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FORESTRY



Future of Possibilities

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Three little boys were mesmerized by a virtual forest simulation demo created by Tim Holt and Matt Gregory (both FS) on display during the College of Forestry Centennial Open House. The computer-animated forester, seen here in the orange safety vest, was made to run up and down slopes and through the trees (sometimes literally), accompanied by squeals of laughter and the command to "do it again!" The program can display large stand areas on topographically accurate virtual terrain, giving foresters a new tool for visualizing forest data. Cover photograph by Caryn Davis.



Summer brings us to the end of celebrating Forestry's Centennial at OSU, and our 75th Fernhopper gathering. We now turn our attention to a "Future of Possibilities" that will become part of a continuing "Legacy of Excellence." There are a number of events and circumstances that point toward an outstanding future. We just awarded degrees to 153 students and are expecting another large incoming class with total enrollment exceeding 650 this fall

making it the third straight highest enrollment year since 1981. Many forestry and natural resources programs in the nation are experiencing declining enrollments, so we view our growth as a positive indicator of program strengths. OSU Forestry graduates continue to find quick acceptance into the work force. In fact, a survey of Pacific Northwest forest industry and agency hiring needs for the next 10 years reveals we aren't educating enough students to meet the demand. Oregon's forest sector continues to be important to the state's economy and employment base. Forests will also play an important role in the growing research on climate change. We are changing curriculum and adding options to ensure new students are prepared to create the future of possibilities.

The Oregon Legislature ended their session in late June on a positive note for Higher Education. The College and FRL have lost purchasing power during the budget reductions and limited appropriations of the past three biennia. Consequently, we have not been able to fill all faculty vacancies in some key disciplines. This year's increase in appropriated support will help stem the additional loss of key disciplines, and put us in a position to start the process of restoring lost capacity if the next biennial budget improves from the current appropriation. Additionally, with strong industry support, a bill to increase the Harvest Tax rate by 37% was passed. This additional funding matches the increase in state General Fund appropriations to the FRL and will allow us to restore some capacity in Forestry Extension and help expand our initiatives in planted forests productivity and wood-use innovation. These funding increases help ensure our continued "Future of Possibilities" and leadership in forest related education, research and outreach.

The next step in setting our future is still ongoing. This spring we began college-wide discussions on how to best organize ourselves. Our goal is to determine the most efficient and effective structure for administering our programs, educating students, meeting research needs and helping grow Oregon's multi-billion dollar forest cluster. This process and strategic direction setting is expected to be concluded by November. I anticipate some months will be required to fully implement all decisions, but I foresee an end result that creates new synergies and collaborative opportunities. We will be a stronger institution that is poised to meet future opportunities, and continue our legacy as the premier academic forestry institution.

Congratulations 2006 Dean's Award recipients!

TEAM AWARD FOR SERVICE



College of Forestry Centennial Working Group: Sandie Arbogast, Gretchen Bracher, Rose Lacey, Nathalie Gitt, Aleece Kopczenski, Steve Cox, David Zahler, Jeff Hino, Debbie Bird McCubbin, and Susan McEvoy (not pictured, Caryn Davis).

DEAN'S AWARDS FOR INDIVIDUAL OUTSTANDING ACHIEVEMENT



Advising, Mentoring, and/or Resident Undergraduate and Graduate Instruction: Charles Brunner (Wood Science and Engineering); Research/Scholarship: Caiping Ma (Forest Science);



Extended and Continuing Education: Nicole Strong and Elissa Wells (Forestry Extension); Support: Denise Steigerwald (Forest Science); FRA: Tom Manning (Forest Science); International: Susan Morré (Forest Resources).



A Tree-mendous Party!

College of Forestry celebrates Centennial with open house



It was just after sunrise on Friday, November 3rd, 2006, and the College of Forestry was already humming. Although the skies were dreary, Peavy and Richardson halls were bright beehives of activity as more than 150 faculty, staff, students, and alums worked together to prepare for the Centennial Open House. After 100 years of excellence in teaching, research, and outreach, the College was throwing a party!

Invitations had gone out, the Oregon Forest Resources Institute (OFRI) had advertised the event in the newspapers, and hundreds of posters had been placed across campus and in local businesses, thanks to the tireless legs of editorial assistant **Bryan Bernart** (FCG). **Rand Sether**, **David LaFever**, and **Scott Nason** (FRL Shop) had set up more than six dozen tables throughout the buildings, which forestry personnel, sporting green “welcome ribbons,” were fast filling up with exhibits, posters, and materials for demonstrations. Excitement and anticipation mixed with a touch of anxiety permeated the atmosphere. Would everything be ready on time? And would people come?

Orange and black balloons by the dozens began to fill a net strung like a cradle across the dean’s office in Peavy, where the ever-innovative Sether and **Roger Admiral** (Director of Operations) had rigged up an air compressor to use as a filling station. As the compressor boomed, **Rose Lacey**, **Nathalie Gitt**, and **Alece Kopczenski**—party planners *extraordinaire* from the Dean’s Office—wrangled balloons for the balloon drop, while simultaneously overseeing final preparations for coordinating the exhibits, crowd of volunteers, and countless other details for the big celebration.

Outside, spruced-up landscaping welcomed visitors to the forestry build-

ings, thanks to **Ed Jensen** (Associate Dean for Academic Affairs), **David Zahler** (FMC), and a crew of students, including **Sara Davison** (FM), **Dawn Marie Gaid** (NR), **Jennie Denton** (History), **Ryan Jones** (FRR), **Jessica Ludgate** (NR) and daughter, **Anica Mercado** (NR), **Crystal Perez-Gonzalez** (FM), **Christoph Schauwecker** (WSE), **Chaylon Shuffield** (FM), and **Brian Tierney** (RRM). The landscapers had worked their magic during the previous weekend—weeding the grounds, pruning trees, removing invasive trees and shrubs, and doing the excavation for a new planting bed at the front entrance to Peavy.

Along the sidewalks, colorful “100 Faces of Forestry” Centennial banners flew from lampposts around the forestry buildings and up Jefferson to the Memorial Union, adding a bright touch to the misty November morning. The banners, created by **Gretchen Bracher** and **Caryn Davis** (FCG), celebrated some of the many people who have contributed to the College’s “*legacy of excellence, future of possibilities*”—the Centennial theme.

