MESSAGE FROM THE DEAN

As noted on this page, the College is extremely proud that its Northwest Environmental Forum has been officially recognized at the UW. The Forum will bring together decision makers and stakeholders to collaboratively apply scientific and policy information to environmental and natural resource management issues. The inaugural event of the Forum, held in November, looked at “Saving Washington’s Working Forest Land Base.”

Equally exciting is the news that our forest operations at C. L. Pack Experimental Forest will be recognized for green certification using the standards of the Sustainable Forestry Initiative. This places Pack among a handful of university forests so recognized and the first in the West. More importantly, reaching this milestone allows our forest products to flow into the stream of commerce that is increasingly demanding such recognition. And, it is dramatic evidence that the College not only talks about sustainable forestry but, indeed, practices it on its own lands. Our new Center for Sustainable Forestry at Pack Forest is committed to the professional, sustainable stewardship of forestlands throughout the region and world. As the Center develops natural resource research and outreach programs, we are confident that green certification will offer tangible evidence of the changing nature of modern forestry in our state.

The College’s new undergraduate curriculum in Environmental Science and Resource Management (ESRM) and our emerging professional Master of Forestry degree set the standard for professional education for the next generation of natural resource leaders. These programs emphasize natural resource and environmental sustainability as foundational building blocks and seek to strike the proper balance at the triple bottom line. They also link directly to the College’s interdisciplinary research centers and cooperative programs.

The College’s vision of world-class leadership in natural resources and environmental sustainability demands that we strive for the highest quality and the highest impact programs across our research, teaching, and outreach mission. Our ESRM undergraduate curriculum coupled with our Master of Forestry degree will ensure that the College retains a leadership role in educating the next generation of managers and scientists. Our streamlined Master of Science and Doctor of Philosophy degree programs will ensure high quality and relevance to a changing natural resource climate in our region. Outreach efforts — whether through professional and public education, technology transfer, lecture series like the Denman Forestry Issues programs and our co-sponsored series with the UW Alumni Association, “Sustaining our Northwest World,” or events sponsored by the Northwest Environmental Forum — will keep us in frequent communication with our diverse stakeholders.

We are now engaging in intensive discussions to define a roadmap for the College’s future research direction and new faculty hires. I am confident that in the next issue of the CFR News I will be able to report on the outcome of this strategic exercise in creating our future. Best wishes to all of you for the New Year!

B. Bruce Bare

Northwest Environmental Forum at CFR Sponsors Meeting on Washington’s Working Forests

The UW recently approved the creation and naming of the Northwest Environmental Forum at the College of Forest Resources. The Forum is being designed as a collaborative meeting and work space to bring together decision makers and stakeholders to apply scientific and policy information to critical environmental and natural resource management issues. Potential users include resource and environmental agencies; energy, forest, agriculture, and real estate interests; and land conservancies, environmental groups, tribes, and NGOs. The core functions of the Forum include serving as a centralized information repository, enhancing collaborative research aimed at long-term solutions, and providing space for educational projects and programs — all furthering the goal of decision making about complex and often contentious issues in a neutral and science-rich setting.

This November, the Forum’s first sponsored event examined the issue of saving Washington’s working forest land base. Sprawling suburbs, public environmental expectations, regulations, market conditions, and global competition have put immense pressures on the state’s forest lands. Participants in the Working Forests Forum included representatives from conservation groups, timber companies, foundations, the Washington State Department of Natural Resources, the Washington Forest Protection Association, and faculty and staff from the College of Forest Resources. The objectives of the Working Forests Forum were to develop a common understanding of the influences on working forests and to discuss financial options for their management. A report of the meeting outcomes will be posted to the Forum web site at http://www.nwenvironmentalforum.org/. A follow-up to the Working Forests Forum is being planned. The Spring Quarter program in the College’s Denman Forestry Issues Series will also address the working forest land base in Washington State.

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College’s New Undergraduate Major Launched

Students in the Environmental Science and Resource Management (ESRM) major learn about natural and human dominated landscapes and how to apply this knowledge to real-world problems. They also explore how human activities — from hiking to horticulture — affect the lands we live on and the wild spaces around us. With a focus on balanced use, conservation, and stewardship of the land, students work with faculty members and regional experts on environmental issues. Fieldwork in Washington’s varied landscapes provides opportunities for experiential learning and teamwork.

