Creating the Future

2002 Annual Report for the College of Forestry and the Oregon Forest Research Laboratory
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Our Vision:

To be the world’s premier institution in forest resources education, research, and service

Our Mission:

To educate and engage the next generation of scholars, practitioners, and users of forest resources
To conduct distinctive problem-solving and research on forest and related resources
To share our discoveries and knowledge with others

Our Values:

Forests and their functions, products, and values, sustainable for current and future generations Learning as a passion, through teaching, research, experience, and extended education Collaboration across disciplines, institutions, and perspectives People in the College community, diverse in faculty, staff, students, and ideas, nurtured through communication and mutual respect Service to the people of Oregon, the nation, and the world Excellence, innovation, and relevance in all that we do

Our Products:

Graduates who are lifelong learners and capable problem solvers, reflecting the diverse communities they serve
Science that provides research-based knowledge, technologies and tools to solve problems and shape the future
Public service that provides extended education, technical assistance, policy advice, and training
Information that is sound and scientifically based for a well-informed citizenry
Natural resources define Oregon’s essential character. Oregon’s first peoples—among the wealthiest hunter-gatherers the world has ever known—sustained their cultures on the abundant natural resources of this area. This wealth of resources has fueled the development of Oregon’s economy and culture ever since.

Today these natural resources continue to attract people and investment into the state. While agriculture and forestry no longer dominate Oregon’s economy, they’re still a substantial part of Oregon’s prosperity and culture, and they support diverse and productive ways of life. The continued vitality of Oregon’s natural resource economy is fundamental to prosperity in every corner of the state.

Oregon can rightly claim leadership in forest management and sustainability:

▲ We have some of the world’s most productive and diverse forests.
▲ We have protected and sustained these forestlands through enlightened land-use planning and Forest Practices Act rules.
▲ We have a highly developed and efficient industry infrastructure.
▲ We educate forestry professionals, carry out research, and provide public services at one of the nation’s foremost forest resource colleges.

These are tough economic times. Oregon faces challenges in maintaining and increasing the vitality of its natural resources sector. But we see a very bright future. Oregon’s forest products are globally competitive and could fetch higher value in the marketplace. They could be produced at higher productivity and lower cost. New natural resource-based businesses could be created, offering high-wage jobs and high-export-value products. Penalties could be replaced by incentives for managing forestlands sustainably. The public could better understand the role of private, state, federal, and other public lands in providing a mix of forest products and values.

How can Oregonians create this future? The Oregon State University College of Forestry and the Oregon Forest Research Laboratory (FRL) can help. Our strengths and assets make us one of the world’s premier forestry academic institutions:

▲ Our research, conducted under the auspices of the Oregon Forest Research Laboratory, is world-renowned for its quality and relevance. The new knowledge and technologies we produce lift yields, lower costs, create new products, and improve environmental performance.
▲ Our scientists are highly regarded for their research, teaching, and public outreach.
▲ We attract the brightest and best forestry students from around the world.
We have active alumni and constituents who are highly supportive of our programs.

- We have world-class facilities and forest properties that enable us to deliver first-rate educational programs and conduct innovative research.

- We are ideally located near a wide array of forest ecosystems, from coastal forests to mountain forests to forests of the high desert.

- We are neighbors and collaborators with other stellar research organizations, including the USDA Forest Service Pacific Northwest Research Station, several national forests of the Pacific Northwest Region, the H.J. Andrews Experimental Forest, the USGS Forest and Rangeland Ecosystem Science Center, the USDI Bureau of Land Management, and the EPA’s Environmental Research Laboratory.

- We are part of Oregon State University, a major academic and research institution, which provides access to a broad portfolio of courses, curricula, and programs.

The College of Forestry and the Oregon Forest Research Laboratory have assets and strengths that can build Oregon’s capacity and help make prosperity a reality for citizens throughout the state.

This Annual Report showcases the College of Forestry’s and Oregon Forest Research Laboratory’s accomplishments from July 1, 2001 through June 30, 2002. So please read on! We begin with a few of the ways we’ve made returns on Oregon’s investment in us. After a summary of our financial picture, we offer photo essays that show only a few of the exciting teaching, research, and outreach projects we have going. In the pages that follow, you’ll find news from our four major programs, faculty awards and honors, names of our graduates, details about our research projects, and all the other activities and accomplishments of this vibrant place.

On behalf of the College of Forestry and the Oregon Forest Research Laboratory, I wish all our constituents, stakeholders, and friends a sustainable and prosperous future.

Hal Salwasser
Dean, College of Forestry
Director, Oregon Forest Research Laboratory
Return on Investment

▲ Impact on Instruction. Faculty with Forest Research Laboratory (FRL) research appointments at OSU integrate new knowledge from their research projects into the classes and student laboratories. More than 480 graduate and undergraduate students directly benefit from the biological, social, and environmental research carried out by FRL scientists.

▲ Contributing to Oregon’s Economy. Faculty of OSU’s Forest Research Laboratory conduct research in the forest and forest products, biological, social, and environmental sciences for the economic, social, and environmental benefit of Oregon. For every appropriated dollar invested, FRL scientists earn $5 in external funding. About 300 FRL research projects this year will benefit Oregon’s $10 billion forest and forest product-related industries.

▲ Providing Public Service. The Institute for Natural Resources (INR) is new this past year. The INR links faculty researchers at OSU, Portland State University, and the University of Oregon with Oregon policy-makers, educators, agencies, and natural resource stewards. The INR is slated to become the “One Place” for scientific information on climate, watersheds, wildlife, forests, grasslands, soils, and the human relationship with the natural environment.

▲ Improving Technology. A team of College of Forestry (CoF) scientists is evaluating a new synthetic rope as a substitute for wire rope in the logging industry. Early studies indicate significant promise for improvements in logging safety, worker ergonomics, and economic efficiency.

▲ Examining Logging and Fish Habitat. CoF scientists established a new multi-disciplinary, cooperative research program to evaluate the effects of contemporary forest management practices on aquatic habitat and fish populations, and thus to strengthen the scientific foundation for forest practices regulation in Oregon.

▲ Better Culverts. CoF scientists have completed research and outreach programs leading to improved engineering design guidelines for stream crossing structures that are being implemented by federal, state, and private land managers to improve migratory fish passage.

▲ Reducing the Risk of Wildfire. CoF faculty are conducting a study in Jackson County to assess fire risk in public and private forests and opportunities to reduce the risk through active forest management. The outcome will be an educational tool for public forest managers, county officials, and educators to use to estimate economic and ecological outcomes of selected forest management strategies.

▲ Saving Time in Forest Operations. CoF faculty completed a new computer model that optimizes timber sale layout and the efficiency of forest operations and develops plans in less than 25% of the time required by conventional methods.

▲ A New Plan for State Forestlands. CoF faculty are developing a forest planning methodology to assist the Oregon Department of Forestry in developing a new strategic plan for the Elliott State Forest.

▲ Exploring Ecosystems for Better Management. More than 100 research projects involving senior scientists from 13 departments and 5 colleges at OSU are in progress on the H.J. Andrews Experimental Forest. The Forest Science Department plays a major role in the leadership of this program. These projects contribute significantly to our understanding of how natural disturbances, climate change, and forest management practices affect carbon cycling, biodiversity, and watersheds of forested landscapes.

▲ Reducing Losses from Swiss Needle Cast Diseases. The Swiss Needle Cast Cooperative is developing forest management techniques expected to save millions of dollars lost to growth reduction on Douglas-fir.

▲ Educating about Biotechnology. Much controversy surrounds the use of biotechnology to improve food and fiber productivity. To better inform OSU students and the public on issues in biotechnology, including how this methodology works and its benefits and
potential pitfalls, faculty in Forest Science and in the College of Science recently initiated a course in “Issues in Agriculture and Natural Resource Biotechnology”.

▲ **Improved Seedling Production.** This year marked the 20th anniversary of the Nursery Technology Cooperative (NTC). Over 60 studies by the NTC have led to many improvements in the efficiency and effectiveness of nursery operations in the Pacific Northwest and in the survival and growth of planted seedlings. The value of this research is reflected by the longevity of the NTC, which includes 23 members representing private and public agency seedling nurseries and tree-growing organizations.

▲ **Protecting Trees from Douglas-fir Beetle Infestation.** Collaboration between faculty in the Department of Forest Science and scientists of the USDA Forest Service Pacific Northwest Research Station has led to the development of MCH, a chemical produced by male Douglas-fir beetles that naturally repels further beetle attack of trees. Artificially formulated MCH has proven to be very effective in protecting high-value trees or stands from attack without resorting to pesticides.

▲ **Environmentally Friendly Adhesives.** A Wood Science & Engineering (WS&E) faculty member has developed a new type of wood adhesive that gets stronger after it has been exposed to water. This new adhesive is derived from natural soybeans, rather than the more traditional synthetic formaldehyde glues. A patent application has been filed and several commercial manufacturers are exploring potential uses.

▲ **Adding Value to Small Logs.** Faculty in WS&E identified alternative processing techniques that can increase the value of small-diameter timber by over 75% to encourage stand management techniques that will reduce forest fire danger.

▲ **Making Treated Wood Safer.** A WS&E-led team measured leaching of wood preservatives from treated timber bridges into waterways. The information is being used in a nationwide model to enable regulators, engineers, and specifiers to properly design and site treated bridges in a way that ensures the environmental safety of our rivers and streams.

▲ **Reducing the Impact of Earthquakes.** WS&E faculty are testing sections of houses with earthquake loads similar to those likely to occur in Oregon (subduction-zone earthquake) to improve design and performance of homes and to reduce economic losses in natural disaster.

▲ **Assessing Health Risks of Indoor Molds.** WS&E faculty, working closely with health specialists, produced a white paper on the relative risks associated with indoor molds and have devised effective solutions for this problem for use by homeowners and contractors.

▲ **Helping Private Forestland Owners.** Corporate mergers have led to shrinking competition for logs, reducing income potential for private landowners. A faculty team is researching solutions to address small-landowner concerns and have created a new log-buyer database to improve market access for private forestland owners.

▲ **Innovative Learning Methods.** An innovative new book on forest products marketing, coupled with a web-based virtual tour and a new series of industry case studies, has significantly improved student learning. This book has been adopted for use in marketing courses at five universities so far.

▲ **Making Manufacturing More Competitive.** WS&E faculty are working with several small- to medium-size wood-product manufacturers in Portland to help them adopt “lean” manufacturing practices that enhance their efficiency and improve their competitiveness in the global marketplace.

▲ **Clarifying Certification.** Extensive publications and targeted outreach education by OSU faculty have helped Oregon’s private, public, and corporate landowners make informed decisions concerning forest certification plans. This work is widely used by Oregonians seeking to gain credit for their high-quality land management practices.
College of Forestry Finances

Consolidated Forestry Funding: Education, Research, Extended Education

Forestry Education Funding

Forestry Extended Education Program Sources of Funding, FY2002, Total $3.38 million†

Forestry Education Sources of Funding, FY2002, Total $3.4 million

Endowments & Gifts 13%
Forest Revenue 35%
Tuition 22%
State Appropriation (Higher Ed) 30%

Endowments & Gifts
Federal Formula Funds
Endowments & Gifts
Forest Revenue
Harvest tax
State General Funds & Tuition
Grants and Contracts

State Appropriation & Tuition (Actual)
State Appropriation & Tuition (Adjusted, Base Year 1990)*

Education & General Funding to CoF, FY 1990-2003

✝Total excludes approximately $46,000/yr per Agent that Oregon counties provide for general support.
*Indexed to Implicit Price Deflator, U.S. Department of Commerce
Sources of Funding, FY2002, Total $18.7 million

- Forest Revenue 3%
- Grants & Contracts 61%
- State Generated Funds (FRL Appropriation) 14%
- Federal Formula Funds 4%
- Endowments & Gifts 6%
- Oregon Harvest Tax 12%
- State General Funds 8%

Grants & Contracts, FY2002, Total $11.4 million

- EPA 5%
- USDA 38%
- NASA 6%
- State Agencies 8%
- NSF 9%
- Co-ops 12%
- USDI 12%
- Other 10%

Legislative Appropriations & Harvest Tax Revenues, FY 1980-2003

- State Appropriation (Actual)
- State Appropriation (Adjusted, Base Year 1980)
- Harvest Tax (Actual)
- Harvest Tax (Adjusted, Base Year 1980)

*Indexed to Implicit Price Deflator, U.S. Department of Commerce
Since the 1960s, Oregon has taken great strides to improve laws and regulations that protect the quality of forest and stream habitats. However, little research has been conducted to monitor the effectiveness of these regulations. “As a result,” says Arne Skaugset (Forest Engineering), “forest practice rules are being developed based on research results of logging practices 30 to 40 years old—many of which would be illegal today.”

