

Faculty File Copy  
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# 1996 Annual Report



## Faculty of Forestry

The University of British Columbia  
Vancouver, B.C.  
Canada

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

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Canadian International  
Development Agency

**Mr. Van Scoffield**  
Executive Director  
Association of BC Professional  
Foresters

**Dr. Joseph D. Wright**  
President & CEO  
Pulp and Paper Research Institute  
of Canada

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**ANNUAL**  
**REPORT**

**Faculty of Forestry**

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University of British Columbia

April 1, 1996 – March 31, 1997

**COVER PHOTOGRAPHS**

*Photographer:* **Bryan Evans**

*Background:*

Aspen, Grande Prairie, Alberta

*Front:*

Forestry students at the 1997 Spring Camp,  
UBC Malcolm Knapp Research Forest

*Back:*

Carmanah Valley, Vancouver Island

**TEXT PHOTOGRAPHS**

*Photographers:* **UBC Media Services**

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**T**HE mission of the Faculty of Forestry is to serve the people of British Columbia through excellence in education and scholarship in forestry — forest conservation, management, products and production processes. We seek to fulfil this mission through our undergraduate, post-baccalaureate and graduate programs, our research activities, and our outreach work. This annual report — a stewardship report — describes how we have used the funds the provincial and federal governments and private donors entrust with us.

While the following report provides the details, it is useful to summarize and highlight some of the main activities here. The table below provides a précis of the recent history along with our expectations for 1997/98. Undergraduate and graduate enrolments continue to increase as programs fill out against fixed first-year enrolment quotas and a new second-year quota for the Forest Resources Management program. We introduced innovations in our Natural Resources Conservation and Wood Products Processing programs this year, and are in the midst of a major overhaul of the professional forestry program. Our extramural research program has grown to the point that it is by far the largest in the University when measured on the basis of extramural funding per FTE faculty member — the Faculty of Forestry is now the most research-intensive faculty in one of the world's most research-intensive universities.

## DEAN'S MESSAGE

	92/93	93/94	94/95	95/96	96/97	97/98e
Undergraduate enrolment	333	400	452	522	591	685
Graduate enrolment	160	171	180	189	201	212
SIBC diploma enrolment	0	0	0	154	93	115
BCFCSN registrants	7,000	12,000	21,000	14,000	12,000	13,000
Operating budget <sup>a</sup> (\$000)	4,600	5,084	4,939	4,808	4,798	–
Cost per student <sup>b</sup>	3,172	3,115	2,781	2,345	2,169	1,936
Extramural funding <sup>c</sup> (\$000)	5,802	5,047	5,079	7,141	10,409	9,500
Extramural funding per FTE faculty member <sup>d</sup> (\$000)	141	120	121	188	289	257

<sup>a</sup> General purpose operating budget provided by the University.

<sup>b</sup> Budget divided by the weighted full-time equivalent number of students.

<sup>c</sup> Extramural funding = research funding plus endowment income (until 96/97) and special purpose funds. (Excludes BC Forestry Continuing Studies, University development funds, shared services and program research accounts.)

<sup>d</sup> FTE (full-time equivalent) faculty members calculated from budget-supported positions.

Consider some of the highlights in a bit more detail:

- **Undergraduate enrolment** rose by 13.2% to 591 students. For several years we have constrained the number of new entrants to the Faculty via Year 1 enrolment quotas for all programs, so the increase comes as a result of increased retention rates (an expected consequence of the steadily rising entry GPAs), the planned roll-out of the Natural Resources Conservation and Wood Products Processing programs, and imbalances in the vintage structure of the students in the Faculty. We expect this rate of increase to continue (primarily as a result of the continued roll-out of the Wood Products Processing program) for a projected total of about 685 students in 1996/97. Women comprised 36.5% of the undergraduate class, up from 20.4% five years ago which was on a far smaller base. Self-reported First Nations students numbered only eight in the Faculty, far less than represented in the population as a whole. We expect that the efforts of our First Nations Forestry and Natural Resources Conservation Coordinator Gordon Prest will begin to pay off in the next few years, and that this percentage will increase towards our target of 5% by 2000. Placement of students both in summer positions and in full-time professional jobs after graduation remains at very high levels.

- Our **graduate program** grew by 6.3% to 201 students. At over 3.7 graduate students per faculty member, we are probably close to our capacity to provide high-quality graduate education. The increase is partly due to very high levels of extramural support and the development of cooperative agreements with external agencies (the B.C. Ministries of Forests and of Environment, Lands and Parks; the Canadian Wildlife Service; Pacific Forest Products) to place scientific personnel at UBC who are qualified to supervise graduate students. Total funding for graduate-student support was \$2.14 million, a 14% increase over last year's level. Graduate students continue to play a significant role in the delivery of our undergraduate professional programs. This offers an excellent opportunity for graduate students to learn how to teach, but may slow their research progress and demands extra effort by faculty members to monitor the quality of instruction.
- The second year of our **Diploma in Forestry (Advanced Silviculture) program**, (offered in collaboration with the Silviculture Institute of BC) enrolled about 93 students. This fall in enrolment during this past year was mainly as a result of a reduced presence of the Ministry of Forests personnel in the program due to Provincial government financial restraint. A new Institute of Forest Engineering of BC was recently established to provide a similar program in forest engineering, and the Faculty intends to adopt this program as a formal UBC diploma program as well.
- The Faculty continues to lead all Canadian forestry schools in **research** activity (as measured by success in competitive grant competitions and the overall level of extramural funding). Total extramural funding was \$10.4 million, a 45.8% increase from last year's level. Grants from Forest Renewal BC helped offset the general nation-wide downward trend in research support, but we expect this source of support to decline in 1997/98. Although the University-wide data for 1996/97 are not yet available, we believe that extramural support per faculty member in Forestry is now the highest among all UBC faculties.
- The **BC Forestry Continuing Studies Network** (which the Faculty helped establish in 1991) served nearly 12,000 participants (nearly 70 person-years of training) during 1996/97, down from the 1994/95 peak associated with massive needs related to the then-new Forest Practices Code of BC. The Network enjoys widespread support in the Province, but sustaining core financial support for this program remains a challenge. After a very thorough external review, we reorganized the Board of Directors to include higher-level representation from the relevant agencies, ministries and organizations.
- **International exchange programs** involved a modest increase in participation in the Faculty to 12 undergraduates on reciprocal exchanges with universities in Europe, SE Asia, Australia and New Zealand. Both the Swiss Institute for Wood Engineering and the Fachhochschule Rosenheim have agreed to collaborate in teaching Year 4 and Year 5 of our Wood Products Processing program.
- Our **faculty** complement decreased by three (Profs. Alan Chambers, Doug Golding and Peter Pearse retired after long and distinguished careers with the Faculty), and increased by seven:
  - Robert Kozak* as an Assistant Professor in forest products utilization;
  - Don Luymes* as an Assistant Professor in landscape design;
  - Joseph McNeel* as an Associate Professor in forest operations;
  - Steve Mitchell* as an Instructor in silviculture;
  - Laura Nagel* as an Instructor in natural resources conservation;
  - John Richardson* as an Assistant Professor in riparian zone ecology; and
  - Paul Wood* as an Assistant Professor in conservation policy.

We are currently in the midst of searches for Forest Renewal BC Chairs in Hydrology (jointly with the Department of Geography), in Silviculture and in Forest Management. In addition, *Prof. George Hoberg* (Department of Political Science) joined the Faculty of Forestry as a half-time appointment on a three-year trial basis to teach Forest Policy.



- We continue to revise our **undergraduate programs**. We taught the third year of the Wood Products Processing program, and placed all of the students in their second co-op term. Senate approved our revisions to the B.Sc. (Natural Resources Conservation), and we taught the first three years of the new program (this involved a new collaboration with Geography in teaching geographic information systems). With extremely timely and useful assistance from the University's Teaching and Learning Enhancement Fund (created from student tuition payments), we are completing the preparations for an innovative integrated semester involving extensive field instruction and interdisciplinary work. The Faculty has intensively discussed major revisions of the professional forestry program, and we expect to be considering a major revision of that program during the 1997/98 academic year.
- For each of our major undergraduate programs, the Faculty appointed **Program Directors** to serve as the first line of contact for student concerns: advising on courses, identifying needed curriculum changes, working out timetable conflicts, etc. This improved level of student services has been effective in increasing levels of undergraduate satisfaction with our programs.
- The **University Research Forests** moved to 100% financial self sufficiency with all direct University budget support being removed during the 1996/97 academic year. This change places even greater pressures on improving operational efficiency and developing new revenue sources at the URFs. Particular attention has been focused on improving the teaching and administrative space at the Alex Fraser Research Forest, and some innovative solutions may be possible there. The Ministry of Forests has asked us to consider taking on the management of a research forest in the Northern Interior, and we are collaborating with the University of Northern British Columbia to develop a suitable administrative structure and management plan. The Director of University Research Forests spent one week in Malaysia helping our colleagues at Universiti Pertanian Malaysia develop a management plan for their new research forest.
- **Fundraising** in the Faculty of Forestry continued to be successful and our Alumni participation at 34% remained ahead of all other faculties on campus. Our "Growing for the Future" campaign is in its final stages with \$2.3 million raised to date. The Faculty and the Development Office recruited a new Forestry Development Officer, Ms. Tara Scott.

Our mission — service to the people of British Columbia through excellence in forest conservation, management and products — has never been more important. Relaxing the standard of excellence would serve the province, the University and — most importantly — our students poorly. Yet excellence will inevitably fall away if our enrolment continues to increase and our operating budget to support each student declines. The Faculty has achieved major gains in operational efficiencies, and we continue to seek other ways to improve program delivery and to reduce program costs. The iron law of diminishing returns inevitably makes this search ever harder and ever less productive as each improvement is achieved. The external community — our Faculty and Alumni, Forest Renewal BC, the B.C. forestry industry, and many private individuals — have generously supported specific programs in the Faculty. Resolving this tension between declining resources available to fulfill our mission and the increasing societal expectations from the Faculty remains our greatest challenge.



Clark S. Binkley  
Dean, Faculty of Forestry

## UNDER-GRADUATE STUDENTS

### PROGRAMS OF STUDY

**DRISCOLL, Helen**  
B.Sc.

Coordinator, Student Services  
Phone: (604) 822-3547  
Fax: (604) 822-8645  
E-mail: hdriscoll@unixg.ubc.ca

**CHANWAY, Christopher P.**

B.Sc., B.S.Ag., M.Sc., Ph.D.  
Advisor, Forest Science  
Phone: (604) 822-3716  
E-mail: cchanway@unixg.ubc.ca

**ELLIS, Simon**

B.Sc., M.Sc., Ph.D., F.I.W.Sc.  
Program Director & Advisor,  
Wood Products Processing  
Phone: (604) 822-3551  
E-mail: sellis@unixg.ubc.ca

**GLENN, Susan**

B.Sc., M.Sc., Ph.D.  
Program Director & Advisor,  
Natural Resources Conservation  
Phone: (604) 822-4131  
E-mail: sglenn@unixg.ubc.ca

**HOWARD, Andrew F.**

B.Sc., M.F.Sc., M.Sc., M.Phil., Ph.D.  
Advisor, Forest Operations  
Phone: (604) 822-3794  
E-mail: ahoward@unixg.ubc.ca

**MARSHALL, Peter L.**

B.Sc.F., M.Sc., Ph.D., R.P.F.  
Program Director,  
Professional Programs &  
Advisor, Forest Resources  
Management  
Phone: (604) 822-4918  
E-mail: marshall@unixg.ubc.ca

**T**HE Faculty of Forestry offers 4-year degree programs in the following five areas:

#### ■ Forest Resources Management – B.S.F.

This major focuses on the multidisciplinary aspects of forest resources biology and management of forested ecosystems for such products as timber, grazing, wildlife, recreation, fish and water. Students learn about the unique characteristics of each resource, their interactions, and the manipulation of forests to yield a variety of desirable products in the context of social and economic environment. The program prepares graduates for responsible careers in forest management as professional foresters.

#### ■ Forest Operations – B.S.F.

This major prepares the graduate for professional forestry responsibilities, with an emphasis on planning, design and administration of forest harvesting operations. Areas of study include: design and construction of forest roads and drainage structures; selection, planning and supervision of logging systems; site protection and rehabilitation; and the development of computer applications for harvesting systems.

#### ■ Wood Products Processing

B.Sc. (Wood Products Processing)

This program provides students with a broad knowledge of the wood products industry, including wood manufacturing, business management, and marketing. State-of-the-art wood processing equipment used during laboratory exercises enables students to develop skills in technical processes and operations carried out in today's industry. Graduates develop strong teamwork, leadership, and communication skills. An extensive five-year co-operative option is available.

#### ■ Forest Science – B.Sc. (Forestry)

This major is for students interested in more specialized study of the scientific principles related to the growth, development, and ecology of forest species. Emphasis is placed on basic and interactional phenomena that influence the establishment, growth, and development of trees and other forest resources. The core subjects include genetics, soils, weather and climate, tree form, tree function, ecology, entomology, pathology, silvics, silviculture, and fire science.

**Helen Driscoll**  
Coordinator  
Student Services



#### ■ Natural Resources Conservation

B.Sc. (Natural Resources Conservation)

This multidisciplinary program provides students with a solid foundation in the natural and social sciences underlying management and conservation of natural resources, as well as an appreciation for the political and socioeconomic contexts which affect conservation strategies. Students develop a working knowledge of the tools and quantitative techniques used by resource planners. A notable feature of the program is the Integrated Field School offered in the fourth year which features fully integrated instruction throughout the fall term.

### PROGRAM UPDATES IN 1996-97

- The Faculty created three new "Program Director" positions to assist and advise undergraduate students.
- The broader-based admission policy for the B.S.F. programs attracted ten applicants this year; eight applicants qualified on their own merits and two were unable to meet the UBC minimum entrance GPA.
- Admitted first and second year students to the revised Natural Resources Conservation program with 90% of existing students switching to the revised program.
- Twenty-two students are currently employed in industry as part of our targeted work placement sessions in the Wood Products Processing Cooperative Education program.

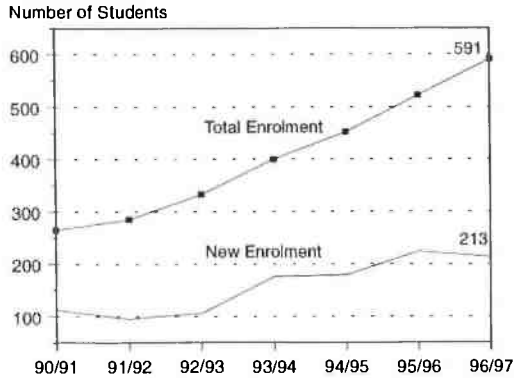
### PLANS FOR 1997-98

- Implement revisions to the professional forestry program (Forest Resource Management and Forest Operations option).
- Conduct the Natural Resources Conservation program's integrated field school for the first time (thirty students expected).
- Implement Year 4 of the new Wood Products Processing program and of the revised Natural Resources Conservation program.
- Pursue the establishment of a quota on second year admissions into B.S.F. and B.Sc. (Natural Resources Conservation).

## ■ Total Enrolment

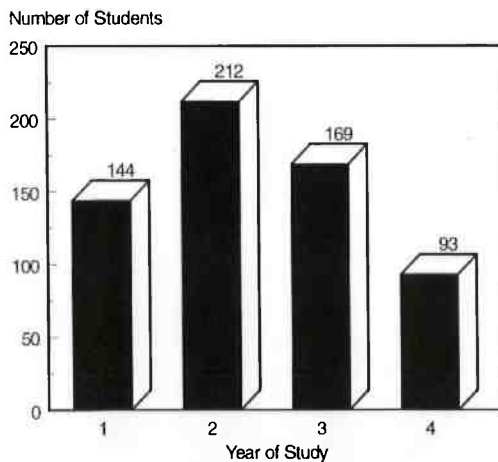
Undergraduate enrolment for the 96/97 session was the highest ever, with a record 618 students including 27 visiting and exchange students. This figure represented a 15% increase over the previous year. Over the past five years the number of registered students has more than doubled.

The graph below illustrates the trend in enrolment since 1990.



**Total enrolment and new enrolment  
1990/91 – 1996/97**

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



**Enrolment by year of study  
1996/97**

The majority of undergraduate student were enrolled in the Forest Resources Management program. The Natural Resources Conservation program had the second highest enrolment. The following table provides a breakdown:

## Distribution of students among programs 1996/97

Program	Number enrolled	% of total
Forest Resources Management	241	40.8
Forest Operations	64	10.8
Forest Science	45	7.6
Wood Products Processing	51	8.6
Natural Resources Conservation	121	20.5
Undeclared*	69	11.7
<b>Total</b>	<b>591</b>	<b>100</b>

\*First year students.

Female students represented 36.5 per cent of the above total, up from 31 per cent two years ago and 14 per cent in 1990.

## ■ New Student Enrolment

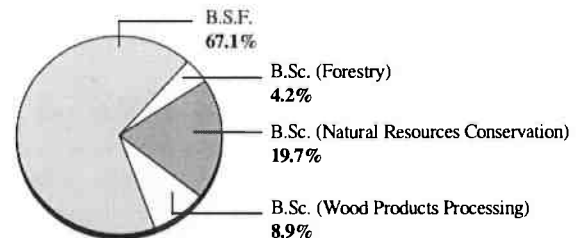
In total, 213 new students entered the faculty this year (compared to 225 students in 1995/96). The numbers entering into the different years are tabulated below.

### New students entering the Faculty – 1996/97

Year of study	Number of new students entering
I	114
II	82
III	17
<b>Total</b>	<b>213</b>

The B.S.F. degree (Forest Resources Management and Forest Operations) continues to be the most popular with new students. The chart below illustrates degree choices of new students in 1996/97.

### Degrees entered by new students – 1996/97



### Average entering GPA – 1996/97

B.S.F.	70.8%
B.Sc. (Forestry)	68.3%
B.Sc. (Wood Products Processing)	72.6%
B.Sc. (Natural Resources Conservation)	75.2%

## ENROLMENT STATISTICS

### Undergraduate Students

## Scholarships and Fellowships Awarded, 1996

### FIRST YEAR STUDENTS

Dekens, C.J.	Frith, Owen
Errington, R.C.	Banks, Entrance, HRM <sup>1</sup>
Fillion, K.C.	Banks, MB, UBC
Haddock, R.L.	Banks, Outstanding
Hansen, S.P.	Hindmarch
Harsch, S.K.	Banks, Machinery, SUS, UBC
Hayward, A.J.	ABC PF <sup>1</sup> , Outstanding
Larsen, C.E.	Soderman
MacKenzie, C.M.	Banks
Ng, C. S-M.	Banks, Outstanding
Parker, J.N.	Banks
Saiki, L.N.	Weldwood
Vaccaro, L.	Banks
Watkinson, S.J.	Ketcham
Weber, S.E.	Gage

Stewart, J.C.	Splan
Sweatman, T.W.	SUS, Beaty
Szkorupa, T.D.	UBC
Talarico, T.J.	Splan
Tam, K.	Brock
Tobler, P.	ABC PF <sup>1</sup>
Verschoor, P.G.	ABC PF <sup>1</sup> , HRM <sup>1</sup> , Splan, UBC
Watt, G.N.	Banks, HRM <sup>1</sup> , UBC
West, K-B, L.	Siddoo
Wild, J.A.	Soderman
Zacher, K.M.	Brock

## AWARDS

### Undergraduate Students

### SECOND YEAR STUDENTS

Affleck, D.L.	UBC, HRM <sup>1</sup> , Splan
Ambus, L.M.	Brock, Little, Northwood, Splan
Buller, M.S.	Soderman
Deith, L.K.	Northwood
Friesen, C.D.	Banks, UBC, MB
Frolek, J.; L.	UBC
Guite, M.A.	Brock, Splan
Hikisch, C.M.	Alumni, Brock
Jacques, G.D.	Siddoo
MacDonald, R.K.	Soderman
MacKenzie, A.J.	SUS, UBC, Wellwood
McDonald, H.L.	Banks, Winkler
Mortimer, M.A.	Splan
Muter, D.M.	SUS, Soderman
Nichols, P.J.	Splan
Norton, S.D.	Truck Loggers
Parr, E.N.	Brock
Perrakis, D.D.	Soderman
Puls, L.J.	Splan
Scott, R.E.	Banks
Seilgren, M.J.	Splan
Shen, H.F.	SUS
Snow, C.M.	Splan

### THIRD YEAR STUDENTS

Beetham, A.M.	Backman, Splan, UBC
Birtch, G.J.	Splan, UBC
Buchanan, B.K.	Soderman, R.E. Mills
Corsi, E.A.	Elkington, Timberline, Splan
Dagenais, G.N.	UBC
Elder, C.D.	J.R. Mills, Splan
Finall, S.A.	Molson, Soderman
Limacher, S.E.	Johnson, Binkley
Lyons, C.K.	Truck Loggers
Pena, C.M.	Backman <sup>1</sup> , Craig, Soderman
Ronalds, P.C.	Splan, UBC
Weber, A.A.	Graduate
Wenger, J-P.K.	ABC PF <sup>1</sup> , Backman <sup>2</sup>
	Northwood, UBC
Windsor, L.R.	Steiner
Wong, I.	Splan

### FOURTH YEAR STUDENTS

Galbraith, A.L.	Honours
Harrod, K.M.	Honours
Hebb, K.A.	ABC PF <sup>2</sup>
Illes, J.S.	Honours
Johnsrude, A.N.	Hobson, Honours, HRM <sup>3</sup>
Munroe, C.A.	Honours
Platzer, J.D.	Canadian
Sommerfeld, B.G.	HRM <sup>2</sup>
Walsh, H.	ABC PF <sup>3</sup>
Wills, N.F.	CIF Medal

### Full Name of Award

ABC PF Scholarship.<sup>1</sup>  
 ABC PF Best Graduating Thesis.<sup>2</sup>  
 ABC PF Best Graduating Essay.<sup>3</sup>  
 UBC Forestry Alumni Division.  
 Backman Scholarship in NRC.<sup>1</sup>  
 Backman Scholarship in FRM.<sup>2</sup>  
 Charles & Jane Banks Scholarship.  
 John D. Beaty Memorial Scholarship.  
 Emily & Francis Binkley Scholarship.  
 Hugh M. Brock Education Abroad Scholarship.  
 Canadian Forestry Equipment Ltd. Prize.  
 Canadian Institute of Forestry Medal.  
 Robert J. Craig Memorial Scholarship.  
 Galt Elkington Memorial Scholarship.  
 Entrance (renewal) Scholarship.  
 Walter D. Frith Scholarship.

