1996 Annual Report

Faculty of Forestry
The University of British Columbia
Vancouver, B.C.
Canada
The Forestry Advisory Council provides advice to the Faculty on curriculum matters and research priorities.

Mr. G. Weyerhaeuser Jr.  
(Chair)  
President & CEO  
Weyerhaeuser Canada

Dr. Yvan Hardy  
Assistant Deputy Minister  
Natural Resources Canada

Mr. C.T. Hazelwood  
President & CEO  
Northwood Pulp & Timber Ltd.

Mr. Jack Munro  
Chairman  
Forest Alliance of British Columbia

Mr. T.M. Apsey  
President & CEO  
Council of Forest Industries of B.C.

Mr. I.K. Barber  
President, Chair & CEO  
Slocan Forest Products Ltd.

Mr. Kimi Ito  
President  
K. Ito & Associates Ltd.

Mr. Denis O’Gorman  
Assistant Deputy Minister  
Ministry of Environment, Lands and Parks

Mr. Gerry Armstrong  
Deputy Minister  
Ministry of Forests

Dr. Asa Johal  
President  
Terminal Forest Products

Dr. Gordon H. Orians  
Professor  
University of Washington

Mr. Bob Bird  
Vice-President  
Canwood Furniture Inc.

Mr. John Kerr  
Chairman & CEO  
Lignum Ltd.

Mr. Gilbert Paille  
President & CEO  
Forest Engineering Research Institute of Canada

Mr. Ric Careless  
Regional Coordinator  
World Wildlife Fund Canada

Dr. Asa Johal  
Chairman, Forestry Program  
Natural Resources and Environmental Studies  
University of Northern B.C.

Mr. Keith Purchase  
President & CEO  
TimberWest Forest Ltd.

Mr. Art DeFehr  
President  
Palliser Furniture

Mr. Harry Ketcham III  
President & CEO  
West Fraser Timber Co. Ltd.

Mr. Marie Rauter  
President & CEO  
Ontario Forest Industry Association

Dr. Peter J.G. Bentley  
Chairman  
Canfor Corporation

Mr. Stuart Lang  
Vice-Chairman of the Board  
Crestbrook Forest Industries Ltd.

Mr. Erkki Rautianen  
Director  
Blower & Sheet Metal Ltd.

Mr. Bob Bird  
Vice-President  
Canwood Furniture Inc.

Mr. Stuart Lang  
Vice-Chairman of the Board  
Crestbrook Forest Industries Ltd.

Mr. George R. Richards  
President & CEO  
Weldwood of Canada Limited

Mr. Henry H. Ketcham III  
President & CEO  
West Fraser Timber Co. Ltd.

Mr. Ralph Roberts  
Director  
Forestry Section  
Canadian International Development Agency

Mr. Jack Munro  
Chairman  
Forest Alliance of British Columbia

Mr. R.B. Findlay  
President & CEO  
MacMillan Bloedel Ltd.

Mr. Kevin Lynch  
Deputy Minister  
Industry Canada

Mr. Van Scoffield  
Executive Director  
Association of BC Professional Foresters

Mr. Sandy Fulton  
President & CEO  
Pacific Forest Products Ltd.

Mr. George Malpass  
President  
Primex Forest Products

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

Mr. Ian Gill  
Executive Director  
Ecotrust Canada

Dr. Yvan Hardy  
Assistant Deputy Minister  
Natural Resources Canada

Mr. Jack Munro  
Chairman  
Forest Alliance of British Columbia

Mr. Denis O’Gorman  
Assistant Deputy Minister  
Ministry of Environment, Lands and Parks

Mr. Art DeFehr  
President  
Palliser Furniture

Mr. Henry H. Ketcham III  
President & CEO  
West Fraser Timber Co. Ltd.

Mr. Gilbert Paille  
President & CEO  
Forest Engineering Research Institute of Canada

Mr. Ric Careless  
Regional Coordinator  
World Wildlife Fund Canada

Mr. Stuart Lang  
Vice-Chairman of the Board  
Crestbrook Forest Industries Ltd.

Mr. George R. Richards  
President & CEO  
Weldwood of Canada Limited

Mr. Ralph Roberts  
Director  
Forestry Section  
Canadian International Development Agency

Mr. Van Scoffield  
Executive Director  
Association of BC Professional Foresters

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

Mr. Ian Gill  
Executive Director  
Ecotrust Canada

Dr. Yvan Hardy  
Assistant Deputy Minister  
Natural Resources Canada

Mr. Jack Munro  
Chairman  
Forest Alliance of British Columbia

Mr. Denis O’Gorman  
Assistant Deputy Minister  
Ministry of Environment, Lands and Parks

Mr. Art DeFehr  
President  
Palliser Furniture

Mr. Henry H. Ketcham III  
President & CEO  
West Fraser Timber Co. Ltd.

Mr. Gilbert Paille  
President & CEO  
Forest Engineering Research Institute of Canada

Mr. Ric Careless  
Regional Coordinator  
World Wildlife Fund Canada

Mr. Stuart Lang  
Vice-Chairman of the Board  
Crestbrook Forest Industries Ltd.

Mr. George R. Richards  
President & CEO  
Weldwood of Canada Limited

Mr. Ralph Roberts  
Director  
Forestry Section  
Canadian International Development Agency

Mr. Van Scoffield  
Executive Director  
Association of BC Professional Foresters

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

Mr. Ian Gill  
Executive Director  
Ecotrust Canada
COVER PHOTOGRAPHS

Photographer: Bryan Evans

Background:
Aspen, Grande Prairie, Alberta

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

Back:
Carmanah Valley, Vancouver Island

TEXT PHOTOGRAPHS

Photographers: UBC Media Services

Editor: Susan B. Watts, Ph.D., R.P.F.
Desktop Publisher: Patsy Quay

©1997, Faculty of Forestry
University of British Columbia
ISSN 118-9837
Dean’s Message

- STUDENTS AND TEACHING PROGRAMS
  - Undergraduate Students
    - Programs of Study
    - Enrolment Statistics
    - Awards
    - Graduation Statistics
  - Graduate Students
    - Enrolment Statistics
    - Scholarships and Fellowships
    - Degrees Granted

- FACULTY AND FACULTY RESEARCH
  - Office of the Dean
    - Faculty and Staff
  - Forest Resources Management Department
    - Faculty and Staff
    - Achievements and Plans
  - Wood Science Department
    - Faculty and Staff
    - Achievements and Plans
  - Forest Sciences Department
    - Faculty and Staff
    - Achievements and Plans
  - University Research Forests
  - Offices, Awards and Distinctions
  - Extramural Funding and Sponsored Research
  - Faculty Publications

- CENTRES, INSTITUTES AND TARGETED PROGRAMS
  - First Nations Forestry and Conservation Programs
  - International Forestry Programs
  - Centre for Advanced Wood Processing
  - Centre for Applied Conservation Biology
  - BC Forestry Continuing Studies Network
  - Silviculture Institute of B.C.
  - Faculty Development Program

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

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

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

\(^a\) General purpose operating budget provided by the University.
\(^b\) Budget divided by the weighted full-time equivalent number of students.
\(^c\) Extramural funding = research funding plus endowment income (until 96/97) and special purpose funds. (Excludes BC Forestry Continuing Studies, University development funds, shared services and program research accounts.)
\(^d\) FTE (full-time equivalent) faculty members calculated from budget-supported positions.

Consider some of the highlights in a bit more detail:

- **Undergraduate enrolment** rose by 13.2% to 591 students. For several years we have constrained the number of new entrants to the Faculty via Year 1 enrolment quotas for all programs, so the increase comes as a result of increased retention rates (an expected consequence of the steadily rising entry GPAs), the planned roll-out of the Natural Resources Conservation and Wood Products Processing programs, and imbalances in the vintage structure of the students in the Faculty. We expect this rate of increase to continue (primarily as a result of the continued roll-out of the Wood Products Processing program) for a projected total of about 685 students in 1996/97. Women comprised 36.5% of the undergraduate class, up from 20.4% five years ago which was on a far smaller base. Self-reported First Nations students numbered only eight in the Faculty, far less than represented in the population as a whole. We expect that the efforts of our First Nations Forestry and Natural Resources Conservation Coordinator Gordon Prest will begin to pay off in the next few years, and that this percentage will increase towards our target of 5% by 2000. Placement of students both in summer positions and in full-time professional jobs after graduation remains at very high levels.
- **Our graduate program** grew by 6.3% to 201 students. At over 3.7 graduate students per faculty member, we are probably close to our capacity to provide high-quality graduate education. The increase is partly due to very high levels of extramural support and the development of cooperative agreements with external agencies (the B.C. Ministries of Forests and of Environment, Lands and Parks; the Canadian Wildlife Service; Pacific Forest Products) to place scientific personnel at UBC who are qualified to supervise graduate students. Total funding for graduate-student support was $2.14 million, a 14% increase over last year’s level. Graduate students continue to play a significant role in the delivery of our undergraduate professional programs. This offers an excellent opportunity for graduate students to learn how to teach, but may slow their research progress and demands extra effort by faculty members to monitor the quality of instruction.

- The second year of our **Diploma in Forestry (Advanced Silviculture)** program, (offered in collaboration with the Silviculture Institute of BC) enrolled about 93 students. This fall in enrolment during this past year was mainly as a result of a reduced presence of the Ministry of Forests personnel in the program due to Provincial government financial restraint. A new Institute of Forest Engineering of BC was recently established to provide a similar program in forest engineering, and the Faculty intends to adopt this program as a formal UBC diploma program as well.

- The Faculty continues to lead all Canadian forestry schools in **research** activity (as measured by success in competitive grant competitions and the overall level of extramural funding). Total extramural funding was $10.4 million, a 45.8% increase from last year’s level. Grants from Forest Renewal BC helped offset the general nation-wide downward trend in research support, but we expect this source of support to decline in 1997/98. Although the University-wide data for 1996/97 are not yet available, we believe that extramural support per faculty member in Forestry is now the highest among all UBC faculties.

- The **BC Forestry Continuing Studies Network** (which the Faculty helped establish in 1991) served nearly 12,000 participants (nearly 70 person-years of training) during 1996/97, down from the 1994/95 peak associated with massive needs related to the then-new Forest Practices Code of BC. The Network enjoys widespread support in the Province, but sustaining core financial support for this program remains a challenge. After a very thorough external review, we reorganized the Board of Directors to include higher-level representation from the relevant agencies, ministries and organizations.

- **International exchange programs** involved a modest increase in participation in the Faculty to 12 undergraduates on reciprocal exchanges with universities in Europe, SE Asia, Australia and New Zealand. Both the Swiss Institute for Wood Engineering and the Fachhochschule Rosenheim have agreed to collaborate in teaching Year 4 and Year 5 of our Wood Products Processing program.

