

INews



MESSAGE FROM THE DEAN

In this newsletter, you will read about a doctoral student whose research is investigating ways to restore beargrass habitat on the Olympic Peninsula. A culturally significant plant, beargrass has been used for centuries by Native Americans to make baskets and other objects, and Quinault tribal members are providing input from the perspective of cultural land management practices.

You will read about a publication offering illustrations of fence designs using small-diameter timber that can be derived from thinning overly dense forests. Increasing the economic value of thinned material is important because removing it from the forest costs more than its current market value. Innovative fence designs could provide an economic incentive for thinning overly dense, unhealthy forests so that forest health, structure, and biodiversity would improve, as well as creating new jobs in our rural communities.

You will read about one student's exciting year-long experience in plant exploration and study in China. Supported by faculty in the UW's Worldwide Initiative Program and the College, this once-in-a-lifetime opportunity was also made possible by contributions from faculty and staff at the UW Botanic Gardens. And, reaching out to students in Grades 3-8, you will read how researchers at the Wind River Canopy Crane Research Facility will help staff an electronic field trip to provide a virtual forest canopy experience to over 20 million students, teachers, and others worldwide.

In past newsletters, you have read how our research and education are helping remediate polluted sites to improve the health of inner city children, restoring community watersheds in Costa Rica's national parks, improving timber and wood products quality by studying stand and tree growth and development, and developing technology that will allow pulp and paper mills to improve product uniformity and performance, while minimizing environmental impacts.

Our College is proud to be a successful participant in Campaign UW: Creating Futures. The underlying campaign message affirms, "A great university makes a difference in the quality of life for those it serves ... The UW is great not just because it has successful students and award-winning faculty but because it changes the lives of people across the street, across the state, and across the world. That is why the UW has launched Campaign UW: Creating Futures — to enable its students and faculty to intensify and expand their impact on economy, health, culture, education, and environment."

These stories are just a few examples of the way in which our College impacts our increasingly global community. In fact, because of our broad interdisciplinary breadth, grounded in the economic, social/cultural, and ecological foundations of sustainability, our work often seems uniquely capable of contributing to all of the campaign themes.

Campaign UW's success will ensure that the UW continues to be the standard-bearer for education and research. Our overarching goal within Campaign UW is to provide funding for transformational change at our College. How are we doing in meeting our campaign goals? I'm pleased to report that, thanks to your generous support, we are more than 80 percent of the way toward meeting our \$17.7 million goal by 2008.

B. Bruce Bare



Daniela Shebitz with beargrass research plots on Olympic National Forest.

Beargrass Research Helps Restore a Vanished, Culturally-Significant Ecosystem

Daniela Shebitz, doctoral student in restoration ecology, is working to restore beargrass (*Xerophyllum tenax*) and its historic habitat on the lowlands of the Olympic Peninsula. Her research project is returning anthropogenic (caused by humans) burning to former beargrass savannas. Native tribes in the Pacific Northwest have traditionally made baskets, hats, and other objects using beargrass stems, leaves, and roots, and it is currently a fundamental basketry material of tribes on the Olympic Peninsula. Local tribes report that it is becoming difficult to find in areas where it was historically gathered. For Shebitz, this illustrates the importance of incorporating cultural land management practices in the restoration of both an ecosystem and its resources, and the project has involved substantial input from Quinault tribal members.

Says Shebitz, "Prairies and savannas maintained through anthropogenic burning were dominant forms of vegetation in the Puget Sound Lowlands before 1850. Since that time, the suppression of natural and anthropogenic fire has resulted in the succession of many of these areas into forest. In addition, through interviews with tribal members, we learned that the tribes' movement onto reservations limited their ability to burn, resulting in changes to the landscape and in a loss of knowledge about traditional burning practices."

Beargrass, which looks like a grass, but really belongs to the lily order, is found in open forests and meadows at sub- and low-alpine elevations in the western U.S. It is a fire-resistant species that is the first plant to grow after a fire, and like many other native plants, needs periodic burns to produce new growth. After a fire, beargrass sprouts from its rhizomes. Light fires of short duration are best; long, intense fires kill the rhizomes under the ground and prevent the beargrass from growing back.