Walter H. Gage & Elsie M. Harvey Education Abroad Scholarship.  
 UBC Graduate Fellowship.  
 Phil Haddock Prize in Silviculture.  
 Bob Hindmarch Award.  
 Harry Hobson Memorial Prize.  
 Honours Standing.  
 H.R. MacMillan Scholarship in Forestry.<sup>1</sup>  
 H.R. MacMillan Prize in Forest Harvesting.<sup>2</sup>  
 H.R. MacMillan Prize in Forestry.<sup>3</sup>  
 Ted Johnson Scholarship in Forestry.  
 Janet Ketcham Scholarship.  
 David Bell Little Memorial Scholarship.  
 Machinery & Supply Companies Group Forestry Scholarship.  
 MacMillan Bloedel Limited Scholarship for Forestry.

James Russell Mills Memorial Award.  
 Robert E. Mills Memorial Award.  
 Molson Scholarship.  
 Northwood Pulp and Timber Limited.  
 Outstanding Student Initiative Scholarship.  
 J.D. Owen & Crew Scholarship.  
 Kapoor Singh Siddoo Scholarship.  
 Oscar Soderman Memorial Scholarship.  
 Special University Scholarship.  
 Paul Robert Steiner Memorial Scholarship in Wood.  
 William John Splan Scholarship in Forestry.  
 Timberline Scholarship.  
 Truck Loggers Association Scholarship.  
 University of BC Scholarship.  
 Weldwood of Canada Limited Scholarship.  
 Mary & Robert Wellwood Memorial Scholarship in Wood Sci. & Ind.  
 George E. Winkler Memorial Scholarship.

# Degrees Conferred, May 1996 and November 1996 Congregations

## ■ B.S.F. – Forest Resources Management

- |                  |                |                 |
|------------------|----------------|-----------------|
| Baker, J.D.      | Inden, P.W.    | Royle, C.J.     |
| Bjornson, L.T.   | Johnson, E.S.  | Sambo, S.M.A.   |
| Bradford, C.J.   | Kaempf, F.B.   | Schoen, P.E.    |
| Calabrese, M.D.  | Lavigne, S.M.  | Schulte, B.J.   |
| Charlston, K.    | Lebeck, S.G.   | Shearer, D.M.   |
| Cunnington, M.B. | MacLeod, T.L.  | Simmons, E.N.   |
| Dodic, P.        | Main, M.K.     | Smith, J.V.     |
| Douillard, D.J.  | Maitland, S.K. | Sorg, J.M.      |
| Galbraith, A.L.  | Menduk, S.W.   | Soroka, T.M.    |
| Giesen, R.F.     | Munroe, C.A.   | Stewart, E.J.   |
| Hadikin, Y.W.    | Palmer, A.M.J. | Tamelin, D.J.   |
| Harris, J.E.     | Passeri, M.G.  | Tuininga, C.W.  |
| Harrod, K.M.     | Pederson, A.E. | Vermeulen, S.C. |
| Heemskerck, T.D. | Platzer, J.D.  | Walsh, H.       |
| Hemus, B.M.      | Ravai, R.J.    | Wills, N.F.     |
| Hiemstra, M.L.   | Rice, D.A.     | Wilson, S.R.    |
| Housden, S.W.    |                |                 |

## GRADUATION STATISTICS

### Undergraduate Students

## ■ B.S.F. – Forest Operations

- Craigie, G.J.
- Grant, D.W.
- Illes, J.S.
- Sommerfeld, B.H.

## ■ B.Sc. (Natural Resources Conservation)

- Allen, D.S.
- Bartholsen, L.E.
- Driscoll, H.M.
- Duso, L.R.
- Gawalko, L.M.
- Hanford, N.D.
- Harco, M.E.
- Hayes, J.T.
- Mou, D.M.
- Perdue, M.
- Peterson, J.R.
- Slaymaker, H.R.

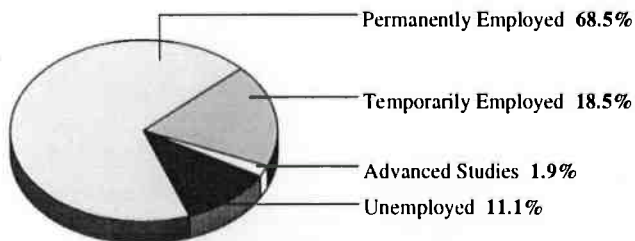
## ■ B.Sc. (Forestry)

### Wood Science and Industry

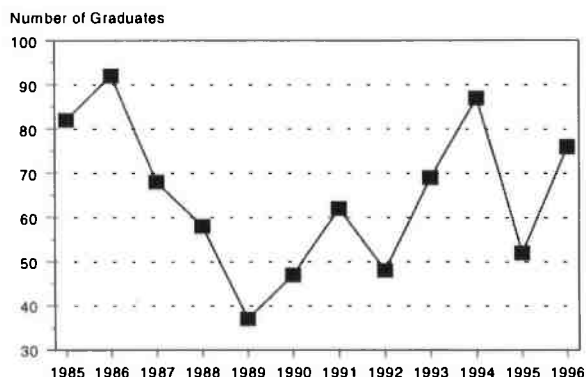
- Hashizume, R.Y.
- Stojcic, T.V.
- Story, R.T.
- Weatherill, D.R.P.

## ■ B.Sc. (Forestry) – Forest Science

- Carroll, C.G.
- Eberle, M.Y.
- Hebb, K.A.
- Johnsrude, A.N.
- Martinz, M.J.
- Schroff, A.C.
- Thomson, S.D.



*Employment survey of 1996 graduates  
(54 of the 74 graduates responded)*



*Number of students graduating 1985 – 1996*

## GRADUATE STUDENTS

## ENROLMENT STATISTICS

**McLEAN, John A.**  
 B.Sc., M.Sc., Ph.D.  
 Associate Dean  
 Graduate Studies & Research  
 Phone: (604) 822-3360  
 Fax: (604) 822-8645  
 E-mail: mclean@unixg.ubc.ca

**LIEW, Lily**  
 B.A.  
 Graduate Secretary  
 Phone: (604) 822-6177  
 Fax: (604) 822-8645  
 E-mail: gradfor@unixg.ubc.ca

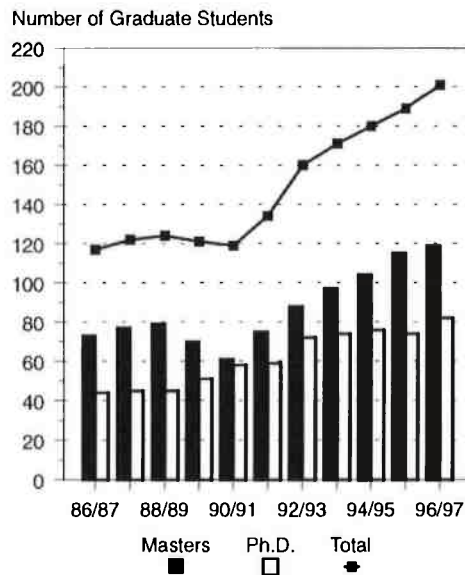
### ■ Graduate Programs

The Faculty of Forestry offers four graduate degrees:

- Doctor of Philosophy – Ph.D.
- Master of Forestry – M.F.
- Master of Science – M.Sc.
- Master of Applied Science – M.A.Sc.

### ■ Enrolment Trends

Enrolment in the Forestry graduate program has grown by 72% over the past decade. Today there are 201 graduate students registered in the Faculty. The graph below illustrates the distribution of these students between the different degree programs. The greatest growth has been in the number of Doctoral students – in 1986 there were only 44 enrolled in the program, whereas today there are 82 students. In this same period the number of Masters students has risen from 73 to 119.



*Graduate student enrolment  
 1986/87 – 1996/97*

Women comprise 36% of our Masters and 16% of our Ph.D. students, for an overall average of 28%. The following table shows enrolment data for 1996/97.

#### *Graduate student enrolment 1996/97*

Degree	Male	Female	Total
Ph.D.	69	13	82
M.F.	9	1	10
M.Sc.	64	40	104
M.A.Sc.	3	2	5
<b>Total</b>	<b>145</b>	<b>56</b>	<b>201</b>

As of October, 1996.

The proportion of graduate students from outside of Canada has remained fairly constant over the past few years and presently stands at 44% of Doctoral and 24% of Masters students. A total of twenty-nine countries are represented in the graduate student body.

### ■ Graduate Student Funding

In the 1996/97 academic year, Forestry graduate students were awarded support totalling \$2,144,118, an increase of 14% over 1995/96 funding levels. This consisted of \$880,263 in scholarship funding, \$240,584 in graduate teaching assistantships and \$1,023,271 in graduate research assistantships (provided by research supervisors from their research grants).

#### *Graduate student enrolment and funding*

Department	No. graduate students	Total funding
Forest Resources Management	53	\$439,249
Forest Sciences	98	\$994,542
Wood Science	50	\$710,327

## MASTERS STUDENTS

Bartel, Joseph	Forestry Faculty, MacMillan	McCormick, James	Hoffmeister
Bennett, Jennifer	GREAT, NSERC Industrial	McKinnon, Leanne	NSERC
Bull, Jennifer	NSERC Industrial	Moreau, France	VanDusen
Chow, Gordon	Lumber	Nicholson, David	NSERC
Dettman, Jeremy	Buckland	Oriente, Damon	McPhee
Dobson, Diana	TimberWest <sup>1</sup>	Pavel, Mihai	VanDusen
Dubois, Jason	NSERC Industrial	Serrouya, Robert	NSERC
Easton, Wendy	McPhee	Splechtina, Bernhard	VanDusen
Edgar, Catherine	UGF	Stonewall, Adam	McPhee
Hanel, Claudia	Cochran, McPhee	Tian, Qiufang	McPhee
Hayward, Jeffrey	Allen, UGF	Weber, Adrian	UGF
Kraft, Daniel	Timberwest <sup>2</sup>	Yang, Xueji	Forestry Faculty, McPhee
Lawrance, Peter	VanDusen	Yong, Teng Koon	CIDA
Leone, Robert	NSERC Industrial	Zhou, Bingning	McPhee

## DOCTORAL STUDENTS

Bennuah, Sampson Yaw	Commonwealth	Lu, Jianxiong	UGF
Chen, Guangqi	McPhee	Mansfield, Shawn	GREAT
Clouston, Peggi-Lynn	Forintek	McCarthy, John	Bassett
Davradou, Maria	Namkoong	McIntosh, Rory	GREAT
Defretes, Yance	CIDA	Mellina, Eric	NSERC
Duralia, Tom	VanDusen	Mooney, Robert	CFP, UGF
Eagen, Rebecca	GREAT	Mtiraoui, Ahmed	McPhee
Ells, Arlene	Hanson, UGF	Nelson, Kari	UGF
Hao, Bingye	UGF	Ransome, Douglas	GREAT
Jiang, Xiao	Forestry Faculty, McPhee	Singh, Ramvir	UGF
Kinyua, Dishon Patrick	CIDA	Sutherland, Glenn	Tri-Council
Liliefna, Leonard	Forestry Faculty, Weyerhaeuser	Teter, Darius	MacDonald
Lin, Yingzhong	Heller, McPhee	Thomas, Len	Commonwealth
Lu, Congjin	UGF	Tyndall, John	McPhee
		Wang, Xiaorong	GREAT
		White, Barry	GREAT

## SCHOLARSHIPS AND FELLOWSHIPS

Graduate  
Students

### Full Name of Award

George S. Allen Memorial Scholarship.	Forintek Canada Corporation Fellowship in Wood Science and Wood Products.	NSERC – Natural Sciences and Engineering Research Council of Canada Scholarship.
Edward W. Bassett Memorial Scholarship in Reforestation.	GREAT – Graduate Research Engineering and Technology Awards.	NSERC Industrial – Natural Sciences and Engineering Research Council of Canada Industrial Postgraduate Scholarship.
Don Buckland Memorial Scholarship in Forest Pathology.	Brenda Hanson Memorial Scholarship in Forestry.	TimberWest <sup>1</sup> Forest Limited Fellowship in Forest Science
CFP – Canadian Forest Products Ltd. Fellowship in Forest Wildlife Management.	Paul Heller Fellowship.	TimberWest <sup>2</sup> Forest Limited Fellowship in Forest Wildlife Management.
CIDA – Canadian International Development Agency Scholarship.	Bert Hoffmeister Scholarship in Forest Wildlife.	Tri-Council Eco-Fellowship.
Ralph M. and Elizabeth E. Cochran Scholarship.	Lumber Inspectors' Benevolent Society Scholarship.	UGF – University Graduate Fellowship.
Commonwealth Scholarship.	Jean MacDonald Fellowship.	VanDusen Graduate Fellowship.
Special Forestry Faculty Scholarship.	MacMillan Bloedel Limited Fellowship in Forest Mensuration.	Weyerhaeuser Fellowship in Wood Design Management.
	Donald S. McPhee Fellowship.	
	Namkoong Family Fellowship in Forest Sciences.	

## Degrees Conferred, May 1996 and November 1996 Congregations

### M.F.

**NORTHWAY, Steve** *Dr. P.L. Marshall*  
A structured covariance model for Douglas-fir PSP data and some implications for sampling.

**YONG, Teng Koon** *Dr. V.M. LeMay*  
Growth and development of a selectively cut hill Dipterocarp forest in peninsular Malaysia.

**DANNINGER, Chris** *Dr. P.L. Marshall*  
Non-thesis.

**FAUCETTE, Dave** *Dr. G. Baskerville*  
The use of digital elevation models as a preliminary slope stability tool for the Clayoquot River watershed.

**HAMMOND, Blair** *Dr. S.M. Glenn*  
Non-thesis.

**HARTLEY, Isobel** *Dr. P.L. Marshall*  
Modelling forest development in the Mackenzie Basin under a changing climate.

**JOHNSON, Deborah** *Dr. P.J. Dooling*  
Defining wilderness quality at backcountry campsites in the Height-of-the-Rockies Wilderness area.

**LEVESQUE, Francoise** *Dr. R. Guy*  
Carbohydrates in white spruce and lodgepole pine seedlings during winter: outdoors, in freezer-storage and in thawing.

**LI, Min** *Dr. S. Avramidis*  
A study on the effects of air gaps, air velocities and fan revolutions on the drying characteristics of western hemlock baby squares.

**LIN, Yingzhong** *Dr. T. Maness*  
The impacts of sawmill processing variances on lumber target sizes and production revenue.

**McQUEEN, James** *Dr. D. Haley*  
The share contract and silviculture in British Columbia.

**RUTHERFORD, Dag** *Dr. A.F. Howard*  
Productivity, costs, and optimal spacing of skyline corridors of two cable yarding systems in partial cutting of second-growth forests of coastal British Columbia.

**SANCHEZ MAYORAL, Celia** *Dr. P.A. Murtha*  
Waterfowl farmland use in Delta, British Columbia: A remote sensing/GIS analysis.

## DEGREES GRANTED

### Graduate Students

### M.A.Sc.

**CLOUSTON, Peggi** *Drs. D.J. Barrett/F. Lam*  
The Tsai-Wu strength theory for Douglas-fir laminated veneer.

**GREGG, David** *Dr. J.N. Saddler*  
The development of a techno-economic model to assess the effect of various process options on a wood-to-ethanol process.

**YEE, Hon** *Dr. F. Lam*  
Shear strength of Canadian softwood structural lumber.

### M.Sc.

**AINSWORTH, Mike** *Dr. D.H. Cohen*  
Marketing oriented strand board in Japan: An investigation of Japanese requirements.

**BUDGE, Sonya** *Dr. R. Guy*  
Temperature acclimation of root respiration in Douglas-fir and western red cedar seedlings.

**CALENDINO, Milena** *Dr. D.E.N. Tait*  
Non-thesis.

**COURCHENE, Terry** *Drs. D.J. Barrett/F. Lam*  
The effect of edge knots on the strength of western SPF MSR lumber.



- SMITH, Robert** *Dr. T. Maness*  
Log supply valuation and allocation to alternative cutting programs using log boom scaling data.
- SONG, Dongjin** *Dr. S.C. Ellis*  
A simulated study on some fundamental aspects of flakeboard manufacture.
- SUN, Li-Juan** *Dr. B. van der Kamp*  
Detection of genetic variation among *Endocronatium harknessii* populations in British Columbia using rDNA RFLPS and RAPD markers.
- VERNIER, Pierre** *Dr. F.L. Bunnell*  
Effects of clearcutting on landscape structure and bird species diversity and abundance in the Rocky Mountains.
- YAWALATA, Dominggus** *Dr. L. Paszner*  
High-yield catalysed organosolv pulping of non-wood fiber sources.
- ZHENG, Yu** *Dr. J.N.R. Ruddick*  
The biodegradation of quarternary ammonium compounds by mould fungi.
- HUDSON, Robert** *Dr. D.L. Golding*  
The response of water chemistry to hydrological conditions and flow paths under different forest cover types in small subalpine catchments.
- KOZAK, Robert** *Dr. D.H. Cohen*  
An analysis of the North American specifiers of structural materials in nonresidential construction.
- LI, Kai** *Dr. J.N. Saddler*  
Development of an enzyme linked immunosorbent assay for dehydroabietic acid in pulp mill effluents.
- MARKHAM, John** *Dr. C.P. Chanway*  
A field test of the degree of coevolution between red alder and *Frankia* populations.
- NEWTON, Peter** *Dr. G.F. Weetman*  
Intraspecific competition processes and their management with black spruce (*Picea mariana* (Mill) B.S.P.) stands.
- RUTLEDGE, Ron** *Dr. P.J. Dooling*  
Subject variability in estimates of impact saliency and impact acceptability for wilderness conditions.

## DEGREES GRANTED

Graduate  
Students

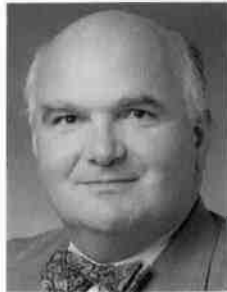
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### Ph.D.

---

- ANDISON, David** *Dr. P.L. Marshall*  
Managing for landscape patterns in the sub-boreal forests of British Columbia.
- CHANG, Scott** *Dr. G.F. Weetman*  
Fertilizer N efficiency and incorporation and soil N dynamics in forest ecosystems of northern Vancouver Island.
- DEFRETES, Yance** *Dr. A.D. Chambers*  
Assessing the necessary width of buffer zones: An ecological study in Ruteng Strict Nature Reserve, Flores, Indonesia.
- GAO, Yong** *Dr. C. Breuil*  
Biodegradation of lipids by wood sapstaining *Ophiostoma* spp.
- GLAUBITZ, Jeffrey** *Dr. J. Carlson*  
Applications of molecular markers to forest genetics: Genetic diversity, genetic linkage mapping, and gene expression.

OFFICE OF  
THE DEAN



**BINKLEY, Clark S.**

A.B., M.S. (Harvard), Ph.D. (Yale), R.P.F. (Hon.)

**Dean**

Phone: (604) 822-2467

E-mail: [binkley@unixg.ubc.ca](mailto:binkley@unixg.ubc.ca)

FACULTY  
AND  
STAFF



**KOZAK, Antal (Tony)**

B.S.F. (Sopron), M.F., Ph.D. (Brit. Col.), D.Sc. *Honoris causa* (Sopron)

**Associate Dean, Undergraduate Programs & Academic Affairs**

Responsible for administering academic programs including curriculum and calendar changes, admissions, transfers and advancements and for disciplining undergraduate students.

Phone: (604) 822-3545

E-mail: [kozak@unixg.ubc.ca](mailto:kozak@unixg.ubc.ca)

Phone: (604) 822-2727  
Fax: (604) 822-8645  
E-mail: [forrecep@unixg.ubc.ca](mailto:forrecep@unixg.ubc.ca)



**McLEAN, John A.**

B.Sc., M.Sc. (Auckland), Ph.D. (Simon Fraser), F.R.E.S., R.P.Bio.

**Associate Dean, Graduate Studies & Research**

Responsible for administering all aspects of Forestry graduate and post-baccalaureate programs and for promoting externally-sponsored research activities.

Phone: (604) 822-3360

E-mail: [mclean@unixg.ubc.ca](mailto:mclean@unixg.ubc.ca)



**WATTS, Susan B.**

B.Sc. (N. Wales), M.F., Ph.D. (Brit. Col.), R.P.F.

**Assistant Dean, External Relations**

Responsible for directing external relations activities, for promoting research, for coordinating project proposal development and for producing Faculty Newsletters and Annual Reports.