As the morning flew by, birdcalls began sounding on the first floor of Richardson near the interactive H.J. Andrews Experimental Forest and Long Term Ecological Research (LTER) display—complete with 10-foot-tall tower—created by **Barbara Bond**, **Lina Digregorio**, **Suzanne Remillard**, **Theresa Valentine**, **Adam Kennedy**, and **Greg Downing**. Down the hall, Oregon Wood Magic practitioners from WSE set up classrooms for “Rock Stars” with **Fred Kamke**, “Incredible Bendable Wood,” with **Connie Love**, “Wood Sandwiches” with **Maureen Puettmann**, and “Daily Wood” and “Bubbling Bazookas” with **Leslie McDaniel**. Outside in the Hatfield Courtyard, the OSU Logging Sports

Team prepared to demonstrate their prowess at timber sports, while indoors, **Rakesh Gupta** and **Milo Clauson** (WSE) got ready to rumble with “Earthquake!” test demonstrations in the large test lab.

Upstairs, the Richardson “knuckle” was resplendent with floor-to-ceiling banners designed by **Sandie Arbogast** (FCG) to celebrate the College’s historical heritage. In the coffee room, homemade soups were beginning to bubble in dozens of crockpots, thanks to members of the forestry honor society, Xi Sigma Pi. Nearby, exotic dishes from around the world were slowly warming ahead of the multicultural lunch, sponsored by the International Forestry Students Association. The tempting fragrances wafted down the hallways and were soon joined by the irresistible aroma of popcorn popping at an old-fashioned cart.

More than two dozen 6-foot-tall Douglas-fir Christmas trees, on loan for the day from Holiday Tree Farms of Corvallis, had been placed throughout the buildings, their greenery scenting the air and lending to the festive mood. Three trees were being decorated in centennial style by the FCG, reflecting holiday traditions from 1906, 1956, and 2006; while in an adjacent classroom, OSU Extension forester **Chal Landgren** prepared a presentation on growing Christmas trees in Oregon.

Meanwhile, in Peavy Hall, giant mushrooms had sprouted in the first floor lobby, thanks to FSL mycologists **Efren Cazares**, **Joyce Eberhart**, **Dan Luoma**, **Doni McKay**, **Jane Smith**, and **Jim Trappe**, who coordinated the colorful “Fun with Fungi” display. Nearby, the sound of wolves howling in Yellowstone National Park echoed near a large poster featuring cougars in Zion National Park, courtesy of **Bob Beschta** (FE) and **Bill Ripple** (FR) and their work on trophic



cascades. Down the hall, **Rick Meinzer** (FS), **Jeff Warren** (FSL), and **Kate McCulloh** (WSE) were ready to help visitors explore tree canopies and get a “Bird’s Eye View” of the top of forests, via canopy cranes used in research.

Down the hall near Forest Engineering’s display, “Forest Harvesting Technology—From Axes to Computers,” **Loren Kellogg** (FE) prepared to fire up the large model skyline yarder, which kids (and grownups) could use to pull a small log across the room. Meanwhile, **Arne Skaugset** (FE) readied the Hinkle Creek exhibit and **Jeff Wimer** and crew set up the Student Logging Training team display, while **Mike Wing** (FE) prepared a demo of the new high-tech geospatial surveying equipment that FE students use in classes.

Upstairs in Peavy at the “CCAL—We are more than JUST a drop in the bucket” water analysis booth, **Kathryn Motter** (FS) and **Cam Jones** (FS) set out beakers of solutions for colorful demonstrations showing changes in pH. Nearby, **Tim Holt** (FS) and **Matt Gregory** (FS) plugged in wires and hooked up monitors for the virtual forest simulation demo. Around the corner, **Darrell Ross** (FS) was ready to “Speak the Douglas-fir Bark Beetle’s Language,” while **Dave Shaw** (FS) had Swiss Needle cast under the microscope as part of Forest Health in Oregon display.

The “Wizards of Forest Economics” under the guidance of **Darius Adams** (FR) prepared to dazzle the crowds with mathematical magic and economic predictions on Oregon’s future timber harvests, while **Melanie Stidham** (FR) displayed another futuristic feat—converting forest biomass to energy in Oregon.

Dozens of posters on a wide range of research topics were on display in the Graduate Student Poster Session, near booths for Recreation Resource Management Club, OSU Chapter of the Society of American Foresters (SAF), FM student **Judd Lehman**’s historical photo presentation of the Klamath Siskiyou Mountains, and the Linn-Benton Food Share, “They Don’t Call Us Top Banana for Nothing” booth and raffle ticket headquarters, staffed by **Connie Patterson**, **Terralyn Vandetta**, and **Marty Roberts**.



Far left: OSU Pep Band; top left: “100 Faces of Forestry” banners; volunteer landscaping crew; Dean Hal Salwasser and Benny Beaver kick off festivities; balloon drop; multicultural lunch; top right: Gabrielle Snyder and Kathryn Motter (FS); Josh Clark, Michael Wing, and Henk Stander (FE); Joyce Eberhart, Efrén Cazares, and Jim Trappe (FS).

On the arts and entertainment front, a broad variety of programs and presentations were being readied throughout both buildings. Thespians **Carol Carlson** (College Forests), **Camille Freitag** (WSE), **Dawn Marie Gaid** (NR), **Alison Moldenke** (FCG), **Mark Reed** (FR), **Ron Reuter** (NR), **Susan Sahnaw** (OFEP), and **Karen Zimmermann** (Extension) prepared for triple performances of “Saving Eden Creek – A Play about People and Forests,” directed by **Viviane Simon-Brown** (FR). Gretchen Bracher and **Tony Van Vliet** (FP) met in the “Discover Art in Forestry” gallery, maps in hand, to review the route of the upcoming “Art Walk” tour of the College’s art collection.

Films ready for screening included the documentary, “Growing Together: Agroforestry in South Africa,” created by the FMC and presented by **Badege Bishaw** (FS) as part of the International Programs exhibit; the History Channel’s “Modern Marvels: Logging Tech” documentary, featuring alums, students, and faculty from the College of Forestry; and the “Forest History Theatre” program, created by Zahler and Jensen. Outside the “cinema” and ready for browsers were the College Forests display and a booth featuring College authors set up by the OSU Bookstore.

As noon drew near, the halls grew crowded as visitors began arriving on foot, by school bus from state high schools, and in shuttle vans driven by College volunteers. The Beaver “Hot Air” Band, featuring OSU alum and professor Arne Skaugsett (FE), played in the Richardson lobby, while members of the OSU Pep Band, including FCG’s Bernart, warmed up on the steps of Peavy, near a giant black and orange balloon arch and the 10-foot long welcome banner designed by Arbogast. In the Peavy Courtyard, the Ambassadors for Agriculture, Forestry, and Natural Resources, under the guidance of **Clay Torset** (Student Services), put the final touches on the welcome/information booth.