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WINTER 2006

"The College of Forest Resources: creating futures since 1907."



Beargrass restoration... (continued from page one)

To begin her research, Shebitz conducted a field study in 2003 in which research plots established by the Olympic National Forest (ONF) in 1986 were resampled. She says, "We found that there was indeed a significant decline in beargrass in the low elevation surveyed areas, a decline that coincided with a significant increase in canopy cover and forest succession over the 17 years between sampling. With the guidance of my advisor, Associate Professor Sarah Reichard, I designed a series of field experiments to study the effects of reintroducing anthropogenic burning to beargrass habitat in low elevations. The first experiment was established on a 33-acre site on the southeastern Olympic Peninsula that was thinned and burned by the ONF fire crew. We are now monitoring the regrowth of beargrass and associated species in burned and control plots (5m x 5m) that were established prior to the fire. The effects of fire on seedling establishment and growth are also being monitored on 3m x 3m plots."

In a 2004 follow-up experiment, three treatments (burn, control, and manual clearing of vegetation), were installed on the Quinault Reservation on the western Olympic Peninsula and in the ONF on the southeastern Peninsula to determine the effects of low-intensity fire and the absence of competition without fire on beargrass regrowth. Measurements of beargrass phenology, morphology, and abundance for both the 2003 and the 2004 burns were collected in autumn 2005. The measurements show a significant increase of beargrass since the 2003 burn and both the vegetation-clear and burn plots show an increase, but not a significant change, in beargrass abundance since the 2004 treatments.

For Shebitz, "Restoring beargrass savannas to the Olympic Peninsula has significant ecological and cultural implications. Restoration will not only reintroduce a species-rich ecosystem lost to succession, but will also provide local tribes with culturally-significant plants, such as beargrass, that have become difficult to obtain. In addition to contributing to an understanding of the biology, ecology, and ethnobotany of beargrass, we expect that these studies will establish guidelines for maintaining the plant and its habitat so that its use in traditional baskets will continue."



Beargrass (*Xerophyllum tenax*).

A traditional Native American beargrass and cedar basket.

Restoration ecology, one of the College's graduate program interest areas, focuses on research projects that initiate or accelerate the recovery of an ecosystem with respect to its health, integrity, and sustainability. The College is also a partner in the Restoration Ecology Network (UW-REN), which develops undergraduate restoration education and student research across the UW's three campuses. This past year Shebitz has been a teaching assistant for UW-REN courses. She says, "Getting undergraduates started with hands-on research in ecological restoration adds another exciting dimension to my own research and studies."

CINTRAFOR Publishes Small-Diameter Timber Fence Design Book



A new publication from the Center for International Trade in Forest Products (CINTRAFOR), "Innovative Fence Designs from Small Diameter Timber: Adding Value through Design," presents an overview of the role of fire in maintaining healthy forests and offers illustrations of fence designs using small-diameter timber that can be derived from the thinning of overly dense forests. Edited by CINTRAFOR Director and Associate Professor Ivan Eastin, with text by Eastin and Professor Jim Agee, the project received financial support from the USDA Forest Service Economic Action Program.

Forests in the western U.S. historically adapted to a tolerance of periodic low-intensity fires that helped maintain forest health by recycling nutrients, regenerating forests, and removing understory vegetation. Evidence suggests that truly catastrophic, stand-replacing fires occurred only on the order of 100-300-year cycles. As increased human settlement brought with it the perception of fire as a destructive process that should be minimized and managed, extensive and coordinated forest thinning and fire prevention programs were undertaken by federal, state, and local fire agencies. The number and size of forest fires between 1920 and the mid-1980s decreased, resulting in an unnatural forest stand structure with a large buildup in the fuel load from increased understory

vegetation. The stage was set for catastrophic, forest-destroying fires, only made worse by a series of drought years in the early 1980s. The combination of dry weather, an abundance of dry fuel, and frequent thunderstorms led to a dramatic increase in the forest area burned during 1985-2004 and a nearly tripling in the size of the average forest fire between 1980 and 2004. The authors propose that active management and thinning of overcrowded forests, although expensive, can result in healthier forests, and that developing markets for the small-diameter timber generated from forest thinning can offset some of this expense.