Believing contemporary information should be available to inform management and policy decisions, Skaugset and colleagues at OSU, along with partner agencies, started the Hinkle Creek Research and Demonstration Area Project this year. The project studies current harvesting impacts on paired watersheds on Roseburg Forest Products’ land. “What we’re going to do,” says Skaugset, “is evaluate the effects of contemporary forest management practices on fish populations.”

Using two streams in the same basin, the research team will study the impacts of harvesting on one and, at the same time, monitor the control stream.

Through demonstration sites open to the public, the Hinkle Creek study will increase awareness and understanding of how forests can be effectively managed and still protect fish. With this understanding, current laws and regulations in Oregon will continue to improve.
For the young forests that cover vast portions of the Pacific Northwest, the message is clear: thin is in. Thinning of 40- to 60-year-old forests can benefit the development of old-growth characteristics and the diversity of plants and animals—but only if methods are used that protect shrubs, hardwoods, and large or old trees.

According to John Tappeiner (Forest Resources), a forestry professor and retired USGS forest scientist, millions of acres of old-growth forests in the Pacific Northwest were clearcut in past decades and densely replanted with uniformly spaced tree seedlings. These dense, young forests were being grown primarily for high yields of wood. There is a wide range of evidence suggesting that thinning will enable these young forests to achieve the character of the old-growth forests they replaced. Scientists have found that old-growth trees apparently grew at low density and in more open conditions than today’s plantations.

Other research has shown that thinning dense young forests can also improve biodiversity, especially when shrub stems, hardwood trees, and old remnant conifers are left intact. Diversity and abundance of mosses and lichens—especially those important as food for wildlife—forest songbirds, caterpillars, and other insects were greater in thinned young stands and old-growth stands than in young, unthinned stands.

“Taken together, these studies suggest that thinning may have positive results for plants and animals if the methods used protect shrubs, hardwoods, large trees, and old trees,” Tappeiner says.
Trees grow by adding annual rings around their cores. The rings may be thin, as in suppressed trees from crowded stands, or fat, as in trees from a well-tended plantation, or somewhere in between.

Does size matter? Because wood with thinner rings is denser, thin rings have been assumed to mean better-quality wood. Says Barbara Gartner (Wood Science and Engineering), “Big rings have a bad rap, because in the past, big rings were only in the juvenile wood. With today’s silviculture, we can have big rings in the mature wood, too. Unfortunately, we don’t know how growth ring width per se affects the quality of wood.” For example, Gartner and her colleague Randy Johnson of the USDA Forest Service were unable to say whether changes in wood density in trees infected with Swiss needle cast resulted from narrow rings, or from changes in the fundamental properties of the wood. There was no information on small rings from healthy trees of the same age for comparison.

Now, in a project called GRINCH (growth rings per inch), funded by a $150,000 Forest Service grant, Gartner and Johnson are studying the relationships between the width of growth rings and the quality of Douglas-fir wood. The study will pay off in providing an index for wood quality that is easily used on the spot by tree growers and log buyers.
Most residential and many commercial structures in the United States are made of wood—a point of pride to people at the College of Forestry. But these buildings are not always designed to withstand extreme natural hazards. “Disasters like Hurricane Andrew in 1992 and the Northridge earthquake in 1994,” says David Rosowsky (Wood Science and Engineering), “reminded people how vulnerable our existing building inventory is to natural disasters.”

Rosowsky’s research program focuses on the performance and safety of wood frame structures built in high hazard regions. His particular interest is in the design of structures to better withstand natural hazards such as earthquakes and hurricanes. Current building codes are focused on ensuring “life safety” for the people occupying the structures. This is certainly a paramount goal, but recent natural disasters have pointed to the significant costs that can be incurred even when loss of life is minimal. A new and emerging design paradigm, called performance-based design, considers objectives in addition to life safety that can lessen these enormous costs. Such an approach to structural design “places more responsibility on the engineer,” says Rosowsky, “but also promotes innovative solutions—new and more efficient ways to combine materials and structural forms.”
In American Samoa, lands are traditionally held in common by an extended family, or *aiga*. Each *aiga* has its appointed chief, the *matai*, whose duty it is to manage these lands, resolving family quarrels and seeing that resources are distributed fairly. That’s *fa’asamoa*—the Samoan way, says Jeannette Tuitele-Lewis (Forest Science), a master’s student in John Bliss’s class, “Private Forests in Society.”

But times have changed. American influence has pervaded Samoan society, and *fa’apalagi*—the outsider’s way—is replacing *fa’asamoa*.

To show the effects of these changes on her family’s homeland, Tuitele-Lewis prepared a PowerPoint presentation and a live videoconference with a Samoan “talking chief” named Mika Malala Misa, who is also an Extension agent. The privatization of formerly communal land, says Malala Misa, is important because it represents a shift of power from clan chiefs to individuals. Some Samoans see it as an erosion of traditional family ties. Others say Samoa has to change with the times.

Tuitele-Lewis and her fellow students are examining issues like this in other parts of the globe, too. Says Bliss (Forest Resources): “We heard firsthand from a ranch family in Australia, a country facing Aboriginal land claims, also a Brazilian ranch family feeling threatened by land-reform demands, a Native American with a keen sensitivity to the loss of tribal lands over the last century. Hearing these stories brought to life the relevance of struggles over land ownership to the understanding of global natural resource issues.”
International partnerships are proving to be a powerful tool for increasing knowledge and understanding of global issues. Many FRL scientists are involved with international research initiatives and educational programs on several continents. For example, Badege Bishaw, Robin Rose, and Bart Thielges (Forest Science) have conducted workshops on agroforestry and community forestry in Africa. Collaborating with Russian foresters, Mark Harmon and Olga Krankina (Forest Science) examine carbon dynamics in Siberia. Loren Kellogg’s innovative International Forest Engineering Institute will bring a wide range of forestry practitioners from around the world to Oregon. Dean Salwasser has a long-standing collaboration with the Wildlife Institute of India, and the College has signed an agreement with the Indian Council of Forestry Research and Education. These and other collaborative efforts demonstrate our leadership in addressing complex issues worldwide.
This past summer, the worst forest fire season in Oregon in almost 50 years grabbed national headlines and left land managers groping for science-based solutions.

They'll find good advice in *Fire in Oregon’s Forests: Risks, Effects, and Treatment Options*. The book, just out from the Oregon Forest Resources Institute, makes a case for active management of fire-prone forests—thinning, pruning, mowing, and prescribed burning—in a way that safeguards their environmental values.

Because of logging and fire suppression over the past century, “Oregon’s forests, particularly those in the southern and eastern part of the state, are outside their historical range of conditions,” says Stephen Fitzgerald, Deschutes County’s OSU Extension forester and the book’s lead author and editor, “and the forests are adding biomass faster than in the past, when low-intensity fires swept through periodically.”
Quaking aspen (*Populus tremuloides*) is the most widely distributed tree in North America—it once covered our continent from inland northern Alaska to Mexico, and from Newfoundland to the Great Lakes region. The distinctive tree with the trembling leaves still paints many a hillside gold in the fall, but the population has been shrinking over the past century. This loss has been dramatic in Yellowstone National Park. Why? Bill Ripple (Forest Resources) and recent doctoral degree recipient Eric Larsen (Geosciences) think it has something to do with elk, which browse on aspen, and with wolves, which preyed on elk in great numbers until wolf populations were extirpated early in the 20th century.

Ripple is conducting research on whether elk populations are booming because fewer animals fall prey to wolves, and, if that's true, whether elk are responsible for making the aspen disappear. He is now studying whether the reintroduction of wolves into Yellowstone Park will relieve browsing stress on seedlings and saplings and thus insure the survival of aspen and other hardwoods.

Wolves not only prey on elk, but their presence may help keep elk away from risky habitat. Elk in Yellowstone may have historically avoided foraging in certain aspen stands and along streams used frequently by wolves. Since the reintroduction of wolves, aspen, willows, and other hardwoods have begun to grow and expand in some areas, particularly along streams. This may help floodplain and channel restoration and provide improved habitat for beaver, fish, birds, butterflies, and numerous species of wildlife.
One-stop shopping for environmental information

There's a lot of scientific information around. But it's scattered among researchers, universities, and agencies. The Institute for Natural Resources, headquartered at OSU, is pulling a wealth of data together into a single, independent “store-front” where customers can ask questions, propose studies, provide opinions and advice, and learn about Oregon's natural resources.

The Institute’s Information Office will house and link a host of analytical and modeling tools. The Research Office will facilitate interdisciplinary research on Oregon’s environment and natural resources. The Policy Office will offer independent analysis of environmental and natural resource issues and help policymakers identify the strengths and weaknesses of various choices.

“This Institute brings people and natural resources together,” says acting director Hal Salwasser, Dean of the College of Forestry.
Outdoor recreation contributes to personal growth, interpersonal relationships, and therapeutic activities. Not only that, it’s a growing career field. The new Outdoor Recreation Leadership and Tourism program being offered at the OSU Cascades Campus in Bend will provide students with the necessary skills to develop and manage recreation and tourism programs and enterprises in this fast-growing niche in Oregon’s economy.

Becky Johnson, Associate Dean of Academic Affairs in the College of Forestry, explains, “This program is focused on directly serving the Central Oregon tourism industry. With the new campus in Bend, we are dedicated to serving the needs of the community.”

The program combines forestry and health and human performance curriculums to prepare students to work in the fields of outdoor adventure programming, outdoor and experiential education, applications of outdoor recreation to special populations, international ecotourism, and commercial recreation enterprises.
Because of concerns about endangered species and loss of biodiversity, forest managers have been designing strategies over the past decade for managing forests to protect plants and animals while permitting harvest of forest products.

But to what effect? Steve Radosevich and Leon Liegel (Forest Science) of the Sustainable Forestry Partnership are heading a team of scientists from three universities to find out just that. “Right now we don’t know whether these practices that are intended to enhance forest biodiversity are really working,” Radosevich says, “and, if they are, we don’t know which ones work best.” Using surveys, modeling and “futures analysis,” the project team will compare different strategies on various forested landscapes. “This research is intended to determine the most valuable strategies and help managers calculate the costs and benefits of managing for biodiversity,” says Radosevich.

The project is funded by a $250,000 grant from the National Commission on Science for Sustainable Forestry, awarded to scientists providing practical approaches to sustainable forestry.
In 2002, the first Saturday in April saw the 11th anniversary of what has become a landmark event in the Portland area. It’s Tree School at Clackamas Community College. Tree School, started by OSU Forestry Extension agent Mike Bondi (Forest Science) in 1991, is the largest woodland-owner educational event in Oregon.

“It’s a one-day mini-college for our clients,” says Bondi, “focusing on educational topics to improve the management of their lands.”

The event drew 575 people in last April—four times the number that came in 1991. Says Bondi, “Most people come from Clackamas County, but some come from other parts of Oregon, also Washington, California, Canada—even Florida.” Some faithful attendees plan their yearly vacation around Tree School, he says.

Topics range from forest history to capturing escaped Christmas tree plantations to the politics of land management. “The entire design is to give land owners information that they can actually go back to their properties and use,” said Bondi.

