**
- Adjunct Professor, Nanjing School of Forestry, Nanjing, China
- Fellow, Institute for Social Sustainability Research, University of Plymouth
- Research Fellowship, University Sustainability Initiative, UBC

## **SIMARD, Suzanne**

- Project Leader, TerreWEB
- Associate Editor, PLOS One
- Member, Editorial Board Forest Ecology and Management

## **SMITH, Greg**

- Member, ASTM International Technical Committee D14.30
- Member, ASTM International Technical Committees D07.03
- Member, Society of Wood Science and Technology Education Committee
- Session Chair Composites, International Conference on Wood Adhesives
- Member, Wood Based Composites Center, a National Science Foundation I/UCRC site

## **SOWLATI, Taraneh**

- **Canadian Operational Research Society Service Award**
- President, Canadian Operational Research Society Vancouver Chapter
- Chair, Membership Committee Canadian Operational Research Society Council
- Chair, Canadian Operational Research Society Annual Conference
- Member, Editorial Board, International J Data Analysis Techniques and Strategies
- Member, Editorial Board, International J Applied Management Science

## **TANNERT, Thomas**

- **Martha Piper Research Award**
- Chair, RILEM Technical Committee RTE Reinforcement of Timber Elements in Existing Structures
- Member, Scientific Committee, World Conference on Timber Engineering
- Member, Scientific Committee, International Conference on Structural Analysis of Historical Constructions

## **TINDALL, David**

- Area Editor for Social Networks and Micro-computing American Sociological Association



**Cindy E Prescott**  
BSc (Hons), MSc, PhD  
Associate Dean  
Graduate Studies and Research  
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## INCOMES

Between April 1, 2012 and March 31, 2013 members of the Faculty of Forestry were awarded a total of \$11.2 million in research funding. This represents a decrease of 11.0% over the previous year and decrease of 7.3% from the average level of research funding in the past 5 years.

Federal funding, which represented almost 60% of our total research funding, was up by 36.8% from the previous year. This increase is partially due to reporting changes that have allowed for recognition of Genome Canada funding (33% of our federal funding), which had previously been counted as provincial funding through transfers to Genome BC. Tri-Council (NSERC and SSHRC) award amounts (53.3% of our total federal research funds) were up by 6.1%. Members of the Faculty held 28 Discovery grants, 13 ongoing NSERC Strategic grants, 6 Collaborative Research grants, 5 Engage grants, 5 Insight Development grants, 1 Industrial Research Chair, 1 Interaction grant, 1 Partnership Development grant, 1 Standard Research grant and 1 G8 Research Councils Initiative grant for a total Tri-Council funding of \$3.6 million. The Network of Centres for Excellence provided \$130,500 (through MITACS, BioFuelNet, GRAND and AUTO21) in support of 9 research projects. This represented a 63.4% decrease in support over the previous year. Canada Research Chair awards (Coops, Grayston, Kadla) contributed another \$400,000.

Provincial funding in support of research (\$2.85 million) accounted for 25.4% of our overall research funding. Research awards through Genome BC (6 projects totaling \$1.14 million) provided close to 40% of our provincial support, while Genome Quebec provided an additional \$531,372 in support of 2 research projects. The British Columbia Ministry of Forests, Lands and Natural Resource Operations supported 8 projects for a total of \$307,880, a decrease of 38.4% over funds received in 2011/12. Forestry Innovation Investment funds supported 2 projects for a total of \$253,095, a decrease of 27.3% over funds received in 2011/12.

Private funding support (\$1,105,955) for research was up by 17.9% over monies received in 2011/12. These funds supported a total of 43 projects. The largest industry supporters were Composites Innovation Centre Manitoba Inc who funded one project (Mansfield) and Foothills Research Institute who funded 3 projects (Coops).

