

1998 Annual Report



Faculty of Forestry

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

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Mr. Ralph Roberts
Director, Forestry Section
Canadian International
Development Agency

Mr. E. Van Scoffield
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Association of BC Professional
Foresters

Mr. W.T. Stephens
President & CEO
MacMillan Bloedel Ltd.

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

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ANNUAL
REPORT

Faculty of Forestry

University of British Columbia

April 1, 1998 – March 31, 1999

COVER BACKGROUND PHOTOGRAPH

Photographer: **Bryan Evans**

Bunchberry (*Cornus canadensis*) and oak fern (*Gymnocarpium dryopteris*) in Ecological Reserve #98, Chilliwack River, B.C.

COVER INSET PHOTOGRAPHS

Clockwise from top left:

- The new Forest Sciences Centre at UBC. *Photographer:* **John Chong**
- Students studying in the atrium of the new building. *Photographer:* **René Martin**
- The new Centre for Advanced Wood Processing at the Forest Sciences Centre, UBC.
Photographer: **Ken Wong**
- Wood Products Processing students learning practical wood working skills in the machine shop at the Centre for Advanced Wood Processing. *Photographer:* **Sandy McKellar**

TEXT PHOTOGRAPHS

Photographers: **UBC Telestudios**

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AS we move towards the new millennium, the Faculty of Forestry at the University of British Columbia looks forward to further developing its mission to serve society – in British Columbia, in Canada and throughout the world – by improving its capacity to deal with forestry issues broadly defined. Forestry requires a global perspective. Formulation of new policies by world bodies to certify forestry practices and the realization that forest products compete on a world market require that we maintain a broad outlook in order to define the role that we play in teaching, research and direct professional service to government, industry, native bands and non-governmental organizations.

The past year has provided an important milestone. The opening of our new home in the Forest Sciences Centre has furnished us with the latest in teaching and research facilities. In the main building, four lecture theatres are set up with the latest audiovisual technologies including ceiling projectors to support laptop computer and videotape presentations. Regular slide projectors, overhead projectors and chalk (or white) boards are also provided. A series of regular classrooms allow for various table configurations to meet the lecture, project or team needs of individual classes. We share these facilities with the whole campus. More than 40 per cent of the classes last session were from faculties other than Forestry. Two computer laboratories with a total of 60 terminals provide our students with 24-hour access to teaching materials, the internet and e-mail. We are well positioned to implement the learner-centered education objectives of TREK 2000.

Highlights of 1998/99

Just as we moved into the Forest Sciences Centre last year there was a major turn over of faculty administrators in the Dean's Office and of Department Heads. Dean Clark Binkley moved to a position with a natural resource investment group in the United States leaving us with an eight year legacy of greatly expanded horizons for education and research in forestry broadly defined. Associate Dean Tony Kozak finally elected to take his first well earned sabbatical leave and Dr. Peter Marshall has taken over as associate dean of Undergraduate Studies. Dr. Chris Chanway continued as associate dean of Graduate Studies in Forestry and Dr. Colette Breuil has been appointed as associate dean of Research. Dr. Bart van der Kamp took over the reigns of the Department of Forest Sciences from Dr. Gene Namkoong. Dr. Jack Saddler succeeded Dr. David Barrett as head of the Department of Wood Science. Dr. Valerie LeMay was acting head of Forest Resources Management until January 1, 1999 when she passed this mantle to Dr. John Nelson.

After many extensive searches we look forward to having our full complement of FRBC chairs in place by July 1st, 1999. The new appointments include Dr. John Innes (Forest Management), Dr. John Barker (Silviculture), Dr. Peter Arcese (Conservation Biology) and Dr. Dan Moore (Forest Hydrology – 1/3 joint appointment, 2/3 with Geography). They will join Dr. Fred Bunnell (Conservation Biology, Director of the Centre for Applied Conservation Biology) and Dr. Roy Sidle (Forest Hydrology – 2/3 joint appointment, 1/3 with Geography).

The table below provides basic indicators of the Faculty's activities over the past five years, along with our forecast for the 1999/00 academic year.

Faculty of Forestry Activities, 1994/95 – 1999/00e

	94/95	95/96	96/97	97/98	98/99	99/00e
Undergraduate enrolment ¹	452	522	591	621	627	620
Distance credit education (fte)	22	29	36	37	29	31
Graduate enrolment	180	189	201	209	206	215
Diploma in Forestry	–	73	47	48	53	101
Diploma in Forest Engineering	–	–	–	45	93	107
Teaching Evaluation Index ²	2.28	2.25	2.24	2.31	2.27	–
GPOB (\$000) ³	4,939	4,808	4,798	4,741	4,865	4,905
GPOB/WFTE ⁴	\$2,714	\$2,340	\$2,129	\$1,989	\$2,076	\$2,031
Extramural funding (\$000) ⁵	5,079	7,141	10,409	9,089	8,929	9,000
Endowment income (\$000) ⁶	–	–	975	1,011	1,063	1,142
Extramural funding/GPOB faculty member (\$000)	121	188	289	265	255	243

¹Headcount unless otherwise noted.

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

1 = Excellent; 2 = Very Good; 3 = Good; 4 = Fair;

5 = Poor; 6 = Very Poor.

³GPOB = Base recurring budget.

⁴WFTE calculated as 2 x (undergraduate + extrasessional + diploma/3) + 4 x Masters + 6 x Ph.D. students.

⁵Research + special purpose + endowment (until 1996/97; shown separately after this).

⁶Endowment income separated from extramural income from 1996/97 onwards.

DEAN'S MESSAGE

This year we have had two retirements. Dr. Gordon Weetman has retired after 22 years as Professor of Silviculture. In addition to significant contributions in B.C. and nationally in his area, Dr. Weetman has played a major role in the founding of the Silviculture Institute of B.C. He has also served on the Council of the Association of BC Professional Foresters for the past five years. Dr. Gene Namkoong has retired after five years as head of the Department of Forest Sciences. During his period with us, Dr. Namkoong has maintained his world leadership role in forest and conservation genetics. His contributions were recognised in 1993 when he was awarded the Marcus Wallenberg Prize. The Faculty will honour Dr. Namkoong at a symposium on *“Unifying Objectives of Evolution, Conservation and Breeding”* in July. Details are available from the Forest Sciences Department. Our most recent appointments are Dr. Urs Buehlman in Wood Products Processing and Dr. Gary Bull in Forest Resources Management. Faculty searches are currently underway for new appointments in Forest Recreation and in Wood Composites.

Undergraduate enrolments have increased steadily over the past five years as the full Natural Resources Conservation and the Wood Products Processing programs were taught. We expect undergraduate enrolments to be maintained at around the 620 level. In 1998/99 women comprised 38 per cent of the undergraduate enrolment. Self-reported First Nations students totalled 17 representing 13 nations. More than 50 per cent of these students are women. Forestry took over the administrative responsibility for the First Nations Professional Science Access Program. After a detailed review of the program, it was decided that, in the absence of further provincial funding, it would not continue. A valuable set of guidelines was developed that will enable us to pursue alternative access routes to university programs by developing ladder opportunities from regional colleges.

In this past year, 19 Forestry students were on international exchanges in 16 countries, and 27 students were visiting UBC. Forestry students are also undertaking work internships in six countries. UBC Forestry is now a member of a European Union-Canada student mobility program *“Human Dimensions in 21st Century Forestry”* that will involve full session undergraduate student exchanges as well as providing an opportunity for graduate students to participate in a short-term intensive field course.

After extensive deliberations on faculty organisation last year, our departmental structure was retained. A series of program directors and advisors have been identified to ensure that each of our five undergraduate programs has a faculty member who is responsible for maintaining an overview of program development and who can also be a contact person for the students.

Graduate student enrolment has been sustained at a little over 200. Of the 81 Ph.D. students, 21 per cent are women while 38 per cent of the Masters students are women. We have 26 countries represented by our 69 international graduate students.

Financial support for forestry research by Forest Renewal BC has declined as a direct result of their cancellation of the competition for new research grants. In addition there have been reductions in financial support from the Ministry of Forests and the Ministry of Environment, Lands and Parks as a result of greatly reduced provincial support. We did, however, receive \$751,000 in new funding from the Canada Foundation for Innovation which was matched in part by \$340,000 from the B.C. Knowledge Development Fund. These awards will greatly enhance our infrastructure for the Genetic Data Centre, the Centre of Excellence in computer-aided decision support, the Advanced Wood Processing Systems Laboratory, and the aquatic-terrestrial ecosystem research project at our Malcolm Knapp Research Forest in Maple Ridge.

We have continued to strengthen our relationships with donor and alumni giving through the Development Office. Tara MacKenzie, who has worked tirelessly on our behalf, has recently been promoted and we welcome Doug Nelson to this important role of maintaining the linkages with our private sector donors. Last year Forestry received \$853,000 in support of awards, the Forest Sciences Centre and forestry initiatives.

This year also saw the following highlights:

- The first graduates from the Wood Products Processing program. The occasion was celebrated in conjunction with the grand opening of the new premises for the Centre for Advanced Wood Processing.
- Wood Products Processing students received co-op placements in primary and secondary wood processing firms across Canada.

- Over 75 people attended a Peter Wall interdisciplinary workshop on the topic of “*Linking Sustainability to Aesthetics: Do People Prefer Sustainable Landscapes?*” Abstracts of the papers from this workshop are available on our web site.
- Our professional programs in Forest Resources Management and Forest Operations were reviewed by the Canadian Forestry Accreditation Board.
- Grants from the UBC Teaching and Learning Enhancement Fund totalling \$76,047 were received for a variety of projects to improve the learning environment in the Faculty.

The Silviculture Institute of British Columbia and the Institute of Forest Engineering of British Columbia amalgamated to form the new Silviculture and Forest Engineering Institute of British Columbia (SFEIBC). SFEIBC offers graduate Diplomas in Forestry and in Forest Engineering as well as a Technical Module program in Advanced Silviculture for forest technologists and technicians.

The Natural Resources Conservation undergraduate program was awarded the Alfred Scow Award for exceptional contributions to the student experience and learning environment at UBC. The program was lauded for demonstrated consideration for the broad range of student needs, its openness and flexibility. The program has been enhanced by grants from the Teaching, Learning and Enhancement Fund which have been used to develop a web site on which possible summer positions are posted along with student resumes. The most recent addition to this site is a listing of positions where students can volunteer to gain experience in conservation related activities. Students are responsible for searching out the information to include on this site and for maintaining its currency. The site can be reached from Forestry’s home page.

Our director of the Research Forests for the past five years, Peter Sanders, has retired after more than 25 years of service to the Malcolm Knapp Research Forest. In addition to his director role he was also manager of the MKRF for the past five years. Our new director is Ken Day. Ken will retain his role as manager of the Alex Fraser Research Forest in Williams Lake as well as helping us create a non-profit society that will uplift a special use permit from the Ministry of Forests for the Aleza Lake Research Forest in Prince George which will be jointly managed with the University of Northern British Columbia.

Plans for 1999/2000

We will continue to develop our research and teaching capabilities so we can fully participate in the academic plan developed in support of TREK 2000. Some of the specific activities will include:

- Ensuring the completion of outstanding items for the commissioning of the Forest Sciences Centre.
- Completing revisions of the B.S.F. program which have been in development for more than three years.
- Identifying and recruiting faculty for the Wood Products Processing program and developing strategy for Canada-wide recruitment.
- Delivering the component courses of the planned Fibre and Wood, Research and Education in Science and Technology (FAWREST) graduate, non-thesis program.

The search for a new dean is underway and we hope that the appointment will be made by year’s end. With our full complement of faculty we look forward to developing the Faculty’s teaching and research capabilities and strengthening our interdisciplinary interactions with other units on campus. We also look towards greater provincial, national and international participation so that the global position of British Columbia forestry is better understood by both those who manage our extensive public resources and those who express opinions on the way we should manage our forests. I thank all those who have supported the Faculty of Forestry over this past year and would be happy to receive any advice that would improve the way we steward the resources entrusted to us.



John A. McLean
Acting Dean, Faculty of Forestry

UNDER-GRADUATE STUDENTS

PROGRAMS OF STUDY

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THE Faculty of Forestry offers four-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, aesthetics, 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 environments. 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.

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

This degree 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.

■ **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. Students may choose an area of concentration in business, primary processing, product development, or wood building and design. In addition, qualified fourth year students may opt for a minor in Commerce. Graduates develop strong teamwork, leadership, and communication skills. An extensive five-year co-operative option is available.

■ **Natural Resources Conservation**

B.Sc. (Natural Resources Conservation)

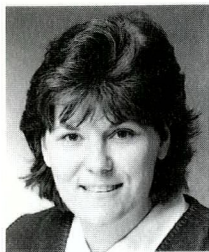
This multidisciplinary program provides students with a solid foundation in the natural and social sciences underlying management and conservation of natural resources, as well as an appreciation for the political and socioeconomic contexts which affect conservation strategies. Students develop a working 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 integrated field and classroom instruction throughout the fall term.

PROGRAM UPDATES IN 1998-99

- Wood Products Processing program proudly announced its first graduating class. All graduates have been offered jobs in the industry.
- The Natural Resources Conservation program advisory committee has established the Clark S. Binkley award to recognize undergraduate students who devote exceptional energy to enhancing the program.
- Five students admitted into the new International Forestry specialization.
- In consultation with the Association of Professional Engineers and Geoscientists of B.C., a course syllabus has been developed which can be integrated with the Forest Operations major. Students may now become eligible for registration in B.C. as professional engineers (P.Eng.).
- Natural Resources Conservation Career Services web site created and maintained by students in the Natural Resources Conservation program (www.forestry.ubc.ca/programs/webcontent/conspg.html).
- Natural Resources Conservation program received Alfred Scow Award for exceptional contributions or improvements to student experience and learning environment at UBC for an undergraduate program or department.

PLANS FOR 1999-00

- Submit to UBC Senate the proposed revisions to the Forest Resources Management program.
- Increase enrolment in the Wood Products Processing program.
- Makes changes to Natural Resources Conservation courses in response to student input.



Helen Samson
Coordinator
Student Services

■ Forestry Undergraduate Recruiting

Student Services in the Faculty of Forestry is a team of professionals working to recruit students from a broad range of backgrounds, across B.C. and Canada. We visit career fairs, high schools, colleges and universities on a rotational basis to reach potential students. We also talk with principals, guidance counsellors, advisors and teachers to ensure that they are familiar with our programs of study, entrance requirements and transfer credits. Our office produces and supplies schools and community organizations with informational material for distribution to potential students. We also work closely with the UBC Student Recruitment Office in campus-wide new student initiatives, as well as out-of-province recruiting activities.

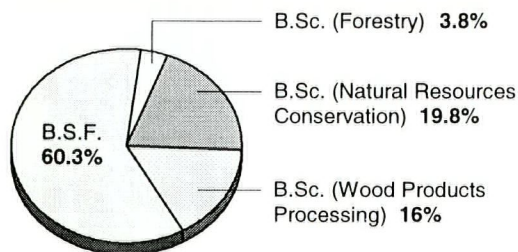
■ New Student Enrolment

In total, 156 new students entered the Faculty this year, down slightly from previous years. The numbers entering into the different years are tabulated below.