The publication includes schematic plans and full-page color illustrations of 28 innovative fence designs based on small diameter timber. Says Eastin, "By demonstrating that innovative design can be used to increase the economic value of low-value industrial materials and consumer products, we hope the book provides an economic incentive for thinning unhealthy forests, resulting in forests more resistant to insect attack and devastating forest fires. Providing unique and innovative fence designs incorporating small-diameter timber can also provide a basis for economic development in rural timber-dependent communities." View the book at www.cintrafor.org; you can order the book at this website or by calling 206.543.8684.



"Serpentine" fence design.
Illustration: Roger Williams

College News



CFR-UWAA Winter Lecture Series

February 9, 2006

A Warmer Pacific Northwest: Lessons from the Past
LINDA BRUBAKER, PROFESSOR OF DENDROCHRONOLOGY

February 23, 2006

Of Insects and Ecosystems

ROBERT I. GARA, PROFESSOR OF ENTOMOLOGY

March 9, 2006

35 Years of Climbing, Research, and Teaching: Accidents, Adventures, Change, and Joy

THOMAS HINCKLEY, PROFESSOR OF FOREST RESOURCES

To register, or for more information, call 206.543.0540 or go to UWalum.com.

Three New Endowments Will Support College Transformation

The Denman Chair in Bio-Resource Science and Engineering was recently established by long-time College donors Dick and Mary Ellen Denman. Funded at \$1 million, the new Chair is eligible for, and received, a \$.5 million match from the UW's Founders Matching Gift Initiative. This new \$1.5 million Chair will facilitate the transformation of the paper science and engineering program as it focuses on research and educational opportunities related to sustainable bio-

based products and sources of energy that better serve society. The new Denman Chair joins other gift funds and endowments established by the Denmans in support of the College, including the Denman Professorship in Pulp and Paper Science, the Denman Professorship in Sustainable Resource Sciences, and the Denman Endowment for Student Excellence in Forest Resources.

The William A. Eastman Jr. Endowed Fund for Student Support is a gift from Mrs. Alice M. Eastman in memory and honor of her husband, who died in 2004. Bill Eastman ('33) was born in Seattle in 1911 and had a long and prosperous career as a consulting forester. Because of his experiences at the College, he remained an active member of the College of Forest Resources Alumni Association, where he received an "honored alumnus" award. The endowment will benefit students engaged in studies through the Center for Sustainable Forestry at Pack Forest.

The William McKean Endowed Scholarship has been established with a gift from Richard Getty ('74). The endowment, to benefit students in the paper science and engineering program, will also be funded by additional gifts from friends, associates, and former students of Professor Bill McKean, honoring him for his teaching, research, and dedication to students.

Electronic Field Trip at Wind River Canopy Crane

In March, millions of students in Grades 3-8 will have an opportunity to participate in an electronic field trip to the Wind River Canopy Crane Research Facility. Offered through Ball State University in Muncie, Indiana, and sponsored by Best Buy Children's Foundation, the Electronic Field Trips program features partnerships with national institutions that provide students in K-12 classrooms extraordinary learning opportunities they would not otherwise be able to experience. The Wind River field trip will be broadcast on March 7, 2006 from 10-11:30 a.m. and from 1-2:30 p.m. EST. Students will go into the forest canopy with Dr. Geoffrey "Jess" Parker, head of the Smithsonian Environmental Research Center's Forest Ecology Lab, to learn about forest ecology and the technology available to study it. The field trip will allow more than 20 million students, teachers, and community members to pose questions to Parker at the crane site. Viewers can register to receive the broadcasts at www.bsu.edu/eft.

Update on Faculty Searches

During this academic year, nine faculty searches are being conducted at the College. Search committees have been established and are in process to find new faculty in the areas of bioresource science, quantitative landscape science, environmental/natural resource economics, natural resource informatics, remote sensing and biospatial analysis, natural resource restoration and management, natural products chemistry, landscape plant science and sustainable management, and for the Director of the Center for Sustainable Forestry at Pack Forest. Several of the search committees have completed their task; others will work throughout the remainder of this year. The College looks forward to introducing its new faculty to our external constituents, once the searches have been completed and the hiring process is finalized.