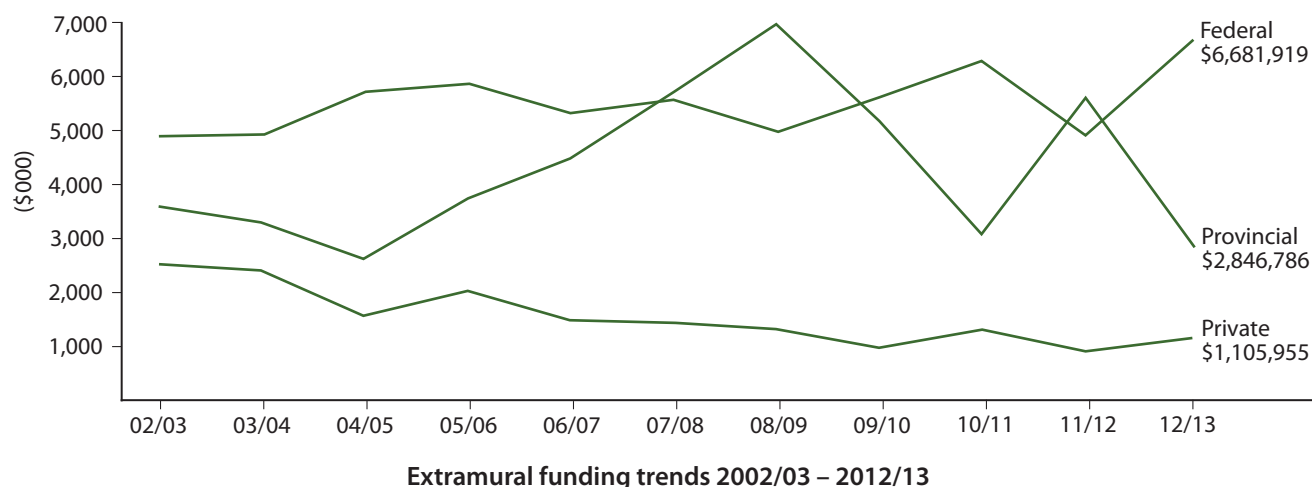
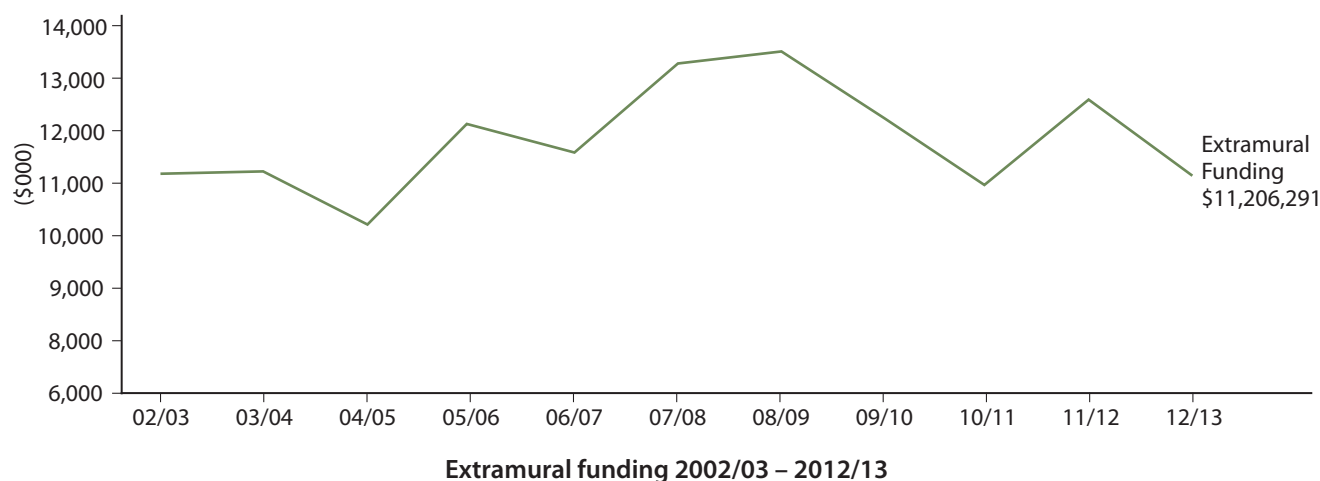
International funds in support of research were down by 51.9% for a total of \$571,630 backing 8 projects.

We also received endowment income of \$1.04 million (down slightly from the previous year). This funding is provided by endowments originally set up by Forest Renewal BC, as well as from private sectors.

## Extramural funding sources 2012 – 13\*

Source	(\$)	Count	%
<b>Federal</b>			
Tri-Council	3,559,152	62	31.8
Genome Canada	2,204,826	6	19.7
Canada Research Chairs	400,000	3	3.6
Network Centres of Excellence	130,500	9	1.2
Environment Canada	122,800	5	1.1
Natural Resources Canada	48,625	4	0.4
Canada Foundation for Innovation	15,283	3	0.1
Other	200,733	5	1.8
<i>Subtotal</i>	<i>6,681,919</i>	<i>97</i>	<i>59.6</i>
<b>Provincial</b>			
Genome BC	1,135,819	6	10.1
Genome Quebec	531,372	2	4.7
BC Ministry of Forests, Lands and Natural Resource Operations	307,880	8	2.7
Forestry Innovation Investment	253,085	2	2.3
Pacific Institute Climate Solutions	165,750	6	1.5
BC Innovation Council	122,500	2	1.1
Forest Genetics Council	117,720	1	1.1
Other	212,661	10	1.9
<i>Subtotal</i>	<i>2,846,786</i>	<i>37</i>	<i>25.4</i>
<b>Private</b>			
Industry	798,182	22	7.1
Other	307,773	21	2.7
<i>Subtotal</i>	<i>1,105,955</i>	<i>43</i>	<i>9.9</i>
<b>International</b>	571,630	8	5.1
<b>Total</b>	<b>11,206,291</b>	<b>185</b>	<b>100</b>

\* Excluding endowments.



## OUTCOMES

In the past year faculty members authored 156 articles in 116 peer-reviewed journals. Our faculty members also served the scientific community through voluntary peer review, reviewing 674 journal articles for publication during the year. Drs Coops, El-Kassaby, Guy, Mitchell and Prescott served as senior editors for 5 international peer-reviewed journals (Canadian Journal of Remote Sensing, Forests and Genetically Modified Trees, TREES – Structure and Function, Forestry: An International Journal of Forest Research and Forest Ecology and Management). As well, 13 faculty members served as associate editors of 17 different journals and 9 individuals served on editorial boards of 20 journals across the spectrum of forest-related journals. Faculty members also reviewed about 200 research grant proposals for close to 30 research funding agencies around the world, including US, Sweden, Finland, UK, Italy, Portugal, Czech Republic, France, Austria, Belgium and Canada.

Faculty members made presentations at 77 scientific conferences outside Canada including (USA, Sweden, Netherlands, Italy, Finland, China, Austria, Norway, Bosnia, Portugal, Slovenia, Japan, South Africa, Germany, Australia, India, and the UK. One hundred and fifteen talks were given to professional groups within Canada.

During the past year 19 faculty members welcomed 36 visiting researchers from 13 countries. Twenty faculty members hosted a total of 44 post-doctoral fellows from 14 countries.

During the past year, researchers in the Faculty of Forestry were cited 82 times in the media (up from 57 in 2011/12). These research stories included such diverse topics as wood exports, ecosystems and climate change, pipelines and energy policy, coastal communities and sea level rise, the mountain pine beetle, and biofuels.