Phone: (604) 822-6316

E-mail: [suwatts@unixg.ubc.ca](mailto:suwatts@unixg.ubc.ca)

**DRISCOLL, Helen**  
B.Sc. (Brit. Col.)  
Phone: (604) 822-3547  
E-mail: hdriscol@unixg.ubc.ca

**Coordinator  
Student Services**

**PREST, Gordon**  
Phone: (604) 822-0651  
E-mail: gprest@unixg.ubc.ca

**Coordinator  
First Nations Forestry and  
Natural Resources Conservation Programs**

**HOWARD, Andrew**  
B.Sc. (Mass.), M.F.Sc., M.Sc., M.Phil., Ph.D. (Yale)  
Phone: (604) 822-3794  
E-mail: ahoward@unixg.ubc.ca

**Director  
International Forestry Programs**

**SCHINNERL, Sandra**  
B.Comm. (Brit. Col.)  
Phone: (604) 822-9627  
E-mail: sandra@unixg.ubc.ca

**Associate Director  
International Forestry Programs**

**SCOTT, Tara**  
B.B.A. (New Brunswick)  
Phone: (604) 822-8716  
E-mail: tarscott@unixg.ubc.ca

**Development Officer**

**FACULTY  
AND  
STAFF**

---

**ALIVOJVODIC, Barbara**  
**Administrator**  
Phone: (604) 822-5542  
E-mail: alivoj@unixg.ubc.ca

**LIEW, Lily**  
B.A. (Brit. Col.)  
**Graduate Programs Secretary**  
Phone: (604) 822-6177  
E-mail: gradfor@unixg.ubc.ca

**ATKINSON, Wendy**  
B.A. (Hons.) (Vic.)  
**Secretary**  
Phone: (604) 822-2176  
E-mail: atkinso@unixg.ubc.ca

**QUAY, Patsy**  
**Editorial Assistant**  
Phone: (604) 822-4072  
E-mail: quay@unixg.ubc.ca

**HARTSON, Donna**  
**Secretary to the Dean**  
Phone: (604) 822-3542  
E-mail: hartson@unixg.ubc.ca

**SCHOBEL, Karen**  
**Undergraduate Programs Secretary**  
Phone: (604) 822-2727  
E-mail: forrecep@unixg.ubc.ca

**LAI, Charles**  
**Clerk**  
Phone: (604) 822-4312

**TURNER, Ron**  
B.A. (Brit. Col.)  
**Systems Manager**  
Phone: (604) 822-6793  
E-mail: turner@unixg.ubc.ca

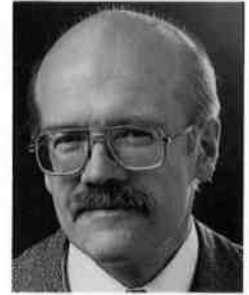
**FOREST  
RESOURCES  
MANAGEMENT  
DEPARTMENT**



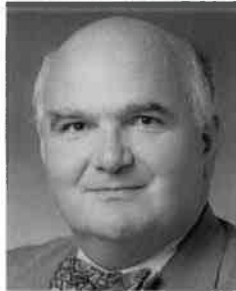
**Gordon Baskerville**  
*Head*



**Younes Alila**



**Timothy Ballard**



**Clark Binkley**



**Jonathan Fannin**



**David Haley**



**Andrew Howard**



**Antal Kozak**



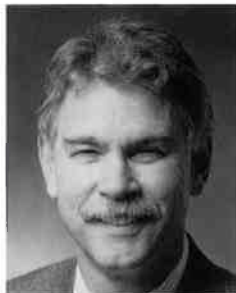
**Valerie LeMay**



**Donald Luymes**



**Peter Marshall**



**Joseph McNeel**



**Peter Murtha**



**John Nelson**



**S.E. (Tim)  
Salcudean**



**David Tait**



**David Tindall**



**G.C. (Casey)  
van Kooten**



**Paul Wood**

**BASKERVILLE, Gordon**

Professor and Head

• *Integrated Resources Management*

B.Sc.F. (1955), New Brunswick, M.F. (1957),

Ph.D. (1964) Yale

Phone: (604) 822-3362

E-mail: basker@unixg.ubc.ca

**ALILA, Younes**

Assistant Professor

• *Forest Engineering Hydrology*

B.A.Sc. (1985), M.A.Sc. (1987),

Ph.D. (1994) Ottawa, P. Eng.

Phone: (604) 822-6058

E-mail: alila@unixg.ubc.ca

**BALLARD, Timothy M.**Professor (Forest Resources Management,  
Soil Science)• *Forest Soils*

B.S.F. (1961), M.F. (1963), Ph.D. (1968) Washington

Phone: (604) 822-2300

E-mail: tballard@unixg.ubc.ca

**BINKLEY, Clark S.**

Professor and Dean

• *Forest Economics*

A.B. (1971), M.S. (1976) Harvard,

Ph.D. (1979) Yale, R.P.F. (Hon.)

Phone: (604) 822-2467

E-mail: binkley@unixg.ubc.ca

**FANNIN, R. Jonathan**Associate Professor (Forest Resources  
Management, Civil Engineering)• *Forest Engineering, Roads, Soils, Terrain  
Stability Assessment*

B.Sc.(Hons.) (1983) Belfast,

Ph.D. (1987) Oxford, P. Eng.

Phone: (604) 822-3133

E-mail: jonathan.fannin@ubc.ca

**HALEY, David**

Professor

• *Forest Economics, Forest Policy Analysis*

B.Sc. (1962) Aberdeen, M.F. (1964),

Ph.D. (1966) Brit. Col., R.P.F.

Phone: (604) 822-5634

E-mail: dhaley@unixg.ubc.ca

**HOWARD, Andrew F.**Associate Professor and Director of International  
Forestry Programs• *Forest Engineering Economics, Forest  
Planning*

B.Sc. (1976) Massachusetts, M.F.Sc. (1979),

M.Sc. (1981), M.Phil. (1981), Ph.D. (1985) Yale

Phone: (604) 822-3794

E-mail: ahoward@unixg.ubc.ca

**KOZAK, Antal**

Professor and Associate Dean

• *Biometrics, New Methodology for Forest  
Inventory*

B.S.F. (1956) Sopron, M.F. (1961), Ph.D. (1963)

Brit. Col., D.Sc. *Honoris causa* (1989) Sopron

Phone: (604) 822-3545

E-mail: kozak@unixg.ubc.ca

**LeMAY, Valerie M.**

Associate Professor

• *Biometrics/Mensuration*

B.Sc. (1981), M.Sc. (1982) Alberta,

Ph.D. (1989) Brit. Col., R.P.F.

Phone: (604) 822-4770

E-mail: lemay@unixg.ubc.ca

**LUYMES, Donald**

Assistant Professor

• *Landscape Design, Visual Resource  
Management*

B.L.A. (1986) Brit. Col., M.L.A. (1991) Guelph

Phone: (604) 822-3459

E-mail: luymes@unixg.ubc.ca

**MARSHALL, Peter L.**

Associate Professor

• *Growth and Yield, Forest Management*

B.Sc.F. (1976), M.Sc.F. (1979) Tor.,

Ph.D. (1984) Brit. Col., R.P.F.

Phone: (604) 822-4918

E-mail: marshall@unixg.ubc.ca

**McNEEL, Joseph**

Associate Professor

• *Forest Harvesting Systems*

B.Sc.F. (1979) W. Virginia, M.Sc. (1980),

Ph.D. (1984) Virginia Tech.

Phone: (604) 822-4264

E-mail: mcneel@unixg.ubc.ca

**MURTHA, Peter A.**Professor (Forest Resources Management,  
Soil Science)• *Remote Sensing, Image Analysis, Satellite  
Data Interpretation, Land Classification and  
Terrain Analysis*

B.Sc.F. (1961) Tor., M.Sc. (1964),

Ph.D. (1968) Cornell, M.C.A.S.I.

Phone: (604) 822-6452

E-mail: murtha@unixg.ubc.ca

**NELSON, John D.**

Associate Professor

• *Timber Supply Planning*

B.S.F. (1980), M.B.A. (1982) Brit. Col.,

Ph.D. (1988) Oregon State, R.P.F.

Phone: (604) 822-3902

E-mail: nelson@unixg.ubc.ca

**FOREST  
RESOURCES  
MANAGEMENT  
DEPARTMENT****FACULTY  
AND  
STAFF**

Dept. Phone: (604) 822-3482

Dept. Fax: (604) 822-9106

FACULTY  
AND  
STAFF

Forest Resources  
Management  
Department

**SALCUDEAN, S.E. (Tim)**

Associate Professor (Forest Resources  
Management, Electrical Engineering)  
• *Robotics/Control*  
B.Eng. (1979), M.Eng. (1981) McGill,  
Ph.D. (1986) Berkeley, P. Eng.  
Phone: (604) 822-3243  
E-mail: tims@ee.ubc.ca

**TAIT, David E.N.**

Assistant Professor  
• *Optimization Techniques, Forest Planning*  
B.Sc. (1968), M.Sc. (1970), Ph.D. (1983) Brit. Col.  
Phone: (604) 822-2997  
E-mail: dtait@unixg.ubc.ca

**TINDALL, David B.**

Assistant Professor (Forest Resources  
Management, Sociology)  
• *Sociology/Conservation*  
B.A. (1985), M.A. (1989) Vic, Ph.D. (1994) Tor.  
Phone: (604) 822-2550/2363  
E-mail: tindall@unixg.ubc.ca

**VAN KOOTEN, G. Cornelis**

Professor (Forest Resources Management,  
Agricultural Economics)  
• *Economics of Natural Resources*  
B.Sc. (1972), M.A. (1974) Alberta,  
Ph.D. (1982) Oregon State  
Phone: (604) 822-4518  
E-mail: gerrit@unixg.ubc.ca

**WOOD, Paul**

Assistant Professor  
• *Conservation Policy, Environmental Ethics*  
B.Sc. (1973), Ph.D. (1994) Brit. Col., R.P.F.,  
R.P.Bio.  
Phone: (604) 822-0951  
E-mail: paulwood@unixg.ubc.ca

■ **Sessional Lecturers**

**BOWDEN, Robert**

B.Sc., M.Sc. (Tor.). D. Phil. (Oxford), P. Eng.  
• *Slope Drainage and Stability, Surveying*

**GASTON, Chris**

B.Sc. (Brit. Col.), M.Sc. (Guelph)  
• *Forest Economics*

**HAILEMARIAM, Temesgen**

B.Sc. (Alemaya), M.Sc.F. (Lakehead)  
• *Forest Mensuration*

**HARTLEY, Isobel**

B.Sc., M.Sc. (Brit. Col.)  
• *Forest Ecology*

**MATAKALA, Patrick**

B.Sc., M.Sc. (Lakehead), Ph.D. (Brit. Col.)  
• *Community Resource Management and  
Conservation Planning*

■ **Honorary Lecturers**

**SANDERS, Peter R.W.**

B.S.F., M.F. (Brit. Col.), R.P.F.  
• *Silviculture*

**SAUDER, Brent J.**

B.S.F., M.F. (Brit. Col.), R.P.F.  
• *Forest Operations*

■ **Post-doctoral Fellow**

**LAVALLEE, Loraine**

B.A., M.A., Ph.D. (Brit. Col.)  
• *Social Psychology*

■ **Adjunct Professors**

**COTTELL, Philip L.**

B.S.F., M.F. (Brit. Col.), Ph.D. (Yale), R.P.F.

**DEMAERSCHALK, Julien P.**

B.S.F. (Louvain), M.F., Ph.D. (Brit. Col.)

**HALL, Thomas H.**

B.A., M.Sc. (Indiana), M.Sc.F. (N. Brunswick),  
Ph.D. (Brit. Col.), R.P.F.

**ILES, Kimberley**

B.S., M.Sc. (Oregon), Ph.D. (Brit. Col.)

**MITCHELL, Kenneth J.**

B.S.F. (Brit. Col.), M.F., Ph.D. (Yale), R.P.F.

**WILLIAMS, Douglas H.**

B.Sc. (Simon Fraser), M.Sc., Ph.D. (Brit. Col.)

**WOZNOW, Ron**

B.Sc. (Alberta), Ph.D. (UNB)

■ **Staff**

**AKAI, Heather**

Administrative Assistant

**AQUINO, David**

B.Sc.F. (National Agrarian), M.F. (Brit. Col.)  
Research Assistant/Technician

**COUCH, Mary Lou**

Secretary

**GIZOWSKI, David**

B.Sc. (Alberta)  
Computer Research Analyst

**LAI, Charles**

Departmental Clerk

**MAEDEL, Jerry**

B.F.A., T.C. (Vic.), M.Sc. (Brit. Col.)  
GIS/RS Coordinator

**SHANNON, Tim**

B.S.F., M.F. (Brit. Col.)  
Research Analyst

**VERWOERD, Harry**

Research Assistant/Technician

## ■ New Faculty Appointments

### LUYMES, Don

In July 1996, Don Luymes joined the Department as an Assistant Professor, jointly with the Department of Landscape Architecture. Don has an active research program in the application of landscape design at the local level. This centres on enhancing the structure and function of parks and other open spaces through the application of analysis and design techniques. He will be teaching design skills to students in both the Forest Resources Management and Conservation programs.

### McNEEL, Joseph

Dr. Joe McNeel has been hired as an Associate Professor in forest operations. Joe was previously a member of the Faculty in 1989-92, and had departed to pursue a position at the USDA Pacific Northwest Research Station. His appointment is supported in part by the Forest Engineering Research Institute of Canada, and he has an active research program at that agency. His research interests relate to harvesting operations, particularly the design of harvest systems. He will teach in the Forest Operations program, as well as providing the harvesting element of the B.S.F. program.

### WOOD, Paul

Dr. Paul Wood has joined the Forest Resources Management Department as an Assistant Professor in conservation policy. Following a 15-year career as both a biologist and professional forester, Paul obtained his Ph.D. from UBC in 1994. He was subsequently appointed as Assistant Professor at the University of Toronto, but has returned to UBC to continue his research on institutional mechanisms for conserving biodiversity in democratic societies.

## ■ Retirements

### CHAMBERS, Alan D.

Professor Chambers retired after 25 years in the Faculty. Al's interests were in expanding professional understanding of the social aspects of forests and forestry. He served as Director of the Conservation Program in its first years.

### GOLDING, Douglas L.

Professor Golding retired after 21 years in the Faculty. Doug's teaching and research were in the area of hydrology. His academic career followed 23 years as a hydrologist with provincial and federal agencies.

### PEARSE, H. Peter

Professor Pearse retired after 35 years in the Faculty. His career in forest economics and policy has been exceptional in that it embraced some fundamental changes in British Columbia forest, fisheries, and First Nations policy. Peter has been a key player in the arena of change.

## ACHIEVEMENTS IN 1996-97

- We developed a proposal (jointly with the Department of Civil Engineering) to seek FRBC funding for a Chair in Forest Operations.
- Dr. George Hoberg accepted a term joint appointment, effective July 1997, between Political Science (where he has been teaching for ten years) and Forest Resources Management. He will teach in the area of resource and environmental policy.
- The Task Force reviewing the B.S.F. program presented a final report indicating a need for program restructuring including a longer and fuller program.

## PLANS FOR 1997-98

- We will lead a Faculty review of the Task Force proposal for our new B.S.F. program and will seek university approval for the necessary restructuring.
- The search to fill an FRBC endowed Chair position in forest management will be completed. This Chair is expected to play a key role in development of the undergraduate management program, as well as exercise a strong influence on the evolution of forest management in the province.
- With our two new FRBC endowed Chair positions in hydrology filled, combined with existing staff, we will strive to bring a strong coherent voice to that crucial area of forest resources management.
- We will expand our teaching in the application of GIS in forestry and complete a search for a new position jointly with Landscape Architecture.
- We will emphasize expansion of the Forest Operations program as an area of high importance in contemporary forestry.

## ACHIEVEMENTS AND PLANS

Forest Resources  
Management  
Department

**WOOD SCIENCE  
DEPARTMENT**



**David Barrett**  
*Head*



**Stavros Avramidis**



**Colette Breuil**



**David Cohen**



**Simon Ellis**



**Frank Lam**



**Thomas Maness**



**Laszlo Paszner**



**Helmut Prion**



**John Ruddick**



**Jack Saddler**



**BARRETT, J. David**

Professor and Head

• *Wood Products Engineering*

B.A.Sc. (1965) Brit. Col., Ph.D. (1973) Berkeley,

F.I.A.W.S., P. Eng.

Phone: (604) 822-5852

E-mail: dbarrett@unixg.ubc.ca

**AVRAMIDIS, Stavros**

Associate Professor

• *Wood Physics and Drying*

B.S.F. (1981) Thessaloniki, M.S. (1983),

Ph.D. (1986) SUNY, Syracuse

Phone: (604) 822-6153

E-mail: stavros@unixg.ubc.ca

**BREUIL, Colette**

NSERC/Industrial Associate Professor

• *Forest Products Biotechnology*

B.Sc. (1971) Lyon, M.Sc. (1974) Ottawa,

Ph.D. (1977) Lyon

Phone: (604) 222-3200 loc. 421

E-mail: breuil@unixg.ubc.ca

**COHEN, David H.**

Associate Professor

• *Forest Products Marketing and Management*Dipl. For. Tech. (1976) Selkirk, B.Sc. (1986) Idaho,  
Ph.D. (1989) Virginia Tech.

Phone: (604) 822-6716

E-mail: dcohen@unixg.ubc.ca

**ELLIS, Simon C.**

Associate Professor

• *Wood Anatomy and Adhesives*

B.Sc. (Hons.) (1983) N. Wales, M.Sc. (1986),

Ph.D. (1989) Brit. Col.

Phone: (604) 822-3551

E-mail: sellis@unixg.ubc.ca

**LAM, Frank**

Assistant Professor

• *Wood Mechanics*

B.A.Sc. (1982), M.A.Sc. (1985),

Ph.D. (1992) Brit. Col., F.I.W.Sc., P. Eng.

Phone: (604) 822-6526

E-mail: franklam@unixg.ubc.ca

**MANESS, Thomas**Associate Professor and Director, Centre for  
Advanced Wood Processing• *Wood Products Processing*

B.S.F. (1979) West Virginia, M.Sc. (1981) Virginia

Tech., Ph.D. (1989) Washington

Phone: (604) 822-2150

E-mail: maness@unixg.ubc.ca

**PASZNER, Laszlo**

Professor

• *Chemical Utilization of Wood, Reconstituted  
Wood Products*

B.S.F. (1958) Sopron, M.F. (1963),

Ph.D. (1966) Brit. Col.

Phone: (604) 822-2139

E-mail: paszner@unixg.ubc.ca

**PRION, Helmut G.L.**Assistant Professor (Wood Science,  
Civil Engineering)• *Engineered Timber Structures Design*

B.Eng. (Hons.) (1974) Stellenbosch,

Ph.D. (1987) Tor., P. Eng.

Phone: (604) 822-3864

E-mail: prion@civil.ubc.ca

**RUDDICK, John N.R.**

NSERC/Industrial Professor

• *Wood Preservation*

B.Sc. (1965), M.Sc. (1966) Newcastle,

Ph.D. (1970) London

Phone: (604) 822-3736

E-mail: ruddick@unixg.ubc.ca

**SADDLER, Jack N.**

NSERC/Industrial Professor

• *Forest Products Biotechnology*

B.Sc. (Hons.) (1975) Edinburgh,

Ph.D. (1978) Glasgow

Phone: (604) 222-3220

E-mail: saddler@unixg.ubc.ca

**WOOD SCIENCE  
DEPARTMENT****FACULTY  
AND  
STAFF**

Dept. Phone: (604) 822-5303

Dept. Fax: (604) 822-9104

E-mail: woodubc@unixg.ubc.ca

www.wood.ubc.ca

FACULTY  
AND  
STAFF

Wood Science  
Department

■ Visiting Professors

**ENAYATI, Ali**

B.Sc., M.Sc., Ph.D. (Gorgan Agr. Sci. U., Iran)

- *Wood Physics*

**FONSECA, Maria Jose Vieira**

B.Pharm. (Sao Paulo), M.Pharm., Ph.D. (Ribeirirao Preto-USP)

- *Forest Products Biotechnology*

**PENG, Jun-Peng**

B.Sc., M.Sc., Ph.D. (Shenyang Coll. of Pharm., PRC)

- *Lateral Product Chemistry*

**SUGIMORI, Masatoshi**

Ph.D. (Kyoto)

- *Wood Mechanics*

**SUZUKI, Shigehiko**

M.Sc. (Nagoya), Ph.D. (Tokyo)

- *Physical Properties of Wood Composites*

■ Post-doctoral Fellows

**BIERNACKI, Jack**

B.S. (Warsaw), M.S., Ph.D. (Berkeley)

- *Nondestructive Evaluation of Wood Products*

**BOUSSAID, Abdel**

Ph.D. (Oregon)

- *Forest Products Biotechnology*

**CAI, Liping**

M.Sc. (NW For. Univ., China),

Ph.D. (Michigan Tech.)

- *Wood Drying and Physics*

**CAI, Yijin**

B.Sc. (Nanjing, China), Ph.D. (Hong Kong)

- *Forest Products Biotechnology*

**DE JONG, Edserd**

M.Sc., Ph.D. (Wageningen)

- *Forest Products Biotechnology*

**GUBITZ, Georg**

M.Sc., Ph.D. (Graz Univ., Austria)

- *Forest Products Biotechnology*

**JOHANSSON, Carl**

B.Sc., Ph.D. (Simon Fraser)

- *Forest Products Biotechnology*

**OU DJEHANE, Azzeddine**

B.Eng. (Ecole Nat. Polytech. d'Algeria),

M.Sc. (INPG, France) Ph.D. (Univ. Blaise

Clermont Ferrand, France)

- *Wood Composites*

**SERREQUI, Alessio**

B.Sc. (Brit. Col.), Ph.D. (McGill)

- *Forest Products Biotechnology*

**ZHANG, Lin**

B.Sc.E. (Tianjin U.), Ph.D. (Cambridge)

- *Wood Physics*

■ Adjunct Professors

**BEATSON, Roger**

B.Sc. (Exeter), Ph.D. (W. Ont.)