- **Our faculty** complement decreased by three (Profs. Alan Chambers, Doug Golding and Peter Pearse retired after long and distinguished careers with the Faculty), and increased by seven:
  
  - **Robert Kozak** as an Assistant Professor in forest products utilization;
  - **Don Luymes** as an Assistant Professor in landscape design;
  - **Joseph McNeel** as an Associate Professor in forest operations;
  - **Steve Mitchell** as an Instructor in silviculture;
  - **Laura Nagel** as an Instructor in natural resources conservation;
  - **John Richardson** as an Assistant Professor in riparian zone ecology; and
  - **Paul Wood** as an Assistant Professor in conservation policy.

  We are currently in the midst of searches for Forest Renewal BC Chairs in Hydrology (jointly with the Department of Geography), in Silviculture and in Forest Management. In addition, **Prof. George Hoberg** (Department of Political Science) joined the Faculty of Forestry as a half-time appointment on a three-year trial basis to teach Forest Policy.
• We continue to revise our undergraduate programs. We taught the third year of the Wood Products Processing program, and placed all of the students in their second co-op term. Senate approved our revisions to the B.Sc. (Natural Resources Conservation), and we taught the first three years of the new program (this involved a new collaboration with Geography in teaching geographic information systems). With extremely timely and useful assistance from the University’s Teaching and Learning Enhancement Fund (created from student tuition payments), we are completing the preparations for an innovative integrated semester involving extensive field instruction and interdisciplinary work. The Faculty has intensively discussed major revisions of the professional forestry program, and we expect to be considering a major revision of that program during the 1997/98 academic year.

• For each of our major undergraduate programs, the Faculty appointed Program Directors to serve as the first line of contact for student concerns: advising on courses, identifying needed curriculum changes, working out timetable conflicts, etc. This improved level of student services has been effective in increasing levels of undergraduate satisfaction with our programs.

• The University Research Forests moved to 100% financial self sufficiency with all direct University budget support being removed during the 1996/97 academic year. This change places even greater pressures on improving operational efficiency and developing new revenue sources at the URFs. Particular attention has been focused on improving the teaching and administrative space at the Alex Fraser Research Forest, and some innovative solutions may be possible there. The Ministry of Forests has asked us to consider taking on the management of a research forest in the Northern Interior, and we are collaborating with the University of Northern British Columbia to develop a suitable administrative structure and management plan. The Director of University Research Forests spent one week in Malaysia helping our colleagues at Universiti Pertainian Malaysia develop a management plan for their new research forest.

• Fundraising in the Faculty of Forestry continued to be successful and our Alumni participation at 34% remained ahead of all other faculties on campus. Our “Growing for the Future” campaign is in its final stages with $2.3 million raised to date. The Faculty and the Development Office recruited a new Forestry Development Officer, Ms. Tara Scott.

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

Clark S. Binkley
Dean, Faculty of Forestry
THE Faculty of Forestry offers 4-year degree programs in the following five areas:

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

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

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

- **Forest Science** – B.Sc. (Forestry)
This major is for students interested in more specialized study of the scientific principles related to the growth, development, and ecology of forest species. Emphasis is placed on basic and interactive 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.

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

### PROGRAM UPDATES IN 1996-97
- The Faculty created three new “Program Director” positions to assist and advise undergraduate students.
- The broader-based admission policy for the B.S.F. programs attracted ten applicants this year; eight applicants qualified on their own merits and two were unable to meet the UBC minimum entrance GPA.
- Admitted first and second year students to the revised Natural Resources Conservation program with 90% of existing students switching to the revised program.
- Twenty-two students are currently employed in industry as part of our targeted work placement sessions in the Wood Products Processing Cooperative Education program.

### PLANS FOR 1997-98
- Implement revisions to the professional forestry program (Forest Resource Management and Forest Operations option).
- Conduct the Natural Resources Conservation program’s integrated field school for the first time (thirty students expected).
- Implement Year 4 of the new Wood Products Processing program and of the revised Natural Resources Conservation program.
- Pursue the establishment of a quota on second year admissions into B.S.F. and B.Sc. (Natural Resources Conservation).
Total Enrolment

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

The graph below illustrates the trend in enrolment since 1990.

Distribution of students among programs
1996/97

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

*First year students.

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

New Student Enrolment

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

Enrolment by year of study
1996/97

<table>
<thead>
<tr>
<th>Year of study</th>
<th>Number of new students entering</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>114</td>
</tr>
<tr>
<td>II</td>
<td>82</td>
</tr>
<tr>
<td>III</td>
<td>17</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>213</strong></td>
</tr>
</tbody>
</table>

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

Degrees entered by new students – 1996/97

Average entering GPA – 1996/97

<table>
<thead>
<tr>
<th>Degree</th>
<th>GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>B.S.F.</td>
<td>70.8%</td>
</tr>
<tr>
<td>B.Sc. (Forestry)</td>
<td>68.3%</td>
</tr>
<tr>
<td>B.Sc. (Wood Products Processing)</td>
<td>72.6%</td>
</tr>
<tr>
<td>B.Sc. (Natural Resources Conservation)</td>
<td>75.2%</td>
</tr>
</tbody>
</table>
Scholarships and Fellowships Awarded, 1996

FIRST YEAR STUDENTS

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

SECOND YEAR STUDENTS

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

Third Year Students

Beetham, A.M. - Backman, Splan, UBC
Birtch, G.J. - Splan, UBC
Buchanan, B.K. - Soderman, R.E. Mills
Corsi, E.A. - E. Mills, Splan
Dagenais, G.N. - UBC
Elder, C.D. - J.R. Mills, Splan
Finall, S.A. - Molson, Soderman
Limacher, S.E. - Johnson, Binkley
Lyons, C.K. - Truck Loggers
Pena, C.M. - Backman, Craig, Soderman
Ronalds, P.C. - Splan, UBC
Weber, A.A. Graduate
Wenger, J.-P.K. - ABCPF, Backman
Windsor, L.R. - Steiner
Wong, I. - Splan

Fourth Year Students

Galbraith, A.L. - Honours
Harrod, K.M. - Honours
Hebb, K.A. - ABCPF
Illes, J.S. - Honours
Johnsrude, A.N. - Hobson, Honours, HRM
Munroe, C.A. - Honours
Platzer, J.D. - Canadian
Sommerfeld, B.G. - HRM
Walsh, H. - ABCPF
Wills, N.F. - CIF Medal

Full Name of Award

ARCPF Scholarship.
ARCPF Best Graduating Thesis.
ARCPF Best Graduating Essay.
UBC Forestry Alumni Division.
Backman Scholarship in NRC.
Backman Scholarship in FRM.
Charles & Jane Banks Scholarship.
John D. Beaty Memorial Scholarship.
Emily & Francis Binkley Scholarship.
Hugh M. Brock Education Abroad Scholarship.
Canadian Forestry Equipment Ltd. Prize.
Canadian Institute of Forestry Medal.
Robert J. Craig Memorial Scholarship.
Gall Elkington Memorial Scholarship.
Entrance (renewal) Scholarship.
Walter D. Frith Scholarship.
Walter H. Gage & Elsie M. Harvey Education Abroad Scholarship.
UBC Graduate Fellowship.
Phil Haddock Prize in Silviculture.
Bob Hindmarch Award.
Harry Hobson Memorial Prize.
Honours Standing.
H.R. MacMillan Scholarship in Forestry.
H.R. MacMillan Prize in Forest Harvesting.
H.R. MacMillan Prize in Forest Harvesting.
I. I. A. MacMillan Prize in Forest Harvesting.
Ted Johnston Scholarship in Forestry.
Jen Ketcham Scholarship.
David Bell Little Memorial Scholarship.
Machinery & Supply Companies Group Forestry Scholarship.
MacMillan Bloedel Limited Scholarship for Forestry.
Stewart, J.C. - SUS, Beatty
Sweatman, T.W. - UBC
Szorkupa, T.D. - Splan
Talarico, T.J. - Brock
Tam, K. - ABCPF
Tobler, P. - ABCPF
Verschoor, P.G. - ABCPF, HRM, Splan, UBC
Watt, G.N. - Banks, HRM, UBC
West, K-B, L. - Siddoo
Wild, J.A. - Soderman
Zacher, K.M. - Brock

AWARDS

Undergraduate Students

Steward, J.C. - Splan
Sweatman, T.W. - SUS, Beatty
Szorkupa, T.D. - UBC
Talarico, T.J. - Splan
Tam, K. - Brock
Tobler, P. - ABCPF
Verschoor, P.G. - ABCPF, HRM, Splan, UBC
Watt, G.N. - Banks, HRM, UBC
West, K-B, L. - Siddoo
Wild, J.A. - Soderman
Zacher, K.M. - Brock

Third Year Students

Beetham, A.M. - Backman, Splan, UBC
Birtch, G.J. - Splan, UBC
Buchanan, B.K. - Soderman, R.E. Mills
Corsi, E.A. - E. Mills, Splan
Dagenais, G.N. - UBC
Elder, C.D. - J.R. Mills, Splan
Finall, S.A. - Molson, Soderman
Limacher, S.E. - Johnson, Binkley
Lyons, C.K. - Truck Loggers
Pena, C.M. - Backman, Craig, Soderman
Ronalds, P.C. - Splan, UBC
Weber, A.A. Graduate
Wenger, J.-P.K. - ABCPF, Backman
Windsor, L.R. - Steiner
Wong, I. - Splan

Fourth Year Students

Galbraith, A.L. - Honours
Harrod, K.M. - Honours
Hebb, K.A. - ABCPF
Illes, J.S. - Honours
Johnsrude, A.N. - Hobson, Honours, HRM
Munroe, C.A. - Honours
Platzer, J.D. - Canadian
Sommerfeld, B.G. - HRM
Walsh, H. - ABCPF
Wills, N.F. - CIF Medal
Degrees Conferred, May 1996 and November 1996 Congregations

**B.S.F. – Forest Resources Management**

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

**B.S.F. – Forest Operations**

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

**B.Sc. (Forestry)**

**Wood Science and Industry**

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

**B.Sc. (Forestry) – Forest Science**

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

**B.Sc. (Natural Resources Conservation)**

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

**GRADUATION STATISTICS**

Undergraduate Students

![Employment survey of 1996 graduates](image_url)

- Permanently Employed 68.5%
- Temporarily Employed 18.5%
- Advanced Studies 1.9%
- Unemployed 11.1%

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

Number of students graduating 1985 – 1996

1996 Annual Report   7
- **Graduate Programs**

The Faculty of Forestry offers four graduate degrees:
- Doctor of Philosophy – Ph.D.
- Master of Forestry – M.F.
- Master of Science – M.Sc.
- Master of Applied Science – M.A.Sc.

- **Enrolment Trends**

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

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

<table>
<thead>
<tr>
<th>Degree</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ph.D.</td>
<td>69</td>
<td>13</td>
<td>82</td>
</tr>
<tr>
<td>M.F.</td>
<td>9</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>M.Sc.</td>
<td>64</td>
<td>40</td>
<td>104</td>
</tr>
<tr>
<td>M.A.Sc.</td>
<td>3</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>145</td>
<td>56</td>
<td>201</td>
</tr>
</tbody>
</table>

As of October, 1996.