The following list reflects research funding obtained between April 1, 2012 and March 31, 2013.

## AITKEN, Sally

- Proposal to establish a Centre for Forest Gene Conservation at the University of British Columbia (**BCMoFLNRO \$147,420**)
- Predicting the capacity of conifer populations to adapt to new climates using ecologically relevant genetic markers (**NSERC \$44,000**)
- AdapTree: Assessing the adaptive portfolio of reforestation stocks for future climates (project leader) (**Genome Canada/Genome BC \$1,377,643**)
- Assessing the adaptive portfolio of reforestation stocks for future climate: Common garden experiments (**BCMoFLNRO \$59,281**)
- Chances and risks of Douglas-fir in Austria: utilizing the intraspecific variation in climate response for successful plantations (**Austrian Climate and Energy Fund \$4,048**)
- Climate niche models of future biome distribution in Canada (**NRC \$5,000**)

## ARCESE, 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 \$30,000**)

## AVRAMIDIS, Stavros

- Synergistic wood drying modeling based on multiple-scale anatomical and physical attributes (**NSERC \$25,000**)

## BOHLMANN, 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 (project leader) (**Genome Canada/Genome BC \$125,233**)
- Smartforest: Spruce marker technologies for sustainable forest (**Genome Canada/Genome BC, Genome Quebec \$930,277**)

## BREUIL, 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 Canada/Genome BC \$125,233**)

## BULL, Gary

- NSERC strategic network grant on value chain optimization (**NSERC \$142,588**)
- Analysis of the potential for carbon offsets in North American tribal lands (**MITACS, NCE, Province of BC, Offsetters \$30,000**)
- Sliammon carbon interests: Background research on feasibility of a carbon offset project application (**MITACS, NCE, Province of BC, Tla'amin Timber Products Ltd \$15,000**)
- Expanding forest stewardship council certification at landscape level through incorporating additional ecosystem services (**Centre for International Forestry Research \$28,321**)

- Sustainable development of forest resources: Nuxalk development corporation (**Industry Canada, Province of BC, Nuxalk Development Corporation \$66,667**)
- 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 Canada/Genome BC \$125,232**)
- MITACS Administration (**MITACS \$50,000**)

## CARROLL, Allan

- The mountain pine beetle in novel pine forests: Predicting impacts in a warming environment (**Foothills Research Institute, Government of the Yukon \$78,500**)
- Spread and impact of an eruptive herbivore in a novel habitat: Consequences of climate change-induced range expression (**MITACS Accelerate \$15,000**)

## CHANWAY, Chris

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

## COOPS, Nicholas

- Canada Research Chair in Remote Sensing (**CRC \$200,000**)
- Image analysis to support grizzly bear mountain/pine beetle research (**Foothills Research Institute \$90,000**)
- Detection of vegetation canopy stress dynamics using integrated near-ground and airborne remote sensing data over coastal and boreal forests (**NSERC \$31,500**)
- Development of BC-wide biodiversity indicators using earth observation data (**BCIC \$47,500**)
- Developing environmental-response functions of growth and mortality to forecast forest carbon stocks in British Columbia under environmental change scenarios (**Pacific Institute for Climate Solutions \$50,000**)
- Multi-scale assessments of forest disturbance regimes for carbon budget modelling (**Commission for Environmental Cooperation \$26,400**)
- Multi-scalar analyses of the historical cumulative disturbance patterns on three boreal Alberta landscapes (**NSERC \$21,741**)
- Algorithmic development and verification of a remote-sensing driven global forest monitoring system over british columbia focus areas (**Biosphere Management Systems, Inc, NSERC \$48,000**)
- Multi-scalar analyses of the historical cumulative disturbance patterns on three boreal Alberta landscapes (**Foothills Research Institute \$25,000**)
- Using of LIDAR data for the calibration and validation of forest attribute estimation from optical satellite image data (**NRC \$15,000**)
- Advancing the study of tree growth under changing environmental conditions to forecast forest carbon stock dynamics (**NRC \$20,000**)
- Plot measurements in support of forestry attribute generation from Lidar Data (**NRC \$8,625**)

#### DANIELS, Lori

- Fire regimes in mountain landscapes and global environmental change: Top-down versus bottom-up (**NSERC \$24,000**)
- Climate change, wildfire, and landscape homogenization in western Canada (**BCMofLNRO, NSERC \$18,000**)
- Forest insect outbreak dynamics – tree-ring analyses (**BCMofLNRO \$15,000**)
- Internship funding – Gregory Greene (**PICS \$10,000**)

#### EL-KASSABY, Yousry

- Industrial Research Chair: Applied Forest Genetics and Biotechnology (**Western Forest Products Inc, NSERC, FPInnovations, Johnson's Family Forest Biotechnology Fund, Pacific Regeneration Technologies Inc, SelectSeed Co Ltd, TimberWest Forest Co., Western Forest Products Inc \$364,000**)
- Applied Forest Genetics and Biotechnology (**Forest Genetics Council of BC \$117,720**)
- Genomic selection, breeding without breeding, pedigree reconstruction, marker-aided-selection, breeding value, phenotype and genotypic selection, open nucleus breeding system, training population, validation population, combined selection (**NSERC \$40,000**)
- Popcan: Genetic improvement of poplar trees as a Canadian bioenergy feedstock (co-investigator) (**Genome Canada/ Genome BC \$54,075**)

#### EVANS, Phil

- Integrated approach to creating durable clear finishes for wood (**NSERC, Arclin Canada Ltd \$99,000**)
- Wood First – supply side (co-investigator) (**Forestry Innovation Investment Ltd, \$114,440**)
- Centre for Biointerface Characterization (CBiC): From molecular to cellular to macroscopic properties (**CFI \$92,189**)