**CHOW, Suezone**

B.Sc. (Taiwan), M.Sc., Ph.D. (Brit. Col.), O.B.C.

**DINUS, Ronald**

B.S. (Penn.), M.Sc. (Wash.),

Ph.D. (Oregon State)

**ENEGREN, Terry**

B.A.Sc., Ph.D. (Brit. Col.)

**KIRBACH, Eberhard D.**

Dipl.-Holzwirt (Hamburg), Ph.D. (Brit. Col.)

■ Staff

**BERNALDEZ, James**

B.A.Sc. (Brit. Col.)

Research Engineer

**CAMPBELL, Kathy**

B.R.E. (Brit. Col.)

Editorial Assistant

**COURCHUNE, Terry**

M.Sc. (Brit. Col.)

Research Assistant

**FENG, Xiumei**

M.Sc. (Beijing), M.Sc. (Manitoba)

Research Assistant/Technician

(Forest Products Biotechnology)

**FURST, Dayna**

Departmental Clerk

**HASTINGS, Diana**

B.Sc. (Brit. Col.)

Research Assistant/Technician

**MUCCI, Blanche**

Business Administration Cert. (Ryerson)

Administrative Assistant

**MYRONUK, Robert**

Dipl. Tech. (BCIT)

Research Support Services Supervisor

**SIDHU, Avtar**

B.Sc. (Brit. Col.)

Research Scientist

**SYMONS, Bonnie**

Dipl. Applied Arts (Alberta)

Secretary (Forest Products Biotechnology)

**THOMSON, Sandy**

B.Sc. (Brit. Col.)

Student Affairs and Public Relations

**VOGLER, Hiltrud**

Dipl. Translator English (Univ. of Graz Austria),

Dipl. Translator Dutch

Departmental Secretary

**WANG, Yin Tang**

B.Eng., M.Eng. (Hohai Univ., China)

Wood Engineering Scientist

**ZHAO, Jay**

B.A.Sc. (Tsinghua Univ., Beijing),

M.A.Sc., Ph.D. (Brit. Col.),

Computer Specialist

■ Promotion/Tenure

**PRION, Helmut G.L.** – granted tenure effective

July 1, 1996.

## ■ New Faculty Appointment



**Robert A. Kozak**  
B.Sc. (1988),  
Ph.D. (1996) Brit. Col.

Effective April 1, 1997, Dr. Robert Kozak has been hired as Assistant Professor, Department of Wood Science and Faculty Associate at the Centre for Advanced Wood Processing (CAWP). Robert obtained his doctorate in Forest Products Utilization from the University of British Columbia in 1996. His research interests focus on the use of and markets for value-added, engineered and commodity wood products, as well as consumer preferences in the secondary wood products sector, the environmental impacts of wood use, and issues pertaining to timber design and construction. At CAWP, Robert will be responsible for leading the Marketing Research Team of the Wood Products Quality Standards Council of British Columbia. His teaching assignments will involve courses in *Introductory Business Statistics* as well as *Consumer Research Methods*.

Robert Kozak can be reached at (604) 822-2402, fax (604) 822-9159 or e-mail rkozak@unixg.ubc.ca

### ACHIEVEMENTS IN 1996-97

- New Bachelor of Science degree in Wood Products Processing established.
- Through the efforts of the Centre for Advanced Wood Processing, co-op students found co-op placements in wood processing firms across Canada.
- International collaborations with the Fachhochschule Rosenheim and the Swiss Institute of Wood Engineering are providing state of the art knowledge needed to create a world class Wood Products Processing education program.
- A national industry-led student recruiting strategy has been implemented. Regional teams have been established in B.C., the Prairies, Ontario and the Maritimes with the goal to recruit 60 new Wood Products Processing students annually.
- University transfer programs have been established with colleges and universities

within B.C. to expand opportunities for direct entry to Year 2 of the Wood Products Processing program.

- Surveys were completed which established a need for new professional master's programs in Wood and Fibre Science as well as Wood Building Design and Construction. Proposals for funding these two initiatives have been submitted to external funding agencies.

### PLANS FOR 1997-98

- Implement Year 4 of the Wood Products Processing program.
- Appoint a student services coordinator to lead the national recruiting program for the Wood Products Processing program.
- Introduce block teaching formats for selected Year 4 courses to expand opportunities for using international experts in the teaching of the Wood Products Processing program.
- Expand access to the Wood Products Processing program by collaborating with colleges and universities across Canada to deliver Years 1 and 2 of the Program via distance/distributed education technologies.
- Hire three new faculty members to teach senior level courses of the Wood Products Processing program.
- Develop a proposal for implementing an education program in Wood Building Design and Construction as part of a national network linking industry, industry research institutes and universities across Canada.
- Participate in the design and implementation of a new national network of Wood Building Design and Construction in collaboration with Applied Science, Architecture and other Canadian universities and industry organizations.
- Develop a strategy for implementing a professional Master's program in Wood and Fibre Science and Technology by September, 1998.
- Develop a position paper and strategy for delivery of distance graduate level wood science and technology education in partnership with key world leaders in wood products.
- Collaborate with Forintek Canada Corp. and the wood products industry to establish a Chair in Wood Composites Materials.

## ACHIEVEMENTS AND PLANS

Wood Science  
Department

**FOREST  
SCIENCES  
DEPARTMENT**



**Gene Namkoong**  
*Head*



**Sally Aitken**



**Fred Bunnell**



**John Carlson**



**Chris Chanway**



**Yousry El-Kassaby**



**Michael Feller**



**Susan Glenn**



**Robert Guy**



**Scott Hinch**



**J.P. (Hamish)  
Kimmins**



**Karel Klinka**



**Kathy Martin**



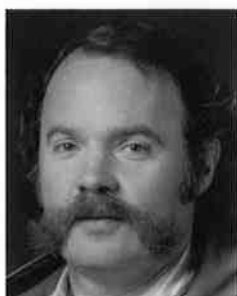
**John McLean**



**John Richardson**



**Kermit Ritland**



**Tom Sullivan**



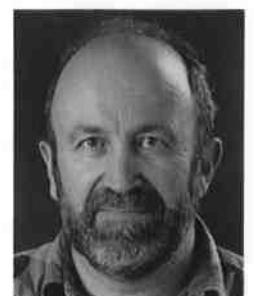
**Bart van der Kamp**



**Susan Watts**



**Gordon Weetman**



**John Worrall**

**NAMKOONG, Gene**

Professor and Head

• *Population and Quantitative Genetics*

B.S. (1956), M.S. (1958) SUNY,  
Ph.D. (1963) N. Carolina State Univ.,  
Dhe (Swedish Agric. Univ.)  
Phone: (604) 822-8275  
E-mail: gene@unixg.ubc.ca

**AITKEN, Sally N.**

NSERC/Industrial Assistant Professor

• *Genecology and Physiological Genetics*

B.S.F. (Hons.) (1984) Brit. Col.,  
M.Sc. (1986), Ph.D. (1989) Berkeley  
Phone: (604) 822-6020  
E-mail: aitken@unixg.ubc.ca

**BUNNELL, Fred L.**

Professor and Director of Centre for Applied Conservation Biology

• *Wildlife Population Dynamics, Influences of Forestry Practices on Wildlife*

B.S.F. (Hons.) (1965) Brit. Col., Ph.D. (1973)  
Berkeley, R.P.Bio.  
Phone: (604) 822-5928  
E-mail: fbunnell@unixg.ubc.ca

**CARLSON, John**

Associate Professor (Forest Sciences, Plant Science, Biotechnology Laboratory)

• *Molecular Genetics*

B.Sc. (1974) Pittsburgh, M.Sc. (1978),  
Ph.D. (1983) Illinois  
Phone: (604) 822-4733  
E-mail: jcarlson@unixg.ubc.ca

**CHANWAY, Christopher P.**

Associate Professor (Forest Sciences, Soil Science)

• *Soil Microbiology*

B.Sc. (1978) Winnipeg, B.S. Ag. (1980) Manitoba,  
M.Sc. (1983), Ph.D. (1987) Brit. Col.  
Phone: (604) 822-3716  
E-mail: cchanway@unixg.ubc.ca

**EL-KASSABY, Yousry**

Professor (Pacific Forest Products Ltd.)

• *Quantitative Genetics*

B.Sc. (1970) Alexandria, M.Sc. (1976) Tanta,  
Ph.D. (1980) Brit. Col., R.P.F.  
Phone: (604) 822-1821  
E-mail: yelkassaby@pacificforest.com

**FELLER, Michael C.**

Associate Professor

• *Fire Science and Water Quality*

B.Sc. (Hons.) (1968), M.Sc. (1969) Melbourne,  
Ph.D. (1975) Brit. Col., R.P.Bio.  
Phone: (604) 822-3729  
E-mail: feller@unixg.ubc.ca

**GLENN, Susan M.**

Assistant Professor

• *Conservation Biology and Landscape Ecology*

B.Sc. (1983) Tor., M.Sc. (1985) Guelph,  
Ph.D. (1990) Oklahoma  
Phone: (604) 822-4131  
E-mail: sglenn@unixg.ubc.ca

**GUY, Robert D.**

Associate Professor

• *Plant Physiology*

B.Sc. (1977), Ph.D. (1984) Calg.  
Phone: (604) 822-6023  
E-mail: guy@unixg.ubc.ca

**HINCH, Scott G.**

Assistant Professor (Forest Sciences, Institute for Resources and Environment)

• *Aquatic Ecology and Fish/Forestry Interactions*

B.Sc. (Hons.) (1985), M.Sc. (1987) W. Ont.,  
Ph.D. (1992) Tor.  
Phone: (604) 822-0500/9377  
E-mail: shinch@unixg.ubc.ca

**KIMMINS, J.P. (Hamish)**

Professor

• *Forest Ecology, Sustainability of Managed Forests, Modelling Forest Ecosystems*

B.Sc. (1964) N. Wales, M.Sc. (1966) Berkeley,  
M. Phil. (1968), Ph.D. (1970) Yale, R.P.F. (Hon.)  
Phone: (604) 822-3549  
E-mail: kimmins@unixg.ubc.ca

**KLINKA, Karel**

Professor and V.J. Krajina/B.C. Forest Service Chair in Silvics and Silviculture

• *Forest Ecology, Silvics*

For. Eng. (1960) Prague, Ph.D. (1976) Brit. Col.,  
R.P.F.  
Phone: (604) 822-3047  
E-mail: klinka@unixg.ubc.ca

**MARTIN, Kathy M.**

Associate Professor (Canadian Wildlife Service)

• *Forest and Grassland Birds, Avian Energetics and Demography*

B.Sc. (Hons.) (1970) Prince Edward Is.,  
M.Sc. (1973) Alberta, Ph.D. (1985) Queen's  
Phone: (604) 822-9695  
E-mail: kmartin@unixg.ubc.ca

**McLEAN, John A.**

Professor and Associate Dean

• *Forest Entomology*

B.Sc. (1965), M.Sc. (1968) Auckland,  
Ph.D. (1976) Simon Fraser, F.R.E.S., R.P.Bio.  
Phone: (604) 822-3360  
E-mail: mclean@unixg.ubc.ca

**FOREST  
SCIENCES  
DEPARTMENT**

**FACULTY  
AND  
STAFF**

Dept. Phone: (604) 822-2507

Dept. Fax: (604) 822-9102

FACULTY  
AND  
STAFF

Forest Sciences  
Department

**RICHARDSON, John S.**

Assistant Professor (Forest Sciences, B.C.  
Ministry of Environment, Lands & Parks)

- *Hydroriparian Systems*
- B.Sc. (1979) Tor., M.Sc. (1983) Alberta,  
Ph.D. (1989) Brit. Col.  
Phone: (604) 822-6586  
E-mail: jrichard@unixg.ubc.ca

**RITLAND, Kermit**

NSERC/Industrial Chair Professor

- *Population and Quantitative Genetics*

B.Sc. (1977) Wash., Ph.D. (1982) Calif.  
Phone: (604) 822-8101  
E-mail: ritland@unixg.ubc.ca

**SULLIVAN, Thomas P.**

Associate Professor

- *Forestry and Wildlife*

B.Sc. (Hons.) (1973), M.Sc. (1976),  
Ph.D. (1978) Brit. Col.  
Phone: (604) 822-3543  
E-mail: toms@unixg.ubc.ca

**VAN DER KAMP, Bart J.**

Professor

- *Forest Pathology*

B.S.F. (1964) Brit. Col., Ph.D. (1967) Aberdeen  
Phone: (604) 822-2728  
E-mail: bart.john.van.der.kamp@mtsg.ubc.ca

**WATTS, Susan B.**

Lecturer and Assistant Dean

- *Forest Entomology*

B.Sc. (1973) N. Wales, M.F. (1976), Ph.D. (1981)  
Brit. Col., R.P.F.  
Phone: (604) 822-6316  
E-mail: suwatts@unixg.ubc.ca

**WEETMAN, Gordon F.**

Professor

- *Silviculture*

B.Sc.F. (1955) Tor., M.F. (1958),  
Ph.D. (1962) Yale, R.P.F., F. Eng.  
Phone: (604) 822-2504  
E-mail: gweetman@unixg.ubc.ca

**WORRALL, John G.**

Associate Professor

- *Tree Physiology, Tree Growth Mechanisms and Climatic Influence*

B.Sc. (1959) Durham, B.S.F. (1963) Brit. Col.,  
M.F. (1964), M. Phil. (1967), Ph.D. (1968) Yale  
Phone: (604) 822-3516

■ **Sessional Lecturer**

**MITCHELL, Steve**  
B.S.F. (Brit. Col.), R.P.F.  
• *Silviculture*

■ **Research Associates**

**CHAN-McLEOD, Ann C. Allaye**  
B.Sc.F., M.Sc. (Brit. Col.), Ph.D. (Alaska)  
• *Physiological Ecology*

**CHEN, Han**  
M.Sc. (Nanjing For. Univ.), Ph.D. (Brit. Col.)  
• *Forest Ecology*

**DOBRY, Jaroslav**  
B.Sc., Ph.D. (Prague)  
• *Dendrochronology*

**KIFFNEY, Peter**  
B.S. (N. Carolina State), M.S. (Calif.),  
Ph.D. (Colorado)  
• *Community and Ecosystem Ecology*

**KOSHY, Mathew P.**  
B.Sc., M.Sc. (Kerala), M.Sc. (Wales),  
Ph.D. (Brit. Col.)  
• *Forest Genetics*

**PRESCOTT, Cindy**  
B.Sc. (Brock), M.Sc., Ph.D. (Calg.)  
• *Forest Nutrition*

**RITLAND, Carol**  
B.Sc., M.Sc. (Brit. Col.), Ph.D. (Tor.)  
• *Molecular Genetics*

**SILIM, Salim N.**  
B.Sc. (Makerere), M.Sc.F. (New Bruns.),  
Ph.D. (Brit. Col.)  
• *Tree Physiology*

**QIAN, Hong**  
B.S., M.S. (Anhui Ag.),  
Ph.D. (Chinese Acad. Sci., Shenyang, China)  
• *Plant Ecology*

**VON EULER, Frederik**  
B.Sc.F., Ph.D. (Swedish Ag.)  
• *Biodiversity Patterns*

**WIELGUS, Rob**  
B.Sc. (Brandon), M.Sc. (Idaho), Ph.D. (Brit. Col.)  
• *Habitat and Population Ecology*

■ **Honorary Research Associate**

**CARTER, Reid**  
B.Sc., M.Sc. (Brit. Col.), R.P.F.  
• *Forest Ecology and Management*

## ■ Post-doctoral Fellows

### **AWADEL-KARIM, Salah**

M.Sc. (Leningrad), M.Sc. (UMIST),  
Ph.D. (Brit. Col.)

- *Wood Pulp and Paper Chemistry and Technology*

### **BRADLEY, Robert**

B.Sc. (Guelph), B.Sc., Ph.D. (McG.)

- *Soil Plant Interactions*

### **FU, Yong-Bi**

B.Sc. (Nanjing), M.Sc. (Lakehead), Ph.D. (Tor.)

- *Population/Forest Genetics*

### **MARKHAM, John**

B.Sc. (Guelph), B.Ed. (Dalhousie), Ph.D. (Brit. Col.)

- *Plant Microbe Interactions*

### **MARR, Ken**

B.Sc. (Colorado), M.Sc. (Hawaii), Ph.D. (Brit. Col.)

- *Biosystematics*

### **MIN, Xiangjia**

B.Sc. (Shandong), M.Sc. (Beijing), Ph.D. (Hawaii)

- *Plant Physiology*

### **SEELEY, Brad**

B.S. (Redlands), Ph.D. (Boston)

- *Nutrient Dynamics and Forest Hydrology*

### **SUN, Duo**

M.Sc., Ph.D. (Nanjing)

- *Forest Ecology*

### **TRAVIS, Steve**

B.S. (Oregon), M.S., Ph.D. (N. Arizona)

- *Molecular Ecology*

### **VIARD, Frédérique**

DEA, Ph.D. (U. de Montpellier)

- *Molecular Population Genetics*

### **WANG, Tongli**

M.Sc., Ph.D. (Helsinki)

- *Forest Tree Breeding*

### **WIEBE, Karen L.**

B.Sc. (Simon Fraser), Ph.D. (Sask.)

- *Behaviour and Ecology of Birds*

### **YOUNG, Jessica**

B.S. (Calif., San Diego), Ph.D. (Purdue)

- *Population Biology and Behavioural Ecology*

## ■ Adjunct Professors

### **ALFARO, Rene I.**

B.Sc. (Chile), M.Sc., Ph.D. (Simon Fraser)

### **ANDISON, David**

B.Sc. (Tor.), B. Arch., Ph.D. (Brit. Col.)

### **AXELROOD, Paige E.**

B.Sc., M.Sc. (Oregon State), Ph.D. (Calif.)

### **BARKER, John E.**

B.Sc. (Brit. Col.), M.Sc., Ph.D. (Calif.)

### **BURTON, Philip J.**

B.Sc. (Sask.), M.Sc. (Hawaii), Ph.D. (Illinois)

### **COMEAU, Philip G.**

B.Sc.(Vic.), Ph.D. (Brit. Col)

### **DICKINSON, Thomas E.**

B.Sc. (Kingston), M.Sc. (Calg.), Ph.D. (Penn.)

### **GROSSNICKLE, Steven C.**

B.Sc. (Illinois), M.Sc., Ph.D. (Colorado State)

### **HENRY, Charles L.**

B.S., M.Sc. (Oregon State), Ph.D. (Wash.)

### **KLENNER, Walt**

B.Sc., M.Sc. (Manit.), Ph.D. (Brit. Col.), R.P. Bio.

### **KRANNITZ, Pamela G.**

B.Sc. (Guelph), M.Sc. (W. Ont.),

Ph.D. (Queen's)

### **KURZ, Werner**

Diplom Holzwirt (Hamburg), Ph.D. (Brit. Col.)

### **LEADEM, Carole L.**

B.Sc. (Calif.), Ph.D. (Brit. Col.), R.P. Bio.

### **LOUSIER, J. Daniel**

B.Sc. (Nelson), M.Sc., Ph.D. (Calg.), R.P. Bio.

### **MacDONALD, John S.**

B.Sc. (Simon Fraser), Ph.D. (W. Ont.)

### **McLELLAN, Bruce N.**

B.Sc., M.Sc., Ph.D. (Brit. Col.), R.P. Bio.

### **MORRISON, Duncan J.**

B.S.F., M.Sc. (Brit. Col.), Ph.D. (Cambridge)

### **OTVOS, Imre**

B.Sc.F. (Sopron), M.S., Ph.D. (Berkeley)

### **PRESTON, Caroline M.**

B.Sc. (McM.), M.A. (Carlton), Ph.D. (Brit. Col.)

### **ROCHELLE, James**

B.Sc., M.Sc. (Wash.), Ph.D. (Brit. Col.)

### **SAFRANYIK, Laszlo**

B.Sc., M.Sc., Ph.D. (Brit. Col.)

### **SPITTLEHOUSE, David L.**

B.Sc. (Nott.), M.Sc. (Sask.), Ph.D. (Brit. Col.)

### **SUTTON, Benjamin C.**

B.Sc. (Hon.) (Reading), Ph.D. (Brit. Col.)

### **WANG, Qingli**

B.Sc. (Shenyang Agric. Univ., PRC), M.Sc.  
(Northeast For. Univ., PRC), Ph.D. (Brit. Col.)