This past year, a new Tree School was begun in Douglas County. Tree School South was held in Roseburg in June and attracted 175 attendees.
Faculty & staff awards

DARIUS ADAMS, professor, Forest Resources, appointed to the scientific advisory board of the Finnish Forest Research Institute.

PAUL ADAMS, professor, Forest Engineering, named 2002 Forester of the Year by the Oregon Society of American Foresters.

BARBARA BOND, associate professor, Forest Science, a Dean’s Award for excellence in advising, mentoring, and undergraduate and graduate instruction. JIM BOYLE, professor, Forest Resources, the Aufderheide Award for excellence in teaching.

GRETCHEN BRACHER, graphic artist in the Forestry Communications Group, a Dean’s Award for outstanding service to the College. The “DREAM TEAM,” composed of STEVE HOBBS, JOHN BLISS, CAROL CARLSON, LINDA CARLSON, MIKE CLOUGHESY, CAMILLE FREITAG, BEVERLY LAW, JESSICA LEAHY, JEFF MORRELL, JOHN SESSIONS, PHYLLIS CASNER, and TOM DOWLING, who developed the College’s strategic plan, a Dean’s Award for exceptional special service.

Forestry Media Center, JEFF HINO, MARK REED, JUDY SITTON, and DAVID ZAHLER, a Dean’s Award for outstanding service in extended and continuing education. EVERETT HANSEN, professor, Botany and Plant Pathology and adjunct professor, Forest Science, selected as a Fellow of the American Phytopathological Society. KATHY HOWELL, then associate director of the Computing Resources Group, a Dean’s Award for outstanding service to the College. MANUELA HUSO, faculty research assistant in the Forest Science department, a Dean’s Award for outstanding service to the College. ROYAL JACKSON, associate professor, Forest Resources, the Julie Kliewer Award for excellence in mentoring. REBECCA JOHNSON, professor and associate dean for instruction, an Oregon State University Women of Achievement Award.

SANDRA LEWIS, office manager in the Forest Science department, a Dean’s Award for outstanding service to the College. JEFFREY J. MORRELL, professor, Wood Science and Engineering, a Dean’s Award for excellence in research and scholarship. DAVE MYROLD, professor, Crop and Soil Science and adjunct professor, Forest Science, named a Fellow of the Soil Science Society of America. STEPHEN H. SCHOENHOLZ, associate professor, Forest Engineering, selected to be associate editor of the Southern Journal of Applied Forestry.

JOHN SESSIONS, professor, Forest Engineering, appointed Faye and Lucille Stewart Professor of Forestry Engineering; named vice-chair of the National Indian Forest Management Assessment Team for the Second Decadal Assessment of Indian Forests by the Intertribal Timber Council; appointed to the Washington State Department of Natural Resources Technical Committee for Calculation of the Sustainable Harvest Level; reappointed to a three-year term as associate editor for Silva Fennica, the Finnish Journal of Forest Science; and an invited lecturer for the Environmental Studies Lecture Series at the University of Oregon.

LAWSON (JEFF) STARNES, assistant director, College Forests, granted Certified Forester status by the Society of American Foresters. STEVE STRAUSS, professor, Forest Science, inducted into the Apprenticeships in Science and Engineering (ASE) Mentoring Hall of Fame. BART THIELGES, associate dean for research, the Oregon State University International Service Award for his contributions to the internationalization of the university. JIM TRAPPE, professor, Forest Science, named Distinguished Mycologist by the Mycological Society of American.
## Forest Engineering

<table>
<thead>
<tr>
<th>Name</th>
<th>Education</th>
<th>Rank</th>
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<tbody>
<tr>
<td>Paul W. Adams</td>
<td>Ph.D., University of Michigan, 1980</td>
<td>Professor; Extension Forest Watershed Specialist</td>
</tr>
<tr>
<td>Robert L. Beschta</td>
<td>Ph.D., University of Arizona, 1974</td>
<td>Professor Emeritus</td>
</tr>
<tr>
<td>Kevin Boston</td>
<td>Ph.D., Oregon State University, 1996</td>
<td>Assistant Professor</td>
</tr>
<tr>
<td>Steve Bowers</td>
<td>M.F., Oregon State University, 1993</td>
<td>Assistant Professor; Extension Forester, Lane County</td>
</tr>
<tr>
<td>George W. Brown</td>
<td>Ph.D., Oregon State University, 1967</td>
<td>Professor, Former Dean Emeritus</td>
</tr>
<tr>
<td>Tom Edwards*</td>
<td>B.S., Oregon State University, 1984</td>
<td>Project Engineer/Operations Forester, College Forests</td>
</tr>
<tr>
<td>John J. Garland</td>
<td>Ph.D., Oregon State University, 1990</td>
<td>Professor; Extension Timber Harvesting Specialist</td>
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<tr>
<td>Loren D. Kellogg</td>
<td>Ph.D., Oregon State University, 1986</td>
<td>Professor</td>
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<td>Jim Kiser</td>
<td>M.S., Oregon State University, 1992</td>
<td>Instructor</td>
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<td>Brian W. Kramer</td>
<td>M.S., Oregon State University, 1993</td>
<td>Senior Instructor</td>
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<tr>
<td>Dave Lysne*</td>
<td>M.F., Oregon State University, 1980</td>
<td>Director, OSU Research Forests</td>
</tr>
<tr>
<td>Jeffrey J. McDonnell</td>
<td>Ph.D., University of Canterbury, New Zealand, 1989</td>
<td>Professor; Richardson Chair in Forest Operations and Watershed Sciences</td>
</tr>
<tr>
<td>Glen Murphy</td>
<td>Ph.D., Oregon State University, 1987</td>
<td>Professor</td>
</tr>
<tr>
<td>Bob Parker</td>
<td>M.S., Oregon State University, 2000</td>
<td>Assistant Professor; Extension Forester, Baker County</td>
</tr>
<tr>
<td>Steve Pilkerton</td>
<td>M.F., Oregon State University, 1989</td>
<td>Interim Director, Student Logging Program</td>
</tr>
<tr>
<td>Marvin R. Pyles</td>
<td>Ph.D., University of California, Berkeley, 1981</td>
<td>Associate Professor</td>
</tr>
<tr>
<td>John Sessions</td>
<td>Ph.D., Oregon State University, 1979</td>
<td>Distinguished Professor; Stewart Professor of Forest Engineering</td>
</tr>
<tr>
<td>Arne Skaugset</td>
<td>Ph.D., Oregon State University, 1997</td>
<td>Assistant Professor</td>
</tr>
<tr>
<td>Lawson W. Starnes*</td>
<td>M.F., Oregon State University, 1984</td>
<td>Assistant Director and Operations Team Leader, College Forests</td>
</tr>
<tr>
<td>Stephen Schoenholtz</td>
<td>Ph.D., Virginia Tech, 1990</td>
<td>Associate Professor</td>
</tr>
<tr>
<td>Steven Tesch</td>
<td>Ph.D., University of Montana, 1981</td>
<td>Professor, Department Head</td>
</tr>
<tr>
<td>Michael Wing</td>
<td>Ph.D., Oregon State University, 1998</td>
<td>Assistant Professor</td>
</tr>
</tbody>
</table>

* College Forests faculty with appointments in Forest Engineering
The Forest Engineering Department (www.cof.orst.edu/cof/fe) is recognized for excellence in student education, creative problem-solving research, and innovative extended education. Faculty engineers, hydrologists, and forest scientists apply engineering and forestry principles to solve complex forestry problems and support sustainable forests. Faculty and graduates provide knowledge, methods, and skills to design and carry out safe, economically viable, environmentally responsible, and socially acceptable forest resource operations.

**goals:**

▲ For undergraduates, provide 1) an engineering education within a forestry context, 2) a broad education that supports professional growth, 3) the practical skills to add immediate value to employers, and 4) a pathway to professional licensing as engineers and land surveyors.

▲ For graduate students, provide graduate education concentrations in forest engineering, forest operations, and forest hydrology to educate future generations of scholars, scientists, and professionals. Graduate students serve as a foundation for the department's research program.

▲ Promote a research program that is mission-oriented and seeks to help solve land management problems by discovering new scientific knowledge, applying scientific principles to solve problems, and developing innovative decision support tools.

▲ Provide outreach activities that serve society through Extension and continuing education programs. Serve diverse clientele and provide lifelong learning opportunities for professionals, landowners, the public, and policy makers.

**accomplishments:**

✔ Completed a major curriculum revision to position the undergraduate program for both forestry and engineering accreditation.

✔ Faculty devoted substantial energy to preparation for an Accreditation Board for Engineering and Technology (ABET) accreditation visit in October 2002.

✔ Resolved a challenge from the Oregon State Board of Examiners for Engineering and Land Surveying (OSBEELS) over the quality of FE program and access for graduates to professional licensing exams. Graduates now have access to the Fundamentals of Engineering exam and, with appropriate coursework, the Fundamentals of Land Surveying exam.

✔ Established a new Watersheds Research Cooperative to evaluate the effects of contemporary industrial forest practices on water quality, aquatic habitat, and fish populations. This coop has strong linkages to the OSU Fisheries and Wildlife Department and the FRESC Program of the USGS.

✔ Established the new Stewart Endowed Professorship in 2001, after a gift from the Faye Stewart estate. John Sessions was named as first Stewart Professor.

✔ Dedicated a new teaching laboratory in Peavy Hall as the Sam Konnie Family Forest Surveying and Road Design Laboratory.

✔ Established new Gibbet Hill Graduate Fellowships in Forest Engineering after receiving a pledge for $90,000 annually for five years from the Gibbet Hill Foundation.