#### GERGEL, Sarah

- Multi-scale assessment of river-floodplains (**NSERC \$17,500**)
- Operationalizing resilience over the long-term: learning from ecosystem baselines (**Pacific Institute for Climate Solutions \$20,000**)
- Quantifying changes in land cover in the Salish Sea – classifying polygons of change (**Environment Canada \$8,000**)
- Scoping drivers and impacts of land cover change in the transboundary Abbotsford – Sumas area (**Environment Canada \$12,500**)

#### GRAYSTON, Sue

- Canada Research Chair in Soil microbial ecology (**Canada Research Chairs \$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 \$4,409**)
- Carbon and nitrogen fluxes in reconstructed oil sands soils (**NSERC \$76,000**)

- The potential of retention trees to mitigate post-harvest soil carbon loss through reduction of root and soil organic matter decomposition mediated by the fungal community (**NSERC \$114,454**)
- Reducing uncertainty in forest sector carbon offsets and ecosystem service assessments by incorporating recent soils research into carbon sequestration protocols (**NSERC \$25,000**)
- Evaluation of sulfur-enhanced fertilizers and mounding to increase forest growth and related carbon storage and reduce greenhouse gas emissions (**NSERC, Western Forest Products Inc \$24,200**)

#### GUY, Rob

- Comparative physiology of plant adaptation; resource acquisition and constraints of growing season length in balsam poplar from temperate, boreal and arctic environment (**NSERC \$82,000**)
- Popcan: Genetic improvement of poplar trees as a Canadian bioenergy feedstock (co-investigator) (**Genome Canada/ Genome BC \$322,500**)

#### HAMELIN, Richard

- Risk assessment of *Septoria musiva* (**BCMofLNRO \$20,280**)
- Elucidation of rust life-cycle using molecular approaches (**NSERC \$20,000**)
- Genomics-based forest health diagnostics and monitoring (project leader) (**Genome Canada/Genome BC \$1,015,054**)
- Genomics screening for blister rust resistance (**BCMofLNRO \$8,700**)
- 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 Canada/Genome BC \$34,914**)
- Popcan: Genetic improvement of poplar trees as a Canadian bioenergy feedstock (co-investigator) (**Genome Canada/ Genome BC \$60,750**)

#### HARSHAW, Howard

- Role of social networks and recreation specialization in understanding rock climbers attitudes towards the environment (**SSHRC \$19,765**)

#### HINCH, Scott

- Behavioural physiology and fitness of anadromous migrating fish (**NSERC \$40,000**)
- Climate warming, pathogen expression, and capture locale: recent and emerging challenges for managing pacific salmon fisheries (**NSERC \$218,150**)
- Understanding species movements, interactions, and environmental variability across Canada 3 oceans (**NSERC Strategic Network Grant \$253,000**)

#### INNES, John

- Adaptation of asia-pacific forests to climate change (**Asia-Pacific Network (APFNet) for Sustainable Forest Management and Rehabilitation \$300,460**)

#### KADLA, John

- Biomaterials and chemicals NSERC research network agreement (**Lignol Energy Corp \$25,000**)

- Canada Research Chair in Advanced Biomaterials for Dr. John Kadla (**Canada Research Chairs \$100,000**)
- SENTINEL research network - Nanoscale fibrous structures through electrospinning of novel cellulosic systems (**NSERC, industry \$64,659**)
- Advanced materials from natural polymers (**NSERC \$14,663**)
- NSERC biomaterials and chemicals strategic research network (**NSERC \$115,822**)
- Renewable resource based hybrid biocomposites for automotive applications (The Automobile of the 21st Century (AUTO21) (**NCE \$22,500**)

## KOZAK, Robert

- AdapTree: Assessing the adaptive portfolio of reforestation stocks for future climates (co-investigator) (**Genome Canada/Genome BC \$126,533**)
- Assessing the enabling conditions and constraints facing alternative business models on publicly held forestlands: case studies in Canada and central west Africa (**SSHRC \$20,800**)
- Fostering community forest enterprises with a multilateral funding mechanism for mitigating climate change: examining REDD+ and the roles of social capital, gender and institutional legitimacy (**SSHRC \$40,068**)
- Rethinking sustainable supply chains: A case study of paper and digital media (**NSERC VCO Strategic Network \$22,720**)

## KRZIC, Maja

- Geotagging – augmented reality tool for virtual soil science learning resources (**British Columbia Ministry of Advanced Education \$29,180**)

## LAM, Frank

- Timber engineering education in China – faculty exchange with Tongji University (**Council of Forest Industries of British Columbia \$8,940**)
- Performance of OSB, rimboard, and OSL (**Ainsworth Engineered Canada LP \$2,000**)
- Moment resisting self-tapping screw assembly under monotonic and reverse cyclic load (**British Columbia Ministry of Small Business, Technology and Economic Development \$4,420**)
- Structural performance of timber connections with long shelf (**NSERC \$19,000**)
- Withdrawal resistance of Rampa inserts in Canadian CLT and glulam (**Rampa Tec Inc \$14,500**)
- High performance post & beam wall systems (**Coast Forest Products Association \$46,500**)
- Earthquake resistance of structural wire stucco shear wall system (**NSERC \$25,000**)
- NSERC Strategic Network on Innovative Wood Products and Building Systems (co-investigator) **NSERC \$1,060,000**
- Fire safe glued massive timber members (**BC Forestry Innovation Investment Ltd \$45,000**)
- Connection design for post and beam construction (**BC Forestry Innovation Investment Ltd \$45,000**)

## LARSON, Bruce

- Fort St. John pilot project deciduous multi-block survey and compiler (**Canadian Forest Products Ltd \$21,600**)
- Calibration and development of a coastal deviation from potential (DFP) table project (**BCMofLNRO \$15,000**)