## FACULTY AND STAFF

## Forest Sciences Department

FACULTY  
AND  
STAFF

Forest Sciences  
Department

■ Staff

**BUDGE, Sonya**

B.Sc. (Hons.) (Acadia), M.Sc. (Brit. Col.)  
Research Assistant/Technician

**DUPUIS, Linda**

B.Sc. (Hons.) (Carlton), M.Sc. (Brit. Col.)  
Research Assistant/Technician

**CHAN, Ivy**

Dipl. Finance (Brit. Col.)  
Financial Clerk

**HAMMOND, Blair**

B.A., M.Sc. (Brit. Col.)  
Research Assistant/Technician

**HEBB, KATHLEEN**

B.Sc. (Brit. Col.)  
Research Assistant/Technician

**HORNER, Maxine**

Secretary

**GUYLAS, Gyula**

B.Sc. (Hungary), M.Sc. (Brit. Col.)  
Research Assistant/Technician

**JOHNSON, Jacklyn**

B.S.Ed. (Minn.)  
Administrative Assistant

**LEE, Eric**

Financial Clerk

**LEHMANN, Renate**

B.Sc. (Trent), M.Sc. (McGill)  
Research Assistant/Technician

**LINDBERG, Mark**

B.Sc. (Waterloo)  
Research Assistant/Technician

**MacMILLAN, Carol**

B.Sc. (Dalhousie)  
Research Assistant/Technician

**NAIRN, James**

B.Sc. (Guelph)  
Research Assistant/Technician

**PALMER, Sharon**

Secretary

**PEEL, Susan**

B.Sc. (Brit. Col.)  
Laboratory Assistant

**RATSON, Susan**

Secretary

**SETO, Carrie**

B.A. (Hong Kong)  
Administrative Assistant

**SREJIC, Zika**

B.Sc. (Belgrade)  
Research Assistant/Technician

**STALEY, Candis**

Research Assistant/Technician

**TSZE, Min**

Research Assistant/Technician

**WANG, Yuewei**

Dipl. (Nanjing Forestry, PRC)  
Laboratory Assistant

■ New Faculty Appointments

**RICHARDSON, John**

Dr. John Richardson joined the Forest Sciences Department in July 1996 as an Assistant Professor in hydrosiparian systems. John completed his Ph.D. in Zoology here at UBC in 1989, and has been working on the Westwater Research Centre's program on prospects for sustainability in the Lower Fraser Basin. His research addresses the linkages between stream and riparian ecosystems, and the effects of forest practices. His appointment in Forest Sciences is by MoU with BC Environment.



**Steve Mitchell**

B.S.F. (1987) Brit. Col.,  
R.P.F.

Mr. Steve Mitchell will join the Forest Sciences Department in April 1997 as an Instructor in silviculture. On completion of his Doctorate, this rank will be changed to Assistant Professor.

Steve graduated from the University of British Columbia in 1987 with a B.S.F. degree in Forest Resources Management. After working for West Fraser Mills in stand tending, logging supervision, and timber administration, he returned to UBC in 1992 for graduate studies.

Steve has been involved in teaching silviculture at UBC for the past two years and will continue to teach regeneration silviculture to the undergraduates. His current area of research is windthrow risk assessment and management, and he has a broad interest in the design and implementation of silvicultural systems.

Steve Mitchell can be reached at (604) 822-4591, fax (604) 822-9102 or e-mail [smitchel@unixg.ubc.ca](mailto:smitchel@unixg.ubc.ca)





**Laura Nagel**  
B.Sc. (1989) Tor.,  
M.Sc. (1994) Brit. Col.

Laura Nagel will join the Forest Sciences Department in April 1997 as an Instructor in Conservation. Laura graduated in 1994 from the University of British Columbia with a Master's degree in evolutionary biology. Following several years of experience in a wide variety of forestry, fisheries and wildlife projects, she became a lab instructor at Queen's University in Kingston, Ontario. In this position, her responsibilities included a third year ecology course emphasizing field data collection and analysis.

Laura's main activity in the Natural Resources Conservation undergraduate program will be the development, organization and instruction of a new interdisciplinary field course for fourth year students. This course will address ecological and social issues in conservation using a field environment.

Laura Nagel can be reached at (604) 822-4987, fax (604) 822-9102 or e-mail lnagel@unixg.ubc.ca.

## PLANS FOR 1997-98

- Appoint an internationally leading scholar to the FRBC Chair in Silviculture.
- Our recently secured \$4.5 million in endowment for the Applied Conservation Biology program will allow us to fill one Senior Chair position.
- Appoint a new teaching support technician to collect and curate demonstration materials for Dendrology, Forest Ecology, Forest Entomology, Forest Pathology and Forest Wildlife Ecology and Management.
- Maintain high level of proposals to NSERC, Forest Renewal BC and other funding agencies.

## ACHIEVEMENTS AND PLANS

Forest Sciences  
Department

## ACHIEVEMENTS IN 1996-97

- We received a total of almost \$3.6 million in FRBC grants.
- We appointed Dr. John Richardson as a part-time Assistant Professor in the field of riparian zone ecology. Dr. Richardson is the senior scientist of the B.C. Ministry of Environment, Lands and Parks. This appointment is expected to strengthen the MoELP and UBC research links.
- Dr. Carol Ritland, who joined our Department in October 1996, is developing a Genetic Data Centre with facilities for collection and analysis of molecular genetic data in population and conservation genetic studies. Carol can be reached at (604) 822-3908.
- Graduate student enrolment continues to increase. We now have 38 Ph.D. and 60 M.Sc. students enrolled. We graduated four Ph.D. and five M.Sc. students this past year.

## UNIVERSITY RESEARCH FORESTS

**T**HE Faculty of Forestry operates two research forests: the coastal UBC Malcolm Knapp Research Forest in Maple Ridge, and the UBC Alex Fraser Research Forest in the interior near Williams Lake. The mission of the Research Forests is to support the Faculty of Forestry in serving the people of B.C. through excellence in education and scholarship in forestry broadly defined. Thus both Forests are dedicated to research and education. The location of the Forests, covering five biogeoclimatic zones and three different tenure systems, offers a wide array of research and education opportunities. The Malcolm Knapp Research Forest operates an adjacent Woodlot Licence which is used extensively for teaching and, to a limited extent, for research.

The Malcolm Knapp Research Forest was established in 1949, the Woodlot Licence in 1986, and the Alex Fraser Research Forest in 1987 — the combined areas amount to nearly 15,000 hectares. The Forests provide sites and services for research and educational activities for UBC and other universities and colleges. Over 950 research projects have been initiated to date, ranging in scope from growth and yield studies to the dynamics of predator/prey relationships in lakes, from Liquid Mirror Telescopes to forensic entomology. Currently over 200 research projects are active.

In common with most other areas of the economy, financial constraints have changed management strategies. With elimination of support from the General Purpose Operating Fund, the primary sources of income are harvesting revenue and interest on an endowment established for the University Research Forests.

The Research Forests hold two field schools for undergraduate students each year; a Fall field school at Alex Fraser for third year students and a Spring Field School at Malcolm Knapp. Numerous continuing education programs are hosted and the professional staff of both Forests also participate in teaching academic courses in the Faculty. Over 20 international students visited the Forests on internship and work experience programs.

### ACHIEVEMENTS IN 1996–97

A Five Year Business Plan for the Research Forests was completed, and a new research project screening policy, designed to ensure security of research areas and tighten environmental safeguards, was implemented.

**Peter Sanders**  
Director



### Malcolm Knapp Research Forest

- Sixteen new research projects were initiated.
- Extensive road upgrading was carried out in the northern section in preparation for helicopter harvesting in 1997-98.
- Two new bridges were constructed.
- The salvage from the 1995 wind storm was completed with just over 16,000 cubic metres removed during the year.
- An outline of the new facilities required to complete the renovation of the Loon Lake camp was completed.

### Alex Fraser Research Forest

- Fifteen new research projects were established.
- Twenty kilometres of roads which pre-date the Alex Fraser Forest were upgraded to Forest Practices Code standards, with FRBC funding.
- Management and Working Plan #2 was drafted and circulated for review.
- Work on several extension projects was initiated with FRBC funding, including a silvicultural systems demonstration over 100 hectares in extent.
- A riparian inventory was conducted.
- Continuing education activities were hosted for SIBC and other organizations.

### PLANS FOR 1997–98

- Continue to encourage research, particularly where a number of researchers work on integrated projects over extensive areas.
- Resolve funding for services such as advice to researchers and educators.
- Continue to upgrade access to the University Research Forests.
- Plan to accommodate more students at field schools.

**SANDERS, Peter**  
B.S.F., M.F., R.P.F.  
Director  
University Research Forests  
E-mail: sanders@unixg.ubc.ca

**POWER, Cheryl**  
B.S.F., R.P.F.  
Silviculture Forester  
Malcolm Knapp Research Forest,  
Maple Ridge  
E-mail: power@unixg.ubc.ca

Phone: (604) 463-8148  
Fax: (604) 463-2712

**DAY, Ken**  
B.Sc.F., R.P.F.  
Manager  
Alex Fraser Research Forest  
Williams Lake  
E-mail: kenday@unixg.ubc.ca

**TRETHEWEY, Claire**  
R.P.F., R.P.Bio.  
Research Forester  
Alex Fraser Research Forest,  
Williams Lake  
E-mail: trethewa@unixg.ubc.ca

Phone: (250) 392-2207  
Fax: (250) 398-5708

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

**AITKEN, S.N.**

- **Recognition of Service Award** by Pacific Northwest Tree Improvement Research Cooperative.
- **Awarded Courtesy Assistant Professor Status** by Oregon State University.
- Chair, 1996 Western Forest Genetics Assoc. Annual Meeting, Newport, Oregon.
- Member, Breeding Strategies Subcommittee, TI Council of BC.
- Member, Pacific NW Tree Improvement Research Cooperative Policy/Technical Cttee.
- Member, Willamette Valley Ponderosa Pine Conservation Cooperative.

**ALILA, Y.**

- Director, Canadian Water Resources Association, BC Branch.
- Co-Program Director, Canadian Water Resources Association 1998 Annual Conference on Mountains to Sea: Human Interaction with the Hydrologic Cycle.

**AVRAMIDIS, S.**

- Member, SCBC Review Cttee., Forest Products Program.
- Member, Forest Products Society Wood Physics & Wood Drying Technical Interest Groups.
- Member, IUFRO Working Party on Wood Drying, S5-04.06.
- Member, European Commission FAIR Forestry-Wood Chain Review Cttee.
- Member, Conference Panel 2<sup>nd</sup> Int'l Conf. on the Development of Wood Science/Technology and Forestry, Sopron, Hungary.
- Program Chair, Wood Physics & Drying Session, 51<sup>st</sup> Forest Products Society Annual Meeting, Vancouver, B.C.

**BARRETT, J.D.**

- Chair, CSA Sawn Lumber Cttee. and Member, CSA Main Cttee.
- Board Member, International Academy of Wood Science, 1994 to 2000.
- Chair, Forest Products Society 1997 Annual Meeting Cttee.
- Member, SCBC/FRBC Value-Added Cttee.
- Chair, ISO Characteristic Values Cttee.

- Member, CIB-W18 International Building Research and Documentation.

**BASKERVILLE, G.L.**

- Chair, Wildlife Habitat Canada Biodiversity Program, Technical Advisory Cttee, and member of Executive Cttee.
- Member, Fibre Targets Task Group.
- Chairman, ATLAS-SIMFOR Project Steering Cttee.
- Member, Forest Practices Board.
- Member, Enhanced Forest Management Pilot Project, Steering Cttee.
- Member, CSA Executive/Technical Cttees on Forest Management.
- Member, "Blue Ribbon Cttee." to evaluate Canada Forest Sector Strategy Chair.
- Member, FRBC Resources Working Group.
- Director, Institute of Forest Engineering of BC.

**BINKLEY, C.S.**

- **Honourary Member**, Association of BC Professional Foresters, 1997.
- Member, Federal Forest Sector Advisory Cttee.
- Member, Provincial Forest Sector Strategy Cttee.
- Member, Sustainable Forest Management Network of Centres of Excellence Research Advisory Council.
- Member, BC Forest Research Advisory Cttee.
- Member, Board of Directors: FERIC; Forintek Canada Corp.; West Fraser Timber Ltd.
- Member, Management Cttee., Nelson Forests Joint Venture.
- Member, Advisory Board Ecotrust Inc.

**BREUIL, C.**

- Member, NSERC Review Cttee., Strategic Grants Program.
- Member, National Science Foundation Grant Evaluation Cttee.
- Member, BCIT Biotech Program Advisory Cttee.
- Member, Agro-Forestry Cttee., University of Laval, Quebec.

**OFFICES,  
AWARDS  
AND  
DISTINCTIONS**

OFFICES,  
AWARDS  
AND  
DISTINCTIONS

**BUNNELL, F.L.**

- Chair, Clayoquot Implementation Team.
- Member, Steering Cttee., Enhanced Forest Management Pilot Program.
- Member, Vancouver Foundation Environment Cttee.
- Member, Cooperative Design of Protected Areas Strategy Steering Cttee.

**CARLSON, J.E.**

- Local Organizer, IUFRO International Symposium on Forest Genetics.
- Member, SCBC/FRBC Tree Genetics Grant Panel.

**CHANWAY, C.P.**

- Member, Canadian Society of Microbiologists.
- Member, Pacific Regional Society of Soil Science.

**COHEN, D.H.**

- Member, FRBC Value-Added Cttee.
- Associate Director, Education Cttee./ Environment Cttee., Canadian Wood Council.
- Deputy Director, IUFRO Forest Products Marketing Group.
- Chair, Organizing Cttee., IUFRO Group 5.6 Meeting in 1997.

**DRISCOLL, H.**

- Member, Friends of the Environment Foundation Board.
- Member, Forests 11/12 Instructional Resource Review Team, Ministry of Education Skills and Training.

**ELLIS, S.**

- **Killam Teaching Award**, Faculty of Forestry.

**FANNIN, R.J.**

- **R.M. Quigley Award**, Canadian Geotechnical Society.
- **B.C. Asia Pacific Scholars Award**, Asian Institute of Technology.

**FELLER, M.C.**

- Member, Lower Mainland Protected Areas Public Advisory Cttee.
- Member, 2<sup>nd</sup> International Wildland Fire Symposium Steering Cttee.

**GUY, R.D.**

- Member, NSERC Grant Selection Cttee. 03 (Plant Biology and Food Science).
- Western Director, Canadian Society of Plant Physiologists.
- Member, GREATS and STARS Scholarship Cttee., SCBC.
- Chair, Forestry Grant Selection Cttee., SCBC/FRBC.
- Member, Local Organizing Cttee. for 1996 Joint Meeting of the Canadian Society of Plant Physiologists and the University of Victoria Forest and Tree Research Colloquium.
- Member, Local Organizing Cttee. for 1997 Joint Meeting of the American Society of Plant Physiologists and the Canadian Society of Plant Physiologists.

**HALEY, D.**

- Member, Editorial Board, Journal of Forest Economics.
- Member, Economics and Policy Advisory Cttee., Sustainable Forest Management, NCE.
- Chair, Appeal Board appointed under Section 158 of the Forest Act.
- Member, SCBC/FRBC Community Research Proposal Review Cttee.

**HINCH, S.G.**

- Nominations Chair, 1998 Canadian Conference for Fisheries Research.

**KIMMINS, J.P.**

- Chair, NSERC Site Visit Cttee.
- Member, Camosun Bog Restoration Cttee.

**KLINKA, K.**

- Chair, IUFRO SI.02-06.
- Deputy Chair, IUFRO SI.01-00.

**KOZAK, A.**

- Member, Individual Tree Working Group, Growth and Yield Monitoring Task Force.
- Member, ABCPF Biometry Academic Standards Cttee.

**LAM, F.**

- Member, CSA Subcommittees on Sawn Lumber and General Design and Objective Based Code for Wood Frame Construction.

**LeMAY, V.M.**

- Chair, CIF Measurements Subcommittee & Member of Council, Vancouver Section.

- Co-Chair, IUFRO 4.02 Working Group.
- Member, FRBC Inventory Group.
- Member, Stand Management Cooperative Policy Cttee. (western U.S. and B.C.).
- Member, Canadian Forest Inventory Cttee., Mensuration Subcommittee.
- Member, CSA Scaling Cttee.

#### MANESS, T.

- **Forest Excellence Award**, FRBC.
- Chair, Industrial Engineering Working Group, IUFRO.
- Representative, Forest Products Research Network Forum
- Chair, Conference Developer, International Wood Construction Forum.

#### MARSHALL, P.L.

- Chair, CIF Forest Management Working Group.
- Chair, Board of Directors, Silviculture Institute of British Columbia.
- Member, Canadian Forestry Accreditation Board.
- Member, ABCPF Board of Examiners and Accreditation Team for UNBC.
- Member, TAC, B.C. Forest Productivity Councils.
- Member, SCBC/FRBC Growth and Yield Grant Review Cttee.
- Member, Steering Cttee., Inland Northwest Growth and Yield Cooperative.
- Member, Silviculture Technical Advisory Cttee., Stand Management Cooperative.
- Member, Monitoring Task Force, B.C. Ministry of Forests.

#### MARTIN, K.

- **Wildlife Publications Award for 1996**, Wildlife Society, shared with others.
- Associate Editor of the AUK.
- Councillor, Society for Canadian Ornithologists.
- Canadian Representative to IUCN/ICBP Specialist Group for Galliformes Cttee.
- Member, 1996 Scientific Referee Panel, SCBC/FRBC Biodiversity Research.
- Member, Scientific Review Panel, Wildlife Habitat Canada Research Advisory Cttee.
- Member, Scientific Referee, Endangered Species Recovery Fund.

- Organizer and Co-Chair, 7<sup>th</sup> International Grouse Symposium, Fort Collins, Colorado.
- Associate Faculty Member, Behavioural Ecology Research Group, Simon Fraser University (1996-1999).

#### McLEAN, J. A.

- Member, Forest Health Review Cttee.
- Member, FRBC Advisory Cttee.
- Deputy Chair, SCBC/FRBC Pest Management Review Cttee.
- Member, SCBC Forestry Cttee.

#### McNEEL, J.F.

- Member, Silvicultural Practices Board, FRBC.

#### MURTHA, P.A.

- Liaison Officer, Canadian Remote Sensing Society and American Society of Photogrammetry and Remote Sensing.
- Member, Education Cttee., American Society of Photogrammetry and Remote Sensing.
- Member, GIS Integration Cttee., Canadian Remote Sensing Society.
- Associate Editor for Remote Sensing, Forestry Chronicle.

#### NAMKOONG, G.

- Board of Trustees, International Plant Genetics Research Institute.
- Associate Editor, Canadian Journal Forest Research.
- Member, SCBC/FRBC Scientific Review Panel, Genetics.
- Member, Technical Advisory Council, DANIDA.
- Member, Royal Swedish Academy of Agriculture and Forestry.

#### NELSON, J.D.

- Member, FERIC Forest Engineering Advisory Cttee.
- Chair, Forest Harvesting Academic Standards Cttee., ABCPF.
- Co-Chair, Pacific Northwest Skyline and International Mountain Logging Symposium.
- Member, Land-Use Planning Peer Review Cttee., SCBC/FRBC.
- Member, TELSA Technical Cttee., ESSA Technologies.
- Member, ATLAS/SIMFOR Steering Cttee., Nelson Region.

## OFFICES, AWARDS AND DISTINCTIONS

## OFFICES, AWARDS AND DISTINCTIONS

### **PASZNER, L.**

- Member, Expert Council on Utilization of Vegetal Materials, UNESCO.

### **PREST, G.**

- Member, BCIT First Nations Advisory Cttee.
- Member, First Nations Advisory Cttee., Open Learning Agency.
- Member, First Nations Forestry Program Management Cttee., NRC.
- Member, B.C. Forestry Association Board of Directors.
- Member, Vancouver Foundation Environment Cttee.
- Member, Work Force Cttee., FRBC Research Program.

### **PRION, H.G.L.**

- Member, Canadian Timber Design Code Cttee.
- Member, Structural Stability Research Council.

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

- Member, SCBC/FRBC Technical Review Cttee.
- Director, Riparian Ecosystems Research Program, BC Environment.

### **RITLAND, K.**

- Member, FRBC Inventory Methodology Research Grant Council.

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

- President, International Research Group on Wood Preservation.
- Vice Chair, CSA Wood Preservation Technical Cttee.
- Member, Executive Board, Canadian Wood Preservation Association.
- Member, Executive Cttee., American Wood Preservers Association.
- Member, Planning Cttee. for Annual Meeting IRG-28 1997.
- ISO 9002, Examiner for Western Canada.
- Member, Advisory Cttee. of Career Preparation Program, Vancouver School Board.

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

- **Fellow of International Academy of Wood Science.**
- Member, Swedish Biotechnology Review Cttee.

- Activity Leader, International Energy Agency, Task XIII 1995-97.
- Member, NRCan Bioenergy Advisory Group.
- Member, Agriculture Canada Bioenergy Advisory Group.

### **SALCUDEAN, S.E.**

- Finalist, **Best Paper Award** at the **1996 International IEEE Conference on Robotics and Automation** "A Coarse-Fine Approach on Hand-Controller Design".
- **UBC Izaak Walton Killam Memorial Faculty Research Fellowship.**
- Board Member, Medical Device Development Centre.
- Editor, IEEE Transactions on Robotics and Automation.

### **TAIT, D.E.N.**

- Co-theme Leader, Planning and Practices, NCE.

### **TINDALL, D.B.**

- Member, SCBC/FRBC Community Research Proposal Review Cttee.

### **VAN DER KAMP, B.J.**

- Member, SCBC/FRBC Pest Management Review Cttee.
- Member, Armillaria Working Group.
- Member, BCMoF Forest Health Cttee.
- Member, SIBC Module Review Cttee.

### **VAN KOOTEN, G.C.**

- Director, Western Agricultural Economics Association.

### **WATTS, S.B.**

- Member, ABCPF Biometry Academic Standards Cttee.

### **WEETMAN, G.F.**

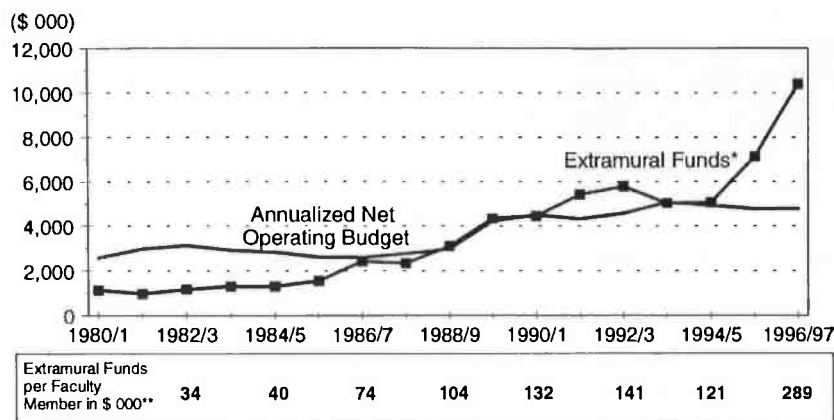
- Director of Admissions, ABCPF.
- Chair, Board of Examiners, ABCPF.
- Member, Alberta Forest Management Science Council.
- Member, Technical Steering Cttee., McGregor Model Forest.