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

- **Graduate Student Funding**

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

<table>
<thead>
<tr>
<th>Department</th>
<th>No. graduate students</th>
<th>Total funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forest Resources</td>
<td>53</td>
<td>$439,249</td>
</tr>
<tr>
<td>Management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forest Sciences</td>
<td>98</td>
<td>$994,542</td>
</tr>
<tr>
<td>Wood Science</td>
<td>50</td>
<td>$710,327</td>
</tr>
</tbody>
</table>
### MASTERS STUDENTS

<table>
<thead>
<tr>
<th>Name</th>
<th>Full Name of Award</th>
<th>Award</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bartel, Joseph</td>
<td>Forestry Faculty, MacMillan</td>
<td>McCormick, James</td>
</tr>
<tr>
<td>Bennett, Jennifer</td>
<td>GREAT, NSERC Industrial</td>
<td>McKinnon, Leanne</td>
</tr>
<tr>
<td>Bull, Jennifer</td>
<td>NSERC Industrial</td>
<td>Moreau, France</td>
</tr>
<tr>
<td>Chow, Gordon</td>
<td>Lumber</td>
<td>Nicholson, David</td>
</tr>
<tr>
<td>Dettman, Jeremy</td>
<td>Buckland</td>
<td>Oriente, Damion</td>
</tr>
<tr>
<td>Dobson, Diana</td>
<td>TimberWest</td>
<td>Pavel, Mihai</td>
</tr>
<tr>
<td>Dubois, Jason</td>
<td>NSERC Industrial</td>
<td>Serrouya, Robert</td>
</tr>
<tr>
<td>Easton, Wendy</td>
<td>McPhee</td>
<td>Spelechaun, Bernhard</td>
</tr>
<tr>
<td>Edgar, Catherine</td>
<td>UGF</td>
<td>Stonewall, Adam</td>
</tr>
<tr>
<td>Hanel, Claudia</td>
<td>Cochran, McPhee</td>
<td>VanDusen</td>
</tr>
<tr>
<td>Hayward, Jeffrey</td>
<td>Allen, UGF</td>
<td>McPhee</td>
</tr>
<tr>
<td>Kraft, Daniel</td>
<td>TimberWest</td>
<td>McPhee</td>
</tr>
<tr>
<td>Lawrance, Peter</td>
<td>NSERC Industrial</td>
<td>McPhee</td>
</tr>
<tr>
<td>Leone, Robert</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### DOCTORAL STUDENTS

<table>
<thead>
<tr>
<th>Name</th>
<th>Full Name of Award</th>
<th>Award</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bennuah, Sampson Yaw</td>
<td>Commonwealth</td>
<td>Lu, Jianxion</td>
</tr>
<tr>
<td>Chen, Guangqi</td>
<td>McPhee</td>
<td>Mansfield, Shawn</td>
</tr>
<tr>
<td>Clouston, Peggi-Lynn</td>
<td>Forintek</td>
<td>McCarthy, John</td>
</tr>
<tr>
<td>Davradou, Maria</td>
<td>Namkoong</td>
<td>McIntosh, Rory</td>
</tr>
<tr>
<td>Defretes, Yance</td>
<td>CIDA</td>
<td>Mellina, Eric</td>
</tr>
<tr>
<td>Duralia, Tom</td>
<td>VanDusen</td>
<td>Mooney, Robert</td>
</tr>
<tr>
<td>Eugen, Rebecca</td>
<td>GREAT</td>
<td>Miraouli, Ahmed</td>
</tr>
<tr>
<td>Ellis, Arlene</td>
<td>Hanson, UGF</td>
<td>Nelson, Kari</td>
</tr>
<tr>
<td>Hao, Bingye</td>
<td>UGF</td>
<td>Ransome, Douglass</td>
</tr>
<tr>
<td>Jiang, Xiao</td>
<td>Forestry Faculty, McPhee</td>
<td>Singh, Raimekir</td>
</tr>
<tr>
<td>Kinyua, Dishon Patrick</td>
<td>CIDA</td>
<td>Sutherland, Glenn</td>
</tr>
<tr>
<td>Liliefta, Leonard</td>
<td>Forestry Faculty, Weyerhaeuser</td>
<td>Teter, Darius</td>
</tr>
<tr>
<td>Lin, Yingzhong</td>
<td>Heller, McPhee</td>
<td>Thomas, Len</td>
</tr>
<tr>
<td>Lu, Congin</td>
<td>UGF</td>
<td>Wang, Xiaorong</td>
</tr>
</tbody>
</table>

#### Full Name of Award

- George S. Allen Memorial Scholarship.
- Edward W. Bassett Memorial Scholarship in Reforestation.
- Don Buckland Memorial Scholarship in Forest Pathology.
- CFP - Canadian Forest Products Ltd. Fellowship in Forest Wildlife Management.
- CIDA - Canadian International Development Agency Scholarship.
- Ralph M. and Elizabeth E. Cochran Scholarship.
- Commonwealth Scholarship.
- Special Forestry Faculty Scholarship.

Forintek Canada Corporation Fellowship in Wood Science and Wood Products.

GREAT – Graduate Research Engineering and Technology Awards.

Brenda Hanson Memorial Scholarship in Forestry.

Paul Heller Fellowship.

Bert Hoffmeister Scholarship in Forest Wildlife.

Lumber Inspectors’ Benevolent Society Scholarship.

Jean MacDonald Fellowship.

MacMillan Bloedel Limited Fellowship in Forest Mensuration.

Donald S. McPhee Fellowship.

Namkoong Family Fellowship in Forest Sciences.

NSERC – Natural Sciences and Engineering Research Council of Canada Scholarship.

NSERC Industrial – Natural Sciences and Engineering Research Council of Canada Industrial Postgraduate Scholarship.

TimberWest1 Forest Limited Fellowship in Forest Science Management.

TimberWest2 Forest Limited Fellowship in Forest Wildlife Management.

Tri-Council Eco-Fellowship.

UGF – University Graduate Fellowship.

VanDusen Graduate Fellowship.

Weyerhaeuser Fellowship in Wood Design Management.
Degrees Conferred, May 1996 and November 1996 Congregations

M.F.

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

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

M.A.Sc.

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

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

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

M.Sc.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

SANCHEZ MAYORAL, Celia Dr. P.A. Murtha
Waterfowl farmland use in Delta, British Columbia: A remote sensing/GIS analysis.
SMITH, Robert  
Dr. T. Maness  
Log supply valuation and allocation to alternative cutting programs using log boom scaling data.

SONG, Dongjin  
Dr. S.C. Ellis  
A simulated study on some fundamental aspects of flakeboard manufacture.

SUN, Li-Juan  
Dr. B. van der Kamp  
Detection of genetic variation among Endocronatium harknessii populations in British Columbia using rDNA RFLPS and RAPD markers.

VERNIER, Pierre  
Dr. F.L. Bunnell  
Effects of clearcutting on landscape structure and bird species diversity and abundance in the Rocky Mountains.

YAWALATA, Dominggus  
Dr. L. Paszner  
High-yield catalysed organosolv pulping of non-wood fiber sources.

ZHENG, Yu  
Dr. J.N.R. Ruddick  
The biodegradation of quaternary ammonium compounds by mould fungi.

Hudson, Robert  
Dr. D.L. Golding  
The response of water chemistry to hydrological conditions and flow paths under different forest cover types in small subalpine catchments.

KOZAK, Robert  
Dr. D.H. Cohen  
An analysis of the North American specifiers of structural materials in nonresidential construction.

Li, Kai  
Dr. J.N. Saddler  
Development of an enzyme linked immunosorbent assay for dehydroabietic acid in pulp mill effluents.

MARKHAM, John  
Dr. C.P. Chanway  
A field test of the degree of coevolution between red alder and Frankia populations.

NEWTON, Peter  
Dr. G.F. Weetman  
Intraspecific competition processes and their management with black spruce (Picea mariana (Mill) B.S.P.) stands.

RUTLEDGE, Ron  
Dr. P.J. Dooling  
Subject variability in estimates of impact saliency and impact acceptability for wilderness conditions.

---

Ph.D.

ANDISON, David  
Dr. P.L. Marshall  
Managing for landscape patterns in the subboreal forests of British Columbia.

CHANG, Scott  
Dr. G.F. Weetman  
Fertilizer N efficiency and incorporation and soil N dynamics in forest ecosystems of northern Vancouver Island.

DEFRETES, Yance  
Dr. A.D. Chambers  

GAO, Yong  
Dr. C. Breuil  
Biodegradation of lipids by wood sapstaining Ophiostoma spp.

GLAUBITZ, Jeffrey  
Dr. J. Carlson  
Applications of molecular markers to forest genetics: Genetic diversity, genetic linkage mapping, and gene expression.
BINKLEY, Clark S.
A.B., M.S. (Harvard), Ph.D. (Yale), R.P.F. (Hon.)
Dean
Phone: (604) 822–2467
E-mail: binkley@unixg.ubc.ca

KOZAK, Antal (Tony)
B.S.F. (Sopron), M.F., Ph.D. (Brit. Col.), D.Sc. *Honoris causa* (Sopron)
Associate Dean, Undergraduate Programs & Academic Affairs
Responsible for administering academic programs including curriculum and calendar changes, admissions, transfers and advancements and for disciplining undergraduate students.
Phone: (604) 822–3545
E-mail: kozak@unixg.ubc.ca

McLEAN, John A.
Associate Dean, Graduate Studies & Research
Responsible for administering all aspects of Forestry graduate and post-baccalaureate programs and for promoting externally-sponsored research activities.
Phone: (604) 822–3360
E-mail: mclean@unixg.ubc.ca

WATTS, Susan B.
B.Sc. (N. Wales), M.F., Ph.D. (Brit. Col.), R.P.F.
Assistant Dean, External Relations
Responsible for directing external relations activities, for promoting research, for coordinating project proposal development and for producing Faculty Newsletters and Annual Reports.
Phone: (604) 822–6316
E-mail: suwatts@unixg.ubc.ca
DRISCOLL, Helen  Coordinator  
B.Sc. (Brit. Col.)  
Phone: (604) 822-3547  
E-mail: hdriscol@unixg.ubc.ca  

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Gordon Baskerville
Head

Younes Alila

Timothy Ballard

Clark Binkley

Jonathan Fannin

David Haley

Andrew Howard

Antal Kozak

Valerie LeMay

Donald Luymes

Peter Marshall

Joseph McNeel

Peter Murtha

John Nelson

S.E. (Tim) Salcudean

David Tait

David Tindall

G.C. (Casey) van Kooten

Paul Wood
BASKERVILLE, Gordon
Professor and Head
• Integrated Resources Management
  B.Sc.F. (1955), New Brunswick, M.F. (1957),
  Ph.D. (1964) Yale
  Phone: (604) 822-3362
  E-mail: basker@unixg.ubc.ca

ALILA, Younes
Assistant Professor
• Forest Engineering Hydrology
  Phone: (604) 822-6058
  E-mail: alila@unixg.ubc.ca

BALLARD, Timothy M.
Professor (Forest Resources Management,
Soil Science)
• Forest Soils
  Phone: (604) 822-2300
  E-mail: tballard@unixg.ubc.ca