ESRM is an open major — any student can declare. ESRM is transfer friendly, allows for up to 60 free electives, and can easily be combined with minors and double degrees. In addition to the major course requirements, students can complete their degree by taking a broad range of courses from within the College as well as electives chosen from transfer or UW credits. Flexible student-directed pathways allow ESRM majors to specialize in topics ranging across the urban to wildland gradient.

Examples of suggested pathways include: sustainable forest management, providing knowledge and basic skills for careers and postgraduate study in forest management and operations and an entry into the professional Master of Forestry program; restoration ecology, emphasizing interaction between the site and the plant material and providing an opportunity to earn a Certificate in Restoration Ecology; ecology and conservation, providing an education in broad areas of plant biology and conservation, spanning levels from the individual plant to ecosystems and landscapes; environmental horticulture and urban forestry, providing a broad environmental background with an emphasis on sustainable horticulture/arboretum, restoration, and plant conservation; wildlife conservation, providing a broad environmental background with an emphasis on wildlife and understanding of wildlife conservation and management, or wildlife ecology, preparing students for professional positions in wildlife; and urban ecology, providing a natural resources background with an emphasis on the relationship between human settlement and forested settings and an understanding of land use patterns found in the urbanizing landscape.

Researchers at the College are studying various aspects of red alder biology and silviculture. One example is post-doctoral researcher Carol Volk, who studied the influence of red alder on the food web of aquatic communities for her dissertation. Her research has shown red alder to be an ecologically important species that influences the nutrient dynamics of aquatic ecosystems. She and her research team have “scraped algae off rocks, caught flying and swimming bugs, and fished for four-inch trout in the streams of old growth forests and adjacent red alder watersheds of the Olympic Peninsula — all to figure out if we should pay as much attention to young alder forests as to ancient old growth forests.”

In the past few years she has found that streams with prominent riparian alder populations have increased amounts of both dissolved and particulate nutrients when compared to old-growth coniferous forested streams. According to Volk, alder-derived nutrients in streams are often available for uptake by microbial communities and algae, both of which are important food resources for a variety of aquatic organisms. Thicker coatings of algae (more biomass) on streambed rocks, as well as three to four times the amount of terrestrial and aquatic adult invertebrate populations, have been measured in alder in than in old-growth stream ecosystems. The biomass of drifting invertebrates, a common food resource for fish populations, was also greater in alder than in coniferous streams, translating to a buffet of food resources for fish and other invertebrates, such as birds and bats, which feed in riparian areas. Algae, invertebrates, and fish from nutrient-rich environments (alder or salmon-influenced) had body compositions that were high in nitrogen, phosphorus, and essential fatty acids, all factors indicating high quality tissues that would increase the likelihood of reproductive success or survival in times of stress. Volk’s current research is investigating fish growth rates in alder and coniferous streams.

Research on red alder is also being carried out by Professor Bob Edmonds and by students and faculty associated with the Center for Water and Watershed Studies. Red alder is also used in restoration projects carried out through the UW Restoration Ecology Network.

Red Alder — Making a comeback economically and ecologically

Once considered a weed, alder (Alnus rubra) is now recognized as a premium commercial species and an important ecological component of Pacific Northwest forests. Red alder grows exclusively west of the Cascades between Alaska and California, except for a few isolated stands in Idaho. Before settlers came to the Pacific Northwest, alder grew mainly on sites rich in nutrients, including floodplains and stream banks. Now alder is abundant throughout the region, quickly occupying a site after disturbances such as logging and fire. It grows rapidly, often shading out conifers such as Douglas-fir. Alder roots, like those of legumes, often have swellings or root nodules containing nitrogen-fixing bacteria, which convert atmospheric nitrogen into usable forms of nitrogen for plants and animals. Red alder is used in the production of solid wood products, such as furniture and cabinets, composite products, including plywood and flakeboard, and fiber-based products, such as tissues and writing paper. It is a common fuel and is burned in home fireplaces and in mills that use residues to produce heat for drying and other processes. Red alder has also been evaluated for use in biomass farms for energy conversion.