### **WOOD, P.**

- **1996 Teaching Excellence Award,** University of Toronto.

**E**XTRAMURAL funding in 1996/97 totalled \$10,409,000, a 45.8% increase over 1995/96. Extramural funding sources now provide more than double the level of funding received from the core operating budget. A large portion of our increase in funding is due to the successes of faculty members in last year's Forest Renewal BC (FRBC) research competition — we now have 67 active FRBC-funded research projects. In addition to research projects, FRBC has further supported the Faculty of Forestry with endowed chairs in Applied Conservation Biology (two), Forest Hydrology (two, both of which are joint with the Department of Geography), Forest Management, and Silviculture.

**EXTRAMURAL  
FUNDING &  
SPONSORED  
RESEARCH**



\*Not including BC Forestry Continuing Studies Network funding, and from 1996/97 onwards, not including endowment income.  
\*\*Calculated from operating budget supported Faculty members.

*Operating budget, extramural funds and research activity 1980/81 – 1996/97*

The table below shows that the sources of our extramural funding are well distributed. While NSERC funding is higher this year, it remains at 19% of our total extramural funds. Federal funding sources account for 29% of our extramural funding. Industry has increased its support by 5%

compared to 1995/96. Our international collaborative funding sources have increased by 152%. International activities include projects with FAO, Conservation International, USDA, and a project on the full utilization of wood with the International Environmental Institute in Hokkaido, Japan.

*Extramural funding sources 1996/97*

Source	\$000	%
<b>Federal</b>		
NSERC	1,994	19.2
Environ. Can.	149	1.4
NRC	155	1.5
Other	748	7.2
<b>Subtotal</b>	<b>3,046</b>	<b>29.3</b>
<b>Provincial</b>		
FRBC/SCBC	4,739	45.5
MoF	919	8.8
MoELP	144	1.4
Other	20	0.2
<b>Subtotal</b>	<b>5,822</b>	<b>55.9</b>
<b>Private</b>		
Industry	1,043	10.0
Other	155	1.5
<b>Subtotal</b>	<b>1,198</b>	<b>11.5</b>
<b>International</b>	<b>343</b>	<b>3.3</b>
<b>Total</b>	<b>10,409</b>	<b>100</b>

Our location within a large research-oriented University in close proximity to several major research institutions greatly enhances our broadly diversified research program. We have collaborative projects with other departments at UBC, and with Forintek, Paprican, FERIC and BC Research Inc.

We also receive valuable research support from endowments provided by:

- Forest Renewal BC (for the Centre for Advanced Wood Processing);
- Weyerhaeuser and MacMillan Bloedel (for the Chair in Forest Products Biotechnology);
- the Imajo Cedar Management Fund;
- the Kathleen and Sheldon Rothwell Fund for forestry research;
- the Namkoong Family Teaching Exchange and Research Endowment; and
- the Burgess-Lane Lectureship and Schaffer Lectureship endowments.

The following list reflects funded research activities between April 1, 1996 and March 31, 1997.

### **S.N. Aitken**

- Junior Industrial Research Chair in population genetics – *BCMoF/NSERC* \$87,663
- Physiological genetics of coastal Douglas-fir genotypes exhibiting high and low stability – *FRBC* \$38,482
- Genetic relationships among wood quality, growth rates and seedling physiology in interior lodgepole pine – *FRBC* \$53,221

### **Y. Alila**

- A regional frequency approach for estimating design floods in British Columbia  
*FRBC* \$92,270.

### **S. Avramidis**

- Research in wood physics and drying  
*Donation* \$32,573
- A pre-commercial assessment on the viability of radio frequency heating of CCA treated utility poles for improved durability and enhanced environmental performance  
*Heatwave Drying Systems Ltd.* \$17,265
- Modelling of industrial radio frequency drying of wood – *BC Advanced Systems Inst./Glade Technologies Inc./MacMillan Bloedel/NSERC* \$33,750
- Drying for improved heartwood permeability  
*Forintek* \$51,453
- Fundamental studies and modelling of non-darcian fluid flow in wood – *NSERC* \$14,700
- Fundamentals of coupled heat and mass transfer in radio-frequency/vacuum drying of wood – *NSERC* \$82,378
- Manipulation of wood composite structure to enhance performance – *NSERC* \$88,500

### **T.M. Ballard**

- Forest floor displacement – *FRBC* \$46,382
- Vegetative succession and productivity on natural landslides – *FRBC* \$53,180
- Soil nematode diversity – *FRDA* \$20,000

### **J.D. Barrett**

- Lot properties of Douglas-fir, hem-fir and spruce-pine-fir dimension lumber  
*FRBC* \$63,210
- Forest Products Society 'value-added wood products' industry focus session  
*FRBC* \$18,900
- Multiple input grading system for structural lumber (co-investigator) – *NSERC* \$95,000

- Reliability of wood-based materials  
*NSERC* \$17,700

### **C.S. Binkley**

- An examination of options to include environmental objectives in forest management – *FRDA* \$17,000

### **C. Breuil**

- Junior Chair in Forest Products Biotechnology – *NSERC/Industry* \$69,074
- Sapstain in Canadian lumber: The causal fungi, their mechanism of pigmentation and future control methods – *NSERC* \$83,625
- Microorganism and enzyme treatments for reducing extractives present in wood chips or pulps – *Avenor/Noranda/Raisio Chem. Can./Simon Fraser Univ.* \$17,035
- Degradation of steryl esters/wax  
*Noranda* \$10,000
- Developing DNA fingerprinting for identifying specific wood-inhibiting fungi  
*CFS/NSERC/Forintek* \$58,600
- Polyclonal antibodies to benzyl decylmethylammonium chloride – *Lonza Inc.* \$20,264
- Identifying the characterizing key enzymes used by sapstaining fungi to grow on wood  
*NSERC* \$18,000
- Development of antibody-based immunoassays for resin acids in industrial process streams and effluents – *NSERC* \$51,000
- A molecular genetic study of the pigmentation of a sapstaining fungus (*Ophiostoma piceae*) – *Forintek* \$3,000
- Controlling sapstain pigmentation  
*MacMillan Bloedel* \$7,000

### **F.L. Bunnell**

- Short-tailed weasel ecology and forest fragmentation in northern Alberta – *Alberta Pacific For. Ind./Alberta Sport Recreation Parks & Wildlife Foundation* \$20,400
- Distribution and genetic connectivity of tailed frog populations – *FRBC* \$89,353
- Sustainable forest management planning and practices theme – *NCE* \$305,775
- Effects of forestry on grizzly bear habitat use, population growth, and population persistence – *FRBC* \$85,164
- Ecology of tailed frogs and the effects of forest practices (co-investigator)  
*FRBC* \$99,966

## **EXTRAMURAL FUNDING & SPONSORED RESEARCH**



- Persistence of forest-dependent vertebrates in managed forests – *FRBC \$103,611*
- Testing and refining biodiversity monitoring approaches – *FRBC \$65,920*
- Forest diversity program, habitat conservation plan; Fraser River Basin sustainable management plan – *Environ. Can. \$18,000*
- Cooperative design of protected areas strategy *Environ. Can. \$79,323*
- Kluane National Park reserve grizzly bear research program – *Environ. Can. \$52,000*

#### J. Carlson

- Distribution and genetic connectivity of tailed frog populations – *FRBC \$24,000*
- Developmental biology and molecular genetics of trees – *NSERC \$29,000*

#### A.C.A. Chan-McLeod

- Hydriparian pilot study and planning for landscape level research *MacMillan Bloedel \$11,000*

#### C.P. Chanway

- Soil microcosms for validating field trials of genetically engineering microorganisms *Can. Inst. of Biotech. \$21,910*
- Frankia spore type distribution in southwestern B.C. – *FRBC \$39,071*
- Root-endophytic and rhizosphere colonizing plant growth promoting rhizobacteria for pine and spruce – *NSERC \$82,300*
- Conifer root associated bacteria: Diversity and influence on seedling growth and competition – *NSERC \$25,000*

#### D.H. Cohen

- Moulding and architectural millwork: Competitive analysis – *BCMoF/CFS \$7,200*
- Technology for full exploitation of wood *Int'l Environmental Inst. \$92,775*
- Taxonomy for wood products (co-investigator) – *CFS/BCMoF \$6,000*
- Establishing technology benchmarks in Canadian sawmills for processing, quality control and training needs (co-investigator) *SSHRC \$46,000*

#### Y. El-Kassaby

- Genetics of mountain hemlock *FRBC \$70,000*
- Genetic consequences of alternative silvicultural systems for conifer species in coastal montane forests – *FRBC \$50,000*

- Genetic diversity in minor B.C. species *FRBC \$70,000*
- Evaluation of container-nursery management practices on the genetic diversity of seedling crops – *FRBC \$50,000*
- The impact of commercial thinning on genetic/species diversity – *FRBC \$50,000*
- Adaptation of forest tree populations *Pacific Forest Products \$60,000*
- Population variation in adaptive attributes in Sitka alder – *Pacific Forest Products \$20,000*

#### S.C. Ellis

- Hemlock wood studies – *BCMoF \$12,900*
- Influence of initial spacing on wood quality of western hemlock, western red cedar and Douglas-fir – *FRBC \$88,451*
- Characterization of the wood quality of lodgepole pine resources with respect to wood composites – *NSERC \$20,000*

#### R.J. Fannin

- Design and performance of geotextile filters *NSERC \$23,700*
- Slope stability analysis – *FRBC \$42,416*

#### M.C. Feller

- The response of Engelmann spruce sub-alpine fir forest ecosystems to logging – effects of harvesting on nutrient budgets *FRBC \$45,610*
- Fire history and ecology of B.C. Interior Douglas-fir forests – *FRBC \$48,162*
- Effects of different harvesting systems on organic matter decomposition and nutrient dynamics in coastal B.C. montane forests *FRBC \$29,635*
- Influence of alternative timber harvesting regimes on nutrient leaching through soil *MacMillan Bloedel/NSERC \$19,400*
- Fire behaviour and effects on vegetation of prescribed burning of forests *Green Plan CFS \$15,000*

#### S.M. Glenn

- Bridge funding for analysis of riparian corridors in the Cariboo/Chilcotin *Lignum \$60,877*
- Modeling for biologically effective designs of riparian corridors as linkages between protected areas – *FRBC \$37,000*
- Analysis of riparian corridors in the Cariboo/Chilcotin – *Lignum \$55,000*

## EXTRAMURAL FUNDING & SPONSORED RESEARCH

EXTRAMURAL  
FUNDING &  
SPONSORED  
RESEARCH

**R.D. Guy**

- Seasonal ecophysiology of western redcedar under a red alder canopy: Sunfleck use efficiency and rhodoxanthin accumulation *FRBC \$22,591*
- Alternative thawing regimes and associated handling procedures for freezer-stored plantation stock – *FRBC \$81,489*
- Nitrate and ammonium uptake in forest seedlings – preferences and stress interactions (co-investigator) – *FRBC \$74,664*
- Comparative physiology of stress acclimation in conifers: Water-use efficiency and root respiration – *NSERC \$35,715*

**D. Haley**

- Community forestry in B.C.: Opportunities and constraints – *FRBC \$25,704*

**S.G. Hinch**

- Salmon biophysical modelling (co-investigator) – *NSERC \$250,000*
- Forestry impacts on invertebrates *NSERC/DFO \$18,000*
- Forestry impacts on fish diversity *MoELP \$17,000*
- Stream habitat inventory – *MoELP \$5,000*
- Energetics of anadromous fish *NSERC \$18,000*
- Evaluating DFO's responses to Public Review Board – *EB Experts Inc. \$5,000*
- Effects of habitat and nutrients on side channel coho – *FRBC \$86,000*
- Responses of trout to riparian logging *FRBC \$89,500*
- Fraser salmon passage project *DFO \$139,000*
- Forestry impacts on streams *BCMoF \$35,000*
- Fertilization effects in side channels *MoELP \$36,620*
- Lower Fraser salmon passage project *DFO \$20,000*

**A.F. Howard**

- Negotiation and administration of forest concession agreements on public lands *FAO \$68,250*
- Decision support systems for the forest industry – *NSERC \$14,000*
- Sustainable forest management in the neotropics – *Conservation Int'l \$38,920*

**J.P. Kimmins**

- Boreal mixedwood management simulation research – *Canadian Forest Products/Weyerhaeuser Can. \$25,000*
- Literature review and detailed working plan on the spatial effects of red alder on nutrient availability and effects of managing patches of red alder on stand yield and long-term site productivity – *BCMoF \$16,700*
- Whitetail brook tree ring analysis *BCMoF \$10,000*
- Modelling salal and cedar – *FRBC \$39,925*
- A decision-support system for evaluation of mixedwood landscape sustainability *FRBC \$158,590*
- Computer-based education, extension and gaming tools to support the objectives of FRBC – *FRBC \$122,823*
- Assessment of the sustainability of forest ecosystems and evaluation of indicators of sustainable forest management *FRBC \$199,051*
- Calibration, verification, and validation of the stand-level FORECAST and the spatially-explicit, individual tree FORSEE forest ecosystem management models *NSERC \$30,400*
- Modelling the effect of natural disturbance and forest management practices on the long-term sustainability of forest ecosystems *NSERC \$99,500*
- Evaluation of the effects of whole-tree harvesting on the sustainability of forest ecosystem productivity *Williams Lake TSA Assoc. \$20,000*

**K. Klinka**

- The V.J. Krajina/B.C. Forest Service Chair in silvics and silviculture – *BCMoF \$90,132*
- Non-forested ecosystems of Coastal B.C./Mountain Hemlock Zone – *BCMoF \$46,600*
- TFL-37 operational inventory program, growth and yield – *BCMoF \$36,500*
- Inventory of western hemlock root biomass in closed canopy stands – *BCMoF \$8,965*
- Results of shade tolerance and dendrochronology studies – *BCMoF \$12,000*
- G.F. Dodd Operational Research Chair in silvicultural systems research *BCMoF \$28,000*
- Regeneration and productivity of western larch – *BCMoF/Crestbrook Forest Ind./NSERC/Weyerhaeuser Can. \$41,000*

- Data entry, data analysis, and report writing for Aspen site index research  
*BCMoF \$20,000*
- Inter and intraspecific variations in shade tolerance of major tree species in B.C.  
*BCMoF \$26,000*
- Variations in tree-ring properties of tree species in the Nelson Forest Region  
*BCMoF \$25,000*
- Chronosequence of humus forms in the CWH zone – *FRBC \$24,775*
- Water solution chemistry leached from lignic and alignic humus forms in coastal British Columbia – *FRBC \$66,249*
- Computer support system for making regeneration cutting and tree species selection in B.C.'s forests – *FRBC \$105,864*
- High elevation site-productivity study  
*FRBC \$164,063*
- Growth-light relationships in tree species  
*NSERC \$14,700*

#### F. Lam

- Research and development on nail plate reinforced beams – *Landmark Truss & Lumber Inc. \$17,929*
- Shear strength of structural composite lumber – *Trus Joist MacMillan \$5,000*
- Prototype development and testing of wood composite panels – *BCMoEI \$5,000*
- Mechanical properties of yellow cedar and sitka spruce – *COFI \$118,446*
- Size and fatigue effects on shear strength of laminated Douglas-fir panels  
*Fouquet Shanks \$13,000*
- Lateral resistance of wood-based shear wall  
*Structural Board Assoc. \$54,167*
- Shear strength of full size laminated veneer lumber – *Willamette Industries \$8,754*
- Comparison study on bending strength properties of French and Canadian grown Douglas-fir – *Interfor \$12,600*
- Mechanics of wood-based composites  
*Forintek/NSERC \$104,282*
- Organization of wood elements in a composite mat – *Forestry Canada/Forintek/MB/NSERC \$13,316*

#### V.M. LeMay

- Estimation and characterization of decay in standing trees – *NSERC \$14,000*

#### T. Maness

- Log sawing simulator – *BCMoF \$36,000*
- Establishing technology benchmarks in Canadian sawmills for processing, quality control and training needs (co-investigator)  
*SSHRC \$46,000*
- Evaluation of chop saw optimization and operating strategies in the B.C. value-added sector – *FRBC \$160,650*
- Wood products quality control council of B.C. – *FRBC \$254,633*
- Kiln drying certificate program  
*FRBC \$85,313*
- Real time target size control  
*NSERC \$22,750*
- Timber sale area log allocation model  
*NSERC \$14,000*

#### P.L. Marshall

- Silvicultural impacts on the height growth of site trees – *BCMoF \$6,000*
- Designs for sampling coarse woody debris  
*BC MoF \$9,998*
- Growth and yield monitoring task force  
*BCMoF \$6,450*
- Early tree height growth in mixed-species stands – *FRBC \$49,964*

#### K. Martin

- Effects of forest management on biodiversity of riparian ecosystems in interior forests of the Cariboo-Chilcotin – *FRBC \$41,230*
- Vancouver Island white-tailed ptarmigan inventory – *BCMoELP \$144,000*
- Life history, energetics and conservation of alpine, forest and grassland birds  
*NSERC \$13,800*

#### J.A. McLean

- Dispersal and behaviour of the white pine weevil *Pissodes strobi* (Peck) in an interior spruce plantation at the Kalamalka Research Station – *Green Plan CFS \$15,000*
- Biology of the spruce weevil *Pissodes strobi* (Peck) in a reciprocal cross plantation at the Kalamalka forestry station – *FRBC \$41,413*
- Genetic resistance of interior white spruce species to attack by the white pine weevil *Pissodes strobi* (Peck) – *Vernon Seed Orchard \$5,000*

#### P.A. Murtha

- Radar Imaging Natural Systems (RAINS)  
*Can. Space Agency \$17,632*

## EXTRAMURAL FUNDING & SPONSORED RESEARCH

EXTRAMURAL  
FUNDING &  
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RESEARCH

**G. Namkoong**

- Quantitative analysis of tree breeding strategies – *BCMoF* \$55,000
- Genecology of Douglas-fir in the sub-maritime seed zone: Testing seed transfer guidelines – *BCMoF* \$33,720
- A strategy for measuring biodiversity *FRBC* \$56,910
- Impact of forest operations on genetic diversity of understorey species *FRBC* \$50,064
- Rapid breeding for tracheid characters in interior spruce – *FRBC* \$36,015
- Genetic effects on fiber and structural wood properties in western hemlock *FRBC* \$63,315
- Utilization and management of red alder genetic resources in British Columbia *FRBC* \$59,955
- Resource use efficiency response in varying environments and its role in maintenance of genetic variance in fitness related traits in lodgepole pine – *BCMoF* \$41,580

**J.D. Nelson**

- Consequences of alternative management *NCE* \$63,829
- The landscape project – *FRBC* \$209,363
- Forest management impacts on hydrological process in watersheds: A modeling study *FRBC* \$22,307
- Decision support systems for forest land use planning – *NSERC* \$18,000

**L. Paszner**

- Sawdust pulping studies – *Forintek* \$9,200
- Organic solvent-assisted totally chlorine free bleaching of high-yield chemical pulps *NSERC* \$19,600

**C.E. Prescott**

- Impact of single conifer species plantations on soil biodiversity and processes *FRBC* \$25,200
- Project coordination – *FRBC* \$46,116
- Comparative ecology of ericaceous shrubs *FRBC* \$5,775
- Long-term effects of salal removal *FRBC* \$15,330
- Problem analysis and screening trials *FRBC* \$48,405
- Coarse woody debris dynamics in wet and dry ESSF forests – *FRBC* \$1,200

- Partial cutting systems research in the interior cedar-hemlock zone in root disease infected stands — litter input and decomposition component – *FRBC* \$7,885
- Predicting rates of organic matter decomposition in forests and silvicultural systems in B.C. – *FRBC* \$42,000
- Influence of species mixtures on litter decomposition in forests of British Columbia *FRBC* \$7,875

**H.G.L. Prion**

- Wood shear walls with over-sized OSB panels *Structural Board Assoc./IRAP* \$25,000
- Seismic behaviour of steel plate shear walls *NSERC* \$143,500
- Retrofit of beam to column joints with grouted steel tubes – *NSERC* \$14,000
- Innovative connections for prefabricated heavy timber connection – *FRBC* \$74,096

**J.S. Richardson**

- Seasonal changes in benthic community structure in rivers of the Fraser River Basin *Environ. Can.* \$28,500
- Population persistence of the Pacific giant salamander in the face of land-use alterations (co-investigator) – *FRBC/Habitat Conservation* \$116,000
- Ecology of tailed frogs and the effects of forest practices (co-investigator) *FRBC* \$99,966
- Stream benthos responses to riparian management – *FRBC* \$104,578
- Biology and geomorphological classification of headwater streams in the Long Beach Model Forest – *NRC/Long Beach Model Forest* \$7,004
- Hydraulic refugia of stream organisms from floods – *FRBC* \$59,998
- Effects of contaminants on small stream ecosystems in the lower Fraser Basin: Mesocosm studies – *Environ. Can.* \$6,000
- Interguild interactions in communities of benthic stream invertebrates (co-investigator) *National Science Foundation* US\$50,000

**K. Ritland**

- Senior Industrial Research Chair in population genetics – *BCMoF/NSERC* \$93,646
- Molecular population genetics of *Mimulus* *NSERC* \$60,800
- Heritabilities in natural populations of four B.C. conifer species – *FRBC* \$60,259