BINKLEY, Clark S.
Professor and Dean
• Forest Economics
  Ph.D. (1979) Yale, R.P.F. (Hon.)
  Phone: (604) 822-2467
  E-mail: binkley@unixg.ubc.ca

FANNIN, R. Jonathan
Associate Professor (Forest Resources Management,
Civil Engineering)
• Forest Engineering, Roads, Soils, Terrain
  Stability Assessment
  B.Sc.(Hons.) (1983) Belfast,
  Phone: (604) 822-3133
  E-mail: jonathan.fannin@ubc.ca

HALEY, David
Professor
• Forest Economics, Forest Policy Analysis
  Phone: (604) 822-5634
  E-mail: dhaley@unixg.ubc.ca

HOWARD, Andrew F.
Associate Professor and Director of International
Forestry Programs
• Forest Engineering Economics, Forest
  Planning
  B.Sc. (1976) Massachusetts, M.F.Sc. (1979),
  Phone: (604) 822-3794
  E-mail: ahoward@unixg.ubc.ca

KOZAK, Antal
Professor and Associate Dean
• Biometrics, New Methodology for Forest
  Inventory
  Phone: (604) 822-3545
  E-mail: kozak@unixg.ubc.ca

LeMAY, Valerie M.
Associate Professor
• Biometrics/Mensuration
  Phone: (604) 822-4770
  E-mail: lemay@unixg.ubc.ca

LUYMES, Donald
Assistant Professor
• Landscape Design, Visual Resource Management
  Phone: (604) 822-3459
  E-mail: luymes@unixg.ubc.ca

MARSHALL, Peter L.
Associate Professor
• Growth and Yield, Forest Management
  B.Sc.F. (1976), M.Sc.F. (1979) Tor.,
  Phone: (604) 822-4918
  E-mail: marshall@unixg.ubc.ca

McNEEL, Joseph
Associate Professor
• Forest Harvesting Systems
  Phone: (604) 822-4264
  E-mail: mcneel@unixg.ubc.ca

MURTHA, Peter A.
Professor (Forest Resources Management,
Soil Science)
• Remote Sensing, Image Analysis, Satellite
  Data Interpretation, Land Classification and
  Terrain Analysis
  B.Sc.F. (1961) Tor., M.Sc. (1964),
  Phone: (604) 822-6452
  E-mail: murtha@unixg.ubc.ca

NELSON, John D.
Associate Professor
• Timber Supply Planning
  Phone: (604) 822-3902
  E-mail: nelson@unixg.ubc.ca
SALCUEDEAN, S.E. (Tim)
Associate Professor (Forest Resources Management, Electrical Engineering)
• Robotics/Control
Phone: (604) 822-3243
E-mail: tims@ee.ubc.ca

TAIT, David E.N.
Assistant Professor
• Optimization Techniques, Forest Planning
Phone: (604) 822-2997
E-mail: dtait@unixg.ubc.ca

TINDALL, David B.
Assistant Professor (Forest Resources Management, Sociology)
• Sociology/Conservation
Phone: (604) 822-2550/2363
E-mail: tindall@unixg.ubc.ca

VAN KOOTEN, G. Cornelis
Professor (Forest Resources Management, Agricultural Economics)
• Economics of Natural Resources
Phone: (604) 822-4518
E-mail: gerrit@unixg.ubc.ca

WOOD, Paul
Assistant Professor
• Conservation Policy, Environmental Ethics
Phone: (604) 822-0951
E-mail: paulwood@unixg.ubc.ca

TENDERS, Peter R.W.
Honorary Lecturers
• Silviculture
SAUER, Brent J.
• Forest Operations

POST-DOCTORAL FELLOW
LAVALLÉE, Loraine
B.A., M.A., Ph.D. (Brit. Col.)
• Social Psychology

ADJUNCT PROFESSORS
COTTLE, Philip L.
B.S.F., M.F. (Brit. Col.), Ph.D. (Yale), R.P.F.

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

HALL, Thomas H.

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

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

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

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

STAFF
AKAI, Heather
Administrative Assistant

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

COUCH, Mary Lou
Secretary

GIZOWSKI, David
B.Sc. (Alberta)
Computer Research Analyst

LAII, Charles
Departmental Clerk

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

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

VERWOERD, Harry
Research Assistant/Technician
New Faculty Appointments

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

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

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

Retirements

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

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

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

ACHIEVEMENTS IN 1996–97

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

ACHIEVEMENTS AND PLANS

Forest Resources Management Department

PLANS FOR 1997–98

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

David Barrett
Head

Stavros Avramidis  Colette Breuil  David Cohen

Simon Ellis  Frank Lam  Thomas Maness

Laszlo Paszner  Helmut Prion  John Ruddick

Jack Saddler
BARRETT, J. David
Professor and Head
• Wood Products Engineering
F.I.A.W.S., P. Eng.
Phone: (604) 822-5852
E-mail: dbarrett@unixg.ubc.ca

AVRAMIDIS, Stavros
Associate Professor
• Wood Physics and Drying
Ph.D. (1986) SUNY, Syracuse
Phone: (604) 822-6153
E-mail: stavros@unixg.ubc.ca

BREUIL, Colette
NSERC/Industrial Associate Professor
• Forest Products Biotechnology
Ph.D. (1977) Lyon
Phone: (604) 222-3200 loc. 421
E-mail: breuil@unixg.ubc.ca

COHEN, David H.
Associate Professor
• Forest Products Marketing and Management
Phone: (604) 822-6716
E-mail: dcohen@unixg.ubc.ca

ELLIS, Simon C.
Associate Professor
• Wood Anatomy and Adhesives
B.Sc. (Hons.) (1983) N. Wales, M.Sc. (1986),
Phone: (604) 822-3551
E-mail: sellis@unixg.ubc.ca

LAM, Frank
Assistant Professor
• Wood Mechanics
Phone: (604) 822-6526
E-mail: franklam@unixg.ubc.ca

MANESS, Thomas
Associate Professor and Director, Centre for
Advanced Wood Processing
• Wood Products Processing
Phone: (604) 822-2150
E-mail: maness@unixg.ubc.ca

PASZNER, Laszlo
Professor
• Chemical Utilization of Wood, Reconstituted
Wood Products
B.S.F. (1958) Sopron, M.F. (1963),
Phone: (604) 822-2139
E-mail: paszner@unixg.ubc.ca

PRION, Helmut G.L.
Assistant Professor (Wood Science,
Civil Engineering)
• Engineered Timber Structures Design
B.Eng. (Hons.) (1974) Stellenbosch,
Phone: (604) 822-3864
E-mail: prion@civil.ubc.ca

RUDICK, John N.R.
NSERC/Industrial Professor
• Wood Preservation
B.Sc. (1965), M.Sc. (1966) Newcastle,
Phone: (604) 822-3736
E-mail: ruddick@unixg.ubc.ca

SADDLER, Jack N.
NSERC/Industrial Professor
• Forest Products Biotechnology
B.Sc. (Hons.) (1975) Edinburgh,
Ph.D. (1978) Glasgow
Phone: (604) 222-3220
E-mail: saddler@unixg.ubc.ca

FACULTY
AND
STAFF
FACULTY AND STAFF
Wood Science Department

- Visiting Professors
  ENAYATI, Ali
  B.Sc., M.Sc., Ph.D. (Gorgan Agr. Sci. U., Iran)
  • Wood Physics

  FONSECA, Maria Jose Vieira
  B.Pharm. (Sao Paulo), M.Pharm., Ph.D. (Ribeirirao Preto-USP)
  • Forest Products Biotechnology

  PENG, Jun-Peng
  B.Sc., M.Sc., Ph.D. (Shenyang Coll. of Pharm., PRC)
  • Lateral Product Chemistry

  SUGIMORI, Masatoshi
  Ph.D. (Kyoto)
  • Wood Mechanics

  SUZUKI, Shigehiko
  M.Sc. (Nagoya), Ph.D. (Tokyo)
  • Physical Properties of Wood Composites

- Post-doctoral Fellows
  BIERNACKI, Jack
  B.S. (Warsaw), M.S., Ph.D. (Berkeley)
  • Nondestructive Evaluation of Wood Products

  BOUSSAID, Abdel
  Ph.D. (Oregon)
  • Forest Products Biotechnology

  CAI, Liping
  M.Sc. (NW For. Univ., China), Ph.D. (Michigan Tech.)
  • Wood Drying and Physics

  CAI, Yijin
  B.Sc. (Nanjing, China), Ph.D. (Hong Kong)
  • Forest Products Biotechnology

  DE JONG, Edserd
  M.Sc., Ph.D. (Wageningen)
  • Forest Products Biotechnology

  GUBITZ, Georg
  M.Sc., Ph.D. (Graz Univ., Austria)
  • Forest Products Biotechnology

  JOHANSSON, Carl
  B.Sc., Ph.D. (Simon Fraser)
  • Forest Products Biotechnology

  OUDJEHANE, Azzeddine
  B.Eng. (Ecole Nat. Polytech. d’Algeria), M.Sc. (INPG, France) Ph.D. (Univ. Blaise Clermont Ferrand, France)
  • Wood Composites

  SERREQI, Alessio
  B.Sc. (Brit. Col.), Ph.D. (McGill)
  • Forest Products Biotechnology

  ZHANG, Lin
  B.Sc.E. (Tianjin U.), Ph.D. (Cambridge)
  • Wood Physics

- Adjunct Professors
  BEATSON, Roger
  B.Sc. (Exeter), Ph.D. (W. Ont.)

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

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

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

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

- Staff
  BERNALDEZ, James
  B.A.Sc. (Brit. Col.)
  Research Engineer

  CAMPBELL, Kathy
  B.R.E. (Brit. Col.)
  Editorial Assistant

  COURCHUNE, Terry
  M.Sc. (Brit. Col.)
  Research Assistant

  FENG, Xiumei
  M.Sc. (Beijing), M.Sc. (Manitoba)
  Research Assistant/Technician (Forest Products Biotechnology)

  FURST, Dayna
  Departmental Clerk

  HASTINGS, Diana
  B.Sc. (Brit. Col.)
  Research Assistant/Technician

  MUCCI, Blanche
  Business Administration Cert. (Ryerson)
  Administrative Assistant

  MYRONUK, Robert
  Dipl. Tech. (BCIT)
  Research Support Services Supervisor

  SIDHU, Avtar
  B.Sc. (Brit. Col.)
  Research Scientist

  SYMONS, Bonnie
  Dipl. Applied Arts (Alberta)
  Secretary (Forest Products Biotechnology)

  THOMSON, Sandy
  B.Sc. (Brit. Col.)
  Student Affairs and Public Relations

  VOGLER, Hiltrud
  Dipl. Translator English (Univ. of Graz Austria), Dipl. Translator Dutch
  Departmental Secretary

  WANG, Yin Tang
  B.Eng., M.Eng. (Hohai Univ., China)
  Wood Engineering Scientist

  ZHAO, Jay
  B.A.Sc. (Tsinghua Univ., Beijing), M.A.Sc., Ph.D. (Brit. Col.), Computer Specialist

- Promotion/Tenure
  PRION, Helmut G.L. – granted tenure effective July 1, 1996.
effective april 1, 1997, dr. robert kozak has been hired as assistant professor, department of wood science and faculty associate at the centre for advanced wood processing (cawp). robert obtained his doctorate in forest products utilization from the university of british columbia in 1996. his research interests focus on the use of and markets for value-added, engineered and commodity wood products, as well as consumer preferences in the secondary wood products sector, the environmental impacts of wood use, and issues pertaining to timber design and construction. at cawp, robert will be responsible for leading the marketing research team of the wood products quality standards council of british columbia. his teaching assignments will involve courses in introductory business statistics as well as consumer research methods.