- Forest fertilization trial in a Mildred Lake jack pine stand (**Synchrude \$48,666**)

## LAVALLEE, Susanne

- Pre and post burn monitoring on West Vaseux WMA property (**Environment Canada \$4,800**)

## LYONS, Kevin

- Field testing a remotely operated falling wedge (**WorkSafe BC \$42,369**)

## MACDONALD, Iain

- Wood First – supply side (co-investigator) (**Forestry Innovation Investment Ltd \$98,985**)
- Wood First – demand side (**Forestry Innovation Investment Ltd \$154,100**)

## MANSFIELD, Shawn

- Laboratory for wood cell wall characterization (**CFI \$10,000**)
- Great Lakes Bioenergy Research Centre (**US Department of Energy \$164,50**)
- Artificial sweetener? A functional genomics interrogation of the impact of soluble carbohydrate metabolism on poplar cell wall biosynthesis (**NSERC \$56,000**)
- The dual effect of tubulin manipulation on *Populus* wood formation and drought tolerance (**US Department of Energy \$90,108**)
- TREES: Tools for remediation and efficient energy supply (**BioFuelNet NCE \$25,000**)
- FiberCITY Phase I (**Composites Innovation Centre Manitoba Inc \$200,000**)
- National theme leader (feedstock) for biofuelnet (**BioFuelNet NCE \$7,500**)
- Popcan: Genetic improvement of poplar trees as a Canadian bioenergy feedstock (project leader) (**Genome Canada/ Genome BC \$2,492,820**)
- WoW: Working on Walls (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**)

## McFARLANE, Paul

- Estimating carbon storage and emissions from harvested wood products from British Columbia (**Pacific Institute for Climate Solutions \$50,000**)

## MEITNER, Michael

- Where do we want to go? Have we arrived? Improving transparency, rigour and knowledge in complex multi-stakeholder planning contexts (**MITACS, NCE Province of BC, Western Economic Diversification Canada, EcoPlan International \$50,000**)
- Improving TimberWest's forest management in visually sensitive areas (**NSERC \$25,000**)

## MITCHELL, Stephen

- Drag and resistance in mangroves (**NSERC \$22,910**)
- Cultivating forest stewardship (**TLEF \$45,000**)

#### NELSON, Harry

- Are all the pieces of the puzzle there? Payment for ecosystem services for First Nations in British Columbia (**SSHRC \$35,250**)
- Aboriginal business and collaboration (ABC) in forestry (**SSHRC, MITACS, NCE, Province of BC, Enterprises Essipit \$104,800**)
- Aboriginal business and collaboration in forestry (**Hampton \$10,000**)
- Adaptive capacity of community forests (**Peter Wall Institute \$15,000**)

#### PRESCOTT, Cindy

- Litter decomposition and nitrogen cycling in forest soils: Influences of tree species and site factors (**NSERC \$38,000**)

#### RICHARDSON, John

- Resource heterogeneity and the environmental basis of productivity in flowing waters (**NSERC \$19,700**)
- Large-scale drivers of ecosystem perturbation and field tests of their effects on freshwater systems (**BCKDF \$52,358**)
- Assessing the potential aquatic habitat value of streams responding to a changing climate (**Pacific Institute for Climate Solutions \$20,750**)
- NSERC Canadian network for aquatic ecosystem services (**NSERC \$21,875**)
- Critical breeding, foraging, and overwintering habitats of great basin spadefoot toads (*Spea intermontana*) and western toads (*Anaxyrus boreas*) within grassland ecosystems (**Canadian Wildlife Federation \$21,384**)

#### RITLAND, Kermit

- Population genomics of plants (**NSERC \$54,000**)
- Development of a commercially viable pawpaw cultivar for canadian orchardists (**Bevo Agro Inc \$31250**)
- Canadian pollination initiative (CANPOLIN) (**NSERC-Guelph \$35,000**)
- Smartforest: Spruce marker technologies for sustainable forest (co-investigator) (**Genome Canada/Genome BC \$359,764**)

#### RUDDICK, John

- Wood Preservation (**Timber Specialties Co \$39,700**)

#### SADDLER, Jack

- For ValueNet-Development of integrated forest management and wood manufacturing decision-support systems for a value-added forest industry (**NSERC \$53,877**)
- Conversion of lignocellulosic biomass to biofuels and chemicals (**NSERC \$356,599**)
- Future Forest Ecosystems Scientific Council Projects (**BCMofLNRO \$7,199**)
- IEA Bioconversion Task (**International Energy Agency (US) \$120,602**)
- CFI Infrastructure operating funds – Bioprocessing Centre for Sustainable Fuels – operations (**CFI \$874**)
- Improved fractionation and pretreatment of biomass for fuels and bioproducts (**BioFuelNet, NCE \$25,000**)
- Testing commercially available enzymes on kraft pulps to confirm previously published data (**Novozymes A/S \$14,562**)

#### SHEPPARD, Stephen

- Visualizing urban futures: Geomatics decision support for Canadian urban regions (**Neptis Foundation \$35,000**)
- Future Delta 2.0: community-based game design and evaluation for local climate change action (**SSHRC \$89,600**)
- Short course materials (**Pacific Institute for Climate Solutions \$10,000**)
- Innovative tools for enhanced energy and climate change community planning (**Metro Vancouver \$30,000**)
- Community energy digital primer (**Pacific Institute for Climate Solutions \$15,000**)

#### 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 \$300,000**)
- Carbon cycling by forest soil microbial communities in a time of climate change (**NSERC \$51,000**)
- TerreWEB: Terrestrial research on ecosystems & world-wide education & broadcast (**NSERC \$38,000**)