### J.N.R. Ruddick

- Industrial Research Chair in wood preservation – *NSERC/various companies* \$79,014
- Potential of selected quarternary ammonium compounds as wood preservatives  
*Albemarle Corporation* \$38,000

### J.N. Saddler

- Senior Chair in Forest Products Biotechnology – *NSERC/Industry* \$65,073
- Biotechnology for enhancing pulp properties – *MacMillan Bloedel* \$10,000
- The use of enzymes to elucidate the structure and to modify native and recycled paper  
*CFS/NSERC/Weyerhaeuser Can.* \$95,500
- Enzymatic removal of colour and colour precursors from thermomechanical pulps derived from Douglas-fir and western red cedar – *CFS/NSERC/Primalco* \$125,167
- Bioremediation of treated wood  
*NCE* \$5,918
- Immunoassays to monitor in-mill and waste water streams – *NCE* \$31,000
- Enzymatic and microbial treatment  
*NCE* \$23,209
- Use of cellulase enzyme components to determine limitations in hydrolysis of cellulosic substrates – *NSERC Strategic* \$82,000
- Steam pretreatment of softwood residues (co-investigator) – *CANMET* \$141,324

### S.E. Salcudean

- Medical robots – *IRIS NCE* \$45,000
- Haptic interfaces – *IRIS NCE* \$35,000
- Partial autonomy in mobile machines  
*IRIS NCE* \$42,000
- Controller and haptic interface design for transparent teleoperation  
*NSERC* \$31,000

### T.P. Sullivan

- Population dynamics and habitat preference of northern flying squirrels and bushy-tailed woodrats – *CFS/Canadian Forest Products/NSERC* \$60,000
- Influence of commercial thinning on flying squirrel populations in spotted owl conservation areas – *FRBC* \$89,586

### D.E.N. Tait

- Sustainable integration – *NCE* \$56,965

### D.B. Tindall

- Jobs versus trees: Inter-group relations in the conflict over wilderness preservation and forest policy development in B.C.  
*SSHRC* \$10,933
- “What’s news?” Media and the framing of forestry conservation issues in B.C.  
*IISS* \$2,000
- Measurement of forest values and attitudes toward forest management – *FRBC* \$75,062
- Gender inequality and alternative opportunity structures for affecting social change: Women in the conservation movement and forestry-based communities – *SSHRC* \$23,100

### B. van der Kamp

- Species-Genotype – environment interaction study for lodgepole pine  
*Bo Rydin Foundation, Sweden* – \$3,213
- Armillaria root disease in the Cariboo  
*BCMof* \$15,000
- Management of Armillaria root disease by inducing quiescence – *FRBC* \$47,376
- Pathology of conifer seed on natural disturbed seedbeds – *FRBC* \$34,017

### G.C. van Kooten

- Boreal forests and economics of climate change – *NCE/SSHRC* \$34,000
- Institutions in forestry (co-investigator)  
*NCE* \$17,000
- Economics of climate change and the role of forestry in Canada – *NCE* \$32,490
- The economics of climate change and the role of forestry: The case of Canada  
*SSHRC* \$17,000

### G.F. Weetman

- Structure and disturbance dynamics of old-growth balsam-fir-black spruce forests in western Newfoundland  
*Newfoundland MoFRA* \$15,000
- Genotypes of western hemlock  
*FRBC* \$27,982
- Criteria for sustainable management  
*NCE* \$65,917
- A comprehensive study of western hemlock nutrition – *FRBC* \$79,000
- Retrospective study of edge windthrow and modelling of windfirming – *FRBC* \$49,895
- Ecological niche for seedling establishment in high elevation forests in wet subzones of the ESSF – *FRBC* \$43,000
- Forest nutrition and fertilization studies  
*NSERC* \$24,786

## EXTRAMURAL FUNDING & SPONSORED RESEARCH

**T**HIS list includes documents published between April 1, 1996 and March 31, 1997. Names appearing in **bold-face** type are those of UBC Forestry Faculty members. For further information on any of these publications (many of which are available in libraries), please contact the appropriate Faculty member directly.

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- Adamowski, K., **Y. Alila**, and P.J. Pilon. 1996. Regional rainfall distribution for Canada. *Atmospheric Research* 42:77-88.
- Aitken, S.N.** and W.T. Adams. 1996. Genetics of fall cold hardiness in coastal Douglas-fir in Oregon. *Can. J. For. Res.* 26:1828-1837.
- Aitken, S.N.**, W.T. Adams, N. Schermann, and L.H. Fuchigami. 1996. Family variation for fall cold hardiness in two Washington populations of coastal Douglas-fir (*Pseudotsuga menziesii* var. *menziesii* (Mirb.) Franco). *For. Ecol. Manage.* 80:187-195.
- Alila, Younes.** 1996. Hydrologic engineering of stream crossings. *UBC Faculty of Forestry, Branch Lines* 7(3):2.
- Amarasinghe, V. and **J.E. Carlson.** 1996. Polyamine biosynthesis during somatic embryogenesis in interior spruce. *Plant Cell Reports* 15:495-499.
- Antle, A.N. and **P.L. Marshall.** 1996. Filling in missing forestry data: Exploring autocorrelation techniques. 2<sup>nd</sup> Int'l Symp.: Spatial Accuracy Assessment in Natural Resources and Environmental Sciences, Fort Collins, CO. USDA For. Serv. Gen. Tech. Rep. RM-GTR-277. pp. 593-600.
- Avramidis, S.** and **J.N. Ruddick.** 1996. CCA accelerated fixation by dielectric heating. *For. Prod. J.* 46(7/8):52-55.
- Avramidis, S.** and R.L. Zwick. 1996. Commercial scale RF/V drying of softwood lumber. Part II. Drying characteristics and lumber quality. *For. Prod. J.* 46(6):27-36.
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- Avramidis, S.**, L. Zhang, and S.G. Hatzikiriakos. 1996. Moisture transfer characteristics in wood during RF/V drying. pp. 125-133 in 5<sup>th</sup> Int'l IUFRO Wood Drying Conference, Quebec City, Quebec.
- Avramidis, S.**, R.L. Zwick, and J.B. Neilson. 1996. Commercial scale RF/V drying of softwood lumber. Part I. Basic kiln design considerations. *For. Prod. J.* 45(5):44-51.
- Barrett, J. David** and **David H. Cohen.** 1996. Wood products education: The Canadian strategy for renewal and growth. *For. Prod. J.* 46(9):15-20.
- Baskerville, G.L.** 1997. Privatization or public forests. A Canadian Perspective. *Commonwealth For. Rev.* 75:270-273.
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- Bicho, P.A., V.A. Martin and **J.N. Saddler.** 1996. Resin acid biodegradation by bacteria isolated from bleached kraft mill effluent: Specificity and induction. pp. 611-616 in E. Srebotnik and K. Messner (eds.), *Advances in Applied and Fundamental Research. Proc. 6<sup>th</sup> Int'l Conf. on Biotechnology in the Pulp and Paper Industry.*
- Bicho, P.A., T. Chen, **S. Avramidis**, R.L. Zwick, **C. Breuil**, and **J.N. Saddler.** 1996. Characterization and treatment of condensates generated from radio-frequency/vacuum dried softwoods. *For. Prod. J.* 46(10):51-56.
- Binkley, C.S.** 1996. Review of "Logging the Globe" by M. Patricia Marchak. *BC Studies* No. 110:99-101.
- Binkley, C.S.**, C. Raper, and C.L. Washburn. 1996. Institutional investment in U.S. timberland: history, motivation and implications for forest management. *J. For.* 94(9):21-28.
- Brack, C.L. and **P.L. Marshall.** 1996. A test of knowledge-based forest operations scheduling procedures. *Can. J. For. Res.* 26:1193-1202.
- Brisson, A., S. Gharibian, D. Leclerc, and **C. Breuil.** 1996. Localization and characterization of melanin granules produced by the sapstaining fungus *O. piceae*. *Mat und organism* 30:23-32.
- Brown, K.R., W.A. Thompson, E.L. Camm, B.J. Hawkins, and **R.D. Guy.** 1996. Effects of N addition rates on the productivity of *Picea sitchensis*, *Thuja plicata*, and *Tsuga heterophylla* seedlings. II. Photosynthesis. <sup>13</sup>C discrimination and N partitioning in foliage. *Trees* 10:198-205.
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## FACULTY PUBLICATIONS

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**Gordon W. Prest**  
Coordinator

**T**HE First Nations Forestry initiatives continue to gain momentum and interest within the Faculty.

We have four major activity areas:

1. Increasing enrolment of First Nations students in the Faculty.
2. Developing a strategy and implementing a work plan to incorporate First Nations content into existing forestry programs in the Faculty.
3. Delivering an **"Indigenous Perspectives in Forestry Education Workshop"** on June 15-18, 1997.
4. Expanding articulation agreements for university transfer credit programs to offer first and second year forestry university transfer courses at the community level.

We currently have eight First Nations students enrolled in undergraduate forestry programs. These students come from the following First Nations communities:

- Nlak'pamux (Thompson)
- Wet'suwet'en
- Tsimshian
- Nisga'a
- Kwakwaka'wakw (Kwakiutl)
- Sto:lo
- Ojibway (Ontario)
- Cree (Manitoba)

A Task Group has been brought together to develop a detailed work plan to incorporate First Nations content into the existing curricula being offered in Faculty programs for the coming academic year.

The "Indigenous Perspectives in Forestry Education Workshop" will bring together a balanced cross-section of academic, indigenous, industry and government representatives from around the world to address the topics of *Making It Happen, Program Design, Curriculum Models, Program Delivery*. A resource guide that summarizes participants' collective wisdom

on these topics and a working network will be developed to foster communication and support among the participants interested in this work.

We have initiated discussions with various community colleges who might offer Year 1 and 2 of the 4-year undergraduate forestry degree program at a community college campus. This plan would promote access by First Nations students from remote rural areas and potentially limit their relocation time at UBC to two years.

### **ACHIEVEMENTS IN 1996-97**

- Increased First Nations student enrolment (from 5 to 8).
- Increased Faculty involvement in First Nations programs.
- Faculty unanimously adopted strategy to incorporate First Nations content into forestry programs.
- New course **"Perspectives on First Nations and Forestlands"** delivered as a regularly offered fourth year course.

### **PLANS FOR 1997-98**

- Increase enrolment of First Nations students.
- Develop more culturally relevant content into existing courses.
- Formalize a laddering process from community-based delivery centres to Faculty programs.
- With the inevitable resolution of the aboriginal land question in B.C., it is timely for the Faculty to start to consider the post-treaty period and plan for the future.
- Dialogue will be developed with the First Nations Council of Advisors, Association of BC Professional Foresters and the Faculty to determine the future educational needs of professional forestland managers in B.C.'s post-treaty world.

## **FIRST NATIONS FORESTRY & CONSERVATION PROGRAMS**

**PREST, Gordon W.**  
Coordinator  
First Nations Forestry and Natural  
Resources Conservation  
Phone: (604) 822-0651  
Fax: (604) 822-8645  
E-mail: gprest@unixg.ubc.ca

## INTERNATIONAL FORESTRY PROGRAMS

**HOWARD, Andrew F.**  
B.Sc., M.F.Sc., M.Sc., M.Phil., Ph.D.  
Director  
International Forestry Programs  
Phone: (604) 822-3794  
Fax: (604) 822-8645  
E-mail: ahoward@unixg.ubc.ca



**Sandra Schinnerl**  
B. Comm.  
Associate Director  
Phone: (604) 822-9627  
Fax: (604) 822-8645  
E-mail: sandra@unixg.ubc.ca

**T**HE International Forestry Programs (IP) office had a very busy and productive year. New projects are underway which will complement the momentum International Programs began last year.

Three major program areas are: International Student Programs, Research and Training Projects and International Visitor Tours. IP continues to operate on a full cost recovery basis, from funds obtained from external sources.

The student programs offered through international programs have three components: internships, student exchanges, and the development of a joint degree program in International Forestry. These will be major areas of emphasis for the upcoming year.

### ACHIEVEMENTS IN 1996-97

#### International Student Programs

##### ■ International Exchange

We welcomed 10 incoming International students into our undergraduate program this year.

We will send 17 third-year undergraduate students away for a one year exchange to the following countries:

Australia, Costa Rica, Denmark, Germany, Japan, New Zealand, Sweden, United Kingdom, USA.

This is the largest number of Forestry students ever to participate in the Education Abroad Program.

##### ■ International Work Internships

International internships are of major interest to students and graduates. Our internship program is expanding to meet continued demand. We have arranged four placements in Finland, and five more are planned in Southeast Asia and South America. The internship program is based on a reciprocal exchange. International Programs finds work for international students, and leading international forestry schools find positions for UBC students.

The Malcolm Knapp Research Forest also operates a successful work internship program.

#### Research and Training Programs

##### ■ Sustainable Forest Management in the Neotropics

Research has been conducted in Bolivia, Brazil and Guatemala on the economic viability of forest management compared to competing land

**Andrew F. Howard**  
Director



uses and the ability of forest policy to encourage investment in sustainable management. We obtained a grant from Conservation International, Washington, DC to work on each of the case studies.

##### ■ Forest Concessions on Public Lands

We also received a research grant from the Food and Agriculture Organization (FAO) of the United Nations. The grant is for the development and writing of a comprehensive set of guidelines, procedures, and concrete recommendations on alternative mechanisms for negotiating and administering forest concession agreements on public lands.

### PLANS FOR 1997-98

#### International Student Programs

- Implement an International Forestry Degree Program to allow students at the undergraduate level to take a second degree concentrating on international forestry issues.
- Increase the number of international internships and work opportunities available to UBC Forestry students to increase their level of understanding of forestry practices worldwide.
- Increase the number of both incoming and outgoing students on international exchange. This in turn will contribute to the internationalization of the classroom.

#### Research and Training Programs

- Explore opportunities for international student recruitment.
- Continue to bid for international forestry projects which require the research skills and expertise of our faculty research associates and graduate students.





**Thomas Maness**  
Director

**T**HE national Centre for Advanced Wood Processing (CAWP) is an interdisciplinary initiative of the Faculties of Forestry and Applied Science to promote knowledge, new technologies, and an innovative, skilled workforce. The Centre was created through a partnership with industry, government, and Forest Renewal BC. We are guided by an industry advisory board, whose members and companies represent all sectors of the industry across Canada.

In our first year, we have had many accomplishments. In our research and extension programs, we were awarded nearly \$1 million in new funding and started many new projects. This will support graduate students, post-doctoral fellows and new research and technical staff. We have also set up our Advanced Wood Processing Laboratory, a state-of-the-art pilot plant with over \$1 million in advanced computer controlled woodworking equipment.

### ■ Education

Our education program is comprised of three elements: graduate education, a strong affiliation with the innovative Wood Products Processing Program, and a national industry continuing education program.

In our affiliated undergraduate program, students have achieved national recognition through participation in the cooperative education program managed by CAWP. The Co-op program enjoys a 100% placement rate and is rated highly by both students and industry. We contributed to teaching and curriculum development, and have organized and delivered practical laboratory exercises.

Our goal for 1997 is to establish a formal graduate program in advanced wood processing. The program will be directed by an interdisciplinary board consisting of faculty associates from Forestry, Applied Science, Commerce, and outside organizations.

We also began offering our continuing education program with a unique series of computer-based quality control workshops. New programs are under development in lumber drying, quality assurance, product marketing, advanced tooling and machining, and CNC machine programming.

### ■ Extension

A strong extension program is essential for maintaining close contact with our industry partners. Our extension program is focused on providing high quality technical services and product testing directly to industry. We also provide an information and referral service for firms needing technical or human resource assistance.

During 1996, CAWP focused on the following extension activities: 1) development of a technical services and research team in wood machining, 2) development of an industry-led Quality Standards Council for B.C. manufacturers, and 3) development of the Canadian Wood Technology Network which will establish collaborative linkages between schools and organizations across Canada and publish a national catalogue of education and technical services.

### ■ Research

Interdisciplinary applied research, closely linked with industry partners, is the main focus of our research program. To achieve this objective CAWP brings together faculty and research associates from UBC and other institutions, both nationally and internationally. Examples of projects underway are:

- Development of optimizing chop saw technologies.
- Field studies of optimizing chop saw use.
- Real-time quality control systems.
- Production planning and control systems for value-added processing.
- Lumber drying quality control systems.

### ■ International Program

We have strong ties with European schools and manufacturers. This year, we hosted the Annual Meeting of the European Network for Advanced Wood Processing and Engineering Education (EUROLIGNA). The network has accepted UBC as their only non-European member. Our participation provides opportunities for student and faculty exchange and international collaboration in research and education.

The Centre, in collaboration with the Swiss School of Engineering for the Timber Industry, hosted an International Wood Construction Forum with over 100 participants from many countries. This forum will now be an annual event, alternating between Canada and Europe. An International Value-Added Wood Processing Conference will be held in November 1997, and will also alternate between Canada and Europe.

## CENTRE FOR ADVANCED WOOD PROCESSING

**MANESS, Thomas**  
B.S.F., M.Sc., Ph.D.  
Director, Centre for Advanced  
Wood Processing  
E-mail: maness@unixg.ubc.ca

**BRISEBOIS, Larry**  
Tooling & Machining Specialist

**DONALD, W. Stuart**  
Quality Control Certification Specialist

**DUREPOS, Marco**  
Quality Assurance Specialist

**FOLEY, Dallas**  
Computer Software Engineer

**FORGET, Christine**  
Cooperative Education Coordinator

**GRAHAM, Peggy**  
Secretary

**JOHNSTON, Wendy**  
Program Coordinator

**KOZAK, Robert**  
Assistant Professor

**NG, Nancy**  
Secretary

**SICAD, Noli**  
Post-doctoral Fellow

**WONG, Darrell**  
Tooling & Machining  
Research Team Leader

**WRAY, Tom**  
Facility Manager

Phone: (604) 822-6448  
Fax: (604) 822-9159

### Centre Associates

Avramidis, Stavros  
Barrett, David  
Cohen, David  
Kozak, Robert  
Lawrence, Peter  
Oliveira, Luiz  
Schajner, Gary

# CENTRE FOR APPLIED CONSERVATION BIOLOGY

**BUNNELL, Fred L.**  
B.S.F. (Hons.), Ph.D., R.P. Bio.  
Director  
Centre for Applied  
Conservation Biology  
Phone: (604) 822-5928  
Fax: (604) 822-5410  
E-mail: fbunnell@unixg.ubc.ca



**Ann C. Allaye Chan-McLeod**  
B.S.F., M.Sc., Ph.D.  
Associate Director  
Phone: (604) 822-5442  
Fax: (604) 822-5410  
E-mail: allaye@unixg.ubc.ca

**T**HE Centre for Applied Conservation Biology in the Faculty of Forestry promotes conservation of biological diversity while maintaining economic development. This Centre is unique in its support of a novel undergraduate program, broad definition of educational targets, close links between basic and applied disciplines, and focus on forested ecosystems where conflicts between biological diversity and economic activities are most contentious.

## ■ Education

Our educational program has three elements: an affiliated undergraduate program, a large graduate program, and short courses for target audiences such as professional foresters, resource managers, the public and the media.

We are closely linked to the Faculty's undergraduate B.Sc. (Natural Resources Conservation) program. That program includes a core of natural science courses in forest, plant, and animal ecology, conservation biology and landscape ecology, and a suite of social science and management courses in economics, political science and philosophy to translate natural process into human values.

The "*Seminar in Biological Conservation*" series supported by the H.R. MacMillan Family Fund combines graduate-level instruction and public lectures on important conservation issues. (See the Special Lectures section in this report.)

### Centre Associates

Sally Aitken	Laurie Kremsater	John Richardson
Philip Burton	Ken Lertzman	Kermit Ritland
John Carlson	Kathy Martin	Jim Rochelle
Susan Glenn	Bruce McLellan	Geoffrey Scudder
Alton Harestad	Laura Nagel	David Shackleton
Scott Hinch	Gene Namkoong	James Smith
Walter Klenner	John Nelson	David Tait
Brian Klinkenberg	Michael Pitt	Casey Van Kooten
Pamela Krannitz		

## ■ Extension

The Centre hosted larger, international workshops on several topics including hydroriparian classification and tailed frog biology. Another 4,000 pamphlets in the series on issues relevant to maintaining biological diversity were published. Short courses were developed for an array of groups from Parks Canada biologists to members of the Oregon Small Woodlands Association. More than 40 talks were given by Centre members to various professional groups in North America, Europe and Asia. Specifically focused outreach permitted research associates and graduate students to live directly in small

**Fred L. Bunnell**  
Director



communities such as Nehalliston, Yalakom, and Hot Springs Cove (Hesquiaht First Nation). Centre members also were involved in clarification and implementation of the Clayoquot Scientific Panel's recommendations.

## ■ Research

Interdisciplinary, cooperative research is the key to answering the broad questions of conservation biology. The Centre brings together scholars to collaborate in such research. We are testing conservation biology theories in the context of forested ecosystems, and aim to apply this knowledge to managed forests, parks and natural areas. Among the larger projects currently underway are:

- Leadership within the Sustainable Forest Management Network of Centres of Excellence, a national research program focussed on Canada's boreal forests (Drs. F. Bunnell and D. Tait).
- Inventory and research on the ecology and genetics of tailed frog and Pacific giant salamander populations as these are influenced by forest practices (Drs. F. Bunnell, J. Carlson, J. Richardson).
- A decision-support tool evaluating economic and biological consequences of forest planning at the landscape level, including a system for enhancing community participation in land and resource planning (Drs. F.L. Bunnell and J.D. Nelson).
- Definition of hydroriparian zones and analysis of effectiveness of riparian corridors (Drs. S.M. Glenn and A.C. Chan-McLeod).
- Physiological and behavioural response of resident stream salmonids to riparian logging practices (Dr. S. Hinch).
- Energetics, behaviour, physiology and life history of white-tailed ptarmigan, and a collaborative project on the role of spruce grouse as alternative prey in relation to the snowshoe hare-lynx cycle in the boreal forest (Dr. K. Martin).