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

achancements in 1996–97

- new bachelor of science degree in wood products processing established.
- through the efforts of the centre for advanced wood processing, co-op students found co-op placements in wood processing firms across canada.
- international collaborations with the fachhochschule rosenheim and the swiss institute of wood engineering are providing state of the art knowledge needed to create a world class wood products processing education program.
- a national industry-led student recruiting strategy has been implemented. regional teams have been established in b.c., the prairies, ontario and the maritimes with the goal to recruit 60 new wood products processing students annually.
- university transfer programs have been established with colleges and universities within b.c. to expand opportunities for direct entry to year 2 of the wood products processing program.
- surveys were completed which established a need for new professional master’s programs in wood and fibre science as well as wood building design and construction. proposals for funding these two initiatives have been submitted to external funding agencies.

plans for 1997–98

- implement year 4 of the wood products processing program.
- appoint a student services coordinator to lead the national recruiting program for the wood products processing program.
- introduce block teaching formats for selected year 4 courses to expand opportunities for using international experts in the teaching of the wood products processing program.
- expand access to the wood products processing program by collaborating with colleges and universities across canada to deliver years 1 and 2 of the program via distance/distributed education technologies.
- hire three new faculty members to teach senior level courses of the wood products processing program.
- develop a proposal for implementing an education program in wood building design and construction as part of a national network linking industry, industry research institutes and universities across canada.
- participate in the design and implementation of a new national network of wood building design and construction in collaboration with applied science, architecture and other canadian universities and industry organizations.
- develop a strategy for implementing a professional master’s program in wood and fibre science and technology by september, 1998.
- develop a position paper and strategy for delivery of distance graduate level wood science and technology education in partnership with key world leaders in wood products.
- collaborate with forintek canada corp. and the wood products industry to establish a chair in wood composites materials.
NAMKOONG, Gene
Professor and Head
• Population and Quantitative Genetics
Phone: (604) 822–8275
E-mail: gene@unixg.ubc.ca

AITKEN, Sally N.
NSERC/Industrial Assistant Professor
• Genecology and Physiological Genetics
Phone: (604) 822–6020
E-mail: aitken@unixg.ubc.ca

BUNNELL, Fred L.
Professor and Director of Centre for Applied Conservation Biology
• Wildlife Population Dynamics, Influences of Forestry Practices on Wildlife
Phone: (604) 822–5928
E-mail: fbunnell@unixg.ubc.ca

CARLSON, John
Associate Professor (Forest Sciences, Plant Science, Biotechnology Laboratory)
• Molecular Genetics
Phone: (604) 822–4733
E-mail: jcarlson@unixg.ubc.ca

CHANWAY, Christopher P.
Associate Professor (Forest Sciences, Soil Science)
• Soil Microbiology
Phone: (604) 822–3716
E-mail: cchanway@unixg.ubc.ca

EL-KASSABY, Yousry
Professor (Pacific Forest Products Ltd.)
• Quantitative Genetics
Phone: (604) 822–1821
E-mail: yokassaby@pacificforest.com

FELLER, Michael C.
Associate Professor
• Fire Science and Water Quality
Phone: (604) 822–3729
E-mail: feller@unixg.ubc.ca

GLENN, Susan M.
Assistant Professor
• Conservation Biology and Landscape Ecology
Phone: (604) 822–4131
E-mail: sglenn@unixg.ubc.ca

GUY, Robert D.
Associate Professor
• Plant Physiology
Phone: (604) 822–6023
E-mail: guy@unixg.ubc.ca

HINCH, Scott G.
Assistant Professor (Forest Sciences, Institute for Resources and Environment)
• Aquatic Ecology and Fish/Forestry Interactions
Phone: (604) 822–0500/9377
E-mail: shinch@unixg.ubc.ca

KIMMINS, J.P. (Hamish)
Professor
• Forest Ecology, Sustainability of Managed Forests, Modelling Forest Ecosystems
Phone: (604) 822–3549
E-mail: kimmins@unixg.ubc.ca

KLINKA, Karel
Professor and V.J. Krajina/B.C. Forest Service Chair in Silvics and Silviculture
• Forest Ecology, Silvics
Phone: (604) 822–3047
E-mail: klinka@unixg.ubc.ca

MARTIN, Kathy M.
Associate Professor (Canadian Wildlife Service)
• Forest and Grassland Birds, Avian Energetics and Demography
Phone: (604) 822–9695
E-mail: kmartin@unixg.ubc.ca

McLEAN, John A.
Professor and Associate Dean
• Forest Entomology
Phone: (604) 822–3360
E-mail: mclean@unixg.ubc.ca
RICHARDSON, John S.
Assistant Professor (Forest Sciences, B.C. Ministry of Environment, Lands & Parks)
• Hydroriparian Systems
Phone: (604) 822-6586
E-mail: jrichard@unixg.ubc.ca

RITLAND, Kermit
NSERC/Industrial Chair Professor
• Population and Quantitative Genetics
Phone: (604) 822-8101
E-mail: ritland@unixg.ubc.ca

SULLIVAN, Thomas P.
Associate Professor
• Forestry and Wildlife
Phone: (604) 822-3543
E-mail: toms@unixg.ubc.ca

VAN DER KAMP, Bart J.
Professor
• Forest Pathology
Phone: (604) 822-2728
E-mail: bart.john.van.der.kamp@mtsg.ubc.ca

WATTS, Susan B.
Lecturer and Assistant Dean
• Forest Entomology
Phone: (604) 822-6316
E-mail: suwatts@unixg.ubc.ca

WEETMAN, Gordon F.
Professor
• Silviculture
Phone: (604) 822-2504
E-mail: gweetman@unixg.ubc.ca

WORRALL, John G.
Associate Professor
• Tree Physiology, Tree Growth Mechanisms and Climatic Influence
Phone: (604) 822-3516

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

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

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

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

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

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

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

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

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

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

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

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

Honorary Research Associate
CARTER, Reid
B.Sc., M.Sc. (Brit. Col.), R.P.F.
• Forest Ecology and Management
Post-doctoral Fellows

AWADEL-KARIM, Salah
M.Sc. (Leningrad), M.Sc. (UMIST), Ph.D. (Brit. Col.)
- Wood Pulp and Paper Chemistry and Technology

BRADLEY, Robert
B.Sc. (Guelph), B.Sc., Ph.D. (McG.)
- Soil Plant Interactions

FU, Yong-Bi
B.Sc. (Nanjing), M.Sc. (Lakehead), Ph.D. (Tor.)
- Population/Forest Genetics

MARKHAM, John
B.Sc. (Guelph), B.Ed. (Dalhousie), Ph.D. (Brit. Col.)
- Plant Microbe Interactions

MARR, Ken
B.Sc. (Colorado), M.Sc. (Hawaii), Ph.D. (Brit. Col.)
- Biosystematics

MIN, Xiangjia
B.Sc. (Shandong), M.Sc. (Beijing), Ph.D. (Hawaii)
- Plant Physiology

SEELEY, Brad
B.S. (Redlands), Ph.D. (Boston)
- Nutrient Dynamics and Forest Hydrology

SUN, Duo
M.Sc., Ph.D. (Nanjing)
- Forest Ecology

TRAVIS, Steve
B.S. (Oregon), M.S., Ph.D. (N. Arizona)
- Molecular Ecology

VIARD, Frederique
DEA, Ph.D. (U. de Montpellier)
- Molecular Population Genetics

WANG, Tongli
M.Sc., Ph.D. (Helsinki)
- Forest Tree Breeding

WIEBE, Karen L.
B.Sc. (Simon Fraser), Ph.D. (Sask.)
- Behaviour and Ecology of Birds

YOUNG, Jessica
B.S. (Calif., San Diego), Ph.D. (Purdue)
- Population Biology and Behavioural Ecology

Adjunct Professors

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

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

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

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

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

COMEAU, Philip G.
B.Sc. (Vic.), Ph.D. (Brit. Col)

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

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

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

KLENNER, Walt

KRANNITZ, Pamela G.
B.Sc. (Guelph), M.Sc. (W. Ont.), Ph.D. (Queen's)

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

LEADEM, Carole L.

LOUSIER, J. Daniel

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

McELLAN, Bruce N.

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

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

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

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

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

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

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

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

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

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

CHAN, Ivy
Dipl. Finance (Brit. Col.) 
Financial Clerk

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

HEBB, KATHLEEN
B.Sc. (Brit. Coll.) 
Research Assistant/Technician

HORNER, Maxine
Secretary

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

JOHNSON, Jacklyn
B.S.Ed. (Minn.) 
Administrative Assistant

LEE, Eric
Financial Clerk

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

LINDBERG, Mark
B.Sc. (Waterloo) 
Research Assistant/Technician

MACMILLAN, Carol
B.Sc. (Dalhousie) 
Research Assistant/Technician

NAIRN, James
B.Sc. (Guelph) 
Research Assistant/Technician

PALMER, Sharon
Secretary

PEEL, Susan
B.Sc. (Brit. Col.) 
Laboratory Assistant

RATSON, Susan
Secretary

SETO, Carrie
B.A. (Hong Kong) 
Administrative Assistant

SREJIC, Zika
B.Sc. (Belgrade) 
Research Assistant/Technician

- New Faculty Appointments

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

Steve Mitchell

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

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

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

Steve Mitchell can be reached at (604) 822-4591, fax (604) 822-9102 or e-mail smitchel@unixg.ubc.ca
Laura Nagel
B.Sc. (1989) Tor.,

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

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

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

ACHIEVEMENTS IN 1996–97

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

ACHIEVEMENTS AND PLANS

Forest Sciences Department

PLANS FOR 1997–98

- Appoint an internationally leading scholar to the FRBC Chair in Silviculture.
- Our recently secured $4.5 million in endowment for the Applied Conservation Biology program will allow us to fill one Senior Chair position.
- Maintain high level of proposals to NSERC, Forest Renewal BC and other funding agencies.
THE Faculty of Forestry operates two research forests: the coastal UBC Malcolm Knapp Research Forest in Maple Ridge, and the UBC Alex Fraser Research Forest in the interior near Williams Lake. The mission of the Research Forests is to support the Faculty of Forestry in serving the people of B.C. through excellence in education and scholarship in forestry broadly defined. Thus both Forests are dedicated to research and education. The location of the Forests, covering five biogeoclimatic zones and three different tenure systems, offers a wide array of research and education opportunities. The Malcolm Knapp Research Forest operates an adjacent Woodlot Licence which is used extensively for teaching and, to a limited extent, for research.