Highlights

College faculty, staff, and students met on September 20, 2005 to develop strategic goals and objectives for 2005-2008. The six goals resulting from the work of the the planning retreat are:

- Recruit, mentor, and retain the highest quality students, faculty, and staff
- Provide the highest quality educational programs
- Build and upgrade facilities, incorporating innovative design, technology, and sustainability features
- Increase financial support for the College's strategic transformation
- Conduct internationally renowned research
- Provide an environment for collaborative problem solving, research, and intellectual debate

All of the goals are accompanied by a set of objectives.

The Working Forest Forum, "Saving Washington's Working Forest Land Base: Breakthrough Strategies for the Future," reconvened at Alderbrook Resort, Washington on November 21-22, 2005. As a follow-up to the November 2004 Working Forest Forum, nearly 100 attendees convened to discuss strategies for innovative management of working forests and for financing tools to achieve those strategies.

Nearly 100 people attended the Denman Forestry Issues Series, "Water Supply and Stormwater Issues in the Pacific Northwest," on November 17, 2005. The presentation featured UW faculty, as well as experts from King County, Seattle Public Utilities, and WA Department of Ecology. Denman programs are recorded by UWTV in digital format and broadcast nationwide on the UWTV cable channel and the ResearchChannel. They can also be viewed via streaming video at the UWTV website. The series is funded with support from Mary Ellen and W. Richard Denman.

The Urban Ecology IGERT received formal permission from the UW Graduate School to offer a program that will allow Urban Ecology graduates to receive a Certificate in Urban Ecology, along with their disciplinary graduate degree.

Planning is underway to establish the Northwest Forest Technology Program (NWFTP), a regional partnership of university-based science, outreach, and extension professionals to accelerate implementation of sustainable forest resource programs. The partnership will include the Universities of Alaska, Idaho, Montana, Washington, Montana State, Washington State, and Oregon State.

Alumni Focus

2005 Alumni Annual Meeting and Banquet

Over 100 alumni and friends attended the 2005 College of Forest Resources Alumni Association (CFRAA) banquet, where Gene Chase, ('67) received the honored alumnus award, Dean B. Bruce Bare the honorary alumnus award, and Dee Becker ('75) and August Storkman ('50) received the newly-created multi-generational award. Ray Larson ('05) was the featured banquet speaker, talking about "The Flora of Seattle in 1850: Major species and landscapes prior to urban development." Earlier in the day, many alumni attended the College's annual research showcase, presenting an overview of Stand Management Cooperative and Precision Forestry Cooperative projects and technologies.

Four generations at the CFRAA Banquet: Professor Emeritus Grant Sharpe, Professor Rob Harrison, Phil Hurvitz ('94) Associate Professor Darlene Zabowski ('81, '88), and Alexandra Teague (ESRM undergraduate and Xi Sigma Pi President) at the CFRAA 2005 Banquet. Photo: University Photography.

Arbor Day Fair 2006, April 19-21

Planning for Arbor Day Fair is currently underway by the College of Forest Resources Alumni Association (CFRAA). Stay tuned for details. Bringing over 2,500 urban elementary school children and their teachers and parents to the UW each year, the Fair could not happen without the involvement, enthusiasm, and support of alumni volunteers. The CFRAA appreciates any support you can provide, and especially thanks those who have been so generous with their time in the past. If you are interested in supporting the event, contact CFRAA President Ann Forest Burns at aforestburns@msn.com. And watch the CFRAA website at <http://www.washington.edu/alumni/clubs/cfraa.html> for volunteer information.

In memoriam

James Fletcher, Jr. ('37)
Robert Teagle ('61)



Left to Right: Court Stanley, Sue Joerger, Kenton Miller, Ann Forest Burns, Scot Medbury.