Steve Tesch
Department Head
<table>
<thead>
<tr>
<th>Name</th>
<th>Education</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Darius M. Adams</td>
<td>Ph.D., University of California, Berkeley, 1972</td>
<td>Professor</td>
</tr>
<tr>
<td>John F. Bell</td>
<td>Ph.D., University of Michigan, 1970</td>
<td>Professor Emeritus</td>
</tr>
<tr>
<td>Max Bennett</td>
<td>M.S., Oregon State University, 1993</td>
<td>Assistant Professor; Extension Agent, Jackson-Josephine Counties</td>
</tr>
<tr>
<td>Pete Bettinger</td>
<td>Ph.D., Oregon State University, 1996</td>
<td>Assistant Professor</td>
</tr>
<tr>
<td>John C. Bliss</td>
<td>Ph.D., University of Wisconsin-Madison, 1988</td>
<td>Professor; Starker Chair in Private and Family Forestry; Associate Department Head</td>
</tr>
<tr>
<td>James R. Boyle</td>
<td>Ph.D., Yale University, 1967</td>
<td>Professor Emeritus</td>
</tr>
<tr>
<td>Michael J. Cloughesy</td>
<td>M.S., Oregon State University, 1983</td>
<td>Professor; Director of Outreach Education</td>
</tr>
<tr>
<td>Norman E. Elwood</td>
<td>Ph.D., University of Minnesota, 1984</td>
<td>Associate Professor; Forest Management Extension Specialist</td>
</tr>
<tr>
<td>William K. Ferrell</td>
<td>Ph.D., Duke University, 1948</td>
<td>Professor Emeritus</td>
</tr>
<tr>
<td>Stephen A. Fitzgerald</td>
<td>M.S., University of Idaho, 1983</td>
<td>Associate Professor; Extension Agent, Deschutes, Jefferson, Crook, Grant Counties</td>
</tr>
<tr>
<td>Richard A. Fletcher</td>
<td>M.B.A., Oregon State University, 1977</td>
<td>Professor; Staff Chair, Benton County Extension Service</td>
</tr>
<tr>
<td>Thomas J. Gallagher</td>
<td>Ph.D., University of Michigan, 1977</td>
<td>Associate Professor; Leadership Specialist, OSU Extension Service</td>
</tr>
<tr>
<td>David W. Hann</td>
<td>Ph.D., University of Washington, 1978</td>
<td>Professor</td>
</tr>
<tr>
<td>Richard K. Hermann</td>
<td>Ph.D., Oregon State University, 1960</td>
<td>Professor Emeritus</td>
</tr>
<tr>
<td>Jeffrey C. Hino</td>
<td>M.S., University of Oregon, 1979</td>
<td>Senior Instructor</td>
</tr>
<tr>
<td>Geoffrey M. Huntington</td>
<td>J.D., University of Oregon, 1986</td>
<td>Instructor</td>
</tr>
<tr>
<td>Royal G. Jackson</td>
<td>Ph.D., University of New Mexico</td>
<td>Associate Professor</td>
</tr>
<tr>
<td>Edward C. Jensen</td>
<td>Ph.D., Oregon State University, 1989</td>
<td>Professor; Director, Instructional Development</td>
</tr>
<tr>
<td>K. Norman Johnson</td>
<td>Ph.D., Oregon State University, 1973</td>
<td>Professor</td>
</tr>
<tr>
<td>Rebecca L. Johnson</td>
<td>Ph.D., Michigan State University, 1984</td>
<td>Professor; Associate Dean, Academic Affairs</td>
</tr>
<tr>
<td>Chal G. Landgren</td>
<td>M.S., Utah State, 1975, M.B.A., Portland State University, 1989</td>
<td>Professor; Extension Agent, Columbia and Washington Counties</td>
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<tr>
<td>Claire A. Montgomery</td>
<td>Ph.D., University of Washington, 1990</td>
<td>Associate Professor</td>
</tr>
<tr>
<td>David P. Paine</td>
<td>Ph.D., University of Washington, 1965</td>
<td>Professor Emeritus</td>
</tr>
<tr>
<td>A. Scott Reed</td>
<td>Ph.D., University of Minnesota, 1987</td>
<td>Professor; Executive Associate Dean</td>
</tr>
<tr>
<td>Mark D. Reed</td>
<td>M.A., California State University, Long Beach, 1987</td>
<td>Senior Instructor</td>
</tr>
<tr>
<td>William J. Ripple</td>
<td>Ph.D., Oregon State University, 1984</td>
<td>Professor</td>
</tr>
<tr>
<td>Hal Salwasser*</td>
<td>Ph.D., University of California, Berkeley, 1979</td>
<td>Dean, Professor</td>
</tr>
<tr>
<td>Barbara A. Schrader</td>
<td>Ph.D., Oregon State University, 1998</td>
<td>Assistant Professor</td>
</tr>
<tr>
<td>Bo Shelby</td>
<td>Ph.D., University of Colorado</td>
<td>Professor</td>
</tr>
<tr>
<td>Bruce A. Shindler</td>
<td>Ph.D., Oregon State University, 1993</td>
<td>Associate Professor</td>
</tr>
<tr>
<td>John C. Tappeiner II</td>
<td>Ph.D., University of California, Berkeley, 1966</td>
<td>Professor</td>
</tr>
<tr>
<td>Joanne F. Tynon</td>
<td>Ph.D., University of Idaho, 1994</td>
<td>Assistant Professor</td>
</tr>
<tr>
<td>John D. Walstad</td>
<td>Ph.D., Cornell University, 1971</td>
<td>Professor, Department Head</td>
</tr>
<tr>
<td>David Zabler</td>
<td>M.S., Oregon State University, 1996</td>
<td>Instructor</td>
</tr>
</tbody>
</table>

* Joint appointment in Forest Resources and Forest Science
Contemporary natural resource management requires broad knowledge and a multifaceted perspective. The Forest Resources Department (www.cof.orst.edu/cof/fr) places great importance on providing students, natural resource managers, and the general public with an understanding of how society’s actions can change our forested landscapes and what they provide—both now and in the future. Our programs of instruction, research, outreach, and service reflect this breadth of knowledge and strategic vision. Furthermore, we place a premium on developing both technical and integrative skills among our faculty and students that will enable successful long-term management of forests and related natural resources. We believe that a rigorous, diverse education helps develop responsible citizens and professionals capable of making sound decisions that will sustain forests and the benefits derived from them. Our vision, goals, and objectives help realize this belief and support the overarching mission of the College.

accomplishments:

✔ Received renewed accreditation by the Society of American Foresters for our degree programs in Forest Management, Forest Recreation Resources, and Master of Forestry.

✔ Completed a review of our graduate program by the OSU Graduate School.

✔ Completed a comprehensive review of all of our programs by a USDA Cooperative State Research, Education, and Extension Service (CSREES) panel.

✔ Updated and streamlined our courses and curricula to gain more relevance and efficiency.

✔ Maintained a high level of productivity in our research, extended education, and service functions.

✔ Remained engaged in a variety of international, forest-policy, and professional activities.

✔ Prepared a departmental Staffing Plan and Strategic Plan to chart future direction and initiatives.

expectations:

The recent evaluations of the Forest Resources Department were quite positive and complimentary. According to CSREES reviewers, we’ve compiled a “distinguished record of achievements in forest economics, management and policy analyses, silviculture, and recreation resource management” (CSREES Report, 2002). Our current goals are to maintain this level of excellence while further strengthening our faculty, staff, and student ranks. We’ll also build on our partnerships with other OSU departments, the new Cascades Campus at Bend, and a variety of external collaborators. The current biennium promises to be one of change, challenge, and opportunity. We are poised to vigorously participate in this dynamic process.

Jack Walstad
Department Head
<table>
<thead>
<tr>
<th>Name</th>
<th>Education</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>W. Thomas Adams</td>
<td>Ph.D., University of California, Davis, 1974</td>
<td>Professor, Department Head</td>
</tr>
<tr>
<td>Glenn Abrens</td>
<td>M.S., Oregon State University, 1990</td>
<td>Associate Professor; Extension Agent, Clatsop County</td>
</tr>
<tr>
<td>Thimmappa Anekonda</td>
<td>Ph.D., University of CA, Berkeley, 1992</td>
<td>Assistant Professor</td>
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<tr>
<td>Barbara Bond</td>
<td>Ph.D., Oregon State University, 1992</td>
<td>Associate Professor</td>
</tr>
<tr>
<td>Michael Bondi</td>
<td>M.S., University of Canterbury, 1977</td>
<td>Professor; Extension Agent, Clackamas County</td>
</tr>
<tr>
<td>Amy Brunner</td>
<td>Ph.D., Oregon State University, 1990</td>
<td>Assistant Professor</td>
</tr>
<tr>
<td>Efren Cazares-Gonzales</td>
<td>Ph.D., Oregon State University, 1992</td>
<td>Assistant Professor</td>
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<tr>
<td>Kermit Cromack Jr.</td>
<td>Ph.D., University of Georgia, Athens, 1973</td>
<td>Professor</td>
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<tr>
<td>William H. Emmingham</td>
<td>Ph.D., Oregon State University, 1974</td>
<td>Professor Emeritus</td>
</tr>
<tr>
<td>Gregory M. Filip</td>
<td>Ph.D., Oregon State University, 1976</td>
<td>Professor; Extension Specialist, Forest Protection &amp; Pathology</td>
</tr>
<tr>
<td>Mark E. Harmon</td>
<td>Ph.D., Oregon State University, 1986</td>
<td>Professor; Richardson Chair in Forest Science</td>
</tr>
<tr>
<td>John P. Hayes</td>
<td>Ph.D., Cornell University, 1990</td>
<td>Associate Professor</td>
</tr>
<tr>
<td>David E. Hibbs</td>
<td>Ph.D., University of Massachusetts, Amherst, 1978</td>
<td>Professor</td>
</tr>
<tr>
<td>Stephen D. Hobbs</td>
<td>Ph.D., University of Idaho, 1977</td>
<td>Professor; Associate Dean for Research; Associate Department Head</td>
</tr>
<tr>
<td>Glen T. Howe</td>
<td>Ph.D., Oregon State University, 1991</td>
<td>Assistant Professor</td>
</tr>
<tr>
<td>Lisa Ganio</td>
<td>Ph.D., Oregon State University, 1989</td>
<td>Assistant Professor</td>
</tr>
<tr>
<td>Olga Krankina</td>
<td>Ph.D., St. Petersburg Forest Academy, St. Petersburg, Russia, 1986</td>
<td>Assistant Professor</td>
</tr>
<tr>
<td>Beverly Law</td>
<td>Ph.D., Oregon State University, 1990</td>
<td>Associate Professor</td>
</tr>
<tr>
<td>Michael Lefsky</td>
<td>Ph.D., University of Virginia, 1997</td>
<td>Assistant Professor</td>
</tr>
<tr>
<td>Dan Luoma</td>
<td>Ph.D., Oregon State University, 1998</td>
<td>Assistant Professor</td>
</tr>
<tr>
<td>Christine C. Maguire</td>
<td>Ph.D., Rutgers University, 1983</td>
<td>Assistant Professor</td>
</tr>
<tr>
<td>Douglas C. Maguire</td>
<td>Ph.D., Oregon State University, 1986</td>
<td>Associate Professor; Edmund Hayes Professor in Silvicultural Alternatives</td>
</tr>
<tr>
<td>Richard Meilan</td>
<td>Ph.D., Iowa State University, Ames, 1990</td>
<td>Associate Professor</td>
</tr>
<tr>
<td>Michael Newton</td>
<td>Ph.D., Oregon State University, 1964</td>
<td>Professor Emeritus</td>
</tr>
<tr>
<td>Tara Nierenberg</td>
<td>M.S., Oregon State University, 1996</td>
<td>Instructor</td>
</tr>
<tr>
<td>Logan Norris</td>
<td>Ph.D., Oregon State University, 1969</td>
<td>Professor Emeritus</td>
</tr>
<tr>
<td>Paul Oester</td>
<td>M.S., Oregon State University, 1977</td>
<td>Professor; Extension Agent, Union County</td>
</tr>
<tr>
<td>Klaus Puetmann</td>
<td>Ph.D., Oregon State University, 1990</td>
<td>Associate Professor</td>
</tr>
<tr>
<td>Steven R. Radosevich</td>
<td>Ph.D., Oregon State University, 1972</td>
<td>Professor and Graduate Program Coordinator</td>
</tr>
<tr>
<td>Robert W. Rose</td>
<td>Ph.D., North Carolina State University, 1980</td>
<td>Associate Professor</td>
</tr>
<tr>
<td>Darrell W. Ross</td>
<td>Ph.D., University of Georgia, Athens, 1990</td>
<td>Associate Professor</td>
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<tr>
<td>Phillip Sollins</td>
<td>Ph.D., University of Tennessee, 1972</td>
<td>Professor</td>
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<tr>
<td>Steven H. Strauss</td>
<td>Ph.D., University of California, Berkeley, 1985</td>
<td>Professor</td>
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<tr>
<td>Bart A. Thielges</td>
<td>Ph.D., Yale University, 1967</td>
<td>Professor; Associate Dean</td>
</tr>
<tr>
<td>David P. Turner</td>
<td>Ph.D., Washington State University, 1984</td>
<td>Assistant Professor</td>
</tr>
<tr>
<td>Richard H. Waring</td>
<td>Ph.D., University of California, Berkeley, 1963</td>
<td>Distinguished Professor Emeritus</td>
</tr>
<tr>
<td>Brad Withrow-Robinson</td>
<td>Ph.D., Oregon State University, 2000</td>
<td>Assistant Professor; Extension Agent, Yamhill County</td>
</tr>
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</table>
The Forest Science Department (www.cof.orst.edu/cof/fs) provides strong programs in graduate education, research, and outreach in a broad range of disciplines pertaining to the processes, culture, and productivity of forest landscapes and resources. The Department’s research spans a range from fundamental, including projects investigating the impacts of environmental change on ecosystem function, to applied, including projects aimed at enhancing forest productivity through tree breeding, improved reforestation practices, hardwood silviculture, and tolerance to Swiss Needle Cast disease. Applied research is conducted primarily by the Department’s seven research cooperatives.

goals:

▲ Add to the body of knowledge of the physical and biological processes of unmanaged and managed forest ecosystems.