New students entering the Faculty – 1998/99

Year of study	Number of new students entering
1	87
2	63
3	6
Total	156

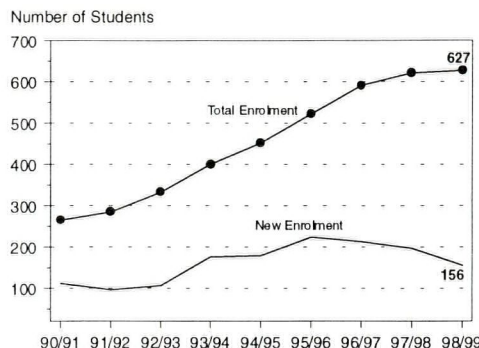
The B.S.F. degree programs (Forest Resources Management and Forest Operations) continue to be the most popular with new students. The chart below illustrates degree choices of new students in 1998/99.



*Degree programs entered by new students
1998/99*

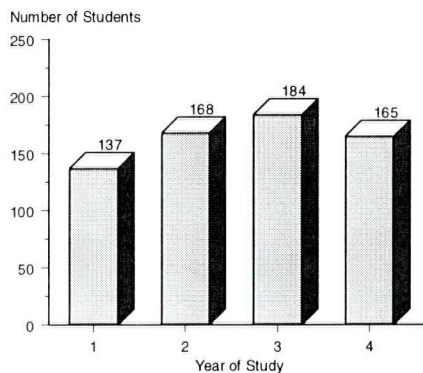
■ Total Enrolment

Undergraduate enrolment was maintained at a high level for the 98/99 session (see graph below) with a record 627 students (plus 27 visiting and exchange students).



*Total enrolment and new enrolment
1990/91 – 1998/99*

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



Enrolment by year of study – 1998/99

The largest number of undergraduate students were enrolled in the Forest Resources Management program. The following table provides a breakdown:

Distribution of students by program – 1998/99

Program	Number enrolled	% of total
Forest Resources Management	289	46.1
Forest Operations	78	12.4
Forest Science	30	4.8
Wood Products Processing	85	13.6
Natural Resources Conservation	123	19.6
Undeclared (first year students)	22	3.5
Total	627	100%

Female students represented 38 per cent of the total enrolment. Self-declared First Nations students comprised 2 per cent of undergraduate students.

RECRUITMENT AND ENROLMENT

Undergraduate Students

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AWARDS

Undergraduate Students

FIRST YEAR STUDENTS

Anderson, T.C.	Chisholm, HRM ¹ , Out
Bintner, Eli, G.	Steneker
Brace, J.E.	Weldwood
Danforth, H.L.	Banks, Out
Gough, A.D.	Banks, Out
Kluczny, B.C.	Out, Splan
Mee, J.A.	Chisholm, HRM ¹ , Out
Paniec, K.A.	White
Price, S.P.	Banks
Schulz, R.J.	Banks, Out, Splan
Stanger, N.R.	Banks
Treat, A.G.	Banks
Werner, J.R.	Banks
White, S.	Out
Willems, J.L.	Banks

SECOND YEAR STUDENTS

Anderson, A.E.	Northwood
Aven, N.W.	Splan
Biggin-Pound, S.A.	Steneker
Blomfield, H.D.	Soderman, Splan, UBC
Burnes, S.R.	Splan, Steneker
Cockle, K.L.	Chisholm, Entrance, HRM ¹ , Steneker
Deslauriers, L.P.	Brock
Erlendson, J.L.	Machinery, Out, Splan
Fillion, K.C.	Berthier, MB
Flintoff, E.D.	Brock
Forbes, L.	Brock, Gage, Soderman, Splan, UBC
Gierc, N.J.	UBC
Gilbert, B.D.	GTSE, Siddoo
Gooding, N.D.	UBC, Weldwood
Hales, S.M.	Splan
Lam, J.L.T.	UBC
Laubman, R.C.	Brock
Le Couteur, A.C.	Banks, Brock, Little, MB, Out
Louie, K.C.	Brock, Splan
Luisser, F.S.	Hindmarch
McGladdery, W.T.	HRM ¹ , Splan, UBC
Mills, T.J.	Splan
Murphy, N.F.	Brock
Ogasawara, J.T.	Binkley
Reed, R.M.	Siddoo, UBC
Reedman, D.M.	Banks, Out, Splan
Smith, E.D.	Banks, Soderman
Sollberger, E.A.	Banks
Stavness, C.L.	Out, Splan
Wunderlick, A.W.	Banks, Out

Full Name of Award

ABCPF¹ Best Graduating Essay.
ABCPF² Best Graduating Thesis.
 UBC Forestry **Alumni** Division.
Backman¹ Schol. in Nat. Resour. Con.
Backman² Schol. in For. Resour. Mgmt.
 Charles & Jane **Banks** Schol.
 John D. **Beaty** Memorial Schol.
 Pierre **Berthier** Ed. Abroad Schol.
 Emily & Francis **Binkley** Schol.
 Hugh M. **Brock** Ed. Abroad Schol.
 Canadian Institute of Forestry **Medal**.
 Hugh R.D. **Chisholm** Schol. in Forestry.
 Robert J. **Craig** Memorial Schol.
 Galt **Elkington** Memorial Schol.
Entrance (renewal) Schol.

Walter H. **Gage** & Elsie M. Harvey
 Ed. Abroad Schol.
 Group of Ten Student Exch. Schol.
 Bob **Hindmarch** Award.
Honours Standing.
H.R. MacMillan¹ Schol. in Forestry.
H.R. MacMillan² Prize in Forestry.
H.R. MacMillan³ Prize in For. Harv.
 Ted **Johnson** Schol. in Forestry.
 Malcolm **Knapp** Spring Camp Prize.
 David Bell **Little** Memorial Schol.
Machinery & Supply Companies
 Group Forestry Schol.
 MacMillan **Bloedel** Schol. for Forestry.
 James Russell **Mills** Memorial Award.

Robert E. **Mills** Memorial Award.
Northwood Pulp and Timber Limited.
Outstanding Student Initiative Schol.
 Kapoor Singh **Siddoo** Schol.
 Oscar **Soderman** Memorial Schol.
 Paul R. **Steiner** Memorial Schol. in Wood.
 Daniel J. **Steneker** Ed. Abroad Schol.
 William John **Splan** Schol. in Forestry.
Timberline Schol.
 University of BC Schol.
Weldwood Schol. in Forestry.
 Mary & Robert **Wellwood** Memorial
 Schol. in Wood Sci. & Ind.
 Harold Anderson **White** Schol.

THIRD YEAR STUDENTS

Auld, G.S.	Backman ² , Splan, UBC
Bloemhard, M.N.	Steneker
Burke, M.P.	Wellwood
Caskey, J.R.	Weldwood
Chessor, L.C.	Soderman
Errington, R.C.	Backman ² , Elkington, Entrance
Gabert, J.R.	Soderman
Haddock, R.L.	Out, Splan
Hansen, S.P.	Splan
Harsch, S.K.	Banks
Hayward, A.J.	Out, Johnson, Craig, Chisholm
Hikisch, C.M.	Beaty, English, R.E. Mills
Kerr, D.L.	Splan, GTSE
Lefebvre, N.	Splan
Leo, J.Y.H.	Splan
Meiklem, E.D.	Steiner
Mitchell, S.A.	Brock
Muter, D.M.R.	Soderman
Newton, J.A.	Splan
Ng, C.S.M.	Out, Soderman
Nichols, P.J.	Soderman
Payne, L.D.	Soderman
Plautz, A.M.	Soderman
Sear, M.	Northwood, Timberline, UBC
Swanson, C.M.	Knapp
Thompson, C.W.	UBC, Splan
Turner, J.S.	Banks
Wild, J.A.	Backman ¹ , Splan, UBC
Wong, A.Y.	J.R. Mills, Alumni

FOURTH YEAR STUDENTS

Affleck, D.	Honours, HRM ²
Collins, B.	CIF Medal
Comey, R.	Honours
Deith, L.	Honours, HRM ³
Friesen, C.	Honours
Knight, S.	ABCPF ¹
Matthes, G.	ABCPF ²
Watt, G.	Honours

Degrees Conferred, May 1998 and November 1998 Congregations

■ B.S.F. Forest Resources Management

Aldridge, R.W.
Anderson, A.D.
Armour, C.A.
Balbirnie, W.A.
Benner, J.F.
Bjarnson, K.
Brandli, P.
Butcher, M.L.
Callison, D.A.
Cedervind, H.
Code, C.E.
Cole, T.A.
Crowe, K.A.
Dahle, K.M.
Deas-Dawlish, R.W.
Denis, C.E.
Dodge, T.
Dresen, M.D.
Engelbertink, R.
Fraser, J.M.
Friesen, C.D.
Fulton, G.
Gardner, K.E.
Harris, P.
Hart, R.M.
Hartley, I.D.M.
Harvey, C.A.
Hassard, E.G.
Hogan, M.D.
Hyndman, J.D.
Inwood, B.G.
Jacques, G.D.
Janssen, B.G.
Jeffreys, T.
Kazakoff, W.R.
Kearns, S.M.
Marcoux, D.
Marcus, B.E.
McKay, R.J.
Nomura, A.T.
Nordquist, D.
Parker, B.T.
Parmar, S.
Petryk, A.L.
Puls, L.J.
Remple, V.P.
Schulz, J.D.
Sellgren, M.J.
Shook, M.M.R.
Snow, C.M.
Soluri, J.
Stewart, J.C.
Strobel, L.C.
Talarico, T.J.
Tan, V.C.C.
Telford, B.

Thimer, M.
Turner, R.K.
Upward, D.A.
Vanderstarre, L.R.
Verschoor, P.G.
Walker, C.
Watson, W.J.
Watt, G.N.
Weber, Q.C.S.
Wenman, C.P.
West, J.E.
West, K.L.
Wilson, B.A.
Wilson, C.
Wong, I.

■ B.S.F. Forest Operations

Comey, R.J.
Deith, L.K.
Foster, M.J.
Knight, S.M.
Landers, M.T.
Szeman, J.A.
Zimmermann, J.L.

■ B.Sc. (Forestry) Forest Science

Affleck, D.L.R.
Collins, D.B.
Coulthard, M.J.
Gelok, E.Y.
Krakowski, J.
MacDonald, P.A.
Matthes, G.W.
Mortimer, M.A.
Ota, Y.
Ronalds, P.C.
Terry, A.N.
To, J.H.

■ B.Sc. (Natural Resources Conservation)

Bawa, M.
Beardsmore, C.T.
Buller, M.S.
Bullock, C.L.
Croft, C.D.
Erickson, K.D.
Ford, B.J.
Forsyth, J.P.
Frolek, J.L.
Hunter, D.J.
Kovics, E.M.
Kreiger, K.J.
Mayhew, M.H.
Moody, R.
Mui, K.L.

Scott, R.E.
Tam, K.K.Y.
Tobler, P.
Wagenaar, J.
Watkinson, S.J.
White, D.
Wise, H.J.
Young, D.C.

■ B.Sc. (Forestry) Wood Science & Industry

Aliverdi, P.
Eng, W.D.
Ho, J.K.H.
Scarborough, D.W.
Tang, D.F.
Thiara, P.S.
Yakura, A.L.S.

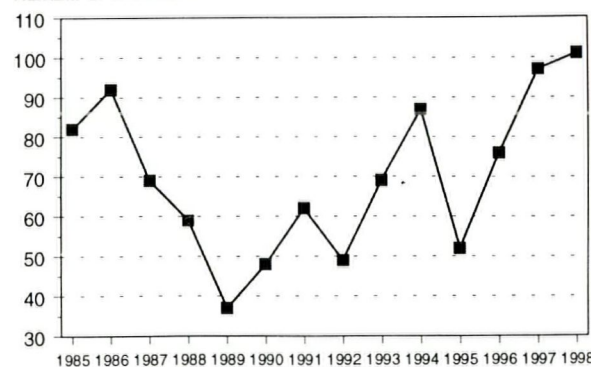
■ Diploma in Forestry (Advanced Silviculture)

Beaudry, E.J.
Curtis, S.D.
Forrester, C.
Gibson, C.
Hoskin, B.
MacDougall, G.
Makitalo, A.
Mitchell, R.D.
Oberik, T.M.
Peel, K.
Perdue, D.J.
Sunderland, J.
Szauer, T.A.
Thorpe, S.J.
Todd, G.C.

GRADUATION STATISTICS

Undergraduate Students

Number of Graduates



Number of students graduating 1985 – 1998

GRADUATE STUDENTS

ENROLMENT STATISTICS

■ Graduate Programs

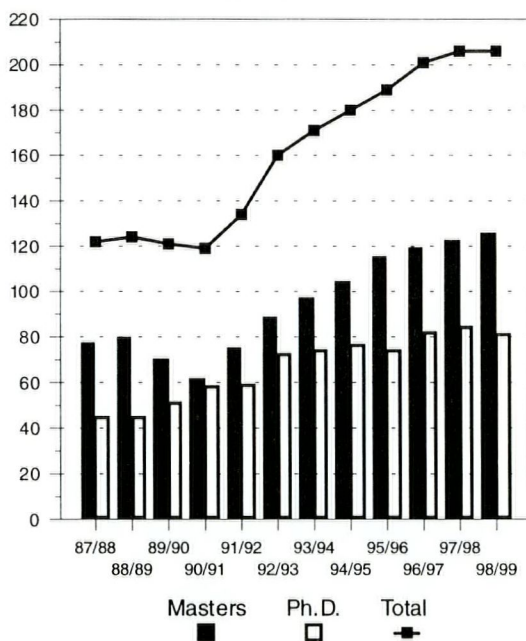
The Faculty of Forestry offers four graduate degrees:

- 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 69 per cent over the past decade. Today there are 206 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 1987 there were only 45 enrolled in the program, whereas today there are 81 students. In this same period the number of Masters students has risen from 77 to 125.

Number of Graduate Students



**Graduate student enrolment
1987/88 – 1998/99**

Women comprise 38 per cent of our Masters and 21 per cent of our Doctoral students, for an overall average of 31 per cent. The following table shows enrolment data for 1998/99.

Graduate student enrolment 1998/99

Degree	Male	Female	Total
Ph.D.	64	17	81
M.F.	10	1	11
M.Sc.	65	46	111
M.A.Sc.	3	0	3
Total	142	64	206

As of October, 1998.

The proportion of graduate students from outside of Canada has remained fairly constant over the past few years and presently stands at 49 per cent of Doctoral and 23 per cent of Masters students. A total of 26 countries are represented in the graduate student body.

■ Graduate Student Funding

In the 1998/99 academic year, Forestry graduate students were awarded support totalling \$2,146,751, a slight increase over 1997/98 funding levels. This consisted of \$462,600 in scholarship funding, \$314,006 in graduate teaching assistantships and \$1,370,145 in graduate research assistantships (provided by research supervisors from their research grants).

**Graduate student enrolment and funding
1998/99**

Department	No. graduate students	Total funding
Forest Resources Management	63	\$484,125
Forest Sciences	101	\$1,142,539
Wood Science	42	\$520,087

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VOGLER, Hiltrud M.