Bakery racks of more than 20 birth-



From top: “Old Time Rural Sprawl”; (left to right) Kelly Kibler, Elizabeth Toman, Amy Simmons (FE) with Smokey Bear; Lisa French, Wes and Dot Peavy; George Brown (FE), Barte Starker, Carol Spinney; Temesgen Hailemariam (FR) and family members Yodit, Nebiy, and Adam with Benny Beaver.

day cakes had been wheeled into place near cake tables strategically located throughout the buildings, where faculty, staff, and students from all departments would take turns serving guests. On the first floor “knuckle” of Richardson, the balloon netting was positioned on the ceiling and the ceremonial birthday cake was ready for cutting. **Benny Beaver** and **Smokey Bear** had arrived, along with other dignitaries, and the crowd of visitors, alums, faculty, staff, students, and families filled the lobby and spilled over into corridors of both buildings and up the staircase, as all awaited the kickoff.

At exactly noon, Dean **Hal Salwasser** took to the podium to welcome everyone and invite them to join in the many dozens of activities. Next was OSU Provost **Sabah Randhawa**, who offered congratulations on the College’s century-long “legacy of excellence” and extended best wishes for a “future of possibilities.” The OSU Pep Band then played “Happy Birthday” as the dean blew out the ceremonial candles. At last, to cheers and applause, orange and black balloons floated down into the crowd, the Pep Band launched into a rousing rendition of the “OSU Fight Song,” and the “Tree-memdous” College of Forestry Centennial Celebration was underway!

For the next four hours, the College played host to approximately 600 people, who crowded the halls, visited the displays and exhibits, sampled cake and other treats, and enjoyed an afternoon of music provided by four different groups. Following the “Beaver Hot Air Band” was the old-time music of “Old Time Rural Sprawl,” featuring **Phil Sollins** (FS) and **Kathy Howell** (Forestry Computing Services). Next up were **Jeff Hino** (FMC) and **John Bliss** (FR) of “Gifford’s Pinched Shoe” playing “jazzgrass” tunes. For the last hour, “Rusty Strings” of Philomath played toe-tapping folk music, sometimes accompanied by a saw blade, while children danced in the Richardson lobby. Nearby, visitors picked up free tree seedlings provided



by the Weyerhaeuser Company, took a turn spinning the “Wheel of Forestry” to win fabulous prizes (t-shirts and hats), or posed for pictures with Benny and Smokey.

The afternoon flew by, and all too quickly, the party was over. At four o’clock, Rusty Strings packed up their instruments and listeners slowly drifted away. Grad students removed their posters, researchers packed up their exhibits, visitors waited for the shuttle busses that would take them to their cars. Clean-up crews moved in quickly, taking down more than six dozen tables and booths, recycling the paper signs and table skirts, hauling away the trees, and sweeping up the needles and popcorn.

By 8:00 pm, Peavy and Richardson were nearly empty—except for the students settling in for the night to study, analyze data, and write, just as generations of students have done before them. The quiet hallways seemed to belie the exuberant celebration that had taken place just hours earlier, where hundreds of people had come together to celebrate forests and the College of Forestry, learn, share, reminisce, reconnect, and just have a good time.

Yet the evidence—the sweet, exhilarating scent of Douglas-fir—still lingered in the air, and with it, many questions. What changes will the next century bring to the College of Forestry? What new challenges will future forestry researchers face? How will the coming decades shape higher education and the study of natural resources? Where will Fernhoppers find themselves as they prepare for the College’s Bicentennial in 2106?

Whatever the answers, here’s hoping that, 100 years from now, the College of Forestry will once again take time out to celebrate—to look backward with pride and forward with hope and excitement—and that, after the party, there will still be forestry students studying long into the night. . . and the future will smell like trees.



From top: “(left) “Bubbling Bazoocas”; Wheel of Forestry; Steve Strauss (FS) serves Centennial cake; from top (right) Wild Bill Tarr with Benny Beaver; Jeff Hino (FMC) and John Bliss (FR); Chris Dunn (FM); Aleece Kopczenski (Dean’s Office) and Katie Craven (FM).

From Research to Renovations

FRL Shop is integral to numerous College functions

by Bryan Bernart



David LaFever, Scott Nason, and Rand Sether

For more than five decades, the Forest Research Laboratory (FRL) maintenance crew, aka “The Shop,” has performed countless, often unseen, tasks that are key to many College functions.

The Shop is located in the old FRL building (now called the Oak Creek Building) at 30th and Western Boulevard. “When I started working here, the Shop crew took care of the whole building, which was then the Forest Research Lab,” says **Rand Sether**, current head of the Shop. “Before that, there was an old shop on Washington Street, near where Printing and Mailing Services is now. After the construction of the FRL building, the shop was moved there, sometime in the late 1950s or early 1960s.”

The FRL building eventually housed various departments of the College and was a center of research activity until Richardson Hall was completed in 1999. Although most College personnel moved to the Peavy-Richardson complex at that time, the College still maintains a presence in the old Oak Creek facility and it is still used for research. The building is home to two large test bays for WSE, **Arne Skaugset’s** (FE)

hydrology lab, and a processing lab for **Doug Maguire** (FS). It also houses the FRL Stockroom and the College’s Purchasing/Receiving units, headed by **Glenn Folkert**. There are also storage bays for field equipment in the off-season, a small greenhouse, a large greenhouse, and planting beds, along with the Shop.

Sether, who learned about carpentry and mechanics during the five years he spent in military service, was hired as a carpenter to work on projects for the College of Forestry in 1979. He became head of the Shop in July of 2001, after **David Baldassano** retired. Other members of the Shop crew include machinist welder **David LaFever** and maintenance mechanic **Scott Nason**.

In addition to building maintenance, the Shop is responsible for the maintenance of heavy machinery, as well as numerous other tasks. “You could say the work we do here in The Shop is from A to Z,” says Sether. “The easiest way to talk about is to say that we build, fabricate, and install different kinds of equipment, both specialized machines and the more general things.”

Perhaps the most important function of the FRL shop, however, and what sets it apart from other maintenance units on campus, is its research support function, which has always been a key part of its mission. **Connie Love**, faculty research assistant in the wood biodeterioration and preservation group (WSE), explains that her group relies heavily on the Shop for critical components for experiments, as well as research support in numerous ways.

“I can go to Oak Creek with an idea for a project, sit down with Rand or his staff and discuss how to design and construct the tools and equipment I need to get my study done cost-effectively and on time,” says Love. “We couldn’t get a lot of our work done without them and I know they help us improve our productivity. I don’t know of a more valuable resource in the College of Forestry.”