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

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

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

ACHIEVEMENTS IN 1996–97

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

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

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

PLANS FOR 1997–98
- Continue to encourage research, particularly where a number of researchers work on integrated projects over extensive areas.
- Resolve funding for services such as advice to researchers and educators.
- Continue to upgrade access to the University Research Forests.
- Plan to accommodate more students at field schools.
Alongside their teaching and research commitments, most Faculty members have committee responsibilities with off campus organizations and groups. These involvements are listed below together with various distinctions and awards (in bold-face type) bestowed on Faculty members during the past year.

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

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

**Avramidis, S.**
- Member, SCBC Review Ctte., Forest Products Program.
- Member, Forest Products Society Wood Physics & Wood Drying Technical Interest Groups.
- Member, IUFRO Working Party on Wood Drying, S5-04-06.
- Member, European Commission FAIR Forestry-Wood Chair Review Ctte.
- Member, Conference Panel 2nd Int'l Conf. on the Development of Wood Science/Technology and Forestry, Sopron, Hungary.
- Program Chair, Wood Physics & Drying Session, 51st Forest Products Society Annual Meeting, Vancouver, B.C.

**Barrett, J.D.**
- Chair, CSA Sawn Lumber Ctte. and Member, CSA Main Ctte.
- Board Member, International Academy of Wood Science, 1994 to 2000.
- Chair, Forest Products Society 1997 Annual Meeting Ctte.
- Member, SCBC/FRBC Value-Added Ctte.
- Chair, ISO Characteristic Values Ctte.
- Member, CIB-W18 International Building Research and Documentation.

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

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

**Breuil, C.**
- Member, NSERC Review Ctte., Strategic Grants Program.
- Member, National Science Foundation Grant Evaluation Ctte.
- Member, BCIT Biotech Program Advisory Ctte.
- Member, Agro-Forestry Ctte., University of Laval, Quebec.
OFFICES, AWARDS AND DISTINCTIONS

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

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

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

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

DRISCOLL, H.
- Member, Friends of the Environment Foundation Board.

ELLIS, S.
- Killam Teaching Award, Faculty of Forestry.

FANNIN, R.J.
- R.M. Quigley Award, Canadian Geo-technical Society.
- B.C. Asia Pacific Scholars Award, Asian Institute of Technology.

FELLER, M.C.
- Member, Lower Mainland Protected Areas Public Advisory Cttee.
- Member, 2nd International Wildland Fire Symposium Steering Cttee.

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

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

HINCH, S.G.
- Nominations Chair, 1998 Canadian Conference for Fisheries Research.

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

KLINKA, K.
- Chair, IUFRO S1.02-06.
- Deputy Chair, IUFRO S1.01-00.

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

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

LeMAY, V.M.
- Chair, CIF Measurements Subcommittee & Member of Council, Vancouver Section.
• Co-Chair, IUFRO 4.02 Working Group.
• Member, FRBC Inventory Group.
• Member, Stand Management Cooperative Policy Cttee. (western U.S. and B.C.).
• Member, Canadian Forest Inventory Cttee., Mensuration Subcommittee.
• Member, CSA Scaling Cttee.

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

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

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

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

MCLEAN, J.A.  
• Member, Forest Health Review Cttee.
• Member, FRBC Advisory Cttee.
• Deputy Chair, SCBC/FRBC Pest Management Review Cttee.
• Member, SCBC Forestry Cttee.

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

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

NELSON, J.D.  
• Member, FERIC Forest Engineering Advisory Cttee.
• Chair, Forest Harvesting Academic Standards Cttee., ABCPF.
• Co-Chair, Pacific Northwest Skyline and International Mountain Logging Symposium.
• Member, Land-Use Planning Peer Review Cttee., SCBC/FRBC.
• Member, TELSA Technical Cttee., ESSA Technologies.
• Member, ATLAS/SIMFOR Steering Cttee., Nelson Region.
PASZNER, L.
- Member, Expert Council on Utilization of Vegetal Materials, UNESCO.

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

PRION, H.G.L.
- Member, Canadian Timber Design Code Ctte.
- Member, Structural Stability Research Council.

RICHARDSON, J.S.
- Member, SCBC/FRBC Technical Review Ctte.
- Director, Riparian Ecosystems Research Program, BC Environment.

RITLAND, K.
- Member, FRBC Inventory Methodology Research Grant Council.

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

SADDLER, J.N.
- Fellow of International Academy of Wood Science.
- Member, Swedish Biotechnology Review Ctte.
- Member, NRCan Bioenergy Advisory Group.
- Member, Agriculture Canada Bioenergy Advisory Group.

SALCUDEAN, S.E.
- UBC Izaac Walton Killam Memorial Faculty Research Fellowship.
- Board Member, Medical Device Development Centre.
- Editor, IEEE Transactions on Robotics and Automation.

TAIT, D.E.N.
- Co-theme Leader, Planning and Practices, NCE.

TINDALL, D.B.
- Member, SCBC/FRBC Community Research Proposal Review Ctte.

VAN DER KAMP, B.J.
- Member, SCBC/FRBC Pest Management Review Ctte.
- Member, Armillaria Working Group.
- Member, BCMoF Forest Health Ctte.
- Member, SIBC Module Review Ctte.

VAN KOOTEN, G.C.
- Director, Western Agricultural Economics Association.

WATTS, S.B.
- Member, ABCPF Biometry Academic Standards Ctte.

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

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

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

The table below shows that the sources of our extramural funding are well distributed. While NSERC funding is higher this year, it remains at 19% of our total extramural funds. Federal funding sources account for 29% of our extramural funding. Industry has increased its support by 5% compared to 1995/96. Our international collaborative funding sources have increased by 152%. International activities include projects with FAO, Conservation International, USDA, and a project on the full utilization of wood with the International Environmental Institute in Hokkaido, Japan.

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

We also receive valuable research support from endowments provided by:

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

### Extramural funding sources 1996/97

<table>
<thead>
<tr>
<th>Source</th>
<th>$000</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NSERC</td>
<td>1,994</td>
<td>19.2</td>
</tr>
<tr>
<td>Environ. Can.</td>
<td>149</td>
<td>1.4</td>
</tr>
<tr>
<td>NRC</td>
<td>155</td>
<td>1.5</td>
</tr>
<tr>
<td>Other</td>
<td>748</td>
<td>7.2</td>
</tr>
<tr>
<td>Subtotal</td>
<td>3,046</td>
<td>29.3</td>
</tr>
<tr>
<td>Provincial</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FRBC/SCBC</td>
<td>4,739</td>
<td>45.5</td>
</tr>
<tr>
<td>MoF</td>
<td>919</td>
<td>8.8</td>
</tr>
<tr>
<td>MoELP</td>
<td>144</td>
<td>1.4</td>
</tr>
<tr>
<td>Other</td>
<td>20</td>
<td>0.2</td>
</tr>
<tr>
<td>Subtotal</td>
<td>5,822</td>
<td>55.9</td>
</tr>
<tr>
<td>Private</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industry</td>
<td>1,043</td>
<td>10.0</td>
</tr>
<tr>
<td>Other</td>
<td>155</td>
<td>1.5</td>
</tr>
<tr>
<td>Subtotal</td>
<td>1,198</td>
<td>11.5</td>
</tr>
<tr>
<td>International</td>
<td>343</td>
<td>3.3</td>
</tr>
<tr>
<td>Total</td>
<td>10,409</td>
<td>100</td>
</tr>
</tbody>
</table>
The following list reflects funded research activities between April 1, 1996 and March 31, 1997.

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

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

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

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

**J.D. Barrett**
- Lot properties of Douglas-fir, hem-fir and spruce-pine-fir dimension lumber
  FRBC $63,210
- Forest Products Society ‘value-added wood products’ industry focus session
  FRBC $18,900
- Multiple input grading system for structural lumber (co-investigator) – NSERC $95,000
- Reliability of wood-based materials
  NSERC $17,700

**C.S. Binkley**
- An examination of options to include environmental objectives in forest management – FRDA $17,000

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

**F.L. Bunnell**
- Short-tailed weasel ecology and forest fragmentation in northern Alberta – Alberta Pacific For. Ind./Alberta Sport Recreation Parks & Wildlife Foundation $20,400
- Distribution and genetic connectivity of tailed frog populations – FRBC $89,353
- Sustainable forest management planning and practices theme – NCE $305,775
- Effects of forestry on grizzly bear habitat use, population growth, and population persistence – FRBC $85,164
- Ecology of tailed frogs and the effects of forest practices (co-investigator)
  FRBC $99,966
• Persistence of forest-dependent vertebrates in managed forests – **FRBC $103,611**
• Testing and refining biodiversity monitoring approaches – **FRBC $65,920**
• Forest diversity program, habitat conservation plan; Fraser River Basin sustainable management plan – **Environ. Can. $18,000**
• Cooperative design of protected areas strategy – **Environ. Can. $79,323**
• Kluane National Park reserve grizzly bear research program – **Environ. Can. $52,000**

**J. Carlson**
• Distribution and genetic connectivity of tailed frog populations – **FRBC $24,000**
• Developmental biology and molecular genetics of trees – **NSERC $29,000**

**A.C.A. Chan-McLeod**
• Hydroriparian pilot study and planning for landscape level research – **MacMillan Bloedel $11,000**

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

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

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

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

**R.J. Fannin**
• Design and performance of geotextile filters – **NSERC $23,700**
• Slope stability analysis – **FRBC $42,416**

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

**S.M. Glenn**
• Bridge funding for analysis of riparian corridors in the Cariboo/Chilcotin – **Lignum $60,877**
• Modeling for biologically effective designs of riparian corridors as linkages between protected areas – **FRBC $37,000**
• Analysis of riparian corridors in the Cariboo/Chilcotin – **Lignum $55,000**
R.D. Guy
- Seasonal ecophysiology of western redcedar under a red alder canopy: Sunfleck use efficiency and rhodoxanthin accumulation  
  FRBC $22,591
- Alternative thawing regimes and associated handling procedures for freezer-stored plantation stock – FRBC $81,489
- Nitrate and ammonium uptake in forest seedlings – preferences and stress interactions (co-investigator) – FRBC $74,664
- Comparative physiology of stress acclimation in conifers: Water-use efficiency and root respiration – NSERC $35,715

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

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

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

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

K. Klinka
- The V.J. Krajina/B.C. Forest Service Chair in silvics and silviculture – BCMoF $90,132
- Non-forested ecosystems of Coastal B.C./Mountain Hemlock Zone – BCMoF $46,600
- TFL-37 operational inventory program, growth and yield – BCMoF $36,500
- Inventory of western hemlock root biomass in closed canopy stands – BCMoF $8,965
- Results of shade tolerance and dendrochronology studies – BCMoF $12,000
- G.F. Dodd Operational Research Chair in silvicultural systems research  
  BCMoF $28,000
- Regeneration and productivity of western larch – BCMoF/Crestbrook Forest Ind./NSERC/Weyerhaeuser Can. $41,000
• Data entry, data analysis, and report writing for Aspen site index research
  BCMoF $20,000
• Inter and intraspecific variations in shade tolerance of major tree species in B.C.
  BCMoF $26,000
• Variations in tree-ring properties of tree species in the Nelson Forest Region
  BCMoF $25,000
• Chronosequence of humus forms in the CWH zone – FRBC $24,775
• Water solution chemistry leached from lignic and alginic humus forms in coastal British Columbia – FRBC $66,249
• Computer support system for making regeneration cutting and tree species selection in B.C.'s forests – FRBC $105,864
• High elevation site-productivity study
  FRBC $164,063
• Growth-light relationships in tree species
  NSERC $14,700