▲ Educate future scientists, teachers, and forest practitioners.

▲ Inform discussions of public policy related to natural resources to help society cope with the pressing issues of forest health, productivity, conservation, and sustainability.

accomplishments:

✔ Ranked among the top three departments in the University in securing research funding, with grants and contracts exceeding $6.2 million this year.

✔ Took the lead in a College-wide initiative to develop the Oregon Forest and Wood Productivity Enhancement Program. During its first year the Program sponsored an Intensive Forestry Research Summit attended by 80 participants, formed the Intensive Forestry Research Advisory Committee, developed plans for a series of workshops on Young Stand Management and Utilization, and started work on a High Yield Forestry Symposium to be held in early 2004.

✔ Hired Doug Maguire as Extension Silviculture Specialist and holder of the Hayes Family Professorship.

✔ Hired Glenn Howe, geneticist, who is the new Director of the Pacific Northwest Tree Improvement Research Cooperative.

✔ Dr. Beverly Law was recently named Science Chair of the Ameriflux Network of 80 research sites in North and South America. These research sites maintain instruments that measure CO₂ fluxes in terrestrial ecosystems and are crucial to understanding global warming and its effects.

✔ Using a chemical (MCH) naturally produced by male Douglas-fir bark beetles, Dr. Darrell Ross and colleagues at the USDA Forest Service Pacific Northwest Research Station have developed a way to protect high-value trees from Douglas-fir bark beetle attack. Applications of artificially formulated MCH are now being used throughout the western United States.

✔ The Nursery Technology Cooperative celebrated 20 years of research that has significantly improved forest nursery and regeneration practices throughout the Pacific Northwest.

✔ Researchers in the Swiss Needle Cast Cooperative have discovered two different lineages of the Swiss Needle Cast fungus. The finding implies that different management approaches may be necessary to combat the disease.

Tom Adams
Department Head
<table>
<thead>
<tr>
<th>Name</th>
<th>Education</th>
<th>Rank</th>
</tr>
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<tbody>
<tr>
<td>Terry Brown</td>
<td>Ph.D., Colorado State University, 1975</td>
<td>Professor; Extension Specialist</td>
</tr>
<tr>
<td>Charles Brunner</td>
<td>Ph.D., Virginia Tech, 1984</td>
<td>Associate Professor</td>
</tr>
<tr>
<td>Jim Funck</td>
<td>Ph.D., Iowa State University, 1979</td>
<td>Associate Professor</td>
</tr>
<tr>
<td>Barbara Gartner</td>
<td>Ph.D., Stanford University, 1990</td>
<td>Associate Professor</td>
</tr>
<tr>
<td>Rakesh Gupta</td>
<td>Ph.D., Cornell University, 1990</td>
<td>Associate Professor</td>
</tr>
<tr>
<td>Eric Hansen</td>
<td>Ph.D., Virginia Tech, 1994</td>
<td>Associate Professor; Extension Specialist</td>
</tr>
<tr>
<td>Philip Humphrey</td>
<td>Ph.D., University of Wales, 1982</td>
<td>Associate Professor</td>
</tr>
<tr>
<td>Joe Karchesy</td>
<td>Ph.D., Oregon State University, 1974</td>
<td>Associate Professor</td>
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<tr>
<td>Scott Leavengood</td>
<td>M.S., Oregon State University, 1994</td>
<td>Associate Professor; Extension Agent, Washington County</td>
</tr>
<tr>
<td>Bob Leichti</td>
<td>Ph.D., Auburn University, 1990</td>
<td>Associate Professor</td>
</tr>
<tr>
<td>Kaichang Li</td>
<td>Ph.D., Virginia Tech, 1996</td>
<td>Assistant Professor</td>
</tr>
<tr>
<td>Thomas McLain</td>
<td>Ph.D., Colorado State University, 1975</td>
<td>Professor; Department Head</td>
</tr>
<tr>
<td>Mike Milota</td>
<td>Ph.D., Oregon State University, 1984</td>
<td>Associate Professor</td>
</tr>
<tr>
<td>Jeff Morrell</td>
<td>Ph.D., SUNY College of Environmental Science &amp; Forestry, 1986</td>
<td>Professor</td>
</tr>
<tr>
<td>John Punches</td>
<td>M.S., Virginia Tech, 1993</td>
<td>Associate Professor; Extension Agent, Douglas &amp; Lane Counties</td>
</tr>
<tr>
<td>Jim Reeb</td>
<td>Ph.D., Texas A &amp; M University, 1991</td>
<td>Associate Professor; Extension Specialist</td>
</tr>
<tr>
<td>David Rosowsky</td>
<td>Ph.D., Johns Hopkins University, 1990</td>
<td>Professor; Richardson Chair in Wood Engineering &amp; Mechanics</td>
</tr>
<tr>
<td>John Simonsen</td>
<td>Ph.D., University of Colorado, 1975</td>
<td>Associate Professor</td>
</tr>
<tr>
<td>Jim Wilson</td>
<td>Ph.D., SUNY College of Environmental Science &amp; Forestry, 1971</td>
<td>Professor</td>
</tr>
</tbody>
</table>
goals:

▲ Expand the wood science knowledge base, especially in the relationship between silvicultural and environmental factors and tree growth and wood properties, and in the manipulation of wood fiber properties for advanced composite materials.

▲ Improve manufacturing efficiency and add value to forest-based products through computer-aided manufacturing, improved drying, characterizing and minimizing environmental impacts of production, and use of environmental marketing and other business strategies.

▲ Develop innovative new processes and products, especially with engineered wood-composite materials, adhesive systems, and wood treatment methods, and explore the potential for useful pharmaceuticals from forest residues.

▲ Extend service life of wood-based products through improved preservation of wood products, discovery of new wood preservatives and treatment methods, and better understanding of degradation processes.

▲ Increase efficiency in the use of wood-based materials, especially through a better understanding of the benefits and limitations of wood as an engineering material; improve engineering design methodologies to reduce costs while maintaining safety.

accomplishments:

✔ Renamed Wood Science & Engineering in December 2001 to better reflect the evolving nature of faculty programs and activities.

✔ Renamed the graduate and undergraduate degrees to Wood Science and Wood Science and Technology, respectively.

✔ Added new undergraduate options in Bio-Based Composites Manufacturing, Forest Products Marketing, Wood Industry Environmental Health and Safety Management, and Wood Industry Production Planning and Quality Control.

✔ Hired a full-time recruiter to improve student enrollment. Demand for our graduates continues to outstrip supply by a wide measure.

✔ Received approval for continued formal accreditation of the BS degree program by the Society of Wood Science and Technology (SWST), one of only 10 such programs to achieve that status in the United States.

Tom McLain
Department Head
Degree Programs

Bachelor of Science

Forest Engineering

The Forest Engineering undergraduate program provides an engineering education within a strong forestry context, founded on fundamental principles in forest science and engineering science that enable students to develop the skill and knowledge required for planning and designing engineered forest operations that achieve forest management objectives. Specifically, the Forest Engineering undergraduate program provides fundamental coverage of the following: physical and biological aspects of soil and water resources, surveying and measurement of land and forest resources, analysis and design of the forest transportation system, analysis and design of harvesting operations, forest land management, and operational planning principles.

Forest Management

The Bachelor of Science in Forest Management is a broad-based education with the goal of preparing students to be successful forest managers. Graduates must understand biological and physical processes occurring in forests, the social and economic forces that influence policies and actions affecting forests, natural resource systems, and management of forest resources for multiple use and multiple values. The Forest Management core curriculum includes basic courses in biological, physical, and social sciences, as well as professional courses designed to prepare students to manage forest resources. Strength in a related field can be obtained by selecting a listed option or minor in a field such as forest harvesting, forest products, soils, philosophy, public administration, range management, recreation management, statistics, or wildlife.

Forest Engineering/Civil Engineering

The FE/CE program is a unique double-degree program that results in the graduate’s receiving two Bachelor of Science Degrees upon completion, one in FE and one in CE. The CE degree is earned through the College of Engineering.

Forest Recreation Resources

The Bachelor of Science in Forest Recreation Resources provides a strong liberal education oriented toward management of natural resource-based recreation, and the social science and communications aspects of forestry and natural resources. Managers of wildland recreation resources are primarily concerned with human uses of forests, and they must blend an understanding of social and biological sciences with management practices to provide the desired recreation opportunities on those lands. The Forest Recreation Resources curriculum includes the study of natural resources, recreational users of these resources, and recreational opportunities. Students must complete an approved option that will strengthen planning and management with private and public organizations. Approved options include Cultural Resource Management, Earth Information Science and Technology, Environmental Resource Interpretation, Forest Resources, Landscape Design, Law Enforcement, Public Administration, Resource Planning, Sociology, and Tourism.
Natural Resources

The Natural Resources degree program provides a more broad-based approach to the study of natural resources than most traditional degree programs. The curriculum is designed to produce graduates who can understand a wide range of natural resource issues, work with experts in a variety of resource fields, and deal with social and political components of resource management. The Bachelor of Science in Natural Resources is offered jointly by the College of Forestry and three other colleges on campus: Agricultural Sciences, Liberal Arts, and Science. It provides a broad-based exposure to topics surrounding land, water, forests, fauna, and the international aspects of these natural elements with human cultures. Natural Resources graduates are well prepared for careers in fields such as land use, water resources, environmental policy, and related endeavors. Students acquire knowledge and background in physical and biological systems, mathematics and statistics, natural resource policy, economics, and decision-making. This degree also prepares them to be well-informed citizens who are cognizant of the broad issues surrounding natural resources. Options are Agroforestry, Arid Land Ecology, Forest Ecosystems, Geosciences and Natural Resources, Human Dimensions in Natural Resources, Law Enforcement in Natural Resources, Native Americans and Natural Resources, Natural Resource Education, and Watershed Management.

Wood Science & Technology

The Bachelor of Science in Wood Science and Technology is accredited by the Society of Wood Science & Technology and offers students several options to tailor their program to specific interests. All students acquire a solid foundation in the anatomical, physical, chemical, and mechanical properties of wood and a good understanding of mechanical and chemical processing technologies. Marketing, communication, and problem-solving skills are a key outcome of the curriculum. Graduates continue to be in high demand, and all who seek employment find jobs. Options within the BS degree program are Bio-based Composites Manufacturing, Forest Products Marketing, Wood Engineering and Science, Wood Industry Environmental Health and Safety, Wood Industry Management, and Wood Industry Production Planning and Quality Control. Students in the management and marketing options may simultaneously earn a Minor in Business Administration. Students in the Wood Engineering and Science option may earn a science or technology minor.

International Studies in Forestry

This bachelor’s degree is obtainable in conjunction with another undergraduate degree offered by the University. For example, a student could earn both a Bachelor of Science in Forest Management and a concurrent Bachelor of Arts in International Studies in Forestry.