Diane Haase, a senior faculty research assistant with the Nursery Technology Cooperative (NTC) program (FS), wholeheartedly agrees. “They are able to suggest creative and useful ways to meet whatever is needed, design it, and provide it in a timely manner,” she says. “One time, I told them we needed a table with a screened top and a splash guard so that we could wash seedlings without getting soaked. They designed it, built it, and we were using it later that same day. Another time, we were working with small plastic tubes for preparing samples and needed a way to keep them in place while we worked. A half hour later, they brought in a piece of wood with 48 holes drilled in it (four rows of twelve to accommodate our sampling procedure); it made the job much, much easier.”

Love’s research group requires many thousands of specialized samples for wood preservation experiments each year, just one of the many services the Shop provides, sometimes on very short notice. “We can ask Rand to cut 5,000 19-mm pine cubes, saying we need them tomorrow, and

he doesn't even bat an eye," she says. "He just does his best to get them done, and every single one is perfectly sized."

Love notes that each crew member has a set of skills that contributes to the overall success of the group. Sether is quick to agree: "I just can't say enough about the guys working for me and their knowledge base—I'd be dead in the water without them."

Mike Newton (Professor Emeritus, FS), who points out that he has been interacting with the Shop crew for 50 years, adds, "They are excellent tradesmen with a lot of experience in serving many needs. Just a few individuals cover a wide spectrum of trades, and all are very creative and cost-conscious as well as skilled. They do lovely woodwork, welding, machine-shop work and general construction or repairs adapted to an infinite variety of needs."

LaFever has also helped design sample exposure racks, equipment for lifting wood poles, soaking bins, and specialized tools for sampling and inspecting utility poles for Love's projects. "He often finds ways to use scrap materials they have lying around from other projects to save us money or comes up with lower-cost alternatives to fabricate what I need," she says.

In addition to creating specialized equipment, the crew may be called on to adapt purchased equipment to specific uses or make it functional in less than ideal conditions. Just one example is a project from Mike Newton's (FS) research group that required moving radiometers to different points in streams. The researchers needed a way to transport the heavy bulky equipment over rugged terrain and through brush. The shop crew made boxes and stands that enabled the researchers to get the equipment from point to point without damaging the radiometers (or themselves) in the process. "They are good diagnosticians," says Newton. "They look at a piece of equipment, or at a diagram of some crazy scientist's version of a sensible item, and figure out how to make it or adapt it to do the job, and what sorts of materials are needed." He adds, "They are also quick to spot surplus sales that provide them with

a great variety of materials from which they can make up a wide variety of instruments and adaptations of instruments needed by faculty and students."

Another key function of the Shop is to make repairs that keep research moving, whether in the field or in the lab. LaFever "does a tremendous amount of repair work for the equipment we have here and the equipment used in the forest," says Sether, "including the logging crew's various tools and machines."

Nason, who does much of the electrical repair work, "has made countless small electrical repairs for me," says Love, "and if I need to fix something quickly he is always willing to help if he isn't already busy with something else. It's a good thing he carries that tool belt around with him all the time!"

In the NTC lab, Haase relies on the Shop for critical support, particularly when things go wrong. "Whenever we have had a problem in our lab with plumbing or electricity or heating, there is usually someone in the Shop who is willing to come over and look at it right away," she says. "The guys are clearly very knowledgeable and skilled with what they do. Not only that, they are very friendly and resourceful. They are a very valuable part of the College."

In addition to providing support for scientific research, the Shop crew assists with hundreds of College projects, large and small, from setting up tables for the graduation brunch to helping College artist Gretchen Bracher hang artwork to creating wooden awards plaques for Richardson Hall.

"The FRL Shop crew, under Rand's leadership, is an invaluable resource for the College," says Professor Emeritus Jack Walstad (FR). "As a former department head, I frequently called upon them to retrofit specialized office furniture, design and install cabinetry and workbenches, upgrade graduate student offices, and renovate lab space. Both the quality and proficiency of their work is exceptional."

According to Roger Admiral, Director of Operations for the College, some of the Shop's notable contributions to the College include the construction of the

Forest Engineering Office, the remodel of the Peavy 050 Social Science Offices, the classroom enlargement of Peavy 242, the remodel of lab spaces at Oak Creek, and the creation of the Computing Helpdesk suite. In short, Admiral says, "They provide friendly and timely support toward helping Forestry remain a comfortable and effective place for research, instruction, and administrative support."

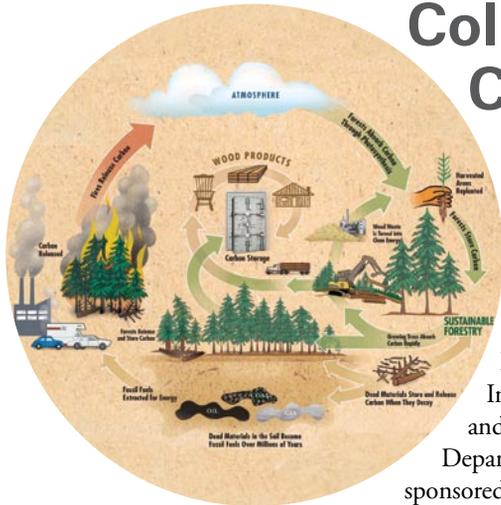
Sether sees his contribution to the College in terms of helping people get what they need to accomplish their goals. "Our whole job here, the way I see it, is to try to help people as much as we can. We keep foremost in mind that we're a service organization and we try to provide good service in whatever way necessary," Sether says. "We look for what needs to be done and identify the most important parts of accomplishing that. Sometimes we support the researchers, sometimes we support the renters in the homes owned by the College. When a pipe gets broken outside of a house, we go and fix it, because it's part of our job."

Love points out that Sether and the Shop crew often go well beyond what might be expected as part of the job, even finding creative ways to use leftover donated materials to further the College's mission. Recent examples are a bike-and boot-wash station at the Oak Creek entrance to McDonald Forest, which the crew built from leftover composite decking, and a garage for one of the College residences built from 2 x 4 lumber donated for another project. "I appreciate that he utilizes the wood resource so carefully," says Love.

"The Forest Research Laboratory Shop staff has always been an integral and important part of the FRL," says former College of Forestry Dean George Brown. "This talented and highly professional crew has assisted with the design and construction of specialized research equipment, operation and maintenance of key lab systems, and overall maintenance of the College of Forestry and FRL physical plant in cooperation with the OSU Facilities Department. Their quiet, behind the scenes work is critical to our success and has been since the beginning."

College Hosts Forests, Carbon, and Climate Change Conference

by Bryan Bernart



The College of Forestry, the Oregon Resources Institute (OFRI), and the Oregon Department of Forestry sponsored the Forests, Carbon, and Climate Change

conference February 11-12 at OSU. The conference brought together experts on various aspects of climate change and how that change may affect the Pacific Northwest in the coming years.