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

V.M. LeMay
- Estimation and characterization of decay in standing trees – NSERC $14,000

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

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

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

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

P.A. Murtha
- Radar Imaging Natural Systems (RAINS)
  Can. Space Agency $17,632
<table>
<thead>
<tr>
<th>Researcher</th>
<th>Project Title</th>
<th>Funding Organization</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>G. Namkoong</td>
<td>Quantitative analysis of tree breeding strategies - BCMoF $55,000</td>
<td>BCMoF</td>
<td>$55,000</td>
</tr>
<tr>
<td></td>
<td>Geneecology of Douglas-fir in the sub-maritime seed zone: Testing seed transfer guidelines - BCMoF $33,720</td>
<td>BCMoF</td>
<td>$33,720</td>
</tr>
<tr>
<td></td>
<td>A strategy for measuring biodiversity FRBC $56,910</td>
<td>FRBC</td>
<td>$56,910</td>
</tr>
<tr>
<td></td>
<td>Impact of forest operations on genetic diversity of understory species FRBC $50,064</td>
<td>FRBC</td>
<td>$50,064</td>
</tr>
<tr>
<td></td>
<td>Rapid breeding for tracheid characters in interior spruce - FRBC $36,015</td>
<td>FRBC</td>
<td>$36,015</td>
</tr>
<tr>
<td></td>
<td>Genetic effects on fiber and structural wood properties in western hemlock FRBC $63,315</td>
<td>FRBC</td>
<td>$63,315</td>
</tr>
<tr>
<td></td>
<td>Utilization and management of red alder genetic resources in British Columbia FRBC $59,955</td>
<td>FRBC</td>
<td>$59,955</td>
</tr>
<tr>
<td></td>
<td>Resource use efficiency response in varying environments and its role in maintenance of genetic variance in fitness related traits in lodgepole pine - BCMoF $41,580</td>
<td>BCMoF</td>
<td>$41,580</td>
</tr>
<tr>
<td>J.D. Nelson</td>
<td>Consequences of alternative management NCE $63,829</td>
<td>NCE</td>
<td>$63,829</td>
</tr>
<tr>
<td></td>
<td>The landscape project - FRBC $209,363</td>
<td>FRBC</td>
<td>$209,363</td>
</tr>
<tr>
<td></td>
<td>Forest management impacts on hydrological process in watersheds: A modeling study FRBC $22,307</td>
<td>FRBC</td>
<td>$22,307</td>
</tr>
<tr>
<td></td>
<td>Decision support systems for forest land use planning - NSERC $18,000</td>
<td>NSERC</td>
<td>$18,000</td>
</tr>
<tr>
<td>L. Paszner</td>
<td>Sawdust pulping studies - Forintek $9,200</td>
<td>Forintek</td>
<td>$9,200</td>
</tr>
<tr>
<td></td>
<td>Organic solvent assisted totally chlorine free bleaching of high-yield chemical pulps NSERC $19,600</td>
<td>NSERC</td>
<td>$19,600</td>
</tr>
<tr>
<td>C.E. Prescott</td>
<td>Impact of single conifer species plantations on soil biodiversity and processes FRBC $25,200</td>
<td>FRBC</td>
<td>$25,200</td>
</tr>
<tr>
<td></td>
<td>Project coordination - FRBC $46,116</td>
<td>FRBC</td>
<td>$46,116</td>
</tr>
<tr>
<td></td>
<td>Comparative ecology of ericaceous shrubs FRBC $5,775</td>
<td>FRBC</td>
<td>$5,775</td>
</tr>
<tr>
<td></td>
<td>Long-term effects of salal removal FRBC $15,330</td>
<td>FRBC</td>
<td>$15,330</td>
</tr>
<tr>
<td></td>
<td>Problem analysis and screening trials FRBC $48,405</td>
<td>FRBC</td>
<td>$48,405</td>
</tr>
<tr>
<td></td>
<td>Coarse woody debris dynamics in wet and dry ESSF forests - FRBC $1,200</td>
<td>FRBC</td>
<td>$1,200</td>
</tr>
<tr>
<td></td>
<td>Partial cutting systems research in the interior cedar-hemlock zone in root disease infected stands - litter input and decomposition component - FRBC $7,885</td>
<td>FRBC</td>
<td>$7,885</td>
</tr>
<tr>
<td></td>
<td>Predicting rates of organic matter decomposition in forests and silvicultural systems in B.C. - FRBC $42,000</td>
<td>FRBC</td>
<td>$42,000</td>
</tr>
<tr>
<td></td>
<td>Influence of species mixtures on litter decomposition in forests of British Columbia FRBC $7,875</td>
<td>FRBC</td>
<td>$7,875</td>
</tr>
<tr>
<td>H.G.L. Prion</td>
<td>Wood shear walls with over-sized OSB panels Structural Board Assoc./IRAP $25,000</td>
<td>Structural Board Assoc./IRAP</td>
<td>$25,000</td>
</tr>
<tr>
<td></td>
<td>Seismic behaviour of steel plate shear walls NSERC $143,500</td>
<td>NSERC</td>
<td>$143,500</td>
</tr>
<tr>
<td></td>
<td>Retrofit of beam to column joints with grouted steel tubes - NSERC $14,000</td>
<td>NSERC</td>
<td>$14,000</td>
</tr>
<tr>
<td></td>
<td>Innovative connections for prefabricated heavy timber connection - FRBC $74,096</td>
<td>FRBC</td>
<td>$74,096</td>
</tr>
<tr>
<td>J.S. Richardson</td>
<td>Seasonal changes in benthic community structure in rivers of the Fraser River Basin Environ. Can. $28,500</td>
<td>Environ. Can.</td>
<td>$28,500</td>
</tr>
<tr>
<td></td>
<td>Population persistence of the Pacific giant salamander in the face of land-use alterations (co-investigator) FRBC/Habitat Conservation $116,000</td>
<td>FRBC/Habitat Conservation</td>
<td>$116,000</td>
</tr>
<tr>
<td></td>
<td>Ecology of tailed frogs and the effects of forest practices (co-investigator) FRBC $99,966</td>
<td>FRBC</td>
<td>$99,966</td>
</tr>
<tr>
<td></td>
<td>Stream benthos responses to riparian management - FRBC $104,578</td>
<td>FRBC</td>
<td>$104,578</td>
</tr>
<tr>
<td></td>
<td>Biology and geomorphological classification of headwater streams in the Long Beach Model Forest - NRC/Long Beach Model Forest $7,004</td>
<td>NRC/Long Beach Model Forest</td>
<td>$7,004</td>
</tr>
<tr>
<td></td>
<td>Hydraulic refugia of stream organisms from floods - FRBC $59,998</td>
<td>FRBC</td>
<td>$59,998</td>
</tr>
<tr>
<td></td>
<td>Effects of contaminants on small stream ecosystems in the lower Fraser Basin: Mesocosm studies - Environ. Can. $6,000</td>
<td>Environ. Can.</td>
<td>$6,000</td>
</tr>
<tr>
<td></td>
<td>Interguild interactions in communities of benthic stream invertebrates (co-investigator) National Science Foundation US$50,000</td>
<td>National Science Foundation</td>
<td>US$50,000</td>
</tr>
<tr>
<td>K. Ritland</td>
<td>Senior Industrial Research Chair in population genetics - BCMoF/NSERC $93,646</td>
<td>BCMoF/NSERC</td>
<td>$93,646</td>
</tr>
<tr>
<td></td>
<td>Molecular population genetics of Mimulus NSERC $60,800</td>
<td>NSERC</td>
<td>$60,800</td>
</tr>
<tr>
<td></td>
<td>Heritabilities in natural populations of four B.C. conifer species - FRBC $60,259</td>
<td>FRBC</td>
<td>$60,259</td>
</tr>
</tbody>
</table>
J.N.R. Ruddick
- Industrial Research Chair in wood preservation – NSERC/Various companies $79,014
- Potential of selected quaternary ammonium compounds as wood preservatives
  Albemarle Corporation $38,000

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

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

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

D.E.N. Tait
- Sustainable integration – NCE $56,965

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

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

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

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

EXTRAMURAL FUNDING & SPONSORED RESEARCH

1996 Annual Report 39
T
his list includes documents published between April 1, 1996 and March 31, 1997. Names appearing in bold-face type are those of UBC Forestry Faculty members. For further information on any of these publications (many of which are available in libraries), please contact the appropriate Faculty member directly.


Alila, Younes. 1996. Hydrologic engineering of stream crossings. UBC Faculty of Forestry, Branch Lines 7(3):2.


Fu, Yong-Bi and John Carlson. 1996. Report on the joint meeting of IUFRO Research Groups on population, ecological and conservation genetics (S2.04-01) and genetics aspects of air pollution and climate change CP2.05-05). Vancouver, B.C. Dendrome 3(2):9:11.


**Howard, A.F. and N.M. Majid.** 1996. Synthesis of the findings from the UBC-UPM conference on ecological, political, and social issues in forest management certification. pp. 6-17 in Proc. UBC-UPM Conference on the Ecological, Social & Political Issues of the Certification of Forest Management. UBC, Faculty of Forestry, Vancouver, B.C.


**Klinka, K., H.Y.H. Chen, Q. Wang, and L. de Montigny.** 1996. Forest canopies and their influence on the cover of understory vegetation in early-seral stands on west...
FACULTY
PUBLICATIONS


Petersen, D.J., M. Srinivasan, and C.P. Chanway. 1996. Bacillus polymyxa stimulates increased Rhizobium etli populations and nodulation when co-resident in the rhizosphere of Phaseolus vulgaris. FEMS Microbiology Letters 133:71-76.


THE First Nations Forestry initiatives continue to gain momentum and interest within the Faculty.

We have four major activity areas:

1. Increasing enrolment of First Nations students in the Faculty.
2. Developing a strategy and implementing a work plan to incorporate First Nations content into existing forestry programs in the Faculty.
4. Expanding articulation agreements for university transfer credit programs to offer first and second year forestry university transfer courses at the community level.

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

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

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

The "Indigenous Perspectives in Forestry Education Workshop" will bring together a balanced cross-section of academic, indigenous, industry and government representatives from around the world to address the topics of Making It Happen, Program Design, Curriculum Models, Program Delivery. A resource guide that summarizes participants' collective wisdom on these topics and a working network will be developed to foster communication and support among the participants interested in this work.