Demographics

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</table>
Scholarships

The College of Forestry has a generous scholarship program thanks to many alumni and other donors. The following scholarships were awarded to undergraduate students during the 2001-2002 academic year:

Robert Auferheide Memorial Scholarship: $2,000
Autzen Scholarship: $3,000
Rex Brown Scholarship: $1,500
George Brown Scholarship: $1,000
Gordon & Helen Carlson Scholarship: $2,500
Bob & Beverley Cooper Forestry Scholarship: $600
George M. Cornwall Memorial Scholarship: $1,000
Joe Crahane Memorial Scholarship: $3,600
Harold A. Dahl Memorial Scholarship: $500
Gordon A. & Priscilla E. Duncan Scholarship: $1,000–2,000 (7)
Forestry Alumni Scholarship: $500–2,000 (7)
Forestry Legacy Scholarship: $200–3,000 (8)
Harold "Bud" Freres Memorial Scholarship: $3,000
Jay B. Hann, Jr. Scholarship: $2,000
Dorothy D. Hoener Memorial Scholarship: $5,000 (14)
Lance & Patricia Hollister Scholarship: $1,800
Green Peter Hoo Hoo Club Scholarship: $3,600
Portland Hoo Hoo Club #47 Scholarship: $1,000
Willamette Hoo Hoo Club Scholarship: $3,000
JELD-WEN Scholarship: $2,000
Kearns Scholarship: $1,250
Keniston Scholarship: $750
Konnie Scholarship: $1,500 (2)

James T. Krygier Memorial Scholarship: $500
Charles Lord Memorial Scholarship: $5,000
Catherine Cox Merriam Scholarship: $1,500
Mitchell Scholarship: $1,000
Oregon Logging Conference Scholarship: $1,500 (2)
Oregon Societies of American Foresters Scholarship: $2,000–4,500 (2)
Kurt Jon Peterson Memorial Scholarship: $1,000
Plywood Pioneers Association Scholarship: $1,000
Albert Powers Memorial Scholarship: $3,600
W.R. Randall Memorial Scholarship: $2,500 (2)
Richardson Wood Science Scholarship: $1,500–3,000 (10)
Janet K. Ayer Sachet Scholarship: $1,500
Harold Scritsmier Scholarship: $1,500 (2)
Vance P. & Dorothy D. Shugart Forestry Scholarship: $1,800 (5)
C. Wylie Smith III Memorial Scholarship: $3,600 (2)
John R. Snellstrom Memorial Scholarship: $1,500 (2)
Joseph Strehle Scholarship Award: $750
Eula M. Ten Eyck Memorial Scholarship: $1,500 (2)
Glenn & Josephine Thompson Scholarship: $1,000 (10)
Wakefield Family Scholarship: $1,800
Wolfson Scholarship: $500
Wood-Based Composites Center Scholarship: $2,000 (2)
Degrees Awarded

**Forest Engineering**
- Paul Roger Barron. Cum Laude
- Joshua Richard Blankenship. Magna Cum Laude
- Cheryl Lynn Bright. Magna Cum Laude
- Jeffrey Alan Brown
- Christina Louise Castelanelli
- Paul Kornel Cocker
- Forrest Lee Costales
- Jeffrey Adam Drago
- Jason Len Hatfield
- Erik James Huffman
- Daniel Edwards Hunyada
- David Thomas James
- Jennifer Christine Laughman
- William Magee Lawrence
- Cody Alan Lesniak
- Olaf Nickoli Sather
- Claude Henry Smith III
- Nicholas Steven White
- Jeffrey Jon Wolfe. Cum Laude

**Forest Recreation Resources**
- Bret Cecil Barker
- Kelley Marie Beak. Cum Laude
- Sunrise Moonshadow Coulter
- Amelia Dee Dexter. Magna Cum Laude
- Timothy Michael Farris
- Zachary Seth Jarrett
- Wendy Ann Joslin
- Kirk William Koehler
- Gradon Richard Leiblein
- Brian Jay Malicki. Magna Cum Laude
- Heather Anne Marren
- John Howard Newport
- Christi Lynn Oliver. Magna Cum Laude
- Nathan Alan Pearson
- Martha Charlotte Willand
- David Jonathan Woolley

**Natural Resources**
- Craig Patrick Baxter
- David Leighton Carter
- Orvie Allen Danzuka
- Mark Franklin Ditzel
- Christopher Miles Francis
- Amie Elizabeth Huish
- Dawn Marie Loomis
- Luke Saguaro Martinez
- Joshua Paul Munk
- Jennifer Pavone. Cum Laude
- Maggie Kathleen Reeves. Cum Laude
- Jessica Samples
- Megan Joan Slothower. Magna Cum Laude
- Paul Michael Stormo. Magna Cum Laude
- Rashawn Tama-Sweet. Cum Laude
- Toby James Van Altvorst

**Forest Management**
- Aaron Daniel Aasen
- Chet Alan Behling
- Donald Phillip Everingham
- Andrew John Hopkins
- Nathan Mark Hunter
- Eric Joseph Jorgensen
- Kevin Joynt
- Brent Richard Keller. Magna Cum Laude
- Sarah Dessie Litwin

**Wood Science & Technology**
- Ezra Eric Butera
- Nicole Dawn De Veny. Summa Cum Laude
- Jon Bryan Jensen. Cum Laude
- Tyler Jon Kuenzi. Magna Cum Laude
- Trevor James Ostby
- David Michael Schmidt
Graduates from the College of Forestry have gone on to work or to pursue further education across the nation. Many are now employed in a variety of jobs in both the public and private sectors. Sixty-seven percent of our 2001 graduates returned our annual employment survey to the College. Of those 67%, 53% are now employed in permanent positions within their field of study, while another 40% have obtained part-time or other employment or have decided to pursue further education.

**Forest Engineering and Forest Engineering/Civil Engineering** majors gained private employment as logging engineer assistant, surveyor, engineer, operations supervisor, forest engineer II, area field engineer, civil engineer, and associate forest engineer. Once again, our surveyed forest engineers boast 100% employment after graduation.

**Forest Management** majors gained employment with private companies as forester, forest engineer/forester, and cross-country ski guide. They also gained employment in public agencies as county forester, engineer/project specialist, crew supervisor, and forestry technician.

**Forest Recreation Resources** graduates gained employment in the public arena as outdoor recreation planner, lead forestry technician, recreation technician, park guide/interpreter, and natural resources specialist I.

**Natural Resources** majors gained employment with private employers as quality control manager, marine scientist, and animal caretaker. They gained employment with public agencies as forester 1, reforestation management technician, wildlife biologist, cartographic technician, forestry technician/GIS assistant, park ranger and Americorps volunteer.

**Wood Science & Technology** majors gained employment as division product manager and quality-control lead in private companies. They also gained employment in public agencies as wilderness ranger/wilderness resource manager.
Forestry Club is an informal social group that provides a means for interaction between different majors within the forestry profession and promotes student interaction and activities connected to forestry. The club organizes and sponsors numerous intercollegiate events, including a logging sports team, a forester’s ball, woodcuts, and charity events.

Natural Resources Club is focused on supporting the interests of Natural Resource majors. The club invites speakers to meetings and organizes activities to give students opportunities to become connected to the professional world. These activities include volunteering for The Nature Conservancy in the restoration of a coastal headland and a restoration project within McDonald-Dunn Research Forest.

The goals of the Society of American Foresters Student Chapter are to promote professionalism in the field of forestry, encourage interaction between professional foresters and students, provide opportunities for taking part in active forest management projects, and help educate the public about forest resources and their management. Society of American Foresters activities include facilitating mentorships, managing a Christmas tree farm, hosting guest speakers, participating in community natural resource education, and traveling to state and national SAF conventions.

Founded in 1934, the American Society of Photogrammetry and Remote Sensing (ASPRS) is a scientific association serving over 7,000 professional members around the world. The OSU ASPRS student chapter is a club for students who are interested in photogrammetry, remote sensing, GIS, and mapping. The club anticipates meeting once a term or more to listen to recognized speakers who are involved in spatial research.

The aim of this student chapter of the national Forest Products Society is to encourage a spirit of fellowship among Wood Science & Engineering students, faculty, and industry personnel and to promote awareness about forest products and forest products issues. Activities include social events, guest speakers, an annual ski trip, and field trips to local industries and mills.

Forest Recreation Club is an activity-oriented club focused on having fun in the outdoors. Club members participate in outdoor adventures and service projects that give back to the community. Outdoor activities include day hikes, mountain biking, rock climbing, spelunking, skiing, snowboarding, and overnight trips. Club members participate in trail maintenance on the McDonald-Dunn Research Forest. The goal of this club is to learn to appreciate the out-of-doors through recreation and volunteer work.

Xi Sigma Pi is the national Forestry Honor Society, chapters of which exist at forestry schools throughout the United States. The Zeta Chapter was established at OSU in 1921. The aim of the group is “to secure and maintain a high standard of scholarship in forest education, to work for the upbuilding of the profession of forestry, and to promote closer relations among earnest workers engaged in forest activities.” Examples of Xi Sigma Pi projects include Beaver Open House, tutorial services, overseeing yearly faculty awards for teaching and mentorship, and a spring field trip to observe current forest management practices.
Teaching
Graduate Education
Degree Programs
Master of Science, Master of Forestry, Doctor of Philosophy

Forest Engineering

Graduate programs in the Department of Forest Engineering lead to the Master of Science (M.S.) and the Master of Forestry (M.F.) degrees with concentrations in logging engineering, timber harvesting systems, forest operations, and forest hydrology. The department also offers Ph.D. concentrations in logging engineering, timber harvesting systems, forest operations, and forest hydrology, and, jointly with the Department of Forest Science, offers a Ph.D. with a combined concentration in silviculture and harvesting.

**Areas of concentration:** Forest Hydrology, Logging Engineering, Silviculture/Harvesting Systems

Forest Resources

Degree programs in the Department of Forest Resources lead to the Master of Forestry (M.F.), Master of Science (M.S.), and Doctor of Philosophy (Ph.D.) degrees. The doctoral program in Forest Resources is intended for persons seeking careers in teaching and research. The program emphasizes a strong research specialization while maintaining an understanding and appreciation of broader management and resource use issues.


Forest Science

The Department of Forest Science offers graduate programs leading to the Master of Forestry (M.F.), Master of Science (M.S.), and Doctor of Philosophy (Ph.D.) degrees.

Graduate study in Forest Science is structured for students interested in research and teaching careers or in specialized areas of forest practice. The emphasis is on defining and solving problems related to forest ecosystems and management.

Our students come from varied backgrounds. Some have undergraduate degrees in forestry, while others are trained in related biological fields. All students are required to achieve competency in specific areas of forest science and related subjects through undergraduate or graduate courses, independent study, or other means determined by each student’s graduate committee. All graduates must be versed in broad aspects of forest science as well as in their own area of specialization.

**Areas of concentration:** Agroforestry/Sustainable Forestry, Forest Biology, Forest Ecology, Forest Genetics, Forest Tree Physiology, Integrated Forest Protection, Silviculture, Silviculture/Harvesting Systems

Wood Science & Engineering

The graduate programs in Wood Science prepare a new generation of scientists, engineers, business persons, and practitioners to meet the global challenges of sustaining societies, natural resources, and human well-being. Our programs are diverse and multidisciplinary, supported by a broad spectrum of faculty skills and key partnerships with science, engineering, and business faculty on campus. Many graduate students pursue dual-major degrees in those programs. Career opportunities for graduates have never been better, especially in an industry that is transforming itself within an expanding global economy. A coming generational transition in industry, government service, and academic personnel also creates new opportunities for well-educated professionals to inspire and guide future change.