Scientists believe that the changes brought on by global warming could affect the environment in many different ways, including a reduced snow pack, changing composition of tree species, lower stream flows during the summer, and greater incidence of catastrophic wildfires. In managing forests, there is the potential to mitigate some of these effects through forest practices, as well as help work against climate change through carbon sequestration, the storage of atmospheric carbon (a major contributor to global warming) in trees and in wood products.

The Forests, Carbon, and Climate Change conference aimed to stimulate discussion among experts from universities, government agencies, NGOs, and industry on the relationships between forestry and climate change. "Forests are part of the lungs of the planet," said **Leslie Lehmann**, executive director of OFRI. She explained that trees absorb carbon dioxide and store it, which stops it from contributing to global warming. This can be accomplished in multiple ways, including planting trees on non-forested lands and reforesting land where trees have been harvested.

Many from the College of Forestry participated in the Forests, Carbon, and Climate Change conference. **Hal Salwasser**, Dean of the College of Forestry, gave the introduction and set the stage for the two days of presentations and discussions. He noted that across the nation, a million acres of forest are lost annually to urban development, and as a result of deforestation in the tropics, one-quarter the amount of all vehicle emissions worth of carbon dioxide (CO₂) is put into the atmosphere due to that loss of forest land. "Forests have a powerful role to play in helping to offset the severity of global warming," he said, "and there is much we can do to prepare for the future if we start now."

Professor **Mark Harmon** (FS), who contributed two papers included in the conference proceedings, pointed out that humans

have affected global carbon cycling primarily through agriculture. Before the start of the industrial revolution, land use changes resulting from agriculture comprised approximately 0.5 Pg/year of carbon release into the atmosphere, but current practices have increased that value to 2.0 Pg/year. Not surprisingly, carbon release due to fossil fuel use was negligible until approximately 300 years ago, but has now risen to a level of 6.5 Pg/year.

Jim Wilson, College of Forestry Professor Emeritus (WSE), discussed a sometimes-overlooked strategy to slow the increase greenhouse gases: the use of wood products. Wood products can be used as building materials rather than fossil-fuel intensive products like steel and concrete, and wood can be used as fuel, instead of fossil fuels. It is commonly recognized that carbon can be stored in forests, but it also can be stored in wood used in buildings, and it can even be stored in wood products that have reached the end of their use and have been disposed of in landfills.

Olga Krankina, professor of Forest Science, spoke on forest management strategies for storing carbon. Carbon storage can be maintained or increased on a given plot of land by increasing forest area by avoiding deforestation or by increasing carbon density through various techniques, including slowing decomposition of fallen materials and accelerating regeneration and growth in forest stands.

Forests in Oregon have the potential to store a significant amount of carbon because they are extremely productive. Since carbon storage is one of the key concepts in reversing global warming, the state of Oregon should prove to be a natural leader in the fight against greenhouse gases, the most prevalent of which is CO₂. "Oregon has really been a leader in climate change policy," said **Gail Achterman**, director of the Institute for Natural Resources at OSU, commenting on the efforts of Governor **Ted Kulongoski** to work to help solve problems related to global warming in Oregon. In 2003, Kulongoski, along with the governors of California and Washington, helped form the West Coast Governors' Global Warming Initiative. In this year, he also created a draft of the Global Warming Strategy for Oregon. Goals for the state of Oregon include ceasing the growth in levels of greenhouse gas emissions by 2010 and lowering emissions to 25 percent of levels in 1990 by the year 2050.

"Oregonians are grappling with what they can do to reduce greenhouse gas emissions," said Achterman, "On a regional and national level, Oregon is assuming a leadership role in addressing the issue."

The conference proceedings have been published in book form as *Forests, Carbon, and Climate Change: A Synthesis of Science Findings*, available for download from the OFRI website (<http://www.oregonforests.org/>).

A DIFFERENT KIND OF EDUCATION

New Graduate Certificate Program in Sustainable Natural Resources

by Bryan Bernart

The Sustainable Natural Resources Certificate is a unique educational program now offered through the College of Forestry and OSU Extended Campus. It enables graduate students from around the world to learn how to address natural resource problems in a variety of different ways. The purpose of the interdisciplinary program is to “build personal and organizational capacity to examine the many faces of natural resource problems—environmental, economic, and social—in the search for innovative solutions.” It is designed to prepare graduates for dealing with multi-dimensional and often international natural resource issues that are not commonly addressed in many individual disciplines but may be encountered in each of them.

According to Program Director **Steve Radosevich**, “Program participants will explore opportunities to develop new approaches to real world sustainability problems in their region, while networking with innovative practitioners from other regions who can provide ongoing assistance in solving complex natural resource management issues.”

The Graduate Certificate Program is taught by Oregon State University faculty with expertise in agroforestry, anthropology, ecology, economics, fisheries biology, forest engineering, forest restoration, invasive species, natural resource policy, non-wood forest products, philosophy, resource inventory and monitoring, silviculture, wildlife ecology, and wood science. Many courses also include guest faculty from other universities and countries.

College of Forestry faculty involved with the program include **Badege Bishaw** (FS); **Paul Doescher** (FR); **Rick Fletcher** (FR/EXT); **Loren Kellogg** (FE); **Leon Liegel** (FS); **Dave Perry** (FS); **Dave Pilz** (FS); Professor Emeritus **Steve Radosevich** (FS); **Randy Rosenberger** (FR); and Dean **Hal Salwasser**. Mentors, who advise students on individual projects, include **Barb Lachenbruch** (WSE); **Mark Harmon** (FS); **K. Norman Johnson** (FR); **Jeff McDonnell** (FE); **Mark Needham** (FR); **Scott Reed** (Extension Forestry); and **Viviane Simon-Brown** (FR).

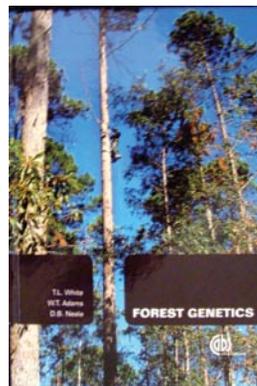
The program is offered as a series of online courses in order to allow students to obtain their certificates without leaving their current jobs or locations. Eighteen credits taken from the areas of Integration, Human Dimensions, and Ecology and Management are required to complete the program. Upon completion of the coursework, each student is required to present a project that integrates the knowledge gained in the program within the student’s own area of study to demonstrate that he or she is capable of solving sustainability problems.

“With a growing human population striving to improve the quality of life for all, forests and other wildlands are under increasing pressure to sustain their material, cultural and environmental resources,” says Dean Hal Salwasser. “This new program prepares graduates with the diverse perspectives and tools needed to sustain natural resources in a rapidly changing world.”