Graduate Secretary
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MASTERS STUDENTS

Affleck, David	UGF	Kovacs, Christina	MacMillan
Baleshta, Karen	GREAT	Lessard, Robert	Hanson, McPhee
Bortolot, Zachary	VanDusen	MacKillop, Debra	NSERC
Boss, Shelly	Macaree	Melles, Stephanie	Hoffmeister
Boyland, Marc	NSERC	Melody, Jill	VanDusen
Brescia, David	GREAT	Nairn, James	GREAT
Csom, Gyongyver	Lumber, McPhee	Paczek, Susan	NSERC
Dettman, Jeremy	Buckland, McPhee	Perreault, Pamela	Koerner
Fernandez, Marc	NSERC Industrial	Pritchard, Emily	UGF
Fleet, Carlos	GREAT	Robinson, Jamie	GREAT
Goodinson, Clive	Allen, McPhee	Stankovich, Larisa	McPhee
Haag, Devon	GREAT, NSERC	Stonewall, Adam	McPhee
Hoffman, Bradford	GREAT	Su, Weiben	Heller, McPhee
Kim, Agi	McPhee	Vera, Paula	Namkoong
Kim, Hyeon Jeong	McPhee		

SCHOLARSHIPS AND FELLOWSHIPS

Graduate
Students

DOCTORAL STUDENTS

Albani, Marco	Chisholm, UGF	Mahong, Nancy	NSERC
Bennett, Jennifer	NSERC	McCarthy, John	Cochran, McPhee
Bennuah, Sampson	Commonwealth	McDermott, Connie	VanDusen
Clouston, Peggi-Lynn	Weyerhaeuser	Mtiraoui, Ahmed	McPhee
D'Eon, Robert	Canfor, NSERC	O'Connell, Lisa	NSERC
Garcia, Pablo	UGF	Ramsfield, Tod	GREAT
Harrison, Scott	UGF	Ratkovic, Nevena	Bassett
He, Ming	McPhee	Soong, Jwo-Jy	McPhee
Heinzelman, Frank	McPhee	Suratman, Nazip	Commonwealth
Hope, Sharon	VanDusen	Wang, Honglong	UGF
Ivkovich, Milosh	VanDusen	Weber, Adrian	GREAT, NSERC
Kinyua, Patric	CIDA	Young, Kyle	McPhee
Kull, Bob	McPhee		

Full Name of Award

George S. **Allen** Memorial Scholarship.
Edward W. **Bassett** Memorial Scholarship in
Reforestation.
Don **Buckland** Memorial Scholarship in Forest
Pathology.
Canadian Forest Products Ltd. Fellowship in Forest
Wildlife Management.
Canadian International Development Agency
Scholarship.
Hugh Robert Duncan **Chisholm** Scholarship in
Forestry.
Ralph M. and Elizabeth E. **Cochran** Scholarship.
Commonwealth Scholarship.
Graduate Research Engineering And Technology
Awards.
Brenda **Hanson** Memorial Scholarship in Forestry.
Paul **Heller** Fellowship.

Bert **Hoffmeister** Scholarship in Forest Wildlife.
Michael and Sonja **Koerner** First Nations Fellowship
Lumber Inspectors' Benevolent Society Scholarship.
Mary and David **Macaree** Fellowship in Sustainable
Agricultural or Forest Resource Ecosystems.
MacMillan Bloedel Limited Fellowship in Forest
Mensuration.
Donald S. **McPhee** Fellowship.
Namkoong Family Fellowship in Forest Sciences.
Natural Sciences and Engineering Research Council
of Canada Scholarship.
Natural Sciences and Engineering Research Council
of Canada **Industrial** Postgraduate Scholarship.
University Graduate Fellowship.
VanDusen Graduate Fellowship.
Weyerhaeuser Fellowship in Wood Design
Management.

Degrees Conferred, May 1998 and November 1998 Congregations

M.F.

DAY, Kenneth *Dr. G.F. Weetman*
Selection management of interior Douglas-fir
for mule deer winter range.

DUREPOS, Marco *Dr. D.H. Cohen*
The technology markets and products of
softwood sawmills in the Maritime provinces.

LYONS, Charles Kevin *Dr. J.D. Nelson*
Helicopter logging productivity in dispersed
and aggregate partial retention systems.

HAYWARD, Jeffrey *Dr. G. Baskerville*
Evaluating North American certifiers of
forest management: Professional
perspectives on forestry assessments.

LEONE, Robert *Dr. C. Breuil*
The characterization and biodegradation of
aspen stearyl esters and waxes.

LUMME, Minna *Dr. J.N. Saddler*
The effects of hydrolytic enzyme treatments
on three British Columbian interior fir
kraft pulps differing in their initial fiber
coarseness.

SANDERS, Rebecca *Dr. P. Wood*
Rawlsian justice: A philosophical
justification for conservation?

SAVOIE, Anne *Dr. D.H. Cohen*
Benchmarks for Quebec sawmilling.

SHARP, Nyree *Dr. F.L. Bunnell*
Bird-habitat associations and simulated
effects of logging on bird habitat in the
Aspen Boreal Mixedwood.

SIDHU, Avtar *Dr. S.C. Ellis*
The effect of molar ratio and pH during
synthesis on the performance of phenol-
melamine-formaldehyde adhesives.

WANG, Jianhe *Dr. F. Lam*
Nondestructive evaluation of veneer quality
based on acoustic wave measurements.

XU, Ping *Dr. Y. El-Kassaby*
Long-term growth responses in Sitka spruce
populations to geoclimatic changes from
IUFRO provenance trials in British
Columbia.

DAVRADOU, Maria *Dr. G. Namkoong*
Western ethical theories and their implica-
tions for the preservation of species at risk.

FUCHS, Marilyn *Dr. P.L. Marshall*
Seedling ecology of garry oaks in British
Columbia and dispersal of garry oak acorns
by Steller's jays.

M.Sc.

ATWOOD, Lynne *Dr. F.L. Bunnell*
Ecology of the microbiotic crust of the
antelope-brush (*Purshia tridentata*) Shrub
steppe of the south Okanagan, British
Columbia.

BENOWICZ, Andy *Drs. Y. El-Kassaby/R.D. Guy*
Genetic differences in physiological and
morphological characteristics of Sitka alder
populations in British Columbia.

BULL, Jennifer *Dr. C. Breuil*
Immunoassays for two quaternary ammo-
nium compounds, benzyldimethyldodecyl-
ammonium chlorid (BDD₁₂AC) and
didecyltrimethylammonium chlorid (DDAC).

CHOW, Gordon *Dr. T. Maness*
A comparison of twenty simulated strategies
for achieving maximum parts value recovery
(or profit) in chop saw operations.

DAVRADOU, Maria *Dr. G. Namkoong*
Western ethical theories and their implica-
tions for the preservation of species at risk.

FUCHS, Marilyn *Dr. P.L. Marshall*
Seedling ecology of garry oaks in British
Columbia and dispersal of garry oak acorns
by Steller's jays.

DEGREES GRANTED

Graduate Students

Ph.D.

COATES, Kenneth D. *Dr. G.F. Weetman*
Tree species response to gap formation in
partially-cut interior cedar – hemlock forest
of northwestern British Columbia.

KINYUA, Patrick I.D. *Dr. G.F. Weetman*
Game ranching in Machakos District, Kenya:
An application of mathematical programming
to the study of wildlife policy.

KISHCHUK, Barbara E. *Dr. G.F. Weetman*
Sulphur availability on interior lodgepole
pine sites.

MAILLY, Daniel *Dr. J.P. Kimmins*
Influence of the disturbance regime on
forestry succession in the Coastal Western
Hemlock Drier Maritime Subzone, British
Columbia.

MANSFIELD, Shawn *Dr. J.N. Saddler*
Enzymatic modification of Douglas-fir pulp.

NEMETO, Akihiko *Dr. D. Haley*
Changes in aboriginal property rights: A
chronological account of land use practices
in the Lil'Wat Nation.

SINGH, Ramvir *Dr. D. Haley*
Evolution of forest tenures in India: Implica-
tions for sustainable forest management.

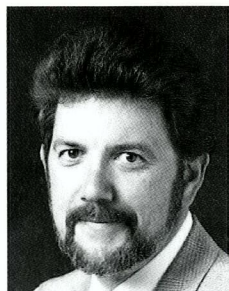
WANG, Sen *Dr. G.C. van Kooten*
Contractual structure in British Columbia's
silviculture sector: A transaction cost
economic analysis.

ZHONG, Anliang *Dr. J.P. Kimmins*
Efficacy of secondary biosolids fertilization
in a managed Douglas-fir forest in the coastal
western hemlock zone in British Columbia.

DEGREES
GRANTED

Graduate
Students

OFFICE OF THE DEAN



McLEAN, John A.

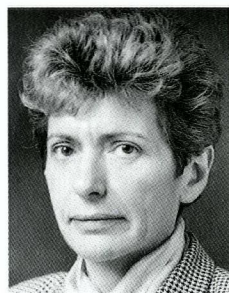
B.Sc., M.Sc. (Auckland), Ph.D. (S. Fraser), F.R.E.S., R.P.Bio.

Acting Dean

Phone: (604) 822-2467

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FACULTY AND STAFF



BREUIL, Collette

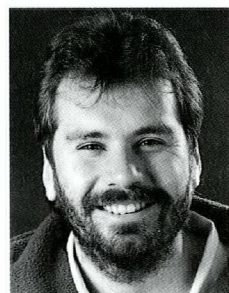
B.Sc. (Lyon), M.Sc. (Ottawa), Ph.D. (Lyon)

Associate Dean, Research

Responsible for the promotion of research and for overseeing administration of all externally-sponsored research activities.

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CHANWAY, Christopher P.

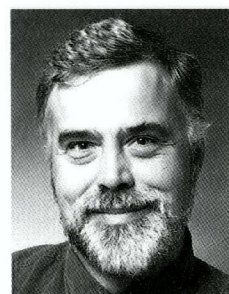
B.Sc. (Winn.), B.S.Ag. (Manit.), M.Sc., Ph.D. (Brit. Col.)

Associate Dean, Graduate Studies

Responsible for administering all aspects of Forestry graduate programs.

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MARSHALL, Peter

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

Associate Dean, Undergraduate Studies

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

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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.

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First Nations Forestry Programs**

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Development Officer

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Student Services**

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**Associate Director
International Forestry Programs**

**FACULTY
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STAFF**

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ATKINSON, Wendy
B.A. (Hons.) (Vic., BC)
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Phone: (604) 822-2176
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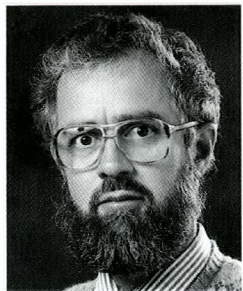
TURNER, Ron
B.A. (Brit. Col.)
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HARTSON, Donna
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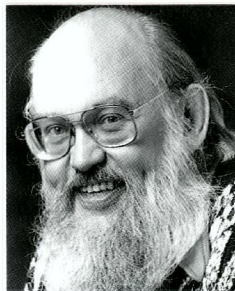
**FOREST
SCIENCES
DEPARTMENT**



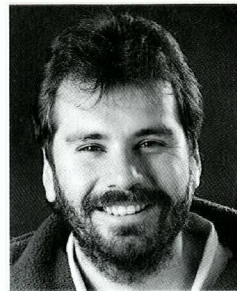
Bart van der Kamp
Head



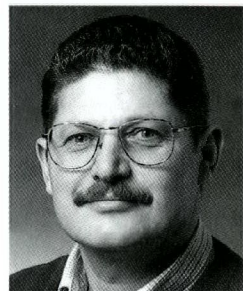
Sally Aitken



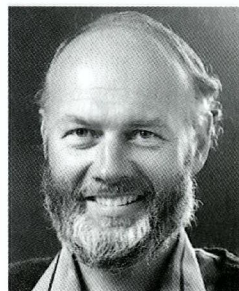
Fred Bunnell



Chris Chanway



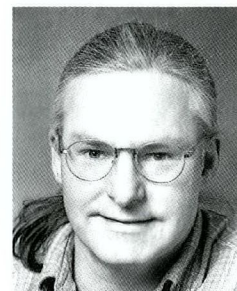
Yousry El-Kassaby



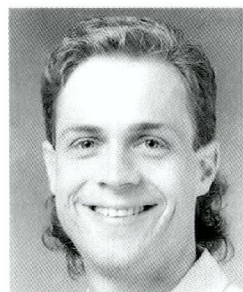
Michael Feller



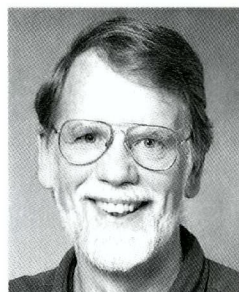
Susan Glenn



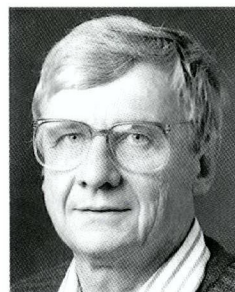
Robert Guy



Scott Hinch



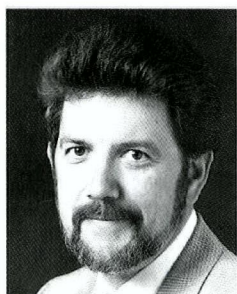
**J.P. (Hamish)
Kimmins**



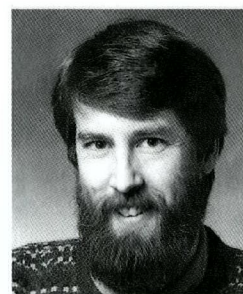
Karel Klinka



Kathy Martin



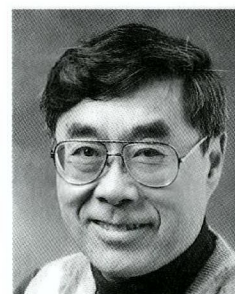
John McLean



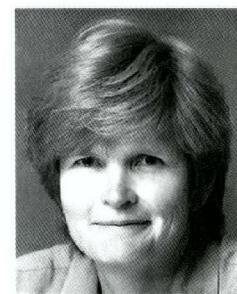
Steve Mitchell



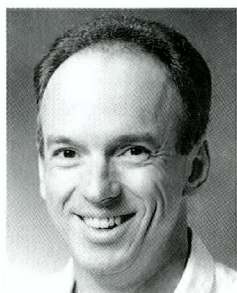
Laura Nagel



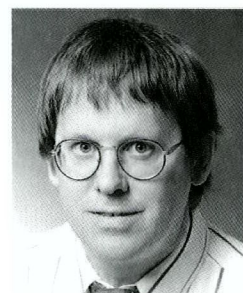
Gene Namkoong



Cindy Prescott



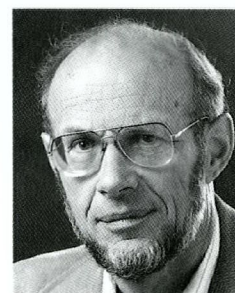
John Richardson



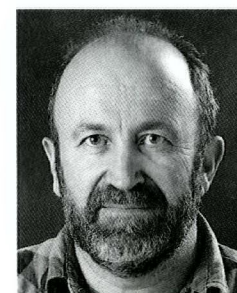
Kermit Ritland



Susan Watts



Gordon Weetman



John Worrall

FOREST SCIENCES DEPARTMENT

FACULTY AND STAFF

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Dept. Fax: (604) 822-9102

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Professor and Head

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E-mail: vdkamp@interchg.ubc.ca

AITKEN, Sally N.

Assistant Professor and Jr. NSERC/Industrial
Research Chair in Population Genetics

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■ Promotions

CHANWAY, Christopher – promoted to professor effective July 1, 1999.

HINCH, Scott – promoted to associate professor and awarded tenure effective July 1, 1999.