Demographics & Fellowships

Fellowships

The College of Forestry has a generous fellowship program thanks to many alumni and other donors. The following fellowships were awarded to graduate students during the 2001-2002 academic year:

- Lu Alexander Graduate Fellowship: $3,000
- Catherine Bacon Memorial Graduate Fellowship: $1,000
- Lu Berger Fellowship: $1,000
- Kim & Te May Ching Fellowship: $1,000
- John R. Dilworth Memorial Fellowship: $1,000
- James H. Dukes, Jr. Graduate Fellowship: $1,000
- Henry Fang Scholarship: $1,000
- Forestry Graduate Fellowship: $500–5,000 (8)
- Harry & Mildred Fowells Fellowship: $1,000
- Walter A. Gruetter, Jr. Memorial Forestry Fellowship: $500
- Dorothy D. Hoener Memorial Fellowship: $5,000 (5)
- Mary J. L. McDonald Memorial Fellowship: $3,000 (5)
- Arnold & Vera Meier Memorial Education Fellowship: $2,500
- Alfred W. Moltke Memorial Fellowship: $3,000 (5)
- Richardson Fellowships: $11,000–$15,624 (6)
- Jack & Lila Saubert Scholarship: $2,000–3,000 (7)
- Schutz Family Education Fellowship: $1,500 (2)
- Bob Tarrant Fellowship: $1,000

Demographics

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Graduate Degrees Awarded

Forest Engineering
Matthew Ryan House: Master of Science
Tracie Kirkham: Master of Science
Charles Kevin Lyons: Doctor of Philosophy
Sarel Francois Oberholzer: Master of Forestry
Michele L. Reba: Master of Science
Ben David Spong: Master of Forestry

Forest Engineering/Civil Engineering
Russell Stanley Smith: Master of Science

Forest Resources
Stefan Andrew Bergmann: Master of Science
Sean Canavan: Doctor of Philosophy
Melissa Dudley Casteel: Master of Science
Elissa Camille Easley: Master of Science
Kearstin Kay Edwards: Master of Science
Megan Lynn Finnessy: Master of Science
Abd Rahman Kassim: Doctor of Philosophy
Christopher Keyes: Doctor of Philosophy
Yoshitaka Kumagai: Doctor of Philosophy
Jessica E. Leahy: Master of Science
Mark E. Lichtenstein: Master of Science
John Moore: Doctor of Philosophy
Derek Nalle: Doctor of Philosophy
Tami McMillen Torres: Master of Science
Robert Lawrence Williams: Master of Science

Forest Science
Wayne Ellsworth Elliott: Master of Forestry
Coreen Ann Francis: Master of Forestry
Patricio Javier Alzugaray Oswald: Master of Science
Maria De Las Mercedes Berterretche: Master of Science
Tina Vaughan Boucher: Master of Science
Owen Thomas Burney: Master of Science
Gabriel Alfred Crane: Master of Science
Stephen DiFazio: Doctor of Philosophy
Maureen Virginia Duane: Master of Science
Douglass Jacobs: Doctor of Philosophy
Jack E. Janisch, Jr.: Master of Science
David John Larson: Master of Science
Kirsten Ayn McDade: Master of Science
Nathan McDowell: Doctor of Philosophy
Erica Smithwick: Doctor of Philosophy
Margo Anora Stoddard: Master of Science
Alexandra Stuart-Smith: Doctor of Philosophy
Matthew James Trappe: Master of Science
Vivienne Eleanore Vandegrift: Master of Science

Wood Science & Engineering
Andrew B. Chang: Master of Science, Wood Science
Jean Christopher Domec, Doctor of Philosophy, Wood Science
Ramon Gonzalez Gimenez: Master of Science, Forest Products
Abra Michelle Hoygaard: Master of Forestry, Forest Products
Jeffrey David Langlois: Master of Science, Wood Science
Mark Edward Mankowski, Doctor of Philosophy, Forest Products
Tobias Stefan Siller: Master of Science, Wood Science
Alfred Tjahyadi: Master of Science, Wood Science
Research
Research at the College of Forestry is conducted through its research arm, the Oregon Forest Research Laboratory (FRL). The research mission of the College of Forestry is to conduct well-coordinated, problem-solving research that provides knowledge for the integrated management of forest resources for multiple values and products that meet society’s needs, with special attention to social and economic benefits. Research is conducted by the college’s four departments in five general areas: forest regeneration; forest ecology, culture, and productivity; protecting forests and watersheds; evaluating forest uses and practices; and wood processing and products performance. Important research issues being addressed by forestry and forest products scientists include ensuring the sustainability of forest resources, understanding the complex structure and function of forest systems, and ensuring that forest operations and wood products manufacturing are environmentally and socially acceptable and economically feasible.

Oregon law provides that the State Board of Higher Education shall “institute and carry on research and experimentation to develop the maximum yield from the forestlands of Oregon, to obtain the fullest utilization of the forest resource, and to study air and water pollution as it relates to the forest products industries. The purpose of the research is “to aid in the economic development of the State of Oregon” (ORS 526.215, 1961). This research is to be carried out under the auspices of a Forest Research Laboratory at Oregon State University, and the Board of Higher Education is directed to “cooperate with individuals, corporations, associations and public agencies wherever and whenever advisable to further the purposes of ORS 526.215, and may enter into any necessary agreements therefore” (ORS 526.225).

Today all research by College of Forestry faculty is under the umbrella of the Oregon Forest Research Laboratory. College research brings in about $11.4 million in grant and contract funding each year and engenders many cooperative and interdisciplinary research projects.

Advisory Committee
Bill Arsenault,
Small Woodland Owner
Dave Bowden (Chair),
Senior Vice President,
Longview Fibre Company
Deborah M. Brosnan,
President, Sustainable Ecosystems Institute
James E. Brown,
State Forester, Oregon State Department of Forestry
Linda Goodman,
Regional Forester,
USDA Forest Service,
Region 6
J. Martin Goebel,
Sustainable Northwest
Richard E. Hanson,
Senior Vice President,
Weyerhaeuser Company
Elaine Marquis-Brong,
State Director, USDI Bureau of Land Management
Russ McKinley, Manager,
Western Oregon Timberlands,
Boise Cascade Corporation
Dallas Stovall, President & CEO, Bright Wood
Ron Stuntzner
Stuntzner Engineering & Forestry, LLC
Sara Vickerman, Director,
West Coast Office
Defenders of Wildlife
Forest Engineering

McDonnell, Jeffrey J. Hillslope-Riparian Zone Reservoir Mixing: A Multi-Catchment Test of a New Methodology for Predicting Stream Chemistry. National Science Foundation. Amount: $193,265. Period: 8/1/00 - 7/31/03. Amendment to an existing grant.


Forest Resources

Adams, Darius M. Extensions of Western and Eastern Oregon Timber Supply Studies. Oregon Department of Forestry. Amount: $36,006. Period: 1/1/02 - 6/30/03.


Bettinger. Peter S. An Evaluation of the Compatibility of Wood Production and Ecological Integrity at the Province Level. USDA Forest Service. Amount: $91,000. Period: 7/10/00 - 6/30/02. Amendment to an existing agreement.

Bettinger, Peter S. Interior Northwest Landscape Analysis System Mid-Scale Simulation Model. USDA Forest Service. Amount: $54,603. Period: 9/13/00 - 12/31/02. Amendment to an existing agreement.


Johnson, K. Norman and Rebecca L. Johnson. Coast Range Spatial Databases and Economic Analysis. USDA Forest Service. Amount: $94,000. Period: 9/14/00 - 9/12/02. Amendment to an existing agreement.


Shindler, Bruce A. Restoration Ecology: A Social Science Perspective. USDA Forest Service. Amount: $15,000. Period: 8/28/01 - 8/30/03.


**Forest Science**

Acker, Steven A. Long-Term Ecological Research at the H.J. Andrews Experimental Forest (LTER 4). National Science Foundation. Amount: $45,000. Period: 12/1/96 - 11/30/02. Amendment to an existing grant.


Bond, Barbara J. Vegetation Water Use in Different Aged Douglas-Fir/Western Hemlock Stands. University of California/Davis.
Grants & Contracts


Ganio, Lisa M. Development and Modeling of Multi-Scaled, Spatially Explicit Landscape Information. USDA Forest Service. Amount: $224,672. Period: 9/1/00 - 6/30/05. Amendment to an existing agreement.


Ganio, Lisa M. and Matthew J. Gregory. Spatial Analysis of Variability in Forest Composition and Structure Among Ownership and Land Allocations in the Oregon Coastal Province. USDA Forest Service. Amount: $26,236. Period: 8/21/00 - 8/20/05. Amendment to an existing agreement.


Garman, Steven L. Characterization of Forest Canopy Structure and Wildlife Habitat in Western Oregon from Regional Inventory Data. USDA Forest Service. Amount: $35,327. Period: 9/1/00 - 9/1/03. Amendment to an existing agreement.


Harmon, Mark E. Long-Term Ecological Research at the H.J. Andrews Experimental Forest (LTER4). National Science Foundation. Amount: $60,000. Period: 9/1/00 - 8/31/02. Amendment to an existing agreement.
Grants & Contracts

Foundation. Amount: $1,502. Period: 12/1/96 - 11/30/02. Amendment to an existing grant.


Harmon, Mark E. LTREB: Long-Term, Broad-Scale Experiments on Fine Litter and Root Decomposition: LIDET II. National Science Foundation. Amount: $60,000. Period: 7/15/98 - 6/30/03. Amendment to an existing grant.


Hayes, John P. Habitat and Distribution of American Martens in the Coastal Forests of California and Oregon. USDA Forest Service. Amount: $7,000. Period: 12/1/99 - 12/31/02. Amendment to an existing agreement.


Hibbs, David E. and Andrew A. Bluhm. Hardwood Silviculture Cooperative. Member Cooperators. $47,000. Period: 7/1/01 - 6/30/02.
Howe, Glenn T. and Thimmappa S. Anekonda. Pacific Northwest Tree Improvement Research Cooperative. Member Cooperators. $96,000. Period: 7/1/01 - 6/30/02.

Jayawickrama, Keith. Northwest Tree Improvement Cooperative. Member Cooperators. $252,543. Period: 7/1/01- 6/30/02.


Meinzer, Frederick C. Functional Convergence and Constraints in Regulation of Transpiration and Carbon Assimilation in Tropical Forest Canopy Trees. National Science Foundation. Amount: $87,326. Period: 7/1/00 - 6/30/03. Amendment to an existing grant.


Radosevich, Steven R. Invasive Plant Research Program for Blue Mountains Demonstration Area. USDA Forest Service. Amount: $30,000. Period: 10/1/00 - 9/30/04. Amendment to an existing agreement.


Ross, Darrell W. Landscape Level Assessment of Douglas-Fir Beetle Outbreaks and Development of Monitoring System for Predicting


Turner, David P. Linking In-Situ Measurements, Remote Sensing and Models to Validate MODIS Products Related to the Terrestrial Carbon Cycle (Big Foot II). National Aeronautics and Space Administration. Amount: $123,141. Period: 8/1/01 - 7/31/04. Amendment to an existing grant.


**Wood Science & Engineering**


Gartner, Barbara L. Tree Characteristics and Wood Quality as Related to Silvicultural Options. USDA Forest Service. Amount: $61,000. Period: 8/17/98 - 8/16/03. Amendment to an existing agreement.


Extended Education


**Research Support**


Research Cooperatives

HSC - Hardwood Silviculture Cooperative (Dave Hibbs)

NTC - Nursery Technology Cooperative (Robin Rose, Diane Haase)

NWTIC- Northwest Tree Improvement Cooperative (Keith Jayawickrama)

PNWTIRC - Pacific Northwest Tree Improvement Research Cooperative (Glenn Howe)
Genetics and tree improvement research aimed at increasing the efficiency and effectiveness of operational tree improvement programs. Regular members include OSU, Longview Fibre Company, Menasha Forest Products Company, Oregon Department of Forestry, Plum Creek Timber Company, Roseburg Resources, Simpson Timber Company, Stimson Lumber Company, BLM, Washington Department of Natural Resources, and Weyerhaeuser Company. http://www.fsl.orst.edu/pnwtirc/
SCFRC - Supercritical Fluid Research Cooperative (Jeff Morrell)

Substituting supercritical fluids (SCF) for conventional liquid solvents has the potential for allowing protective treatment of wood-based materials that are hard to treat effectively by conventional methods. The SCFRC seeks to develop the fundamental aspects of the technology required to make SCF treatments feasible. Members include OSU, Chemical Specialties Inc., TrusJoist/Weyerhaeuser, Janssen Pharmaceutica, and Bayer Inc.