The SNR Certificate program is available to all students who have graduated with degrees in the arts, humanities, or sciences. For more information, please contact Program Assistant **Susan Morré** (Susan.Morre@oregonstate.edu) or visit <http://ecampus.oregonstate.edu/online-degrees/graduate/sustainability> or <http://www.cof.orst.edu/SNR-certificate/index.html>

NEW TITLES FOR THE FORESTRY BOOKSHELF

Forest Genetics

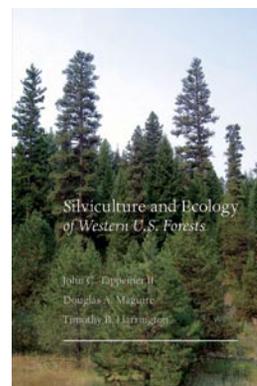


“Trees continue to maintain a unique significance in the social, ecological, and economic systems of the world, not least because of their very nature of being large, long-lived perennials covering 30% of the earth’s land area,” note the authors of the just-published book, *Forest Genetics*, by T.L. White, W.T. Adams, and D.B. Neale. “It is therefore important to understand forest genetics to provide

insight into the evolution, conservation, management and sustainability of both natural and managed forests.” Authors Tim White (Director, School of Forestry and Conservation, University of Florida) and David Neale (Professor, Plant Sciences, UC, Davis) are College of Forestry alums, both having earned their PhDs in Forest Science at OSU (in 1980 and 1984, respectively); Tom Adams is the Head of the Forest Science Department at OSU.

Forest Genetics, published by CABI, provides a comprehensive introduction to the principles of genetics and their importance in forest trees. The text integrates the varied subdisciplines of genetics and their applications in gene conservation, tree improvement, and biotechnology. Topics discussed include genetic variation in natural forest trees, the application of genetics in tree improvement and breeding programs, and genomic sciences and molecular technologies. *Forest Genetics* is the first book of this scope published in more than 20 years, and will be a valuable resource for students, scientists, and professionals in the plant sciences, especially forest geneticists, tree breeders, forest managers, and other natural resource specialists. For more information, visit www.cabi.org.

Silviculture and Ecology of Western U.S. Forests



A comprehensive new book on modern silviculture in the West and a compelling history of scientific discovery at the Wind River Experimental Forest are the latest forestry titles from OSU Press.

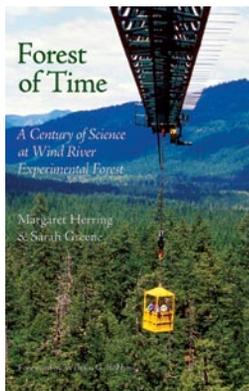
Silviculture and Ecology of Western U.S. Forests by John C. Tappeiner II (professor emeritus, Forest Resources), Douglas A. Maguire (associate profes-

sor, Forest Science), and Timothy B. Harrington (OSU, M.S., '82; Ph.D., '89; research forester, USDA Forest Service) is the only book of its kind to focus on this specific region, incorporate the newest research findings, and explore changing social values.

"This was written with forest practitioners, students, and policy makers in mind, with a clear focus on the forests of the American West," said John Tappeiner. "It should be understandable to the lay reader but provide very useful information for forest land owners and managers of all types."

The book contains chapters on silvicultural systems, differences between federal and private lands, ecology of shrubs and hardwoods, tree growth, measures of stand density, use of controlled fire, insects, water stress, and many other topics. It addresses changes in forest values, such as ways to manage lands for timber while maintaining forest health, reducing fire potential, benefiting wildlife, and protecting aesthetics.

Forest of Time

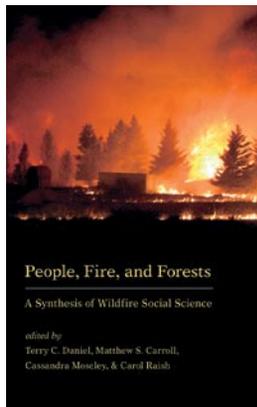


The Wind River Experimental Forest in southern Washington has been called the cradle of forestry in the Pacific Northwest, a place of groundbreaking discoveries in forest genetics and ecology. *Forest of Time: A Century of Science at Wind River Experimental Forest* by Margaret Herring (assistant professor, Extension and Experiment Station Communications) and Sarah Greene (forest ecologist, USDA Forest Service, and adjunct faculty member,

Forest Science Department, OSU College of Forestry) follows one hundred years of forest science at Wind River, as social and scientific changes transformed the twentieth century and the Pacific Northwest forest itself.

The Forest Service began research at Wind River in 1908 to learn the secrets of the giant Douglas-fir. During the course of the century, generations of scientists—many affiliated with the College of Forestry—studied the forest, and their conclusions changed through time. Herring and Greene show readers how science grows and changes in unexpected ways—much like a forest through time.

People, Fire, and Forests

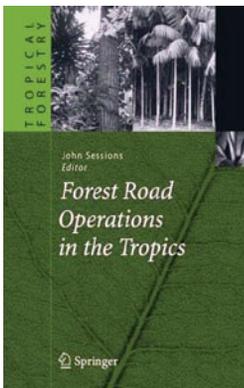


Also new from OSU Press is *People, Fire, and Forests: A Synthesis of Wildfire Social Science*, edited by Terry C. Daniel, Matthew S. Carroll, Cassandra Moseley, and Carol Raish. *People, Fire, and Forests* is the first book of its kind to integrate the social science literature on the human dimensions of wildfire. Bruce Shindler, associate professor of Forest Social Science, is one of the book's contributors. These books and other forestry titles from OSU Press can be found online at <http://oregonstate.edu/dept/press>. OSU Press books are available in bookstores or by calling 1-800-426-3797.

Tropical Forestry Series

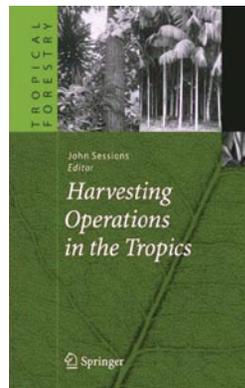
John Sessions, University Distinguished Professor and Stewart Professor of Forest Engineering at Oregon State University, is the editor of two new books in the Tropical Forestry series, published in 2007 by Springer. The books are intended as references for those interested in planning and management of tropical forests.

Forestry Operations in the Tropics



Forest Road Operations in the Tropics, authored by John Sessions, Kevin Boston, Michael Wing, Abdullah Akay, Paul Theisen, and Rudolf Heinrich brings together information on road planning, location, design, construction and maintenance to support environmentally acceptable operations in tropical forests. It highlights the challenges of road operations in the tropics, includes techniques that have been shown to be successful, and discusses newer technologies.