ACHIEVEMENTS IN 1998–99

- Dr. Bart van der Kamp was appointed as head of the Forest Sciences Department, replacing Dr. Gene Namkoong who ably led the Department for the past five years.
- The FRBC Chair in Silviculture has been filled by Dr. John Barker, starting July 1, 1999.
- Second FRBC Chair in Applied Conservation Biology has been filled by Dr. Peter Arcese, starting July 1, 1999. He will be involved in teaching of the fourth year course on biological diversity and forest management.
- The Genetic Data Centre, a lab for the collection and analysis of molecular genetic data under the direction of Dr. Carol Ritland, was moved to the Forest Sciences Centre.
- The first major grant to UBC from the Canada Foundation for Innovation (CFI) was awarded to Dr. Kermit Ritland in support of the Genetic Data Centre. Together with matching funds from the B.C. Knowledge Development Fund and UBC, the Centre provided \$955,000 for equipment and related infrastructure costs.
- The move to the new Forest Sciences Centre brought all department members together in one building. This change has increased greatly the interaction among Department members and with graduate students.

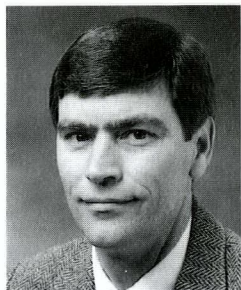
PLANS FOR 1999–00

- Establish an Advisory Committee chaired by Dr. Robert Guy to formulate a department strategic plan.
- Maintain high level of proposals to NSERC, FRBC and other funding agencies, including CFI.
- Appoint a half-time computer specialist to provide computer and network support to the Department.
- The administration services of the Centre for Applied Conservation Biology and our Department will be amalgamated in May. The Departmental Office will be reorganized in keeping with changes in work patterns.
- The Department together with the International Forestry Institute will organize a symposium in honour of Dr. Gene Namkoong's retirement in July 1999.

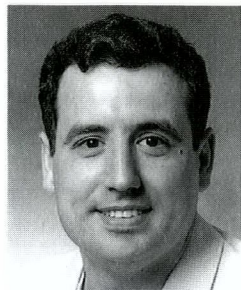
ACHIEVEMENTS AND PLANS

Forest Sciences
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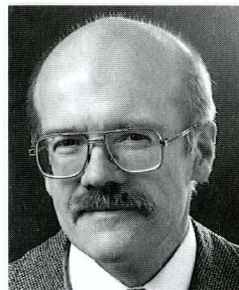
**FOREST
RESOURCES
MANAGEMENT
DEPARTMENT**



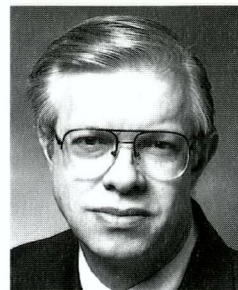
John Nelson
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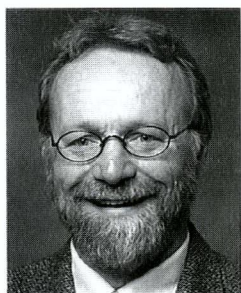
Younes Alila



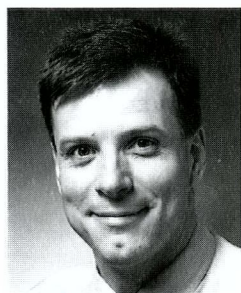
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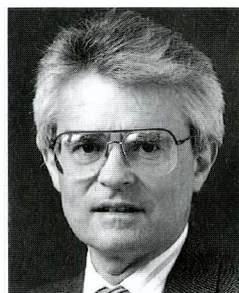
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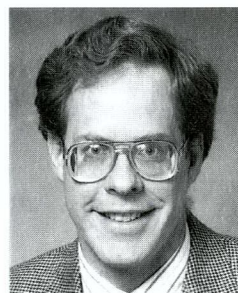
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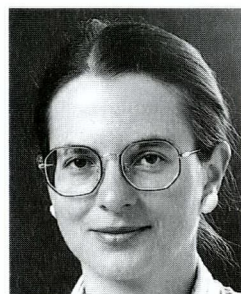
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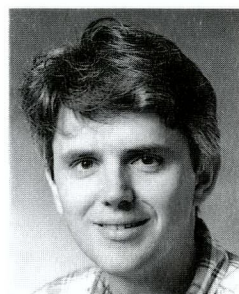
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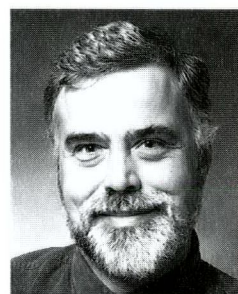
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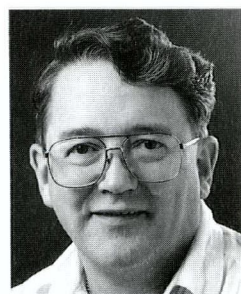
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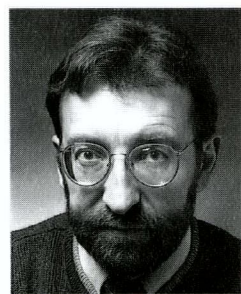
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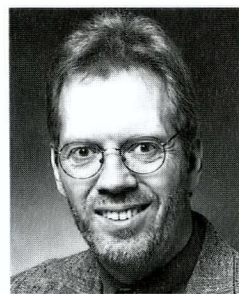
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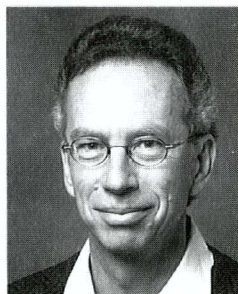
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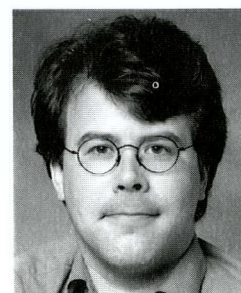
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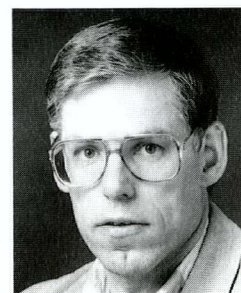
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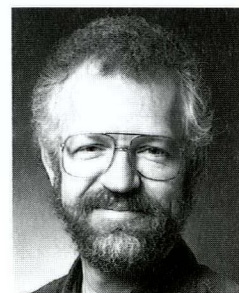
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■ Visiting Faculty

CHONG, Se-Kyung

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- *Forest Inventory and Forest Management*

ZUMRAWI, A.A.

B.Sc. (Hons.) (Kartoum), M.Sc.,
Ph.D. (Oregon State)

- *Forest Biometrics, Growth and Yield Modelling*

■ Sessional Lecturers

CATHCART, Jaime

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

- *Forest Engineering Hydrology*

FROESE, Robert

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

- *Forest Management*

HAGGERSTONE, Bruce

B.Sc. (Brit. Col.), MLA (Harvard)

- *Forest Recreation*

KOSHY, Matthew

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

- *Biometrics*

KOVACS, Christina

B.Sc. (Calif., Davis)

- *Biometrics*

PERDUE, Mark

B.Sc. (Brit. Col.)

- *Natural Resources Conservation*

SANDERS, Rebecca

B.Sc. (Hons.) (Guelph), M.Sc. (Brit. Col.)

- *Conservation Ethics*

■ 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*

■ Research Associates

HAILEMARIAM, Temesgen

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- *Forest Biometrics*

■ Post-doctoral Fellows

WU, Wei Min

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DEMAERSCHALK, Julien P.

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ILES, Kimberley

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MAGNUSSEN, Steen

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WOZNOW, Ron

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BOSSONS, Sandra

Secretary

LAI, Charles

Departmental Clerk

MAEDEL, Jerry

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

SHANNON, Tim

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

VERWOERD, Harry

Research Assistant/Technician

■ Promotion

MARSHALL, Peter – promoted to professor effective July 1, 1999.

■ New Faculty Appointment

BULL, Gary

Dr. Gary Bull joined the Department on March 1, 1999 as an assistant professor in Forest Management. Gary worked extensively with forest products and logging companies in B.C., Ontario and New Brunswick before joining the FAO in 1996, where he worked as a project manager for the global fibre supply model and for information technology applications to forestry. Gary will be teaching forest modelling and forest policy. His research interests concern connecting local needs and demands with a global view and linking spatial levels of forest management.

ACHIEVEMENTS IN 1998–99

- Dr. John Nelson has been appointed as acting head, replacing Dr. Valerie LeMay who held this position from January to December, 1998.
- Appointment of Dr. Gary Bull as assistant professor in Forest Management.
- Appointment of Dr. John Innes as FRBC Chair in Forest Management starting July 1, 1999.

- Appointment of Dr. Dan Moore as second FRBC Chair in Forest Hydrology (2/3 Geog., 1/3 FRM) starting July 1, 1999.
- The move to the new Forest Sciences Centre brought all department members together creating opportunities for collaboration.
- A long-term staffing plan for faculty renewal was developed.
- Agreement was reached on UBC Forest Operations equivalent courses towards the Association of Professional Engineers and Geoscientists of BC Forest Engineering syllabus.
- Our professional programs were reviewed by the Canadian Forestry Accreditation Board.
- Implementation of a new required GIS course in the Natural Resources Conservation program.
- During February, over 75 people attended the symposium "*Linking Sustainability to Aesthetics: Do People Prefer Sustainable Landscapes?*" This international symposium was sponsored by the Peter Wall Institute for Advanced Studies.

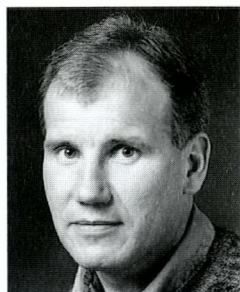
PLANS FOR 1999–00

- Continued development of the new B.S.F. curriculum.
- Recruit an assistant professor in Forest Recreation to be in place by January 2000.
- The department will seek permission to recruit an assistant professor in Forest Operations.
- The department will continue investigating a one-year professional Masters degree in an effort to attract highly qualified students interested in continuing their professional development.
- Several collaborative research proposals will be prepared to address social, economic and environmental issues related to forest management.
- Installation of state-of-the-art visualization equipment (including a new virtual reality lab) and enhanced decision-support capabilities in forestry, using funds awarded to Dr. Stephen Sheppard by the Canada Foundation for Innovation.

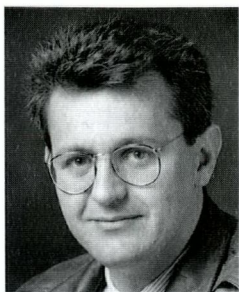
ACHIEVEMENTS AND PLANS

Forest Resources
Management
Department

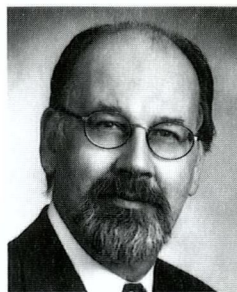
**WOOD SCIENCE
DEPARTMENT**



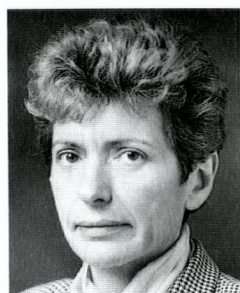
Jack Saddler
Head



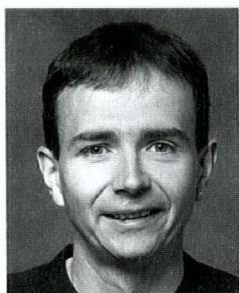
Stavros Avramidis



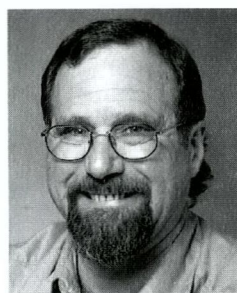
David Barrett



Colette Breuil



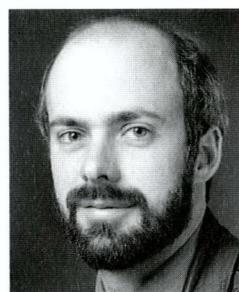
Urs Buehlmann



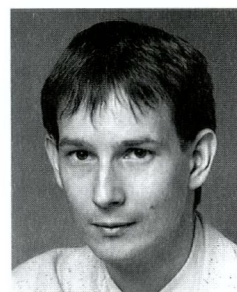
David Cohen



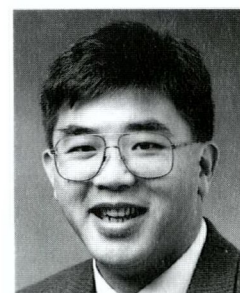
Patrick Cramond



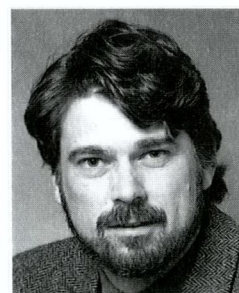
Simon Ellis



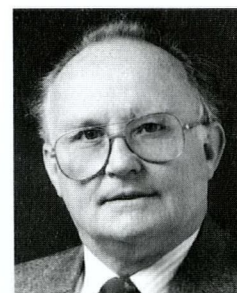
Robert Kozak



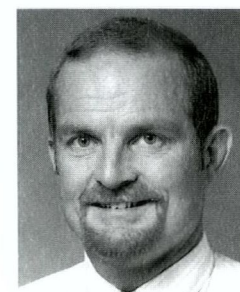
Frank Lam



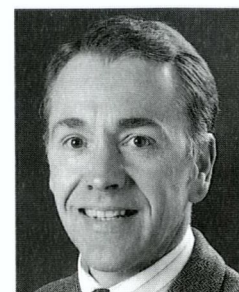
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Laszlo Paszner



Helmut Prion



John Ruddick

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NORLIN, Peter

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SIDHU, Avtar

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WHITTAKER, Leslie
Secretary

ZHAO, Jay
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M.A.Sc., Ph.D. (Brit. Col.)
Computer Specialist

ZHOU, Bingning
B.S. (Harbin), M.Sc. (Brit. Col.)
Research Assistant/Technician

■ Promotion

LAM, Frank – promoted to associate professor effective July 1, 1999.

■ New Faculty Appointment

BUEHLMANN, Urs

Dr. Urs Buehlmann has joined the Department of Wood Science as assistant professor. Urs obtained an MBA and a Ph.D. in wood processing from Virginia Polytechnic Institute and State University. He also holds an engineering degree from the Swiss Institute of Wood Technology. His research interests are in the area of industrial engineering and business administration for the forest products industry. He currently has research projects in the optimization of lumber supply for secondary wood products manufacturers, opportunities for increasing yield in rough mills, and the implementation of flexible manufacturing cells into existing operations. Urs is currently looking for industrial cooperators where his knowledge and experience may be useful in enhancing an operation's competitiveness.

ACHIEVEMENTS IN 1998–99

- Dr. Jack Saddler was appointed as head of the Wood Science Department replacing Dr. David Barrett who has steered and revitalized the Department over the past 12 years.
- Implemented Year 5 of the Wood Products Processing degree program and graduated the first class of students.
- Completed faculty search for Industrial Engineering position.
- Curriculum proposal developed to establish the new graduate program in Fibre and Wood, Research and Education in Science and Technology (FAWREST).
- Through the efforts of the Centre for Advanced Wood Processing, our Wood Products Processing students received co-op placements in primary and secondary wood processing firms across Canada.
- Faculty members from the Fachhochschule Rosenheim and the Swiss Institute for Wood Engineering continued to make significant contributions to the design and delivery of the Wood Products Processing program.