Distinguished Alumni Seminar Series

With the leadership of Professor Gordon Bradley and distinguished alumnus Mack Hogans ('76), a Distinguished Alumni Seminar Series will provide a "welcome" home to the many alumni who have gone on from the College to do great things and to introduce them to the College community. Hogans, who recently retired as Weyerhaeuser Company Vice President of Corporate Affairs, is generously volunteering his time to facilitate the series. The series will showcase alumni who during their careers have been managers and leaders in the private, public, and non-governmental sectors in the U.S. and abroad. Their personal hands-on experience and contribution in addressing complex and sometimes contentious issues will provide students with a critical appreciation of the kind of real world work and possible roles they can assume after graduation as well as opportunities for networking. The seminar series will also be open to the wider community. RSVP at <http://www.cfr.washington.edu/people/alumni/distalumseminarseries.htm>.

January 12: "Not your Father's Forestry" and "Serving a Higher Purpose," a panel presentation by Court Stanley ('83), Senior Vice President and Chief Forester, Port Blakely Tree Farms, and Sue Joerger ('79), Executive Director, Puget Soundkeeper Alliance.

February 24: "The World as a Stage," Kenton Miller ('62, '63) former Director, World Conservation Union, and former Vice President for Conservation, World Resources Institute.

April 6: "Law and (dis)Order," Ann Forest Burns ('71), Attorney, Burns & Williams, President, College of Forest Resources Alumni Association.

May 19: "Growing the Green in the Big Apple," Scot Medbury ('90), President and CEO, Brooklyn Botanic Garden.

Alumni News

Richard Getty ('74), President of R.K. Getty, Corp., a real estate investment firm, recently made possible through a generous gift the William McKean Scholarship for students in the College's paper science and engineering program.

Scot Medbury ('87) was recently appointed President and CEO of Brooklyn Botanic Garden in Brooklyn, NY. Medbury will be a featured speaker in the College's Distinguished Alumni Seminar Series on May 19, 2006.

Phil Rigdon ('96) is deputy director for natural resources for the Yakima Nation.

Holly Barnard, ('98) is pursuing a PhD in ecophysiology at Oregon State University. Recently selected to participate in a national mentorship program for minorities in the earth sciences, Barnard is also the recipient of a Ford Foundation Diversity Fellowship. She traces her career choices to Professors Linda Brubaker and Tom Hinckley, who she says "encouraged her to find an area of science that excited her" and supported her independent research project.



A Year in China: Exploration and Research



Riz Reyes exploring plants within the forests of Mt. Emei, Sichuan Province. Photo: Zheng Xiaohao.

Rizanino (Riz) Reyes, undergraduate studying environmental horticulture and urban forestry, recently returned from a year of study in China — an experience that was in his words “a dream come true.” Participating in the UW-Sichuan Exchange Program, a pilot project of the UW Worldwide Initiative, Reyes experienced the thrill of a plant expedition, and conducted botanical and horticultural research in public gardens and urban flora. Says Reyes, “The year in China brought with it some of the most memorable experiences of my life. Sichuan is one of the richest, most abundant places on earth to find rare and diverse plant species.”

Reyes began his year with a plant expedition led by College of Forest Resources alumnus and Heronswood Nursery co-founder Dan Hinkley ('85) to the northeastern reaches of Sichuan Province where he got to experience first-hand the excitement of finding plants we grow in our gardens in their natural habitats. At Sichuan University, Reyes conducted horticulture research on plant selection at the Sichuan public gardens and how locals view the plants in this urban landscape. For his botany research, Reyes conducted a general overview of Sichuan's flora by collecting seeds, plants, and dried herbarium specimens for the Hyde Herbarium at the UW Botanic Gardens.

Born in the Philippines, Reyes has long been a gardener interested in the diversity of plants, and he propagates plants for his own nursery, RHR Plants. Of his collections in China he says, “One plant I hope to get going is a Viburnum species from the Tibetan plateau with small, elliptically-oval, deep-green, evergreen foliage and umbels of stunning metallic blue fruit. My favorite herbaceous specimen, of which I collected a root piece, is a Disporopsis species that grew by a dry river bed. This plant had large, glossy evergreen foliage with lemon yellow flowers with chocolate brown speckles. It was also fragrant! Judging by the size of the flower, a colleague joked that it might be a new species! We'll see.”