Harvesting Operations in the Tropics



Harvesting Operations in the Tropics, authored by John Sessions, Kevin Boston, Glen Murphy, Michael Wing, Loren Kellogg, Steve Pilkerton, Johan Zweede, and Rudolf Heinrich brings together information on harvest methods, system productivity, and methods for conducting safe, efficient, and environmentally acceptable operations in tropical forests. The book covers harvest systems from planning for felling to log transport from the forest, and concludes with considerations in selecting appropriate harvesting technology.

OSU COLLEGE OF FORESTRY VIEWED AS NUMBER ONE IN NORTH AMERICA

by Dave Staath

A survey of 53 university forestry programs in the United States and Canada has found that the College of Forestry at Oregon State University ranks first in the total number of professional publications, first in the number of "citations" to those publications, and is perceived by academic colleagues as the leading forestry program in North America.

The study, published in the *Journal of Forestry*, examined a range of research, publication and citation criteria at 47 universities in the U.S. and six in Canada. It is one of the first peer-reviewed rankings of forestry programs in at least a decade, the Auburn University authors said.

OSU has one of the largest forestry education, research and Extension programs in the nation, and celebrated its 100th anniversary in 2006. Its first degree programs were offered in 1906, and the college now has more than 600 students, 15,000 acres of college forests, about 5,500 graduates and an annual budget of more than \$20 million.

"This is a strong endorsement of the quality of College of Forestry faculty, when colleagues across the country rank our programs number one," said **Hal Salwasser**, dean of the college.

In a broader-based index, which also considered such things as publications and citations per research faculty, and gave a boost to high quality programs at much smaller colleges, the report ranked OSU eighth. In that index, the leading forestry college was at the University of British Columbia. However, Salwasser noted that this study used methodology that actually understates the quality and quantity of OSU faculty publications, because it only sampled five of the larger forestry journals – whereas a large, comprehensive program with major Extension components such as that of OSU goes well beyond traditional forestry journals.

"The diverse interests and backgrounds of the faculty at OSU result in their publishing in a very broad suite of top ranked journals in ecology, water resources, conservation biology, social science, genetics, engineering, wood science, economics, biometrics, recreation management, and others," Salwasser said. "If all of those journals had been included in the sampling, our faculty productivity would have been as much as five times more than reported."

Over generations, the forestry research programs of the college have evolved from an early focus on silviculture to consider wide-ranging questions of forest ecology, stream protection, innovative reforestation concepts and even climate change. Collaborative research with industry and other academic programs are common, graduate education programs continue to expand, and even many undergraduate students at the college become involved in research.

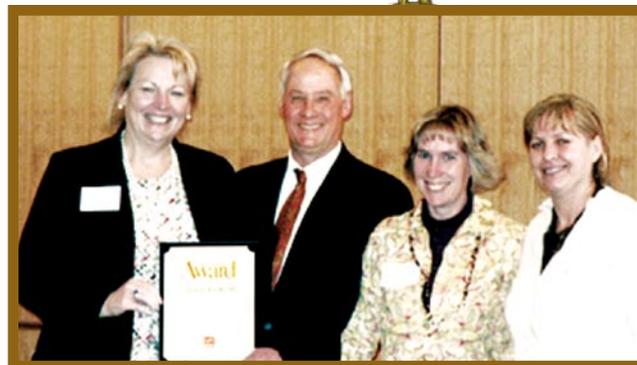
Such initiatives as the Watersheds Research Cooperative, with studies underway at Hinkle Creek, Trask River, and Alsea River, are now studying the impact of contemporary forest management activities on streams and fisheries, and some long-term ecological studies at the H.J. Andrews Experimental Forest will literally last for centuries. Work is under way in everything from forest biology and entomology to remote sensing, timber harvesting, road design, forest economics and the changing social demands on forests.

New wood science findings have recently helped discover ways to make plywood without toxic formaldehyde, and new advanced wood-based materials. Genetic advances may create trees that grow faster, or better resist damage by drought, insects or disease. And fascinating research is exploring the relationship between large predatory animals such as wolves or cougars and the health of whole stream ecosystems.

Ranking programs such as this, the report's authors said, may be of interest to prospective graduate students, potential employers, and users of research services.

FORESTRY TAKES THE BANANA ... AGAIN!

By Carrie Breckel



Rose Lacey, OSU President Ed Ray, Terralyn Vandetta, and Nathalie Gitt.

For the 7th year in a row, the College of Forestry came in first in the annual OSU Food Drive to benefit the Linn-Benton Food Share. Over 100 Forestry employees helped to take in an impressive 44,626 pounds of food and earned the right to take home the Top Banana Award for the most pounds donated once again.

Forestry topped second place OSU Foundation, which raised a still remarkable total of 36,889 pounds for the event. "This truly was a phenomenal year," said the manager of Linn-Benton Food Share, **Mike Gibson**. "It was the best year ever for food and the best year ever for funds."

It is no wonder that the food share had an unprecedented year, as OSU alone took in \$46,402.94 in monetary donations, \$23,323 in direct deposits, and 53,243.7 pounds of food donations. That is approximately equivalent to 471,599 total pounds of food. "I'm very pleased each year of what we muster for this cause," said OSU President **Ed Ray**. "I'm proud of each one of you and our colleagues for this."

Forestry owes its success to a dedicated committee that organized food and fund raising events such as a holiday silent

auction, bake sales, February soup Wednesdays, an International Forestry Students Association luncheon, a Valentine's Day silent auction, a book sale, and a dessert bake-off. The College also offers direct deposit and direct cash donations. Committeemembers included **Terralyn Vandetta**, **Marty Roberts**, **Lesley Nylin**, **Connie Patterson**, **Karla Rhoads**, **Penny Wright**, **Rose Lacey**, **Nathalie Gitt**, and **Jeannette Harper**.

Terralyn Vandetta, the "soup lady" of the soup Wednesdays, attributed the food share success of the College of Forestry each year to the "terrific group of people in the college." She continued, "Our activities are fun, and bring folks together, and they all know that it is for a good cause."

"Thanks to everyone who participated and especially to those who led the drive," said Forestry Dean **Hal Salwasser**, "Thanks also for being so generous for those in need."

—Excerpted in part from *OSU This Week*, Volume 46, Number 24, April 5, 2007. Carrie Breckel is an editorial assistant in the *Forestry Communications Group*, College of Forestry.

Conservation of Native Prairie and Oak Habitats in McDonald-Dunn Forest

by Ellen Deehan



Legacy oak surrounded by conifers.

This year, the College of Forestry began active conservation of remnant oak and prairie habitats in McDonald-Dunn Forest. These plant communities reflect a diverse climatic, historical, and cultural legacy.