PLANS FOR 1999–00

- Complete faculty searches for Wood Adhesives Composites, Business and Secondary Manufacturing positions.
- Deliver the component courses of the planned FAWREST graduate, non-thesis program.
- Increase enrolment in the undergraduate Wood Products Processing program and continue to have 100 per cent placement in the co-op option.
- Establish structure of the proposed graduate program in Wood Building Design and Construction.
- Develop graduate courses in general Wood Products Processing areas.

ACHIEVEMENTS AND PLANS

Wood Science
Department

UNIVERSITY RESEARCH FORESTS

THE Faculty of Forestry operates two research forests: the coastal UBC Malcolm Knapp Research Forest (MKRF) in Maple Ridge, and the UBC Alex Fraser Research Forest (AFRF) 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 MKRF operates an adjacent Woodlot Licence which is used extensively for teaching and, to a limited extent, for research.

The Research Forests host three field schools; the Fall Field school at Alex Fraser for third year students, a Spring Field school for fourth year students at Malcolm Knapp, and sections of the Conservation Fall Field school. Accommodation facilities for the field schools are at capacity, and an auxiliary building was purchased by the MKRF to accommodate additional students. The Forests also host numerous continuing education programs and field tours for other educational institutions.

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Research Forester

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Peter Sanders

Director

- Twenty-three new research projects were initiated.
- The Management Plan for the Woodlot Licence was approved and harvesting was completed on two of the three blocks.
- Over 100 students and 25 instructors were involved in the Spring Field school.
- A major riparian zone research project involving 15 scientists and covering ten watersheds (totalling over 400 hectares) was initiated. Over 40 hectares were harvested as part of this project.

Alex Fraser Research Forest

- Sixteen new research projects were initiated, with an emphasis on biological controls and bark beetles.
- FRBC funding was secured to carry out a variety of work, including silviculture projects, measurement and reporting of silviculture trials, road restoration and landing rehabilitation.
- 2.5 km of new road were built, and approximately three years allowable annual cut were harvested in an effort to combat an epidemic bark beetle population.
- Property and buildings adjacent to the Knife Creek block were purchased to develop a new Forest Headquarters.

PLANS FOR 1999-00

- Ken Day (manager of the AFRF) will be appointed as the new director for the Research Forests on April 15, 1999 replacing Peter Sanders.
- Plan and renovate the new AFRF Headquarters.
- A number of cooperative programs with local First Nations will be initiated at both Research Forests.
- Plan and execute harvesting of approximately two years allowable annual cut in the continuing effort to combat epidemic bark beetle populations at the AFRF.

ACHIEVEMENTS IN 1998-99

- A substantially positive external review of the Research Forests was carried out.
- After several years of discussion, the Minister of Forests has announced that UBC and UNBC will cooperatively manage the Aleza Lake Research Forest. This 9,750 hectare research forest is located 60 km east of Prince George, and is the site of some of the oldest forestry research projects in British Columbia.
- The Research Forests overcame their financial deficit and are now operating on a self-sufficient business footing.
- Over 20 international students visited the Forests on internship and work experience programs.
- An environmental audit was completed on both Forests, with excellent results. Joanne Hirschfield, the environmental coordinator at Malcolm Knapp, received the President's Environmental Award for her contribution to environmental awareness.

Malcolm Knapp Research Forest

- Paul Lawson has been appointed as the new manager of the MKRF replacing Peter Sanders who will retire from the position at the end of April, 1999.

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.

OFFICES, AWARDS AND DISTINCTIONS

AITKEN, S.N.

- Chair, BC Forest Genetics Council Coastal Technical Advisory Committee.
- Member, Forest Genetics Council.
- Liaison Member, Pacific Northwest Tree Improvement Research Cooperative.

AVRAMIDIS, S.

- Member, Organizing Committee, IDS '98 International Drying Symposium, Thessaloniki, Greece.
- Member, SCBC Review Committee, Forest Products Program.
- Member, USDA Competitive Grants Review Committee.
- Member, European Commission Research Grants Review Committee.
- Member, European Commission, Action 4th – 5th Program Framework Group.
- Member, European Commission, Cost E9-TGA-LCA Committee.
- Member, Organization Committee, '99 International Conference on the Development of Wood Science/Technology, U.K.

BALLARD, T.

- Member, ABCPF Forest Soils Subcommittee.
- Member, Technical Advisory Committee, Stand Management Co-operative.

BARRETT, J.D.

- President, Society of Wood Science and Technology.
- Fellow, International Academy of Wood Science.
- Chair, ISO TC165 WG5 Characteristic Values Committee.
- Chair, CSA 086 Sawn Lumber Committee and Member, CSA Main Committee.
- Member, Standards Committee, National Lumber Grades Authority.
- Board Member, Society of Wood Science and Technology.
- Member, Zairai Lumber Partnership Working Groups.

- Member, Lumber Task Group, National Lumber Grades Authority.
- Board Member, WoodLinks Society.
- Chair, Local Organizing Committee Forest Products Society Annual Meeting.
- Session Organizer, SWST Technical Session, Knowledge and Technology Needs for the 21st Century, Merida, Mexico.

BREUIL, C.

- Member, NSERC Advisory Committee, University-Industry Grants.
- Canadian Representative on an EEC Research Program.
- Member, Technical Advisory Committee, Forintek.
- Member, BCIT Biotechnology Committee.

CHANWAY, C.

- Member, Advisory Board, 8th International Symposium on Microbial Ecology, Halifax, 1998.
- Editor, Microbial Ecology Section, Canadian Journal of Microbiology.

COHEN, D.H.

- Member, Advisory Committee, National Value-Added Program, Forintek Canada Corp.
- Deputy Director, IUFRO Forest Products Marketing Group.
- Member, FRBC Value-Added Committee.

ELLIS, S.

- **George Marra Award** (Honorable Mention), Society of Wood Science and Technology.

FANNIN, R.J.

- Chair-Elect, Geosynthetics Division, Canadian Geotechnical Society.
- Reviewer, Professional Engineers Ontario, Geotechnical Engineering Exam.
- Associate Editor, Canadian Geotechnical Journal.
- Member, Board of Directors, Institute of Forest Engineering of BC.

OFFICES, AWARDS AND DISTINCTIONS

FELLER, M.C.

- Member, B.C. Medical Association Environmental Health Committee.
- Associate Editor, Northwest Science.

GLENN, S.M.

- Member, Board of Directors, Friends of Boundary Bay.

GUY, R.D.

- Member, NSERC Grant Selection Committee 03 (Plant Biology and Food Science).
- Chair, NSERC GSC 03 Equipment Grants Subcommittee.

HALEY, D.

- Associate Editor, Canadian Journal of Forest Research.

KIMMINS, J.P.

- Appointed Member, UNESCO World Commission on the Ethics of Scientific Knowledge and Technology, Oslo.
- Member, Scientific Advisory Council, Ministry of Environment and Resources, Saskatchewan.
- Member, North American Planning Committee, UNESCO World Congress on the Future of Science.

KLINKA, K.

- Member, FRBC Forest Ecosystem Committee.
- Member, BCMoF Site Productivity Working Group.

KOZAK, R.A.

- Member, Wood Products Quality Council of Canada.
- Member, BC Centre for Wood Products Design Steering Committee.

LAM, F.

- Member, CSA086 Subcommittees on Sawn Lumber and General Design.
- Member, CSA 0122 Review TG.
- Member, Objective Based Code for Wood Frame Construction Committee, Canadian Wood Council.
- Member, CSA Technical Committee on Solid and Engineered Wood Products.

LeMAY, V.M.

- Deputy Chair, CIF Measurements Working Group and Past Chair, CIF Vancouver Section.
- Deputy Chair, IUFRO 4.02 Working Group.
- Co-Chair, IUFRO 4.02 Working Group 2001 on Growth and Yield.
- Member, FRBC Inventory Group.
- Member, Stand Management Cooperative Policy Committee (western U.S. and B.C.).
- Member, Canadian Forest Inventory Committee, Mensuration Subcommittee.
- Member, B.C. Forest Productivity Council.
- Associate Editor, Forestry Chronicle.
- Associate Editor, Canadian Journal of Forest Research.
- Member, CSA Scaling Committee.

MANESS, T.

- Member, Forest Products Research Network Forum.
- Member, BC Wood Education and Training Committee.
- Member, Board of Directors, WoodLinks Society.
- Member, Forintek Tech Transfer Steering Committee.
- Member, Board of Directors, Kootenay School of the Arts.
- Member, National Education Initiative.

MARSHALL, P.L.

- Elected Member, ABCPF Council.
- Member, Canadian Forestry Accreditation Board.
- Member, ABCPF Board of Examiners.
- Member, ABCPF Academic Appeals Committees.
- Member, Technical Advisory Committee, B.C. Forest Productivity Councils.
- Member, University of Northern B.C. Growth and Yield Program Advisory Group.
- Member, Steering Committee, Inland Northwest Growth and Yield Cooperative.
- Associate Editor, Forestry Chronicle.
- Member, Silviculture Technical Advisory Committee, Stand Management Cooperative.

MARTIN, K.

- Associate Editor of the AUK.
- Vice President, Society for Canadian Ornithologists.
- Canadian Representative to IUCN/ICBP Specialist Group for Galliformes Committee.
- Member, Scientific Review Panel, Wildlife Habitat Canada Research Advisory Committee.
- Member, Scientific Referee, Endangered Species Recovery Fund.

McLEAN, J.A.

- Member, B.C. Plant Protection Advisory Committee.

MITCHELL, S.J.

- Member, Silviculture Committee, ABCPF.
- Member, MacMillan Bloedel New Forestry Strategy Committee.
- Member, BCMELP Riparian Assessment and Prescription Procedures Committee.
- Member, Industrial Training and Apprenticeship Commission.

MURTHA, P.A.

- **ADRO Managers Award**, Canadian Space Agency, Montreal.
- **Fellowship Nomination**, American Society Photogrammetry and Remote Sensing, Bethesda, MD.
- Emeritus Membership, American Society Photogrammetry and Remote Sensing, Bethesda, MD.
- Co-Chair, BCMELP Remote Sensing Strategy Committee.
- Member, Remote Sensing Advisory Committee, U.S. Dept. Interior, Grand Canyon Monitoring and Research Center.

NELSON, J.D.

- Member, IFEBEC Board of Directors.
- Member, IFEBEC Curriculum Committee.
- Member, FERIC Forest Engineering Advisory Committee.
- Chair, ABCPF Forest Harvesting Academic Standards Committee.
- Member, SCBC Land-Use Planning Peer Review Committee.

PRESCOTT, C.

- Associate Editor, Canadian Journal of Forest Research.
- Member, Science Council of B.C. GREAT Scholarship Committee.

PRION, H.G.L.

- Member, Subcommittees on Fasteners and Seismic Design (Limit States Design of Timber Structures Code).
- Member, Objective Based Design of Wood Buildings Committee.

RICHARDSON, J.S.

- Member, Biodiversity Research Council of BC.
- Member, SCBC Sensitive Species Technical Review Committee.
- Independent Scientific Reviewer to West Vancouver Council Tailed Frog Monitoring Project.

RITLAND, K.

- Member, SCBC/FRBC Tree Genetics Committee.

RUDDICK, J.N.R.

- Head, Canadian Delegation, ISO TC165 Task Force.
- President, International Research Group on Wood Preservation.
- Executive Director, American Wood Preservers Association.
- Executive Director, Canadian Wood Preservation Association.
- Senior Editor, Material und Organismen.
- Vice Chair, CSA Wood Preservation Technical Committee.

SADDLER, J.N.

- Member, Bioenergy Advisory Board, Natural Resources Canada.
- Member, BCMELP Wood Ethanol Technology Committee.

SIDLE, R.

- Chair, Canadian Geophysical Union Forestry Hydrology Committee.
- North American Representative, Forests and Water Task Force, IUFRO, Div. 8.

- Member, International Affairs Committee, American Water Resources Association.
- Associate Editor, Journal of Forest Research.

TINDALL, D.B.

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

WATTS, S.B.

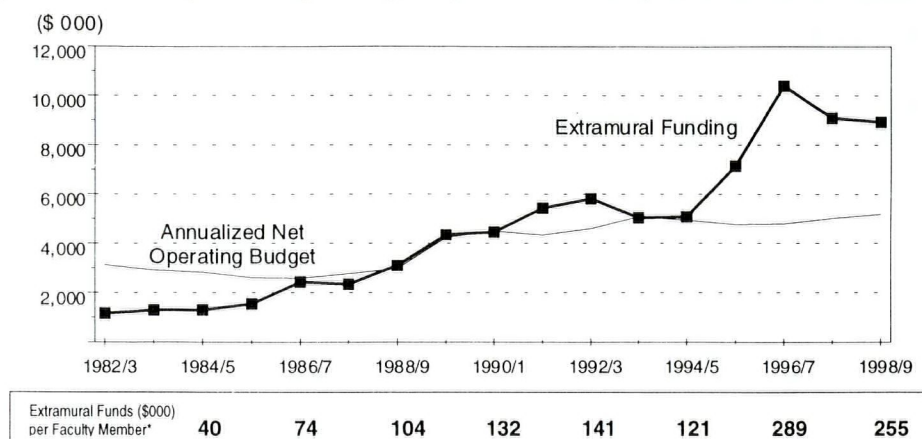
- Member, ABCPF Biometry Academic Standards Committee.

WEETMAN, G.F.

- Director of Admissions, ABCPF Board of Examiners.
- Member, Alberta Forest Management Science Council.
- Member, ABCPF Council.

OFFICES,
AWARDS
AND
DISTINCTIONS

ALTHOUGH still approximately equivalent to two times the core operating budget, our extramural funding of \$8,929,000 in 1998/1999 was down 2 per cent from last year. Overall, the final figures are better than we had predicted. As in previous years, our support was obtained from national, international, and private sector sources (see table below). Funding from the federal government and from the private sector increased by \$725,000 and \$460,000 respectively, while funding from international sources and from the provincial government decreased by \$69,000 and \$1,375,000 respectively. These losses represent respectively, 0.8 per cent and 15.4 per cent of our extramural funding.



*Calculated from operating budget supported Faculty members.

Operating budget, extramural funding and research activity 1982/83 – 1998/99

The reduced level of provincial government funding sources this past year resulted in provincial funds accounting for 49.2 per cent of our total extramural funding. The decline of Forest Renewal BC (FRBC) research and development support, from \$4,751,000 in 1997/98 to \$3,223,000 this past year, is a direct result of the cancellation of their competition for new research grants. In addition, support from the MoF and MoELP dropped from \$1,013,000 to \$758,000. However, an additional source of funding of \$340,000 was obtained from the B.C. Knowledge Development Fund (BCKDF).

Funding from federal government sources in 1998/99 increased by 13.4 per cent, to \$2,837,000, accounting for 31.8 per cent of our extramural support. Research supported by NSERC/SSHRC remained more or less constant. However, a recently announced increase in the NSERC budget should translate into substantially increased research activity next year. New funding in 1998/99 from the Canada Foundation for Innovation (CFI) boosted our total federal funding by \$751,000. We are proud to announce that the Faculty of Forestry received a remarkably large share of the overall award attributed to UBC for this new competition.

Funding from private sources (industry and other) now represents 15.4 per cent of our total extramural funding. Industry support alone has increased by 44 per cent over the past year, and now accounts for 14.7 per cent of our total extramural funding.