#### 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) \$51,171**)
- Structural bamboo products (**NSERC \$138,568**)

#### SOWLATI, Taraneh

- Optimization of forest biomass supply chain - incorporating uncertainties (**NSERC \$24,000**)

#### SULLIVAN, Tom

- Cattle forage production in intensively managed forests of young lodgepole pine (**NSERC \$24,934**)
- Wildlife free patches and woody debris structures: Biodiversity and wildlife habitat networks (**NSERC/ENGAGE \$24,855**)

#### TANNERT, Thomas

- Probabilistic design of timber joints (**NSERC \$24,000**)
- Wood design and construction network (**NSERC \$1,870**)
- Seismic analysis of novel timber-steel hybrid system (FFTT) (**NSERC \$24,800**)



THIS LIST INCLUDES documents published between April 1, 2012 and March 31, 2013. Names appearing in **bold-face** type are those of UBC Forestry Faculty members. For further information on any of these publications (many of which are available in libraries or online), please contact the appropriate Faculty member directly.

- Alberto FJ, **Aitken SN**, Alia R, Gonzalez-Martinez SC, Hanninen H, Kremer A, Lefevre F, LeNormand T, Yeaman S, Whetten R, Savolainen O. 2013. Potential for evolutionary responses to climate change – evidence from tree populations. *Glob Change Biol*, doi: 10.1111/gcb.12181.
- Alemagi D, Hajjar R, David S, **Kozak RA**. 2012. Benefits and barriers to certification of community-based forest operations in Cameroon: An exploratory assessment. *Small-Scale Forest* 11(4):417-433.
- Allendorf FW, Luikart G, **Aitken SN**. 2012. Conservation and the Genetics of Populations. Second Edition. Wiley-Blackwell, Mississauga, Ontario, 624 pp.
- Anand R, **Chanway CP**. 2013. Detection of GFP-labeled *Paenibacillus polymyxa* in auto-fluorescing pine seedling tissues. *Biol Fertil Soils* 49:111-118.
- Anand R, **Chanway CP**. 2013. N<sub>2</sub>-fixation and growth promotion in cedar colonized by an endophytic strain of *Paenibacillus polymyxa*. *Biol Fertil Soils* 49:235-239.
- Anand R, **Grayston S** and **Chanway CP**. 2013. N<sub>2</sub>-fixation and seedling growth promotion of lodgepole pine by endophytic *Paenibacillus polymyxa*. *Microbiol Ecol*, doi:10.1007/s00248-013-0196-1.
- Andrew ME, Wulder MA, Hobart GW, **Coops NC**, Nelson TA, Farmer CJQ. 2013. Ecosystem classifications based on summer and winter conditions. *Environ Monit Assess* 185:3057-3079.
- Atwood TB, Hammill E, Greig HS, Kratina P, Shurin JB, Srivastava DS, **Richardson JS**. 2013. Predator-induced reduction of freshwater carbon dioxide emissions. *Nature Geosci* 6:191-194.
- Bahuguna D, **Mitchell SJ**, Nishio GR. 2012. Post-harvest windthrow and recruitment of large woody debris in riparian buffers on Vancouver Island. *Euro J For Res* 131:249-260.
- Bal A, **Chanway CP**. 2012. Evidence of nitrogen fixation in lodgepole pine inoculated with diazotrophic *Paenibacillus polymyxa*. *Botany* 90: 891-896.
- Bal A, **Chanway CP**. 2012. 15N foliar dilution of western red cedar in response to seed inoculation with diazotrophic *Paenibacillus polymyxa*. *Biol Fertil Soils* 48:967–971.
- Barron S, Canete G, Carmichael J, Flanders D, Pond E, **Sheppard SRJ**, Tatebe K. 2012. A climate change adaptation planning process for low-lying, communities vulnerable to sea level rise. *Sustainability* 2012:4(9).
- Barron S, Tooke R, Cote S, **Sheppard SRJ**, Kellett R, Holy L. 2013. An Illustrated Guide to Community Energy. UBC CALP. www.guidetocommunityenergy.com
- Beechie T, **Richardson JS**, Gurnell AM, Negishi J. 2013. Watershed processes, human impacts, and process-based restoration. Chap 2 pp 11-49 in P Roni and T Beechie (eds) *Stream and Watershed Restoration: A Guide to Restoring Riverine Processes and Habitats*. John Wiley & Sons Mississauga, Ontario.
- Beiler KJ, **Simard SW**, **Lemay V**, Durall DM. 2012. Vertical partitioning between sister species of *Rhizopogon* fungi on mesic and xeric sites in an interior Douglas-fir forest. *Molec Ecol* 21:6163-6174.
- Bennett J, Cornwell W, Lilley P, Vellend M, **Arcese P**. 2013. Abundance, rarity and invasion debt among exotic species in a patchy ecosystem. *Biological Invasions* 15: 707-716
- Bennett J, Dunwiddie P, Giblin D, **Arcese P**. 2012. Native versus exotic community patterns across three scales: Roles of competition, environment and incomplete invasion. *Perspect Plant Ecol Evol Systematics* 14:381-302.
- Bennett J, Young E, Giblin D, Dunwiddie P, **Arcese P**. 2012. Avian dispersal of exotic shrubs in an archipelago. *Ecoscience* 18:369-374.
- Bernstein S, Cashore B, with Eba'a Atyi R, Maryudi A, and McGinley K, and Cadman T, Gulbrandsen L, Goehler D, Hogg K, Humphreys D, Kant S, **Kozak RA**, Levin K, McDermott C, Purdon M, Scher I, Stone M, Tacconi L, Yasmi Y. 2012. Complex global governance and domestic policies: Four pathways of influence. *Int Aff* 88(3):585-604.
- Blanc LA, **Martin K**. 2012. Identifying suitable woodpecker nest trees using decay selection profiles in trembling aspen (*Populus tremuloides*.) *For Ecol Manage* 286:192-202 doi: 10.1016/j.foreco.2012.08.021.
- Bondar CA, **Richardson JS**. 2013. Stage-specific interactions between dominant consumers within a small stream ecosystem: Direct and indirect consequences. *Freshwater Science* 32:183-192
- Brashares JS, **Arcese P**. 2013. *Ourebia orebi*, Oribi. *Mammals Africa* 5:406-412.
- Burch S, **Sheppard SRJ**, Shaw A, Flanders D, Cohen S. 2012. Planning for climate change in a flood-prone community: Municipal barriers to policy action and the use of visualizations as decision support tools. *Climate Impacts and Adaptation Science. Planned Adaptation to Climate Change*. (1):93-121.
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- Chavardès RD, **Daniels LD**, Waeber PO, **Innes JL**, Nitschke CR. 2012. Did the 1976-77 switch in the Pacific Decadal Oscillation make white spruce in the southwest Yukon more susceptible to spruce bark beetle? *For Chron* 88:513-518.
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After a year of transition and rebuilding in 2011-2012 the Development & Alumni team made great strides in 2012-2013 with a record year. Change is a constant so there was of course a bit of that too. The Faculty's 2012-2013 fundraising goal was \$1.8M and we set ourselves a target of having 900 alumni connect back with the Faculty over the course of the year. We are pleased to report back that a record \$3.3M was raised and 977 alumni engaged in the life of the Faculty over the year. Through the generosity and commitment of our alumni and donors we are now 75% towards the Faculty's Start an Evolution campaign goal of raising \$22M and 70% towards our goal of more than doubling the number of alumni engaged in the Faculty on an annual basis. See [www.startanevolution.ca](http://www.startanevolution.ca) or <http://getinvolved.forestry.ubc.ca> for more details.