SNCC - Swiss Needle Cast Cooperative (Greg Filip)


TGERC - Tree Genetic Engineering Research Cooperative (Steve Strauss, Rick Meilan)


UPRC - Utility Pole Research Cooperative (Jeff Morrell)


VMRC - Vegetation Management Research Cooperative (Robin Rose)


WRC - Watershed Research Cooperative (Arne Skaugset)

The Watersheds Research Cooperative (WRC) was formed to study the environmental effects of intensive forest management on water quality, fisheries, and aquatic habitat. The pilot project for the WRC is the Hinkle Creek Paired Watershed Study and Demonstration Area (see page 10). Current cooperative members include Roseburg Forest Products, the Oregon Forest Industries Council, the Oregon Department of Forestry, Douglas County, and the Oregon Department of Fish and Wildlife.
A USDA-funded research center focused on improving wood utilization, developing new wood products, enhancing processing and harvesting systems, and other strategies to add value to the western forest resource. OSU is one of ten universities in the United States that cooperate in this program.

**CFER- Cooperative Forest Ecosystem Research (John Hayes)**

An integrative research and information exchange program to address issues of young-stand management, ecology and management of riparian areas, and biodiversity on BLM and other forest land of western Oregon. The program, funded primarily through the Forest and Rangeland Ecosystem Science Center, is jointly managed by OSU, USGS-BRD, BLM and Oregon Department of Forestry.

**CLAMS- Coastal Landscape Analysis and Modeling Study (Norm Johnson, Tom Spies)**

CLAMS is a cooperative program with the USDA Forest Service Pacific Northwest Research Station. Its scientists develop tools to understand patterns and dynamics of ecosystems such as the Oregon Coast Range and to analyze the ecological, economic, and social consequences of forest policies of landowners in the region.

**ERSAL- Environmental Remote Sensing Applications Laboratory (Bill Ripple)**

Develops and applies remote sensing and geographic information systems (GIS) technology for the study of forest lands and related natural resource problems. Research topics include landscape ecology, remote sensing of plant cover, forest landscape patterns, and wildlife habitat.

**FPRL- Forest Photogrammetry Research Laboratory (Jim Kiser)**

A research, development, and technology transfer facility focused on photogrammetry, digital mapping, and image processing. Its primary mission is to introduce and apply modern photogrammetric techniques to natural resource management. The facility offers an analytical plotter, image processing equipment, and a PC-based mapping system tied to digitizing tablets.

**FRESC- Forest and Rangeland Ecosystem Science Center (Ronald E. Kirby)**

FRESC (USGS–BRD) research encompasses issues of major importance to the U.S. Department of the Interior, including forest management, wildlife/habitat relationships, and rangeland restoration in Pacific Northwest ecosystems. Forging solid working relationships with land management agencies in the region is central to all FRESC research activities, to ensure that the information developed by FRESC researchers is useful in helping managers make sound management decisions.

**INLAS- Interior Northwest Landscape Analysis System (Pete Bettinger, John Sessions)**

Enhances existing and develops new analytical tools to project succession and disturbance dynamics across landscapes and changes in ecological and socioeconomic systems under varying forest policy or management options on all ownerships in eastern Oregon.

**LARSE- Laboratory for Applications of Remote Sensing in Ecology (Warren Cohen)**

Conducts basic remote sensing research, translates remotely sensed data into mapped ecological information, and fills the gap between remote sensing and ecological sciences. LARSE is a cooperative program with the USDA Forest Service Pacific Northwest Research Station.
Other Cooperative Research Programs

**LTEP- Long-term Ecosystem Productivity Program (Bernard Bormann)**

A 200-year program of research in the Pacific Northwest and Alaska with major funding from the Forest Service, the Washington Department of Natural Resources, the National Science Foundation, the Environmental Protection Agency, and Oregon State University. This research seeks understanding of processes that control the long-term productivity of the land—including timber, other commodity and noncommodity resources, and biodiversity—to support sustainable ecosystem management.

**LTER- Long-Term Ecological Research (Mark Harmon)**

A long-term program of research at the H.J. Andrews Experimental Forest, with major funding from the National Science Foundation, the Forest Service, and OSU. LTER is discovering fundamental ecological relationships in managed and natural forests and incorporating them into forest management strategies.

**SFP- Sustainable Forestry Partnership (Rick Fletcher)**

A program integrating social and biological aspects of forestry research into strategies for the long-term sustainable management of forests for a multiplicity of values.

**The Aspen Project (Bill Ripple)**

Quaking aspen (*Populus tremuloides*) is the most widely distributed tree species in North America. Despite its ability to adapt to disturbance, quaking aspen is declining throughout much of its native range. The Aspen Project is a continuing research project at Oregon State University of the study of quaking aspen and its decline in the western United States.
College Forests (Dave Lysne, Director)
The OSU College Forests are living laboratories where active forest management practices provide teaching, research, and demonstration opportunities for College faculty and students and others interested in forest management issues. The College Forests of Oregon State University provide society with:

▲ Improved understanding about forests, forest management options, and the social, economic, and environmental costs and benefits of those options
▲ Revenues to support the education program of the College
▲ Close ties to the College and University
▲ Better appreciation for forest resources and values
▲ Better opportunities to observe innovative solutions to forest resource management challenges
▲ Enhanced access to objective and factual forest resource information

The College Forests are places of choice for learning and teaching about forest resources and values.

Forestry Outreach Education Office (Mike Cloughesy, Director)
The Forestry Outreach Education Office at Oregon State University provides state-of-the-art events that respond to important issues and educational needs of natural resource professionals and others. Audiences for these events are typically interested people who are not usually resident at OSU and who usually are not involved in OSU’s resident instruction degree programs. Outreach education involves a variety of formats, including short courses, workshops, field tours, institute programs, colloquia, and symposia. Events are frequently certified by professional societies, and some events are offered for regular course credit.

Forestry Extension Program (Scott Reed, Program Leader)
No matter where you are in Oregon, Forestry Extension is here to help you. Whether you work in the forests or just visit them, we have programs for you.

▲ Woodland owners and managers. Helping small woodland owners meet today’s competing demands on forest resources is part of what we do. By providing the results of the latest research to landowners, we hope to empower them to meet their management objectives through sustainable and environmentally sound forestry practices.
▲ Timber companies and wood industry manufacturers. Sharing knowledge with forest-based industries to make them more productive and efficient is also part of what we do. We help by providing information on new technologies, marketing ideas, taxes, and business management.
▲ Loggers and forest workers. Oregon’s timber industry is facing change. We help those who work in the woods adapt to a changing world.
▲ General public, educators, and youth. Oregon is a state with growing demands for all the benefits forests provide. Managing and maintaining our forests is complex. By providing information to the public, we help the decision-making process by helping people understand different points of view.

Oregon Forestry Education Program (Susan Sahnow, Program Coordinator)
The mission of the Oregon Forestry Education Program (OFEP) is to educate Oregonians about forests and forestry and to prepare them to make informed decisions, exhibit responsible behavior, and take constructive action concerning the future of Oregon’s forests. Project staff and programs focus on formal and nonfor-
Extended Education, Outreach, & Support

Forestry Media Center (Jeff Hino, Director)
The Forestry Media Center (FMC) is a unique instructional technology center devoted to helping educators solve instructional problems in forestry through the application of innovative communication media. After more than 30 years of producing educational materials, we have developed hundreds of slide-tapes, films, videotapes, and other learning resources on a wide variety of forestry topics. These learning resources are mostly authored by faculty from OSU, or research staff from the USDA Forest Service, in cooperation with education and communication specialists from the FMC. They are aimed at a wide spectrum of forestry audiences: forest researchers, managers, engineers, nonindustrial woodland owners, forestry students, and many others. These materials are available for sale or rent directly from the FMC.

Forestry Communications Group (Gail Wells, Director)
The mission of the Forestry Communications Group is to help College of Forestry researchers communicate their work and to make the results of College research broadly available. We offer editing, graphic design, and other publishing services to help authors prepare their manuscripts for submission to scientific journals and to help them articulate the results of their research to multiple audiences. We also publish manuscripts under the Forest Research Laboratory imprint, in three peer-reviewed series: Research Contributions are descriptions of recent research that provide more detail than journal publication usually permits. Papers in Forest Policy provide information to legislators, administrators, and other policymakers to help them make policy and management decisions. Case Studies are teaching studies that emphasize and elucidate a particular concept or principle with real-world data.

Forest Computing Group (Phil Sollins, Director)
Forestry Computing Resources (FCR) is a partnership among the Oregon State University College of Forestry (CoF), USDA Forest Service PNW Station (PNW), USGS Forest and Rangeland Ecosystem Science Center (FRESC), and Oregon Department of Fish and Wildlife (ODFW). CoF personnel are housed primarily in Peavy and Richardson Halls which are attached to one another. The USDA Forest Service PNW Research Station Corvallis Forest Science Laboratory (CFSL), immediately adjacent to Richardson Hall, houses PNW and FRESC staff as well as some CoF personnel. ODFW staff are housed in a separate facility approximately two miles away.

FCR supports this group of educators and scientific professionals joined by proximity and common forestry research interests. FCR is dedicated to providing the quantitative tools and information technology needed by our research partners, faculty and scientists, staff, and students. To better serve the user community, FCR strives continually to find better ways to access information, package technology, and both meet and anticipate the needs of our clients for research, teaching, and extended education.
Forestry Business Office (Scott Ferris, Business Manager)

The mission of the Business Office is to help students, faculty, and principal investigators devote the majority of their efforts to direct learning, teaching, and research activities through the timely and efficient handling of their administrative, financial, and business needs. The staff provides centralized College processing and support for purchasing, contracting, travel, human resources, payroll, grant budgeting and accounting, inventory management, invoicing, and payables.

Forestry Maintenance and Project Support (Rand Sether, Director)

This group of multi-talented trades workers provides comprehensive support for College facilities and research activities. From minor repairs to major remodeling projects, they help keep classrooms and labs up-to-date and capable of meeting the changing needs of instructors and researchers. The College labs contain a variety of machinery and equipment that this group keeps running in top condition. The group also designs and constructs unique research apparatus for use in lab or field experiments.

Philanthropy (Marianne Barker, College of Forestry Development Director, OSU Foundation)

As part of the strategic plan completed during the fiscal year, the College opened a campaign to “grow a better future” by engaging donors to endow faculty chairs and academic programs, create new undergraduate scholarships and graduate fellowships, and garner new forest properties for teaching, research, and demonstration. The goals include gaining 10 new entities in each category by the year 2010.

Progress towards these ambitious goals during the year included Robert Mealey’s pledge of $500,000 towards the Robert & Anna Mealey/Boise Cascade Corporation Endowed Program in Forest Ecosystem Health. Sam and Roberta Konnie pledged an additional $1,125,000 to benefit programs in Forest Engineering. Wendell and Barbara Walker continued to support an endowed program in Forest Extension via a $10,000 gift from their family foundation. Gibbet Hill Foundation committed $450,000 to provide graduate student support in Forest Engineering along with continuing support for the Lee Harris Laboratory. A donor has committed to provide 50 acres of prime timberland through his estate plan. Dick Dearmond continued to support the College’s general needs through quarterly gifts from a trust fund. Eventually, the College will receive the bulk of the proceeds from the Vida Bullis Charitable Remainder Unitrust, currently valued at $1,477,047.

By the magnitude of their gifts, these donors make a significant difference in the College’s ability to fulfill its mission. However, every gift adds value to the College. During the year, 700 donors made gifts totaling more than $50,000 through the annual giving program. These gifts helped to provide $375,000 in scholarships and fellowships awarded to deserving students for the current academic year. In fact, donors provide all of the scholarships and fellowships in the College of Forestry and support a key component of the College’s mission—to educate and engage the next generation of scholars and practitioners.

The extraordinary students, staff, and faculty of the College of Forestry continue to do work worthy of support by donors of all capacities. The College gratefully acknowledges all who support the mission and are helping us to grow a better future.
Photography:


Other photographs by Jeremy Appt; Sandra Arbogast, Gretchen Bracher, Jace Carson, Lotties Fallas-Cedeño, Dasch Houdeshel, Bonnie Johnson, Heather Murphy, Mark Reed, Jane Thomas, Jeannette Tuitele-Lewis, (OSU College of Forestry); Artville LLC; and public domain
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