Back home, where he is continuing his progress toward a bachelor's degree (and expects to graduate in June 2006), Reyes finds the contacts and experiences he had in China invaluable in his nursery work and in his studies. “This trip never would have happened,” he says, “without the support of faculty in the UW Worldwide Initiative Program and in the College, especially Tom Hinckley, Sarah Reichard, and Kathy Wolf for their expertise, support, and encouragement. And thanks to everyone at the UW Botanic Gardens' Center for Urban Horticulture who contributed to my plant expedition, and to all my gardening friends, customers, and family who supported my decision to study abroad.”

COLLEGE WILL PREPARE REPORT ON FUTURE OF WASHINGTON'S FORESTS

In 2005, the Washington State Legislature appropriated \$1 million to the Department of Natural Resources (WA DNR) for the preparation of a comprehensive report on the future of the state's forests. The legislation authorizes WA DNR to contract with the UW College of Forest Resources to prepare the report by the end of 2007.

The report's research results and policy recommendations will provide critical input to policy decisions at the state and local levels. The report will serve as a framework for public forums that will also help shape forest policy, and will enhance discussions convened by organizations like the Northwest Environmental Forum. Legislative leaders can consider study results in crafting legislative policy.

College expertise in forest economics, forest products marketing and trade, and forest land use and policy will be brought to bear on issues of pressing concern, including: an update of the 1992 timber supply study for Washington State; an independent assessment of the economic contribution of the forest products industry and secondary manufacturing to the state's economy; a comparison of the competitive position of the forest products industry in the state with respect to other U.S. regions; and assessment of the trends and dynamics that commercial and residential development play in conversion of the state's forests to non-forestry uses.

The report will provide policy recommendations to enhance the state's competitive position within the industry, and to ensure that a productive forest land base continues to be managed for forest products and amenities, including recreational opportunities on the state's working forests. The

legislation also requests an assessment of the expected rate of return from Washington State forest trust lands, as well as specific recommendations to assist Cascade foothills landowners in keeping working forests intact while accommodating new uses that strengthen the economic and natural benefits from these lands.

College researchers on the project include faculty members Gordon Bradley, Bob Edmonds, Bruce Lippke, Ivan Eastin, and John Perez-Garcia, along with staff researchers with the Center for International Trade in Forest Products and the Rural Technology Initiative. The Cascade Land Conservancy, as a sub-contract partner with the College, will prepare findings on Cascade foothills land use issues. Expertise from the UW Department of Economics will be sought during the preparation of the report. The project is co-managed by Brian Boyle (College of Forest Resources) and Craig Partridge (WA DNR).

Upcoming Events Calendar

JANUARY 12
Distinguished Alumni Lecture Series,
UW campus

FEBRUARY 9
CFR-UWAA Lecture Series:
Sustaining our NW World,
A Warmer Pacific NW: Lessons
from the Past," UW campus

FEBRUARY 23
CFR-UWAA Lecture Series:
Sustaining our NW World,
"Of Insects and Ecosystems,"
UW campus

FEBRUARY 24
Distinguished Alumni Lecture Series,
UW campus

FEBRUARY 24
Graduate Student Symposium,
UW Campus

MARCH 9
CFR-UWAA Lecture Series: Sustaining
our NW World," 35 Years of Climbing,
Research, and Teaching," UW campus

APRIL 6
CFR Distinguished Alumni Lecture
Series, UW campus.

MAY 6
Rhododendron Safari,
Federal Way, WA.

MAY 17
CFR Scholarship Luncheon,
UW campus.

MAY 19
CFR Distinguished Alumni Lecture
Series, UW campus.

MAY 24
WPPF Annual Conference,
UW campus.

CFR News

Please direct all corrections and inquiries to CFR News, University of Washington, College of Forest Resources, Box 352100, Seattle, WA 98195-2100.

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Share your news: CFR alumni activities and successes are of interest and inspiration to faculty, students, staff, alumni, and friends of CFR. Update your contact information at <http://www.washington.edu/alumni/addresschange.html>.

This newsletter can also be found on line at: www.cfr.washington.edu.

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