The last regional symposium on red alder titled “Biology and Management of Red Alder” was held in 1992 at Oregon State University. Fifteen years after the first alder symposium “Utilization and Management of Alder” was sponsored by the UW College of Forest Resources in 1977. It has been more than a decade since the last symposium and much has changed. Yet changes that are affecting red alder management and utilization, including advances in our understanding of biology and silviculture, market and non-market values, and the regulatory climate may not be broadly understood. On March 23-25, 2005, the UW will host an international symposium “Red Alder: A State of Knowledge” to bring together regional experts for a critical examination of the economic, ecological, and social values of red alder. The symposium will include a field trip, a plenary session of speakers, and concurrent sessions. For information and registration see CFR’s Stand Management Cooperative website, http://www.cfr.washington.edu/research.smo/.

Two of Volk’s assistants scrub algae off rocks to help determine nutrient dynamics of aquatic ecosystems.

College News

Alumni Focus

Alum’s Gift to College Will Provide Support for Paper Science Program

Tom Friborg, who received his BS in 1970 and his PhD in 1976 from the College’s paper science and engineering program, has generously provided for scholarship and fellowship support in that program by establishing the Thomas Swayne Friborg Endowed Fund for Student Support through the Washington Pulp and Paper Foundation (WPPP). A valued supporter of the College, Friborg serves as treasurer of the College of Forest Resources Alumni Association (CFRAA) and has been a long time volunteer for the CFRAA-College-sponsored Arbor Day Fair. Friborg is a research scientist with the Weyerhaeuser Company and has been a leader in the development of the technology for production of biocomposite materials.

2004 Alumni Annual Meeting and Banquet

Over 90 alumni and friends attended the 2004 CFRAA banquet, in which Bruce Lipke and John Calhoun were given Honorary Alumni awards; Cassie Phillips (‘76) the Honored Alumna award, and Jim Lassieur (‘68, ’70, the Distinguished Professor Award. Bruce Lipke (’70, ’76) was recognized for his recently announced student support endowment; Mike (‘49) and Carol Lazara for their endowed fund to promote entrepreneurial forestry, and the Weyerhaeuser Company Foundation for its gifts to the College that include the Weyerhaeuser Endowed Professorship in Paper Science and Engineering and contributions to support the David R. M. Scott Endowed Professorship, CTRAFOR, and the WPPP. New officers and trustees were announced. Beginning January 1, Ann Forest Burns will be the CFRAA president and Bob Dick will be the 1st vice president. Tom Hanson and Tom Friborg will continue to serve as executive secretary and treasurer, respectively. UW President Mark Emmert congratulated the College on its on-going transformation. He also acknowledged the generosity of the College’s numerous supporters and said that he was extremely proud of what the College has done and will do in the future. The evening concluded with a slide show by UW faculty member Tony Qamar discussing the recent events surrounding the eruption of Mt. St. Helens. Earlier in the day, many alumni attended the College’s annual research showcase, presenting an overview of Rural Technology Initiative projects and technologies to assist rural forest landowners.

Arbor Day Fair 2005 Needs Your Help — April 27, 28, and 29

The Arbor Day Fair, a wildly successful event conceived by the College of Forest Resources Alumni Association (CFRAA) and jointly sponsored by the College and CFRAA brings over 2,000 elementary school children to the College each year. Alumna Insemination, enthusiasts, and support are essential to its existence. Volunteers are needed each of the three days from 8:30 a.m. to 2:30 p.m. The CFRAA appreciates any support you can provide, and especially thanks those who have been so generous with their time in the past. Please sign up with coordinator Ellen McKinley by phone (206-685-4485, ext. 238 or 360-832-6534; ext. 238) or by email (ardee@uw.edu). Be sure to include the days you can volunteer.

Alumni News

Gene Chase (‘77) has owned and operated his own road contracting company (C & C Contracting in Arlington, Washington) for the past 18 years. His firm won the bid to do restoration work on a project along the Mookel river, which borders on C. S. Paul Experimental Forest. Chase has served as CFRAA Board President and currently serves on the Everett Community College Board of Trustees. This past May he was named Community College Trustee of the Year by the Washington State Trustees Association for Community and Technical Colleges.

Highlights

Assistant Research Professor Sally Brown recently received the EPA’s 2004 National Chair Water Act Recognition Award for her research involving laboratory and field-scale research demonstrating the effective use of biosolids to reduce metal toxicity on severely contaminated soils.