**Patricia A. Plackett**  
Director

**T**HE BC Forestry Continuing Studies Network was established as an independent organization nearly six years ago. Our six offices are affiliated with post-secondary institutions having forestry/natural resource programs:

- University of British Columbia (Vancouver)
- Selkirk College (Castlegar)
- University of Northern British Columbia (Prince George)
- University College of the Cariboo (Kamloops)
- Malaspina University College (Nanaimo)
- Northwest Community College (Smithers).

The Provincial Office in the Faculty of Forestry at UBC is responsible for overall management of the organization and coordination of province-wide services. The five Delivery Centres are responsible for organizing training activities around the province. The Network's Provincial Board and five Delivery Centre Boards provide input to the operation of the organization. Members of the boards represent the range of stakeholder groups.

■ **Training delivery:** The Network runs its training delivery on a cost-recovery basis in line with the original intent that training delivery costs would be shared by all users, both public and private sector.

■ **Provincial coordination:** When the Network was created in 1991 provincial coordination was recognized as key to the long-term success of the training delivery in B.C. To provide province-wide consistency in training quality, availability and registration fees, effective provincial coordination is essential. Included in training coordination are production of two catalogues of training opportunities in natural resource management each year, maintenance of provincial databases (integrated advertising/registration/tracking database, trainer database, catalogue database) and an advisory service on training opportunities (advice on training options around B.C.). Another important task is the interaction with advisory board members and others at a local level to allow for broad-based input from stakeholders throughout the province on continuing education priorities.

## ACHIEVEMENTS IN 1996-97

We organized the delivery of 580 sessions of 102 different activities, including province-wide and local courses, workshops and conferences. We had close to 12,000 registrants. Some courses related directly to Forest Practices Code Guidebooks and others were in forest engineering, inventory, silviculture and watershed restoration including an increasing number of courses for forest workers.

The Network has recently developed a website, with five buttons: "*About Us*" (organizational background), "*What's New*" (new courses and new sessions of old courses), "*What's Popular*" (courses that are most asked about), "*Where to Find Us*" (clickable map with hot-links to websites for each of the Delivery Centres) and "*Catalogue Excerpts*" (Network-organized training sessions from the Catalogue).

In July 1996, KPMG was engaged by the Ministry of Forests to undertake a program and organization review of the Network. The conclusion was that the Network is relevant and considered to be valuable in the coordination and delivery of training by the forestry community of B.C. One key recommendation was the formation of a formal Provincial Board with broader stakeholder representation.

### Provincial Board

Fred Baxter (MOF)	Art Shortreid (CFS)
Bronwen Beedle (MOF)	Van Scoffield (ABC PF)
Jim Burbee (Northwood)	Ralph Torney (RFT Industries)
Linda Kaivanto (MEST)	Randy Terise (Pope & Talbot)
Les Kiss (CFLA)	Dave Wilford (MOF)
Garry Mancell (Davis & Co.)	Nancy Wilkin (MELP)

## PLANS FOR 1997-98

- Refine organizational strategies to deal with funding changes.
- Work with stakeholder groups to find better ways of identifying training needs.
- Work with faculty in host institutions to develop new courses such as the very successful "*Geosynthetics for Soil Stabilization*" course (Jonathan Fannin, UBC).

## BC FORESTRY CONTINUING STUDIES NETWORK

**PLACKETT, Patricia A.**  
B.A.(Hons.), M.A., Ph.D.  
Director  
BC Forestry Continuing  
Studies Network  
Phone: (604) 822-9278  
E-mail: plackett@unixg.ubc.ca

**SATO, Shirley**  
B.A.  
Database Manager and  
Catalogue Editor  
Phone: (604) 822-5874  
E-mail: sato@unixg.ubc.ca

**SMITH, Isla**  
B.A.  
Program Assistant  
Phone: (604) 822-9283  
E-mail: ismith@unixg.ubc.ca

Fax: (604) 822-3106  
www.forestry.ubc.ca/fcsn/fcsn.html

# SILVICULTURE INSTITUTE OF BRITISH COLUMBIA

**T**HE Silviculture Institute of British Columbia (SIBC) was established in 1985 to develop and deliver continuing education programs in advanced silviculture. We currently offer:

- UBC Diploma in Forestry (Advanced Silviculture) — designed for Registered Professional Foresters with a minimum of five years of work experience,
- Technical Module Program (Advanced Silviculture) — designed for forest technologists and technicians with a minimum of five years of work experience, and
- Silviculture 1 & 2 correspondence courses — designed for Association of B.C. Professional Foresters' Foresters-in-Training and Forestry Pupils as part of their pre-registration requirements.

The objective of all SIBC programs is to raise the level of silvicultural practices in B.C. through continuing education.

The professional diploma program consists of six, two-week modules taken over a three-year period. Students are practising professional foresters employed by government, industry, and consulting from all parts of the province. There is extensive pre-course reading required prior to each module, and the program concludes with preparation of a comprehensive silviculture prescription. Sessions are held in coastal and interior locations in B.C. Instructors are drawn from academia, government, industry, and consulting. We are grateful to the following people from the UBC Faculty of Forestry for their involvement and support: G. Baskerville, C. Binkley, D. Cohen, H. Driscoll, M. Feller, J.P. Kimmins, K. Klinka, A. Kozak, D. Lavender (*professor emeritus*), S. Mitchell, J.A. McLean, P. Marshall, C. Power, P. Sanders, T. Sullivan, B. van der Kamp, and G. Weetman.

## Board of Directors

<i>Director (Alternates):</i>	<i>Representing:</i>
<b>P.L. Marshall</b> , Chair (E. Van Scoffield)	Association of B.C. Professional Foresters
<b>G.F. Weetman</b> , Secretary/ Treasurer (C.S. Binkley)	University of B.C.
<b>J.D. Sutherland*</b> (L.R. Bedford)	Ministry of Forests
<b>R.E. Carter</b> (R.A. Willis)	Forest industry
<b>G.E. Lester*</b> (M.D. Larock)*	Students & graduates
<b>C. Opio</b> (W. Kessler)	Univ. Northern B.C.
<b>A. Dickinson</b>	Canadian Forest Service

\*SIBC graduates

We would like to recognize the financial contribution of the B.C. Ministry of Forests without which our tuition fees would be much



**Candace E.B. Parsons**  
Executive Director

less affordable. During the 1996/97 fiscal year, we also appreciated financial support from Forest Renewal BC. Sincere thanks are also due to our 100+ volunteers: instructors from UBC, the Ministry of Forests, UNBC, Canadian Forest Service, and the forest industry; Curriculum Committee members; and Directors.

## ACHIEVEMENTS IN 1996-97

Eight professional modules were offered to 164 students, while four technical modules were offered to 72 students, for a total of 2,000 person-days of advanced silviculture education delivered in 1996. In addition, 74 students were enrolled in the Silviculture 1 & 2 correspondence courses. There are now 183 professional graduates, with 133 students currently enrolled, plus 20 technical graduates, with a further 40 enrolled.

To build upon the success of the SIBC programs, the Institute of Forest Engineering of British Columbia (IFEBC) was incorporated on April 25, 1996 to develop and deliver a professional program in forest engineering. A joint administrative structure, with shared offices, was established to ensure that both organizations are run efficiently and cost-effectively. The IFEBC program will be designed for professional foresters, engineers, and geoscientists with a minimum of five years of work experience. It will be offered via six, two-week modules taken over a three year period.

## PLANS FOR 1997-98

We plan to obtain diploma status from UBC for the new IFEBC forest engineering program. The first module – **Module 1: Foundation Principles** – will be held May 5-15, 1997 at UBC. A refresher module for SIBC graduates will be developed and delivered October 27-31, 1997 in Kamloops. This session is designed for people who completed our professional program more than five years ago, and are again in need of professional upgrading in silviculture.

**PARSONS, Candace E.B.**  
B.S.F., R.P.F.  
Executive Director  
Silviculture Institute of  
British Columbia &  
Institute of Forest Engineering of  
British Columbia

**PICKFORD, Joanne D.**  
B.S.F., R.P.F.  
Program Manager

**HALL, Mary J.**  
B.A.  
Administrative Assistant

Phone: (604) 224-7800  
Fax: (604) 224-7010  
E-mail: sibc@unixg.ubc.ca



**Tara Scott**  
Development Officer

**T**HE Faculty of Forestry's development program continues to meet with tremendous success. The accomplishments of our fundraising program are a direct result of the leadership and dedication of the Dean, faculty, volunteers and our generous donors. Their commitment to excellence has built a solid foundation for upcoming endeavours and the future growth of the Faculty. Our sincere appreciation is extended to all of those who have helped to make our development initiatives a success.

### ACHIEVEMENTS IN 1996-97

The Forestry Alumni program continues to grow each year, and now has the second largest participation rate on campus. Special thanks must go to Gerry Burch and the Alumni Campaign for their role in obtaining these impressive results. With their strong leadership and enthusiasm more than 570 Alumni contributed in excess of \$60,000 in support of their alma mater. The Forestry Alumni program will continue to be a pivotal component of the development program.

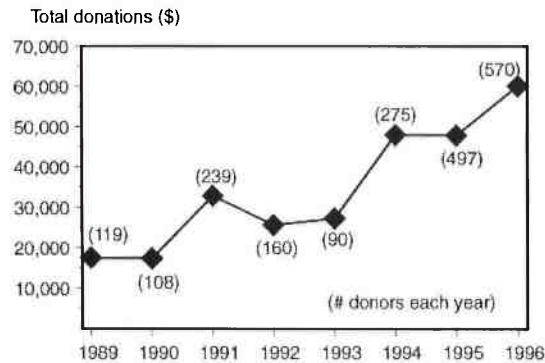
The "*Growing for the Future*" campaign, led by Campaign Chair, David McInnes (Chair, Weyerhaeuser Canada Ltd.) and Campaign Vice Chair, George Richards, (President and CEO, Weldwood of Canada Ltd.) is winding down to a successful conclusion. Many corporations, individuals, faculty, and alumni demonstrated their confidence in the future of forestry at UBC, by making significant financial contributions totalling over \$2.3 million to date.

Contributions to the campaign were primarily directed to the equipment and technology fund for the new Forest Sciences Centre (opening in May 1998), and to student scholarship endowments. With more than \$520,000 raised in scholarship endowments, we will continue to consider this to be an area of funding priority for the Faculty. As enrolment numbers and tuition costs both increase endowed scholarships will help ensure that students have access to the

financial assistance required to pursue an education in forestry.

The generosity of the donors to this campaign will ensure that the Faculty has the capacity to provide our students with an education that will inspire excellence. The success of the campaign will reach beyond the Faculty and into our communities by enhancing and strengthening the research and education of British Columbia's forest professionals. Thank you for your continuing support.

Students have also joined the fundraising team, with the Class Act program. Prior to graduating, students are already committing their support to the Faculty of Forestry. The 1996/97 class have received commitments and pledges of over \$5,000. Forestry students are leaving a permanent reminder of the vitality and achievement of their graduating class. We commend and thank the donors to the Class Act program for their generous spirit.



Forestry Alumni past giving 1989-1996

### PLANS FOR 1997-98

- Enhance and expand the annual Alumni campaign.
- Increase the Alumni participation rate in the annual campaign.
- Strengthen Alumni and donor relations with the Faculty.
- Secure the necessary funding for equipment and technology for the new Forest Sciences Centre which will open in May 1998.
- Increase the financial support available to our students. It is our priority to ensure that our forestry programs are accessible to high caliber students, by providing equal access to those students with financial limitations.

## FACULTY DEVELOPMENT PROGRAM

**SCOTT, Tara**  
B.B.A.  
Development Officer  
Phone: (604) 822-8716  
Fax: (604) 822-8645  
E-mail: tarscott@unixg.ubc.ca

## SPECIAL LECTURES

### H.R. MACMILLAN LECTURES AND WORKSHOPS

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#### ■ Conservation Biology Lecture Series

During the fall and spring terms, several internationally known members of the scientific community were invited to UBC to participate in Conservation 500, a graduate seminar course in conservation biology. Dr. K. Martin organized the lecture series and taught the course. The H.R. MacMillan Lecture Series is made possible by a grant to the Faculty of Forestry from the H.R. MacMillan Family Fund. The following speakers to this course gave public lectures on a diversity of topics:

##### **Mr. Len Thomas**

Ph.D. student, University of British Columbia

- *Workshop on population monitoring in conservation biology – problems and opportunities.*

##### **Dr. Andre Desrochers**

Laval University, Quebec

- *Behavioural ecology of forest birds and the effects of timber management in the boreal forest.*

##### **Dr. Jon Swenson**

Norwegian Institute for Nature Research, Trondheim

- *The conservation of brown bears in Sweden and Norway.*

##### **Ms. Christine Bishop**

Canadian Wildlife Service, Burlington

- *Amphibian conservation in Canada.*

##### **Dr. Jeffrey Walters**

Virginia Tech University, Blacksburg

- *The biology and conservation of red-cockaded woodpeckers.*

##### **Dr. Patricia Kennedy**

Colorado State University, Fort Collins

- *The role of science and advocacy in conservation.*

##### **Dr. Keith Hobson**

Canadian Wildlife Service, Saskatoon

- *Using stable isotopes to monitor avian migration and reproduction.*

##### **Dr. Raymond O'Connor**

University of Maine, Orono

- *A risk assessment approach to biodiversity and land use.*

##### **Dr. Ilkka Hanski**

University of Helsinki, Finland

- *Metapopulations.*

##### **Dr. Michael Lynch**

University of Oregon, Eugene

- *The role of mutations in evolution and extinction.*

##### **Dr. Robert Gregory**

Memorial University, St. John's

- *Marine conservation in the Atlantic — the collapse of the cod stocks and prognosis for recovery.*

#### ■ Hydroriparian Ecosystem Workshops

During the spring term, Dr. John Richardson organized a new graduate course in Hydroriparian Ecosystems using lectures and student-run workshops to address several current topics. The three workshops (each one and a half days long) addressed:

1. The uniqueness of headwater streams.
2. Classification of streams and riparian areas.
3. Watershed and riparian restoration.

Speakers were invited from many organizations within B.C. and beyond. For each workshop the students prepared a background summary document, set out workshop objectives, and then organized and ran the workshops. We plan to publish and circulate the final workshop reports. These workshops were made possible by a grant to the Faculty of Forestry from the H.R. MacMillan Family Fund.

### THE BURGESS-LANE LECTURE

The Burgess-Lane Memorial Lectureship in Forestry was established in 1974 to honour Thomas E. Burgess and David E. Lane, Vice-Presidents of long-standing with British Columbia Forest Products Ltd. A fund was established by Mrs. Dorothy Burgess and Mrs. Evelyn Lane and British Columbia Forest Products Ltd. for the presentation and publication of special lectures by outstanding authorities in forestry or the forest industry.

This year's lecture was given on March 5 by Dr. James Bolton, Director of the BioComposites Centre in North Wales. Copies of Dr. Bolton's talk "*Plant fibres in composite materials: A review of technical challenges and opportunities*" are available from the Department of Wood Science at UBC.

## STUDENTS FOR FORESTRY AWARENESS

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### ■ Public Lecture Series

Students for Forestry Awareness (SFA) is an independent, student organization that has been in existence at UBC for over ten years. Through periodic symposia and a continuing speaker series the SFA introduces a variety of philosophical, academic, environmental, and industrial perspectives on forestry related issues to students, faculty and the general public. Further endeavours include developing career week for undergraduates and a mentorship program between professional foresters and prospective students. All of the projects emphasize the critical importance of awareness and foster this aspect into their mandate. Speakers and topics during the 1996/97 academic year included:

#### **John Worrall**

Associate Professor, UBC Faculty of Forestry

- *Antarctic whaling: When men were men.*

#### **Don Currie**

Vice president, Market and Trade Issues, Canfor

- *Certification of British Columbia lumber.*

#### **Walt Klenner**

B.C. Ministry of Forests, Kamloops

- *Interdisciplinary research approaches and integration of forest research in Kamloops forest practices and management.*

#### **Jack Munro**

Chairman, Forest Alliance of British Columbia

- *Current policies and concerns of the Forest Alliance.*

#### **Tamara Stark**

Greenpeace, Forest Campaign

- *Stop the logging of B.C. temperate rainforests!*

#### **Elaine Golds**

Volunteer, Burke Mountain Naturalists

- *Public involvement in good sound watershed management.*

#### **John Richardson**

Assistant Professor, UBC Faculty of Forestry

- *The effects of logging on riparian areas.*

#### **David Zirnhelt**

Minister of Forests  
B.C. Ministry of Forests, Victoria

- *Current challenges encountered in B.C. forest practices.*

#### **Council Members, Association of British Columbia Professional Foresters**

- *Issues facing the profession of forestry.*

#### **John Davies, Brian Beaton**

and

#### **Monique Nahulak**

UBC Forestry undergraduates

- *Perspectives about rap attack unit crews and women in forestry.*

#### **Rick Slaco**

Chief Forester, Interfor

- *Protected Areas Strategy.*

#### **Peter Duinker**

Associate Professor and Chair, Forest Management and Policy,  
Lakehead University, Ontario

- *Public participation in the expansion of Wabakimi Provincial Park.*

#### **Vern Wellburn**

BC Forest Museum

- *Springboards, and sawbucks — The pre-Husquavarna era.*

#### **Clark Binkley**

Dean, UBC Faculty of Forestry

and

#### **Gordon Baskerville**

Head, Forest Resources Management Department

- *Future of undergraduate forestry education at UBC.*

#### **Paul Griffiths**

Cave Consultant

- *Cave and karst resources of BC — forest management implications.*

#### **Herbert Kronzucker**

Visiting Scientist at UBC

- *Root nitrogen physiology and forest succession.*

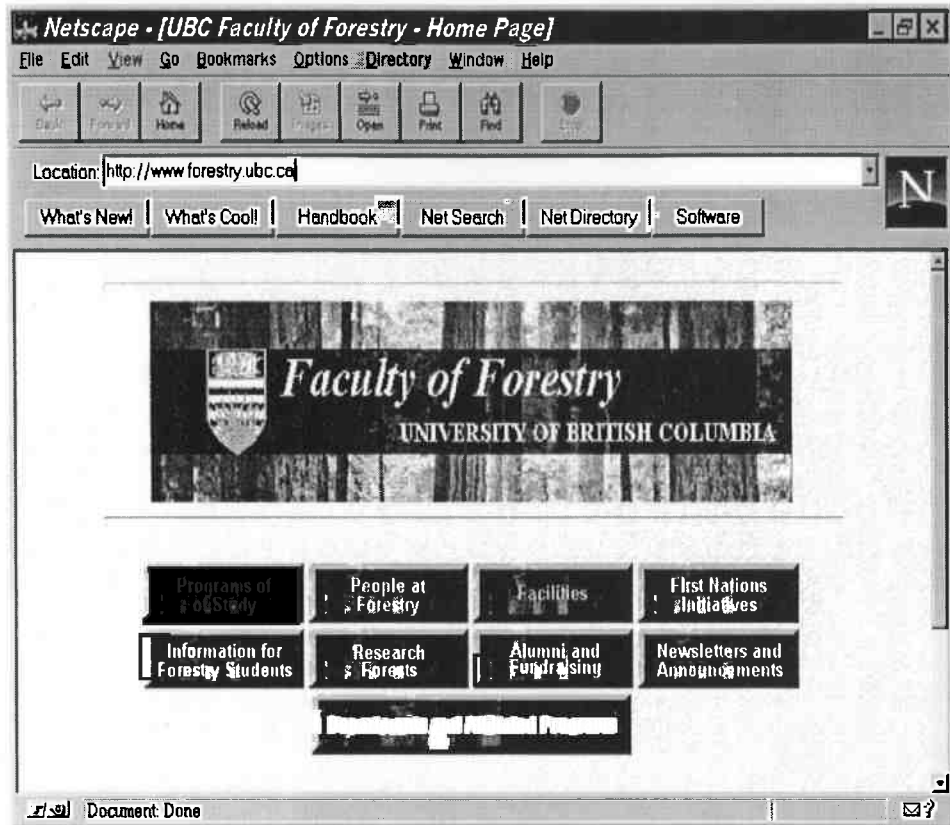
## SPECIAL LECTURES





# UBC Faculty of Forestry Home Page

Location: <http://www.forestry.ubc.ca>



The Faculty of Forestry **World Wide Web** site features:

- academic program details;
- profiles of Faculty members;
- department and allied program descriptions;
- online Faculty newsletters and special event announcements.

Any comments or suggestions about our **World Wide Web** site can be addressed to Ron Turner, Systems Manager, at (604) 822-6793 or e-mail [turner@unixg.ubc.ca](mailto:turner@unixg.ubc.ca).

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*Questions concerning this report or requests for mailing list updates, deletions or additions should be directed to:*

Dr. Susan Watts  
Annual Report Editor  
Faculty of Forestry  
University of British Columbia  
270-2357 Main Mall  
Vancouver, B.C.  
V6T 1Z4

**Phone:** (604) 822-6316  
**Fax:** (604) 822-8645  
**E-mail:** suwatts@unixg.ubc.ca

Printed in Canada on recycled paper





Faculty of Forestry  
University of British Columbia  
270-2357 Main Mall  
Vancouver, B.C.  
V6T 1Z4  
CANADA

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

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