On the personnel front, Caely-Ann McNabb completed her one year term with us as Alumni Relations Manager and Jenna McCann decided to spend more time with her family following her maternity leave. Therefore on March 4th, 2013, Janna Kellett, Development Coordinator, transitioned to the Alumni Relations position. Effective April 1st, 2013 Debbie McPherson will join the team as the new Development Coordinator. Thank you to Caely-Ann and Jenna for their service to the Faculty. Congratulations to Janna and welcome to Debbie.

## HIGHLIGHTS IN 2012 – 13

### Development

- Dr Peter Bentley and his family made a lead gift towards the building of a new dining and meeting facility at the Loon Lake Research and Education Centre at the Malcolm Knapp Research Forest. A private foundation and the Koerner Foundation confirmed their support for this project also, resulting in \$2M of the \$3M goal being raised.
- On the international front, the Faculty made its first Development trip to India to meet with major Indian corporations with an interest in supporting forestry and environmental causes. Dean Innes also visited China to continue building the Faculty's relationships with government, alumni and organizations.

- 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. In addition, for the first time funding was available to place students in communities over the summer to work with them to advance their community forest plans.
- Three-years of funding were received to enable the Faculty to continue with its Community Extension Program led by Ken Day, Manager, Alex Fraser Research Forest. This will enable Ken to visit communities throughout BC to share best practices in forest management.
- The Vancouver Foundation and the Neptis Foundation provided support to Dr. Stephen Shepherd's group in the Centre for Advanced Landscape Planning.
- Paul Heller renewed his commitment to student fellowship support just shy of his 100th birthday. Sadly, Mr. Heller passed away later in the year; however his legacy will live on in the Faculty and current students will continue to benefit from his generosity.

### Alumni

- The Alumni and Friends BBQ at Loon Lake was held on April 26, 2012 in conjunction with the annual undergraduate Spring Camp. Attendees enjoyed a tour of the forest with stops to hear about what the students were learning and to hear about Prof. John Richardson's riparian research work. A reception hosted by the Dean and a barbeque dinner followed.



- Forestry Alumnus, Tom Pallan, BSF'58, donned regalia and joined the Faculty representatives on the Chan Centre stage for the spring convocation ceremony. Mr Pallan 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 26, 2012 and the Faculty organized a booth at the SUB, right in the middle of the festivities, where examples of research taking place in the Faculty were displayed. As part of the events held that day, Professor David Cohen gave a talk on Sustainability: Innovation Drivers for the Twenty-First Century.
- On August 31, 2012, in celebration of the Faculty's new course based Master of Sustainable Forest Management (MSFM) program, alumni and friends were invited to a special presentation by the students in Nelson where they had just completed a one week field camp. The presentation was followed by an alumni reception hosted by Dean John Innes.
- Garry Merkel, who has worked closely with UBC's Faculty of Forestry for more than 2 decades, as well as the First Nations House of Learning, was recognized by UBC for his work with Aboriginal communities and increasing the presence and influence of Aboriginal people and issues in both university and industry settings. Gary was the recipient of the Honorary Alumnus Award at the annual UBC Alumni Achievement Awards on November 14, 2012.
- On November 13, 2012, the Faculty partnered with central Alumni Affairs office and co-hosted one of a series of UBC Dialogue events in Victoria titled Does BC's forest industry have an image problem? Panelists for the event were: Dean John Innes; Deputy Minister of Forests, Lands and Natural Resource Operations, Doug Konkin; Co-Chair of Forest Innovations, Garry Merkel; and Senior Research Associate at the Liu Institute for Global Issues, Linda Coady. Alumni and members of the community joined to listen, pose questions to the panelists and enjoy a post-event reception.
- At the ABCFP conference in February this year Dean John Innes hosted an Alumni Reception. Approximately 60 alumni and a handful of friends came together to enjoy some tasty appetizers, drinks and hear an update on the Faculty from the Dean.
- This past year saw 3 different graduation classes celebrate milestone reunions. The classes of 1952, 1962 and 1972 had volunteer committees of alumni organize each respective reunion.
- 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 Healthy Forests – Healthy Communities discussion in January, the CAWP Open House in January, and the CIF Silver Ring Ceremony in March.
- Due to a change over the Alumni Relations role, the Forestry alumni e-newsletter was sent out 8 times over the past year (to all Forestry alumni with an email address) rather than the usual 12. The newsletter contains information about events, Faculty and UBC news and highlights, programs, alumni news and job postings.