The editors of Restoration of Puget Sound Rivers, CFR Professor Susan Burton, along with UW Professors David Montgomery and Derek Booth, and CFR staff Leslie Wall, recently received the Washington State Chapter of the American Water Resources Association award for “Outstanding Contribution to Washington’s Water Resources.”

Assistant Professor Sarah Reichard was recently reappointed to the Federal Invasive Species Advisory Council.

Dawn Bruce Bake has appointed a search committee to fill the position of a tenure-track assistant professor in natural products chemistry. The committee will be chaired by Professor Kevin Hodgson.

The Urban Ecology Program hosted classmates from Humboldt University, Berlin, and Arizona State University at Phoenix in September. A contingent from the UW Urban Ecology Program spent two weeks in Berlin and Oslo in October, led by Associate Professor Clare Ryan, meeting up with Professor John Marshall, who taught an Autumn quarter course at the Agriculture University in Oslo.
Eric Peterson and Annalissa Ritchie, incoming students in the new Peace Corps Master's International (PCMI) program in international forestry, look forward to finding solutions to the challenge of sustainable resource management in developing countries. Peterson is interested in community forest and collaborative management arrangements, forest certification, and forest management with conservation incentive agreements. His past travel and work experiences are as diverse as working with the director of an orphanage in northern Thailand and as a fire information officer in Grand Teton National Park. Annalissa Ritchie has long been interested in the human/landscape interface. She has a BS in Zoology and a certificate in restoration ecology from the UW and has worked on salmonid monitoring and research in the Pacific Northwest. Through her PCMI degree, she hopes to find solutions for the challenges of sustainable development, ecologically based resource management, and restoration.

Families are an important resource in many developing countries. Providing a broad range of benefits from habitat for diverse species, to resources for poor forest-dependent communities, to preventing soil erosion. However, forests located in developing countries while among the most biologically diverse in the world, are experiencing high levels of deforestation as a result of timber harvesting for fuelwood and charcoal. For example, in Africa and Asia, over 75 per cent of timber harvested is used to provide fuel for local communities. Today, international forestry organizations are working with local and national governments and non-governmental organizations to provide forest dependent communities with sustainable sources of fuelwood and charcoal while promoting reforestation efforts. This effort is an important mission of Peace Corps forestry volunteers.

Graduate Student Visits CFR’s Sister University In Taiwan

Alicia Robbins, studying forest economics in the College’s business, economics, and quantitative methods graduate program, just returned from a trip to National Chung-Hsing University in Taiwan. The trip provided a unique opportunity to participate in an international business management course, learn about Taiwan, and meet students from Taiwan and several other countries, including Japan, Thailand, and Germany.

The program included ten days of field trips and lectures. Lectures were delivered at the university’s campus in Taichung city, located in the center of Taiwan. Field trips to neighboring towns gave the group a chance to see how Taiwan is transitioning from a having an industry based primarily on manufacturing to becoming developers of higher-end value added products, information technology, and electronic goods.

Says Robbins, "They kept us very busy! Over the course of the program, we visited factories for companies like Giant Bicycles and Toyota as well as several semiconductor manufacturing facilities. We also heard lectures by executives from Prudential Financial, Pouchen (manufacturer of Nike shoes in Asia), and by several professors from NCHU’s Business School. If the CFR-NCHU program continues, it will be a good opportunity to further the UW’s relationship with NCHU and to provide American students with the opportunity to visit Taiwan and learn about the island’s history and culture.”

The group was also given the chance to do some sightseeing when they spent a day in Taipei visiting landmarks like the National Palace Museum and Chiang Kai shek’s mausoleum. Robbins’ travel was sponsored by the Dean’s Office through the generous donor support of the Alice and ByronLockwood Endowment.

Upcoming Events Calendar

FEBRUARY 17


FEBRUARY 17

Center for Water and Watershed Studies Annual Review of Research, UW campus.

FEBRUARY 17


FEBRUARY 25

College of Forest Resources Graduate Student Symposium, UW campus.

MARCH 5


MARCH 17


MARCH 25-26

Red Cedar Symposium, UW campus.

Graduate Student Visits CFR’s Sister University In Taiwan

Alicia Robbins with fellow program participant Joseph Pan, at the Chung Kai Shih Muesum of Taipai.

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