Extramural funding sources 1998/99 (excluding endowments)

Source	\$000	%
Federal		
NSERC/SSHRC	1,227	13.8
NRC/CFS	232	2.6
CFI	751	8.4
Other	628	7.0
Subtotal	2,837	31.8
Provincial		
FRBC/SCBC	3,223	36.1
MoF	685	7.7
MoELP	73	0.8
BCKDF	340	3.8
Other	73	0.8
Subtotal	4,394	49.2
Private		
Industry	1,312	14.7
Other	64	0.7
Subtotal	1,376	15.4
International		
	323	3.6
Total	8,929	100%

The Faculty of Forestry supports a broad and diversified research program. In addition to the extramural funding reported in the above table, we also received endowment funding in 1998/99 that totalled \$1,062,576. A large amount of this funding was provided by endowments from FRBC in support of Chairs in Applied Conservation Biology, Forest Hydrology, Forest Management,

EXTRAMURAL FUNDING & SPONSORED RESEARCH

BREUIL, Colette
B.Sc., M.Sc., Ph.D.
Associate Dean, Research
Phone: (604) 822-9738
Fax: (604) 822-9104
E-mail: breuil@interchg.ubc.ca

EXTRAMURAL FUNDING & SPONSORED RESEARCH

Silviculture and Advanced Wood Processing. Additional sources of endowment income were provided by the following sources:

- Weyerhaeuser, MacMillan Bloedel and Forintek (Chair in Forest Products Biotechnology);
- Forest Renewal BC (Center for Advanced Wood Processing);
- 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, 1998 and March 31, 1999.

S.N. Aitken

- Junior Industrial Research Chair in population genetics – *BCMoF/NSERC/Industry* \$178,397
- Physiological genetics of coastal Douglas-fir genotypes exhibiting high and low stability – *FRBC* \$37,345
- Genecology and natural selection dynamics in the Sitka x interior spruce introgression zone – *FRBC* \$32,973
- Genetic relationships among wood quality, growth rates and seedling physiology in interior lodgepole pine – *FRBC* \$16,118

Y. Alila

- Watershed modelling to assess peak flow assumptions in IWAP – *BCMoF* \$11,014
- Development of a regional frequency approach for estimating low-flows: A B.C. case study – *NSERC* \$18,700

S. Avramidis

- Surface emission coefficient of wood in the hygroscopic range – *NSERC* \$23,430

J.D. Barrett

- Zairai building technology development *Industry* \$4,000
- Reliability of wood-based materials *NSERC* \$19,800
- Engineering properties of B.C. species used in Japanese post and beam housing *FRBC/SCBC* \$129,846

C.S. Binkley

- Updating of status of forestry research in B.C. – *FRBC* \$23,506

C. Breuil

- Junior Chair in Forest Products Biotechnology – *NSERC/Industry* \$21,000
- Finding methods to disrupt the production of extra-cellular lipase in sapstain fungi *MacMillan Bloedel* \$3,000

- Fate and treatment of sterols, sterol esters and waxes in trees, pulps and process effluents – *NSERC* \$77,940
- Sapstain in Canadian lumber: the causal fungi, their mechanism of pigmentation and future control methods – *NSERC* \$67,509
- Developing DNA fingerprinting for identifying specific wood-inhibiting fungi *CFS/NSERC/Forintek* \$61,975
- Microorganism and enzyme treatments for reducing extractives present in wood chips or pulps – *Industry* \$11,750
- Identifying the characterizing key enzymes used by sapstaining fungi to grow on wood *NSERC* \$19,800

F.L. Bunnell

- Spatially-based habitat and forest development planning – *FRBC* \$200,000
- Habitat modelling in the Invermere enhanced forest management pilot project area – *FRBC* \$67,836
- Planning and tactics to sustain biodiversity and volume flow in managed forests *FRBC* \$100,000
- Late-successional species and cavity nesters *Lignum Sales Ltd.* \$106,000
- Vertebrate relations to late successional stages in coastal western hemlock forests *MacMillan Bloedel* \$100,000
- Defining habitat conservation areas for tailed frogs (*Ascaphus truei*) *Wildlife Habitat* \$19,797
- Sustainable forest management planning and practices theme – *NCE* \$45,000
- Persistence of forest-dependent vertebrates in managed forests – *FRBC* \$103,594

C.P. Chanway

- The influence of soil fauna on ecosystem processes in forests of British Columbia (co-investigator) – *FRBC* \$56,718
- Microcosm validation – *Canadian Institute of Biotechnology* \$10,000

- Bacterial endophytes of gymnosperms: Mutualists or opportunists? *NSERC \$35,200*

D.H. Cohen

- Market research in forest products *Forintek \$14,000*
- Technology for full exploitation of wood *Int'l Environ. Inst. \$171,052*

Y. El-Kassaby

- Adaptation of forest tree populations *Pacific Regen. Technol. Management Inc. \$37,000*
- Adaptation and quantitative attributes of Douglas-fir somatic and zygotic seedlings *Pacific Biotechnologies Inc. \$20,000*
- The impact of commercial thinning on genetic/species diversity – *Pacific Regen. Technol. Management Inc. \$52,000*
- Molecular assessment of spruce weevil populations – *Pacific Regen. Technol. Management Inc. \$35,000*
- Population variation in adaptive attributes in Sitka alder – *Pacific Regen. Technol. Management Inc. \$30,000*

S.C. Ellis

- Wood quality attributes for the Canadian secondary wood processing industry *NSERC \$20,680*

R.J. Fannin

- Geosynthetics for soil stabilization *FRBC \$17,530*
- Slope stability analysis – *FRBC \$21,200*
- Design and performance of geotextile filters *NSERC \$26,070*

M.C. Feller

- Aquatic-terrestrial ecosystem research in the UBC research forest at Maple Ridge *CFI/BCKDF \$67,200*
- The response of Engelmann spruce sub-alpine fir forest ecosystems to logging-effects of harvesting on nutrient budgets *FRBC \$39,922*
- Assessment of nutrient levels in burned versus unburned calcareous soils in relation to free growing – *FRBC \$4,000*
- Effects of different harvesting systems on organic matter decomposition and nutrient dynamics in coastal B.C. montane forests *FRBC \$3,331*

R.D. Guy

- Comparative physiology of stress acclimation in conifers: water-use efficiency and root respiration – *NSERC \$39,287*

S.G. Hinch

- Energetics of anadromous fish *NSERC \$19,800*
- Effects of habitat and food addition on side channel coho salmon – *FRBC \$80,500*
- Responses of rainbow trout to riparian logging – *FRBC \$89,000*
- Responses of cutthroat trout and habitat to riparian logging – *BCMoeLP \$60,000*
- Bioenergetics of migration and spawning of Pacific salmon in relation to flow and temperature – *NSERC \$240,000*

G. Hoberg

- Limits on Canada's domestic policy sovereignty – *UBC Hampton \$11,250*

J.P. Kimmins

- Modelling management impacts of alternative harvesting systems in Saskatchewan boreal mixedwood forest – *NSERC/Mistik Management Ltd. \$122,401*
- A decision-support system for evaluation of mixedwood landscape sustainability *FRBC \$67,528*
- Assessing the controls on soil-N cycling rates and microbial dynamics in CHW ecosystems to develop a computer-based soil model applicable to forest management *NRC \$16,000*
- Modelling salal and cedar – *FRBC \$32,790*
- Computer-based education, extension and gaming tools by which to support the objectives of FRBC – *FRBC \$50,000*
- Assessment of the sustainability of forest ecosystems and evaluation of indicators of sustainable forest management *FRBC \$175,000*
- Calibration, verification, and validation of the stand-level FORECAST and the spatially-explicit, individual tree FORCEE forest ecosystem management models *NSERC \$33,440*

K. Klinka

- TFL37 operational inventory program, growth and yield – SIBEC correlation subprogram – *BCMof \$27,000*
- Measurement and maintenance work in the rectangularity trials – *BCMof \$71,000*

EXTRAMURAL FUNDING & SPONSORED RESEARCH

EXTRAMURAL FUNDING & SPONSORED RESEARCH

- Draft report on the mountain hemlock zone, its ecology and significance for forest management – **FRBC \$14,000**
- General research in silvics and dendro-chronology – **B.A. Blackwell & Assoc./ Donation \$10,625**
- Productivity, structure, plant diversity and soil nutrient availability of single- and mixed-species forest stands
NSERC \$13,100
- TFL37 site index - BEC map unit correlations – **BCMof \$27,000**
- Ecology and management of cedar-cypress-hemlock forests in coastal B.C.
BCMof \$120,556
- Black spruce site productivity
BCMof \$42,000
- Trembling aspen site productivity
BCMof \$98,000
- Computer support system for making regeneration cutting and tree species selection in B.C.'s forests – **FRBC \$4,845**
- Growth-light relationships in tree species
NSERC \$16,170

R. Kozak

- Researching a shared use manufacturing facility as a test model for forest dependent communities in B.C. – **Community Futures Development Corp. \$37,592**

F. Lam

- Intelligent lumber grading system
CAE Newnes Ltd. \$28,678
- Properties of laminated veneer lumber
Sunpine For. Prod. Ltd. \$3,244
- Species strength properties evaluation study for Japan – **COFI \$220,878**
- Modelling performance of structural composite lumber – **NSERC \$24,200**
- Shear strength of structural composite lumber – **Trus Joist MacMillan \$24,993**

V.M. LeMay

- Effects of road openings on tree growth of adjacent trees and on overall volume/ha production of adjacent stands
Lignum Forest Industries \$7,875
- Examination of large tree height and diameter growth models modified for Prognosis^{BC} – **FRBC \$129,479**
- Use of spatial relationships to improve the efficiency of field experiments
NSERC \$13,200

T. Maness

- Advanced wood processing systems laboratory – **CFI \$139,600**
- Workshop on high value recovery manufacturing – **NSERC \$77,018**
- Automated production and quality control system for value-added wood products manufacturing – **NSERC \$14,300**

P.L. Marshall

- Data collection and analysis to calibrate the small tree and regeneration models in Prognosis^{BC} – **FRBC \$87,475**
- Data collection for calibrating the Prognosis model – **FRBC \$24,999**
- Growth of uneven-aged interior Douglas-fir stands – **FRBC \$37,429**

K.M. Martin

- Determination of habitat use and habitat availability in relation to forest structure and composition – **Lignum Sales Ltd. \$19,500**
- Ecology of alpine and forest birds
NSERC \$22,000
- Effects of forest management on biodiversity of riparian ecosystems in interior forests of the Cariboo-Chilcotin – **FRBC \$50,000**

S.J. Mitchell

- Retrospective study of edge windthrow and modelling of windfirming prescriptions
FRBC \$60,000

P.A. Murtha

- Remote sensing caribou habitat
BCMofELP \$10,000

G. Namkoong

- Development decision strategy on priorities for conservation and use of forest genetic resources – **CIDA \$38,500**
- Managing forest tree genetic variance for climatic change – field and DNA marker-based testing of a novel system
FRBC \$74,277
- 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 \$60,000

- Resource use efficiency response in varying environments and its role in maintenance of genetic variance in fitness related traits in lodgepole pine – **FRBC \$49,550**

J.D. Nelson

- ATLAS/SIMFOR landscape analysis
Interior Lumber Manu. Assoc. \$50,000
- Decision support systems for forest land use planning – **NSERC \$19,800**

L. Paszner

- Strength development of high-yield NAEM-catalysed organosolv softwood pulps – **NSERC \$18,590**

C.E. Prescott

- Assessing the effects of clearcutting on chemical forms of soil-N, on mycorrhizal function, and on coniferous seedling nutrition – **NSERC \$34,610**
- Long-term effects of salal removal
FRBC/Western Forest Products \$25,935
- Effects of red alder on nutrient availability and light – **BCMoF \$39,970**
- The nitrogen nutrition of western red cedar, western hemlock and salal – **SCBC \$2,500**
- Rehabilitation of forest roads and landings with wood waste – **FRBC \$106,608**
- Coarse woody debris dynamics in wet and dry ESSF forests – **FRBC \$1,200**
- Soil N cycling – **FRBC \$2,560**
- Nurse species – **FRBC \$34,004**
- The influence of soil fauna on ecosystem processes in forests of British Columbia
FRBC \$56,718
- Salal Cedar Hemlock Integrated Research Program coordination – **FRBC \$87,928**
- Comparative ecology of ericaceous shrubs
FRBC \$9,362
- High elevation trials – **FRBC \$12,003**
- 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 \$4,725**
- Influence of species mixtures on litter decomposition in forests of British Columbia – **FRBC \$7,875**

H.G.L. Prion

- Seismic behaviour of dowel connections in structural composite lumber
NSERC \$18,370
- Reliability and design of innovative wood structures under earthquake and extreme wind conditions – **FRBC \$293,528**
- Performance of wood diaphragms
Canadian Wood Council/IRAP \$35,000
- Seismic behaviour of low rise steel building frames – **Steel Structures Education Foundation \$12,000**
- Innovative connections for prefabricated heavy timber connection – **FRBC \$68,339**

J.S. Richardson

- Influence of reserve strip width on riparian and stream ecosystems: invertebrate responses to management – **FRBC/National Oceanic & Atmospheric Admin. \$118,749**
- International Environmental Youth Corps
Can Council for Human Resources in the Environ. Ind. \$12,000
- Influence of reserve strip width on riparian and stream ecosystems: amphibian communities – **BCMoELP \$18,000**
- Tiger salamanders: Effects of cattle grazing, range condition and breeding pond characteristics on the habitat use and population ecology of tiger salamanders (*Ambystoma tigrinum*) in the south Okanagan
BCMoELP \$30,000
- Ecology of tailed frogs and the effects of forest practices (co-investigator)
FRBC \$208,539

K. Ritland

- Senior Industrial Research Chair in population genetics
BCMoF/NSERC/Industry \$195,854
- Forest Genetic Data Centre
CFI/BCKNF \$688,000
- Estimating SMP efficacy and assaying local contamination – **BCMoF \$68,000**
- Kermode bear population genetics
Western Forest Products \$20,004
- Quantitative trait loci for mating system traits differentiating two species of *Linanthus* – **NSF \$11,342**
- Molecular population genetics of *Mimulus*
NSERC \$66,880
- Heritabilities in natural populations of four B.C. conifer species – **FRBC \$57,582**

EXTRAMURAL FUNDING & SPONSORED RESEARCH

EXTRAMURAL FUNDING & SPONSORED RESEARCH

J.N.R. Ruddick

- Wood preservation – factors impacting on the performance of wood preserving chemicals – *Albermarle/BASF/Forintek/Lonza Inc./Timber Specialties/Trus Joist MacMillan/Donation* \$27,574
- Fixation chemistry of amine copper preservative in wood – *NSERC* \$22,770

J.N. Saddler

- Senior Chair in Forest Products Biotechnology – *NSERC/Industry* \$37,386
- Enhancing Canadian wood industry competitiveness through innovative R&D partnerships – Phase 1 Program Planning *NRC* \$50,000
- IEA bioconversion task – *IEA* \$64,800
- Ethanol workshop – *BCMELP* \$9,956
- Biotechnology project for Weyerhaeuser *Weyerhaeuser Canada* \$10,000
- Bioconversion of softwoods to ethanol *NRC* \$158,526
- Use of immunoassays to monitor in-mill and waste water concentrations of hydrophobic, organic material – *NCE* \$31,000
- 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/Weyerhaeuser Canada/NSERC* \$95,500
- Enzymatic and microbial treatment *NCE* \$58,000

S.R.J. Sheppard

- Literature review of the visual characteristics of forest disturbance – *BCMof* \$5,000
- Emerging computer-assisted techniques for public communications and decision-support in forest resources management *UBC Hampton Fund* \$10,000
- Centre of Excellence in computer-aided resource decision-support – *CFI* \$195,320
- Ancient values/new technologies – emerging methods for integrating spiritual aesthetic values into forest design *SSHRC* \$24,000
- Linking sustainability to aesthetics: Do people prefer sustainable landscape *UBC/PWIAS* \$20,000

R.C. Sidle

- Development of landslide and related hydrology models for the prediction of incremental and cumulative impacts of forest management practices *BCASI* \$40,000
- Dynamic contributions of soil macropore systems to stormflow – *NSERC* \$26,620

D.B. Tindall

- Emerging computer-assisted techniques for public communications and decision-support in forest resources management (co-investigator) *UBC Hampton Fund* \$10,000
- Ancient values/new technologies – emerging methods for integrating spiritual aesthetic values into forest design (co-investigator) – *SSHRC* \$24,000
- Community concerns about forestry and conservation: comparison of a pro-forestry community organization with the general public in a forestry-dependent community *UBC-HSS* \$1,900

B. van der Kamp

- Management of Armillaria root disease by inducing quiescence – *FRBC* \$25,000

G.C. van Kooten

- The economics of climate change and the role of forestry: The case of Canada *SSHRC* \$17,000
- Economics of conservation biology *SSH* \$3,500
- Economics of climate change and forestry *NCE SFM* \$25,000

S.B. Watts

- Updating of status of forestry research in B.C. (co-investigator) – *FRBC* \$23,506

G.F. Weetman

- Structure and disturbance dynamics of old-growth balsam-fir black spruce forests in western Newfoundland *CFS/NSERC* \$10,750
- Hemlock genotype trial – *FRBC* \$12,025
- Forest nutrition and fertilization studies *NSERC* \$27,265

THIS list includes documents published between April 1, 1998 and March 31, 1999. 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.