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

**ACHIEVEMENTS IN 1996–97**

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

**PLANS FOR 1997–98**

- Increase enrolment of First Nations students.
- Develop more culturally relevant content into existing courses.
- Formalize a laddering process from community-based delivery centres to Faculty programs.
- With the inevitable resolution of the aboriginal land question in B.C., it is timely for the Faculty to start to consider the post-treaty period and plan for the future.
- Dialogue will be developed with the First Nations Council of Advisors, Association of BC Professional Foresters and the Faculty to determine the future educational needs of professional forestland managers in B.C.'s post-treaty world.
THE International Forestry Programs (IP) office had a very busy and productive year. New projects are underway which will complement the momentum International Programs began last year.

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

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

ACHIEVEMENTS IN 1996–97

International Student Programs

■ International Exchange

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

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

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

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

■ International Work Internships

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

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

Research and Training Programs

■ Sustainable Forest Management in the Neotropics

Research has been conducted in Bolivia, Brazil and Guatemala on the economic viability of forest management compared to competing land uses and the ability of forest policy to encourage investment in sustainable management. We obtained a grant from Conservation International, Washington, DC to work on each of the case studies.

■ Forest Concessions on Public Lands

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

PLANS FOR 1997–98

International Student Programs

• Implement an International Forestry Degree Program to allow students at the undergraduate level to take a second degree concentrating on international forestry issues.

• Increase the number of international internships and work opportunities available to UBC Forestry students to increase their level of understanding of forestry practices worldwide.

• Increase the number of both incoming and outgoing students on international exchange. This in turn will contribute to the internationalization of the classroom.

Research and Training Programs

• Explore opportunities for international student recruitment.

• Continue to bid for international forestry projects which require the research skills and expertise of our faculty research associates and graduate students.
The national Centre for Advanced Wood Processing (CAWP) is an interdisciplinary initiative of the Faculties of Forestry and Applied Science to promote knowledge, new technologies, and an innovative, skilled workforce. The Centre was created through a partnership with industry, government, and Forest Renewal BC. We are guided by an industry advisory board, whose members and companies represent all sectors of the industry across Canada.

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

Education

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

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

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

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

Extension

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

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

Research

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

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

International Program

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

The Centre, in collaboration with the Swiss School of Engineering for the Timber Industry, hosted an International Wood Construction Forum with over 100 participants from many countries. This forum will now be an annual event, alternating between Canada and Europe. An International Value-Added Wood Processing Conference will be held in November 1997, and will also alternate between Canada and Europe.
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 support of a novel undergraduate program, broad definition of educational targets, close links between basic and applied disciplines, and focus on forested ecosystems where conflicts between biological diversity and economic activities are most contentious.

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

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

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

- **Extension**
  The Centre hosted larger, international workshops on several topics including hydorriparian classification and tailed frog biology. Another 4,000 pamphlets in the series on issues relevant to maintaining biological diversity were published. Short courses were developed for an array of groups from Parks Canada biologists to members of the Oregon Small Woodlands Association. More than 40 talks were given by Centre members to various professional groups in North America, Europe and Asia. Specifically focused outreach permitted research associates and graduate students to live directly in small communities such as Nehalliston, Yalakom, and Hot Springs Cove (Hesquiaht First Nation). Centre members also were involved in clarification and implementation of the Clayoquot Scientific Panel’s recommendations.

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

  - Leadership within the Sustainable Forest Management Network of Centres of Excellence, a national research program focused on Canada’s boreal forests (Drs. F. Bunnell and D. Tait).
  - Inventory and research on the ecology and genetics of tailed frog and Pacific giant salamander populations as these are influenced by forest practices (Drs. F. Bunnell, J. Carlson, J. Richardson).
  - A decision-support tool evaluating economic and biological consequences of forest planning at the landscape level, including a system for enhancing community participation in land and resource planning (Drs. F.L. Bunnell and J.D. Nelson).
  - Definition of hydorriparian zones and analysis of effectiveness of riparian corridors (Drs. S.M. Glenn and A.C. Chan-McLeod).
  - Physiological and behavioural response of resident stream salmonids to riparian logging practices (Dr. S. Hinch).
  - Energetics, behaviour, physiology and life history of white-tailed ptarmigan, and a collaborative project on the role of spruce grouse as alternative prey in relation to the snowshoe hare-lynx cycle in the boreal forest (Dr. K. Martin).
THE BC Forestry Continuing Studies Network was established as an independent organization nearly six years ago. Our six offices are affiliated with post-secondary institutions having forestry/natural resource programs:

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

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

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

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

ACHIEVEMENTS IN 1996–97

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

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

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

PLANS FOR 1997–98

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

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

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

HALL, Mary J.  
B.A.  
Administrative Assistant

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

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

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

The professional diploma program consists of six, two-week modules taken over a three-year period. Students are practising professional foresters employed by government, industry, and consulting from all parts of the province. There is extensive pre-course reading required prior to each module, and the program concludes with preparation of a comprehensive silviculture prescription. Sessions are held in coastal and interior locations in B.C. Instructors are drawn from academia, government, industry, and consulting.


ACHIEVEMENTS IN 1996–97

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

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

PLANS FOR 1997–98

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

We would like to recognize the financial contribution of the B.C. Ministry of Forests without which our tuition fees would be much less affordable. During the 1996/97 fiscal year, we also appreciated financial support from Forest Renewal BC. Sincere thanks are also due to our 100+ volunteers: instructors from UBC, the Ministry of Forests, UNBC, Canadian Forest Service, and the forest industry; Curriculum Committee members; and Directors.

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

Candace E.B. Parsons  
Executive Director

Board of Directors

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

*SIBC graduates
Tara Scott
Development Officer

The Faculty of Forestry's development program continues to meet with tremendous success. The accomplishments of our fundraising program are a direct result of the leadership and dedication of the Dean, faculty, volunteers and our generous donors. Their commitment to excellence has built a solid foundation for upcoming endeavors and the future growth of the Faculty. Our sincere appreciation is extended to all of those who have helped to make our development initiatives a success.

ACHIEVEMENTS IN 1996–97

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

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

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

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

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

Total donations ($)

<table>
<thead>
<tr>
<th>Total donations ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>70,000</td>
</tr>
<tr>
<td>60,000</td>
</tr>
<tr>
<td>50,000</td>
</tr>
<tr>
<td>40,000</td>
</tr>
<tr>
<td>30,000</td>
</tr>
<tr>
<td>20,000</td>
</tr>
<tr>
<td>10,000</td>
</tr>
<tr>
<td>0</td>
</tr>
</tbody>
</table>

Forestry Alumni past giving 1989–1996

PLANS FOR 1997–98

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

- Conservation Biology Lecture Series

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

Mr. Len Thomas
Ph.D. student, University of British Columbia
- Workshop on population monitoring in conservation biology – problems and opportunities.

Dr. Andre Desrochers
Laval University, Quebec
- Behavioural ecology of forest birds and the effects of timber management in the boreal forest.

Dr. Jon Swenson
Norwegian Institute for Nature Research, Trondheim
- The conservation of brown bears in Sweden and Norway.

Ms. Christine Bishop
Canadian Wildlife Service, Burlington
- Amphibian conservation in Canada.

Dr. Jeffrey Walters
Virginia Tech University, Blacksburg
- The biology and conservation of red-cockaded woodpeckers.

Dr. Patricia Kennedy
Colorado State University, Fort Collins
- The role of science and advocacy in conservation.

Dr. Keith Hobson
Canadian Wildlife Service, Saskatoon
- Using stable isotopes to monitor avian migration and reproduction.

Dr. Raymond O’Connor
University of Maine, Orono
- A risk assessment approach to biodiversity and land use.

Dr. Ilkka Hanski
University of Helsinki, Finland
- Metapopulations.

Dr. Michael Lynch
University of Oregon, Eugene
- The role of mutations in evolution and extinction.

Dr. Robert Gregory
Memorial University, St. John’s
- Marine conservation in the Atlantic — the collapse of the cod stocks and prognosis for recovery.

- Hydoriparian Ecosystem Workshops

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

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

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

THE BURGESS-LANE LECTURE

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

This year’s lecture was given on March 5 by Dr. James Bolton, Director of the BioComposites Centre in North Wales. Copies of Dr. Bolton’s talk “Plant fibres in composite materials: A review of technical challenges and opportunities” are available from the Department of Wood Science at UBC.
Students for Forestry Awareness (SFA) is an independent, student organization that has been in existence at UBC for over ten years. Through periodic symposia and a continuing speaker series the SFA introduces a variety of philosophical, academic, environmental, and industrial perspectives on forestry related issues to students, faculty and the general public. Further endeavours include developing career week for undergraduates and a mentorship program between professional foresters and prospective students. All of the projects emphasize the critical importance of awareness and foster this aspect into their mandate. Speakers and topics during the 1996/97 academic year included:

John Worrall
Associate Professor, UBC Faculty of Forestry
- Antarctic whaling: When men were men.

Don Currie
Vice president, Market and Trade Issues, Canfor
- Certification of British Columbia lumber.

Walt Klenner
B.C. Ministry of Forests, Kamloops
- Interdisciplinary research approaches and integration of forest research in Kamloops forest practices and management.

Jack Munro
Chairman, Forest Alliance of British Columbia
- Current policies and concerns of the Forest Alliance.

Tamara Stark
Greenpeace, Forest Campaign
- Stop the logging of B.C. temperate rainforests!

Elaine Golds
Volunteer, Burke Mountain Naturalists
- Public involvement in good sound watershed management.

John Richardson
Assistant Professor, UBC Faculty of Forestry
- The effects of logging on riparian areas.

David Zirnhelt
Minister of Forests
B.C. Ministry of Forests, Victoria
- Current challenges encountered in B.C. forest practices.

Council Members, Association of British Columbia Professional Foresters
- Issues facing the profession of forestry.

John Davies, Brian Beaton and Monique Nahulak
UBC Forestry undergraduates
- Perspectives about rap attack unit crews and women in forestry.

Rick Slaco
Chief Forester, Interfor
- Protected Areas Strategy.

Peter Duinker
Associate Professor and Chair, Forest Management and Policy, Lakehead University, Ontario
- Public participation in the expansion of Wabakimi Provincial Park.

Vern Wellburn
BC Forest Museum
- Springboards, and sawbucks — The pre-Husquavarna era.

Clark Binkley
Dean, UBC Faculty of Forestry and Gordon Baskerville
Head, Forest Resources Management Department
- Future of undergraduate forestry education at UBC.

Paul Griffiths
Cave Consultant
- Cave and karst resources of BC — forest management implications.

Herbert Kronzucker
Visiting Scientist at UBC
- Root nitrogen physiology and forest succession.

SPECIAL LECTURES
The Faculty of Forestry World Wide Web site features:

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

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

This Annual Report was prepared on an IBM PC AT compatible computer using Microsoft Word for Windows Version 6.0. A final camera-ready impression was produced using an HP Laserjet 5M printer.

Cover: Cornwall cover coated one side 10 pt.
Text: Resolve coated matte 80 lbs.

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

Dr. Susan Watts
Annual Report Editor
Faculty of Forestry
University of British Columbia
270–2357 Main Mall
Vancouver, B.C.
V6T 1Z4
Phone: (604) 822-6316
Fax: (604) 822-8645
E-mail: suwatts@unixg.ubc.ca

Printed in Canada on recycled paper