- The Forestry Alumni LinkedIn group has more than doubled from 120 to 273 members over the last year and continues to attract new members every month.

## PLANS FOR 2013 – 2014

- 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.
- The majority of the Faculty's priority projects fall within the themes of Enhancing Student Learning; Expanding Research Capacity and Building Community Engagement. In the coming year we will continue to seek leadership support to bring these projects to fruition and 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. In 2013-2014 we hope to secure the remaining \$1M required to bring the Loon Lake dining hall (Bentley Family Hall) to fruition with a goal of construction beginning in 2014.
- 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, talent and support for the Faculty throughout the last year. We look forward to working with you again in 2013/14.

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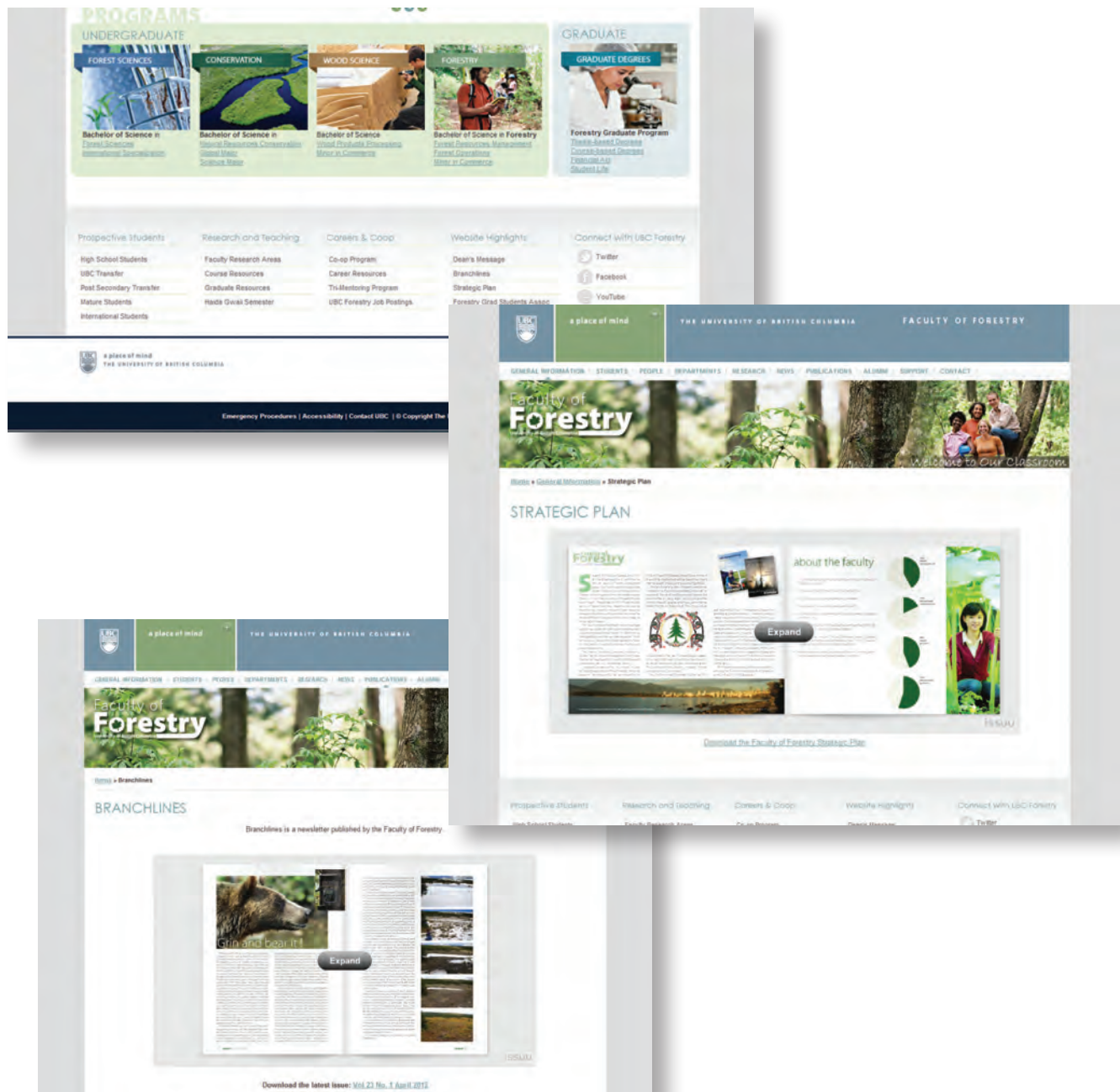
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# UBC Faculty of Forestry website

www.forestry.ubc.ca



## The Faculty of Forestry web site features:

- academic program outlines and registration guides;
- profiles of Faculty members;
- department and allied program descriptions;
- Faculty newsletters, Annual Reports and special event announcements;
- course materials and educational multimedia;
- general interest articles and web feature presentations.

Any comments or suggestions about our web site can be addressed to our Education and Web Technology Coordinator at 604.822.0024.





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