FACULTY PUBLICATIONS

- Abraham, L., B. Hoffman, Y. Gao, and **C. Breuil**. 1998. *Ophiostoma piceae* utilizes wood proteins and lipids. *Can. J. Microbiol.* 44:698-670.
- An, Y., **J.N.R. Ruddick** and P.I. Morris. 1998. CCA component distribution in the heartwood of treated lodgepole pine and white spruce. *Int'l Res. Group Wood Preserv. Doc.* No. IRG/WP/98-30173.
- Anekonda, T.S., W.T., Adams and **S.N. Aitken**. 1998. Influence of second flushing on genetic assessment of cold hardiness in coastal Douglas-fir (*Pseudotsuga menziesii* var. *menziesii* (Mirb.) Franco). *For. Ecol. Manage.* 111:119-126.
- Awadel-Karim, S., M.M. Nazhad and **L. Paszner**. 1999. Factors affecting crystal-line structure of cellulose during solvent purification treatment. *Holzforschung* 53:1-8.
- Balduman, L.M., **S.N. Aitken**, M. Harmon, and W.T. Adams. 1999. Genetic variation in cold hardiness of Douglas-fir in relation to parent tree environment. *Can. J. For. Res.* 29:62-72.
- Belillas, C.M. and **M.C. Feller**. 1998. Relationships between fire severity and slashburning-induced nutrient losses to the atmospheres and losses via leaching in British Columbia's Coastal Western Hemlock zone forests. *Int'l J. Wildland Fire* 8:87-101.
- Bent, E. and **C.P. Chanway**. 1998. The growth-promoting effects of a bacterial endophyte on lodgepole pine are partially inhibited by the presence of other rhizobacteria. *Can. J. Microbiol.* 44:980-988.
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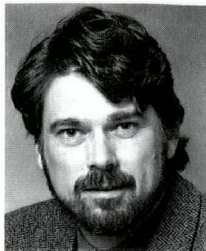
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FACULTY PUBLICATIONS

FACULTY PUBLICATIONS

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Thomas Maness
Director

THE Centre for Advanced Wood Processing (CAWP) is Canada's National Education and Research Centre of Excellence for the Wood Products Manufacturing Industry. Our mission is to provide world leading education, service and research activities, with a strong emphasis on value-added wood products manufacturing. Managed as a business unit, CAWP is funded through industry membership fees, cost recovery on services, and endowment grants from Forest Renewal BC and the Federal Government.

This year marked a number of important milestones. Among these was the grand opening of the Centre's new building. The facilities include an Advanced Wood Processing Laboratory with \$1.5 million of state-of-the-art equipment, continuing education classrooms, computer lab and offices that showcase Canadian value-added wood products. Important milestones have also been achieved in the Centre's four major industry focused initiatives:

■ Education Programs

This year was marked by a major achievement, the graduation of the first class of undergraduate Wood Products Processing students. This class of ten pioneers is being recruited by the top companies in Canada. The Centre's undergraduate program activities in 1998 continued to be the development of curriculum and teaching. Faculty and staff in CAWP developed and taught 11 courses that form the core of the program designed to produce specialists targeted for Canadian industry.

The Centre also manages the Wood Products Processing Co-operative Education program. Since 1995, the Co-op program has enjoyed 100 per cent placement. 1998 was no exception with 62 job placements in Canada, the U.S. and Japan.

■ Continuing Education

Continuing education is a high priority at the Centre. In 1998, 14 workshops, conferences and programs were offered. These ranged from the International Value-added Wood Processing Conference and the Wood Finishing Day to workshops on Tooling and Machining for Secondary Wood Processing and Quality

Control. This year also marked the premier of the UBC Kiln Drying Certificate program.

CAWP will continue to develop world leading programs with a strong emphasis on UBC accredited certificate courses. The future programs will include:

- **Quality Management and Control:** upgrade personnel skills to develop quality plans, statistical process control and customer feedback systems for the wood industry.
- **Wood Finishing:** transfer advanced technology and upgrade personnel expertise in traditional and low-emission, fast-drying finishes.

■ Extension

The focal point of our Canadian Industry extension program is the Wood Products Quality Council of Canada (WPQCC). The WPQCC is organized by seven faculty and staff members and is directed by an industry advisory board. In 1998, the council developed and provided workshops in quality control, wood products testing services, technical support, and began the quality certification of two companies. In 1999, the council will certify two companies in the WPQCC quality system.

The Centre also offers extension support in tooling and machining, machine design, marketing and market research, product construction and design, lumber drying, wood finishing, and production planning and control.

■ Applied Research

Applied research at the Centre is conducted by a growing number of interdisciplinary UBC faculty associates, and other world-renowned researchers. 1998 marked two important milestones. The first was the successful completion of two projects: *A Field Evaluation and Performance Benchmarking of Automatic Chop Saws* and *Researching a Shared Use Manufacturing Facility as a Test Model for Forest Dependant Communities*. The second was the Canada Foundation for Innovation financial award for the new Advanced Wood Processing Systems Laboratory. This laboratory will conduct research into advanced wood processing technology, product quality improvement and wood products imaging technology.

The Centre has a number of projects currently underway including:

- Japanese consumer preferences in product quality.
- Real-time statistical process control technologies using computer vision.
- Advanced optimizing chop saw algorithms.
- Needs analysis for the value-added wood industry.



CENTRE FOR ADVANCED WOOD PROCESSING

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THE 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 incorporation 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.

The Centre welcomes Dr. Peter Arcese in the newly created FRBC Chair of Conservation Biology. Dr. Arcese will provide a lead role in the Centre's education, extension, and research mandates.

Education

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

We are closely linked to the Faculty's undergraduate B.Sc. (Natural Resources Conservation) program. That interdisciplinary program, which includes a suite of natural and social science courses, was recently awarded the Alfred Scow Award for exceptional contributions to the student experience and learning environment at UBC. The program was lauded for, among other things, its demonstrated consideration for the broad range of student needs, and its openness and flexibility.

The "*Seminar in Biological Conservation*" series combines graduate level instruction and public lectures on important conservation issues. (See Special Lectures section in this report.)

Centre Associates

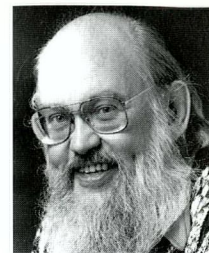
Sally Aitken	Laurie Kremsater	Michael Pitt
Peter Arcese	Kathy Martin	John Richardson
Bruce Bury	Bruce McLellan	Kermit Ritland
Susan Glenn	Laura Nagel	Jim Rochelle
Alton Harestad	Gene Namkoong	David Shackleton
Scott Hinch	John Nelson	Casey van Kooten
Pamela Krannitz		

Extension

Outreach employs a variety of approaches. Centre personnel worked closely with the Enhanced Forest Management Pilot Projects and Innovative Forest Practices Agreements. That work is intended to develop credible ways of sustaining biological diversity in managed forests. The pamphlet series was changed from 8-panel pamphlets to single pages to encompass more topics; again with support from the

Fred L. Bunnell

Director

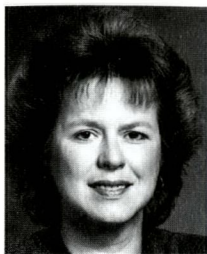


Canadian Wildlife Service. More than 50 talks were given by Centre members to professional groups in North America and Europe. Contact with First Nations was sustained by having graduate students on-site in First Nations communities. Centre members are intimately involved in refining those aspects of the B.C. Forest Practices Code and Oregon Forest Practices Act that are creating unintended consequences for biological diversity.

Research

Interdisciplinary, cooperative research is the key to answering the broad questions of conservation biology. We are testing conservation biology theories in the context of forested ecosystems and intend 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 focused on Canada's boreal forests (Dr. F. Bunnell).
- 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. Richardson and K. Ritland).
- Development of monitoring systems for variable retention and structure-based forest management (Dr. F. Bunnell).
- A decision-support tool evaluating economic and biological consequences of forest planning at the landscape level (Drs. F. Bunnell and J. Nelson).
- Definition and analysis of effectiveness of corridors (Drs. S. Glenn and A. Chan-McLeod).
- Physiological and behavioural response of resident stream salmonids to riparian logging practices (Dr. S. Hinch).
- A comparative study of cavity nesters in a variety of forest types (Drs. F. Bunnell and K. Martin).
- Metapopulation dynamics and biodiversity of high elevation ecosystems (Dr. K. Martin).



Candace E.B. Parsons
Executive Director

IN 1998, the Silviculture Institute of British Columbia (SIBC) amalgamated with the Institute of Forest Engineering of British Columbia (IFEBC) to form the new Silviculture and Forest Engineering Institute of British Columbia (SFEIBC). SFEIBC's goal is to raise the level of forest practices in B.C. through advanced continuing education. The following programs are offered annually:

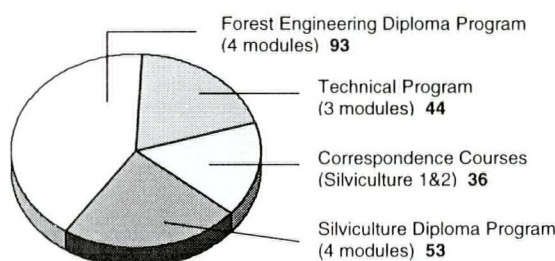
- **UBC Diploma in Forestry (Advanced Silviculture)** – for registered professional foresters (RPFs) – co-sponsored by the Faculty of Forestry.
- **UBC Diploma in Forest Engineering** – for professional foresters, engineers and geoscientists – co-sponsored by the Faculties of Forestry and Applied Science (Civil Engineering).
- **Technical Module Program (Advanced Silviculture)** – for forest technologists and technicians.
- **Silviculture 1&2 Correspondence Courses** – for Foresters-in-Training and Pupils.

Both professional diploma programs consist of 12 weeks of advanced continuing education delivered to practising professionals employed by industry, consulting and government from all parts of the province. Instructors, many of whom donate volunteer time to the Institute, are drawn from academia, government, industry and consulting. We are grateful to the following individuals from the UBC Faculty of Forestry for their involvement and support: G. Baskerville (professor emeritus), D. Bendickson, C. Binkley

(former Dean), D. Cohen, K. Day, J. Fannin, M. Feller, J.P. Kimmins, K. Klinka, A. Kozak, D. Lavender (professor emeritus), P. Marshall, J.A. McLean, S. Mitchell, J. Nelson, C. Power, H. Samson, P. Sanders, R. Sidle, B. van der Kamp, G. Weetman and P. Wood.

We are grateful for financial support from Forest Renewal BC and thank all our volunteers and other supporters from UBC, the Ministry of Forests, the forest industry, UNBC and the Canadian Forest Service for helping us to achieve our 13th year of excellence.

ACHIEVEMENTS IN 1998–99



SFEIBC participants by program 1998 – 1999

Our alumni now total 205 professional and 20 technical graduates. Other achievements this year include the development and first-time delivery of Modules 3 and 4 of the Diploma in Forest Engineering Program.

PLANS FOR 1999–00

SFEIBC will finalize the program review of the Diploma in Forestry (Advanced Silviculture) which involves an examination of all current curriculae in light of changing client needs and demographics. The results of a marketing plan designed by a group of fourth year UBC Commerce students will be reviewed and implemented to attract new students. Modules 5 and 6 of the Diploma in Forest Engineering Program will be developed and delivered.

SILVICULTURE & FOREST ENGINEERING INST. OF B.C.

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SFEIBC Board of Directors

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J.G. Chittick	Forest Industry (Forest Engineering)
B.W. Chow	Div. of Engineers and Geoscientists in the Forest Sector (APEGBC)
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J.D. Sutherland	Ministry of Forests
G.F. Weetman	University Forestry Education

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THE International Forestry Programs (IP) office had a very busy and productive year. New projects are underway and existing programs continue to thrive. Participation from faculty and students remains strong and our international ties strengthen as we reach out to the international community and forge closer ties. Below is a list of highlights for the year.

■ International Exchange and Internships

The exchange program continues to expand and attract more students both incoming and outgoing. In fact, Forestry student involvement continues to exceed university targets for internationalization and participation in exchange. This past year 19 UBC Forestry students went on exchange and 27 exchange students came into the Faculty. Exchange students participated in university exchange programs in the United Kingdom, the United States, Australia, New Zealand, Sweden, Finland, Norway, Costa Rica, Chile, Germany, Austria, Belgium, the Netherlands, Italy, Switzerland and Taiwan.

The work internship program continues to grow and assists in providing UBC forestry students and recent graduates international work experiences in Finland, the United Kingdom, Indonesia, Mexico, Uruguay and Argentina.

The Malcolm Knapp Research Forest also hosts an number of international students throughout the year and is a major supporter of international programs for the Faculty.

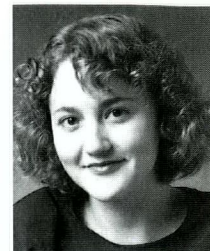
■ New Canada-European Union Student Mobility Consortium

An exciting new program is being launched with the support of the Canada-EU student mobility grant. The consortium includes four Canadian universities (UBC, UNB, UofT and U of Quebec) and ten European partners including the University of Aberdeen, Albert-Ludwig University Freiburg, Universitaire de Gembloux, University of Helsinki, Università di Padova, Swedish University of Agricultural Sciences, University of Agricultural Sciences, Vienna, Wageningen Agricultural University and the University of Wales.

The major objective of the program is to promote student mobility at both the graduate and undergraduate levels amongst the partner institutions. This can be done via student exchange, training sessions, short term tours and research/study visits.

The grant was awarded in 1998 and the program begins September 1999 for three years. These funds will provide additional assistance for our students wishing to study at partner institutions.

Sandra Schinnerl
Associate Director



■ International Faculty Research and Projects

Many of our faculty are involved in international research initiatives. Some highlights include:

- Interdisciplinary research projects continue on behalf of the Winter Research Institute-Fuyusoken in Hokkaido, Japan. Publications on topics including bioregionalism and wood construction in Japan are currently underway. (Research conducted by David Cohen and Ray Cole).
- A Peter Wall funded conference, "*Linking Forest Sustainability to Aesthetics*" attracted leading ecologists and landscape architects to the UBC campus in February. See the web site www.forestry.ubc.ca/pwall/default.htm for details of the conference proceedings organized by Stephen Sheppard.
- Training projects under the Turkish Agricultural Research Project are currently being held on campus (Forest Modelling and Carbon Storage).

■ International Forestry Specialization

The International Forestry Specialization was launched this year with five students. This specialization, which can be taken in coordination with both the Forest Science and Forest Management undergraduate programs, allows students to fulfill the core requirements of their main degree program, while learning a new language, developing knowledge of a specific region, and participating in either an international study or work experience. The objective is to educate students on international forestry issues and better understand Canada's role in the international forestry arena.

■ Future Events and Projects

To increase the internationalization of the Faculty even further we wish to concentrate on facilitating relevant international research at the graduate level and improve the ways in which we attract and provide support to international students studying within the faculty. Next year's projects will concentrate on these objectives and maintaining high quality student programs, and liaison activities for faculty members pursuing international research.



Madeleine MacIvor
Coordinator

THE Faculty's First Nations initiatives are directed towards four areas of activity:

1. increasing the participation of First Nations students in the Faculty;
2. providing support services to First Nations students;
3. incorporating First Nations perspectives and issues within the Forestry curriculum, and
4. creating awareness, within the University and the wider community, about First Nations perspectives and issues in Forestry.

In the 1998/99 academic year, there were 17 self-identified First Nations students within the Faculty, representing 2 per cent of the Forestry students. Of these, 12 students were enrolled in the Forest Resources Management program, two students were in the Natural Resources Conservation program, and three students were studying at the Masters level. Of the 17 students, nine are female and eight are male. Ages ranged from 21 to 52 years, with the average age being 30 years.

Students came from the following First Nations:

- | | |
|-----------------|----------------|
| • Cree | • Okanagan |
| • Kwakwaka'wakw | • Oweekeno |
| • Metis | • Shuswap |
| • Mohawk | • Sto:lo |
| • Nisga'a | • Tahltan |
| • Nuxalk | • Wet'suwet'en |
| • Ojibway | |

In November of 1998, one student graduated. Another two students are on track for spring graduation.

A major focus of this year's activities has been recruitment. In addition to responding to individual inquiries and on-campus visits, presentations were made in classrooms or at career fairs in the following communities: Merritt, Campbell River, Chilliwack, Courtenay, Duncan, Fort St. John, Fort St. James, Fraser Lake, Mount Currie, Penticton, Smithers, Vancouver, and Williams Lake.

In 1998, administrative responsibility for the First Nations Professional Sciences Access Program (FNPSAP) moved from Applied Sciences to Forestry. Over the year we have worked closely with students and staff in

FNPSAP, and completed a review of the program. Unfortunately, the program will not continue. In its absence, we are committed to providing support to all continuing FNPSAP students. In addition, we are working closely with First Nations House of Learning to identify alternative ways to increase access for First Nations students in the sciences.

The resource library has expanded and is being well utilized by students exploring First Nations issues and forestry. The planned development of a searchable database will enhance the usefulness of these resources.

We continue to work with faculty on incorporating First Nations content into the curriculum and other activities. A web site for *Conservation 370: Perspectives on First Nations and Forest Lands* is under construction. In addition to course information, the site will include student projects. We are collaborating with the Katzie First Nation on field activities for Forestry 451 (Spring Camp). We expect to contribute to the development of new B.S.F. curriculum over the summer months.

Speakers at the annual careers night address opportunities in working with First Nations. The Students for Forestry Awareness hosted First Nations speakers on their panels dealing with community forestry and the Nisga'a Treaty. A growing number of students are writing papers about relevant First Nations issues. It is an honour to be working in a context where such initiatives are encouraged and supported.

ACHIEVEMENTS IN 1998-99

- Increased enrolment of First Nations students (from 15 to 17).
- Undertook extensive recruiting activities.
- Reviewed the First Nations Professional Sciences Access Program.
- Continued to work on First Nations curriculum initiatives.

PLANS FOR 1999-00

- Increase the enrolment of First Nations students in Forestry.
- Provide support for First Nations forestry and continuing FNPSAP students.
- Explore ways to increase access for First Nations students in the sciences.
- Work with Nicola Valley Institute of Technology to develop a laddering process to Faculty programs.
- Incorporate First Nations content into the B.S.F. curriculum.

FIRST NATIONS FORESTRY PROGRAMS

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FACULTY DEVELOPMENT PROGRAM

THE forest sector in British Columbia continues to be in the midst of an incredible transition. The challenges of today are forcing industry to ask questions and seek solutions that were unheard of not so many years ago. Through this time of change, alumni, friends, foundations, corporations, faculty members and students continue to support the Faculty and its endeavours.

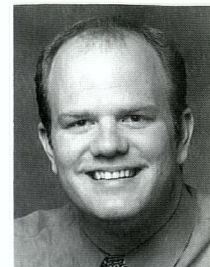
Forest conservation, forest management and wood processing require specialized levels of knowledge to ensure the efficient and proper use of our forests. Private sector donations help us generate innovative and effective solutions to forest issues and prepare our students for careers in forestry and forest-related professions. This support also allows researchers and students alike to pose questions that might not otherwise be considered.

We extend our sincere appreciation to everyone who contributed their time and resources to help us ensure that UBC remains a world leader in forestry education.

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B.A.

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Douglas Nelson
Development Officer



■ Graduating Students Commit to Class Act

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 1998-1999 class has 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.

PLANS FOR 1999-00

- Enhance and expand the annual alumni campaign.
- Increase alumni participation rate in the annual campaign.
- Strengthen alumni and donor relations with the Faculty of Forestry.
- Steward and recognize donors to the recent Forest Sciences Centre campaign.
- 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.

With the help of our alumni, friends, faculty and students the year ahead promises to be one of success on many fronts.

■ Designated Areas of Support

The Faculty of Forestry received close to seven hundred gifts from donors in the past year. Private contributions to the Faculty totalled \$852,990 and were directed to the following areas:

Area of designation	\$ raised	% of total \$ raised
Awards	50,000	5.8
Forest Sciences Centre	62,425	7.3
Forestry Initiatives	586,146	68.7
Forestry – Dean's Office	154,419	18.2
Total donations	\$852,990	100%

■ Forestry Alumni Continue their Support

Once again Forestry alumni have made a significant contribution to the Faculty through the UBC Fund. More than six hundred former students contributed an average of \$78 per person bringing the total funds raised to \$45,886 for 1998-1999. The ongoing support of alumni is an important part of maintaining and enhancing any fundraising effort within the Faculty. Thank you to all those alumni who gave and all the volunteers who made the effort possible. In the years to come the alumni program will continue to be a pivotal component of the fundraising effort.

H.R. MACMILLAN LECTURES AND COURSE SPONSORSHIP

■ Conservation Biology Lectures

We invited internationally known members of the scientific community to UBC to participate in Conservation 500, a graduate seminar course in conservation biology. Dr. John Richardson organized the lecture series and taught the course. The Lecture Series is made possible by a grant from the H.R. MacMillan Family Fund. The following scientists gave public lectures:

Jennifer L. Ruesink

Biodiversity Research Centre & UBC Forest Sciences Department

- *Community structure and resistance to biological invasions.*

Erica Dunn

Canadian Wildlife Service, Ottawa

- *Risk and responsibility: A multi-purpose priority-setting system applied to Canada's land birds.*

Michael Bradford

Department of Fisheries and Oceans, Canada.

- *The conservation of southern British Columbia coho salmon.*

Jerry O. Wolff

Department of Biology, University of Memphis

- *A population viability analysis based on habitat quality and life history traits.*

Dave Roberts

Utah State University

- *Simulating landscape vegetation dynamics of Bryce Canyon National Park with the Vital Attributes/Fuzzy Systems Model VAFS/LANDSIM.*

Tom D. Nudds

University of Guelph

- *Use of estimated "pristine" species-area relations as null models for evaluating size and integrity standards for protected areas: an update.*

Gordon Blankstein

Mountainview Farm and Breeding Facility

- *Ex situ breeding of endangered cats.*

John Spence

University of Alberta

- *Sustainable forest management: What have the bugs got to do with it?*

Amanda Vincent

McGill University

- *Complexities of conservation: seahorses as a case study.*

David Lindenmayer

Australian National University

- *The Tumut landscape experiment — a large-scale study to examine the response of vertebrates to landscape context and habitat fragmentation effects.*

John Richardson

UBC Faculty of Forestry

- *Restoration ecology, and attempts at river restoration around the world.*

■ Conservation 451 (Integrated Field School)

During the fall term, a new 15-credit integrated field course was organized by Laura Nagel (instructor in Conservation Biology) in collaboration with Profs. Michael Feller, Susan Glenn, Scott Hinch and David Tindall.

The course, taught for the second time this past fall, consists of several modules focusing on different ecosystems in B.C. The innovative format is part of an attempt to teach students about the complex issues surrounding conservation more effectively than through traditional learning from textbook examples. Over 30 speakers participated in both classroom and field activities. These speakers ranged from internationally known experts on science and environmental policy to representatives from all levels of government, workers in resource-based fields, First Nations groups and a broad range of NGOs as well as interested individuals.

The participation of these speakers was made possible by a grant to the Faculty of Forestry from the H.R. MacMillan Family Fund and by funds received from the UBC Teaching and Learning Enhancement Fund.

SPECIAL LECTURES

SPECIAL LECTURES

STUDENTS FOR FORESTRY AWARENESS

■ Public Lecture Series

Students for Forestry Awareness (SFA) is an independent, student organization that has been in existence at UBC for over ten years. The mandate of the SFA is to dispense information, promote communication and spark reflection about aspects of the art, science and practice of forestry.

The SFA lecture series is open to all members of the university community as well as the general public. Lectures are given in the Forest Sciences Centre every Thursday at 12:30 p.m. during the fall and spring terms. Speakers and topics for the 1998/99 academic year included:

Jennifer Goodman

B.C. Parks Legacy Project

- *B.C.'s park legacy project: A vision for our protected areas system.*

Paul Mitchel Banks, Central Coast Consulting (moderator)

Cheri Burda, Laurie Vaughn and David Haley, UBC Faculty of Forestry (speakers)

- *Community forestry forum-wave of the future?*

Dwight Yochim

Association of BC Professional Foresters

- *Why should the public rely on Professional Foresters?*

Roslyn Kunin, The Laurier Institute,
Collier Azak, Nisga'a Tribal Council,
Patrick Kelly, Consultant, and
Phil Symington, Aboriginal Affairs Branch,
BCMof (panel speakers)

- *The Nisga'a Treaty effects on forest management.*

Kate Smallwood

B.C. Endangered Species Coalition

- *B.C. endangered species: Implications on B.C. forest management.*

Jane Perry

Association of BC Professional Foresters

- *Professional forestry issues in B.C.*

Roger Stanyer

Forest Renewal of BC

- *Forest Renewal BC: Then and now.*

Ben Parfitt

Author

- *The second coming: Will tomorrow's forests be our salvation or undoing.*

Hamish Kimmins, UBC Faculty of Forestry (moderator)

Daniel Botkin, George Mason University,
Jeffery Burley, Oxford Forestry Institute, and
David Brand, State Forests of New South Wales, Australia (speakers)

- *International eco certification panel.*

George Abbot

Liberal Forestry Critic, MLA

- *Challenges and opportunities in B.C.'s forest sector.*

Graham Lee

Truck Loggers Association

- *Industry in turmoil.*

Bill Beese

MacMillan Bloedel Ltd.

- *Variable retention: A silviculture system to carry us into the 21st century?*

Hosny E-Lakany

U.N. Food & Agric. Organization

- *Towards a global forest.*

Eric Anderson

Federation of BC Woodlot Associations

- *The woodlot sector in B.C.: Current status and prospects for growth.*

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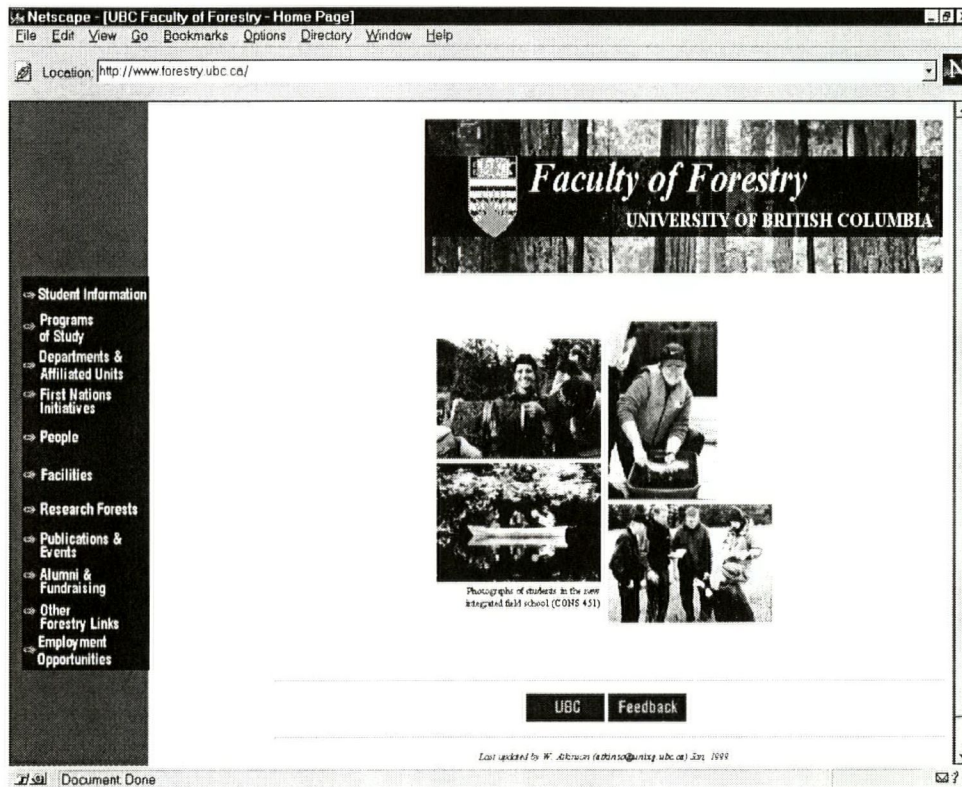
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UBC Faculty of Forestry Home Page

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 Wendy Atkinson, Web Administrator, at (604) 822-2176 or e-mail atkinso@interchg.ubc.ca.



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