First Peoples

The first people who inhabited what is now McDonald-Dunn Forest lived in a very different landscape from what we see today. A long period of hot, dry weather (from 8,000 BCE to 4,000 BCE¹) supported an open landscape of prairies and oak savannas that provided plentiful food for large groups of people.

As the climate became wetter (4,000 BCE to the present), conifers began to encroach upon the formerly dry prairies and savannas. In response, people began seasonal burning to keep conifers from taking over lowland habitats that supported important food staples, such as: camas, acorns, tarweed, hazel, deer, and elk. Therefore, for several thousand years, the people of western Oregon purposely used fire to manage the land. Fires were usually set at night when conditions were cooler; both women and men set the fires.²

Consequently, when European-American settlers arrived in western Oregon about 150 years ago, they saw open grasslands and scattered oak trees in the Willamette Valley and surrounding foothills, with Douglas-fir only in the higher elevations. This bucolic landscape was not wild or pristine; it was a cultural landscape maintained by the local Kalapuya people.³

In 1855, the Kalapuya signed a treaty to cede their tribal lands to the federal government. Soon after, they moved along with other Coast Range tribes onto the Grand Ronde and Siletz Reservations. Subsequently, most of the prairies and oak savannas that once dominated the foothills of the Willamette Valley, including what is now McDonald-Dunn Forest, slowly disappeared under a rising sea of conifers.

Long-term Commitment by College of Forestry

Recently, scientists, conservationists, tribes, and land managers have become interested in learning how to conserve and restore remnant oak and prairie ecosystems and the unique plants, insects, and wildlife that inhabit them. The OSU College of Forestry (in collaboration with

experts from agencies, the local community, and tribes) has developed an innovative strategy for conserving and restoring native prairie and oak habitats across the landscape of McDonald-Dunn Forest (see Appendix 3 of McDonald-Dunn Forest Plan 2005, available at http://www.cof.orst.edu/cf/forests/mcdonald/plan/files/mcdunn_plan.pdf).

“The oak/prairie strategy developed for McDonald-Dunn Forest is the work of an interdisciplinary collaborative committee that has studied oak and prairie restoration, and will be the beginning of a long-term commitment by the College of Forestry to nurture this type of ecosystem for its many ecological, teaching, and cultural values” said **Brad Withrow-Robinson**, the OSU Extension Forester who led the committee. The committee has created two teams to focus on the current conservation challenges of prairies and oaks.

Prairie Conservation Activities

The Prairie Team for McDonald-Dunn Forest (led by **Matt Blakeley-Smith**) will determine the extent of the dwindling prairie community, and prioritize areas for active conservation. This year, OSU College Forests hired an expert botanical consultant to profile this resource and identify, map, and describe all biologically-diverse patches within all prairies in McDonald-Dunn Forest. Considering dispersal potential for prairie biota, ecological health, and environmental threat, the Prairie Team will determine which of these ecologically-significant areas should be actively conserved, and when and how false-brome and other invasive plants should be treated. In 2008 and 2009, the Prairie Team plans to eliminate conifers that are encroaching upon these selected prairie sites.

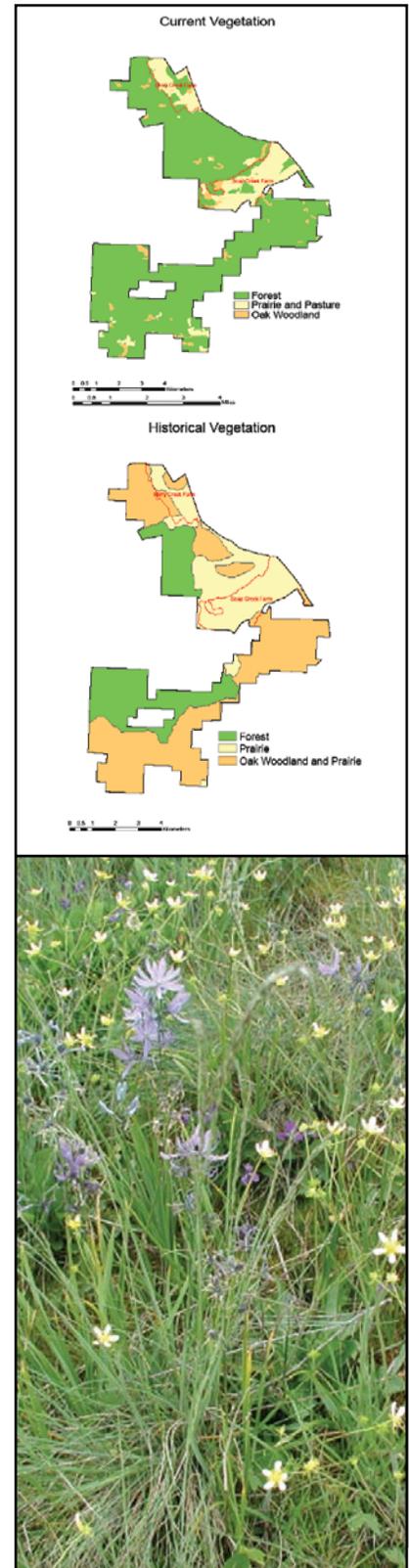
Oak Conservation Activities

Similarly, the Oak Team for McDonald-Dunn Forest (led by **Rob Pabst**, Senior Research Assistant, FS) will be assessing the current condition of remnant savanna oak trees surrounded by coniferous forest and how to conserve this legacy. This year, OSU College Forests hired a seasonal technician to identify, map, and describe all high-quality legacy oaks and legacy oak stands within McDonald-Dunn Forest. Considering dispersal potential for oak-related biota, ecological health, and economic constraints, the Oak Team will recommend to the Dean of the College of Forestry which of these ecologically-significant areas should be conserved, and will then design harvest treatments to release the oaks from surrounding Douglas-fir trees. In 2009, the conifers will be removed around selected oaks within contiguous stands.

In the work ahead, collaboration will continue with Benton County, U.S. Fish and Wildlife Service, Confederated Tribes of Grand Ronde, and Confederated Tribes of Siletz. The task of conserving and restoring identified oak and prairie habitats on the forest will be a long-term commitment, which should provide an opportunity for OSU students and faculty, as well as the local community, to better understand these habitats and their management, while also providing a window to our past.

1. William G. Robbins, 1999. Landscape and environment: ecological change in the intermontane Northwest. In *Indians, Fire, and the Land in the Pacific Northwest*, ed. R. Boyd. Oregon State University Press, Corvallis, Oregon.
2. Ibid.
3. Judy Rycraft Juntunen, May D. Dasch, and Ann Bennett Rogers, 2005. *The World of the Kalapuya*. Benton County Historical Society and Museum, Philomath, Oregon.

Ellen Deehan is Academic Support Manager for the College Forests

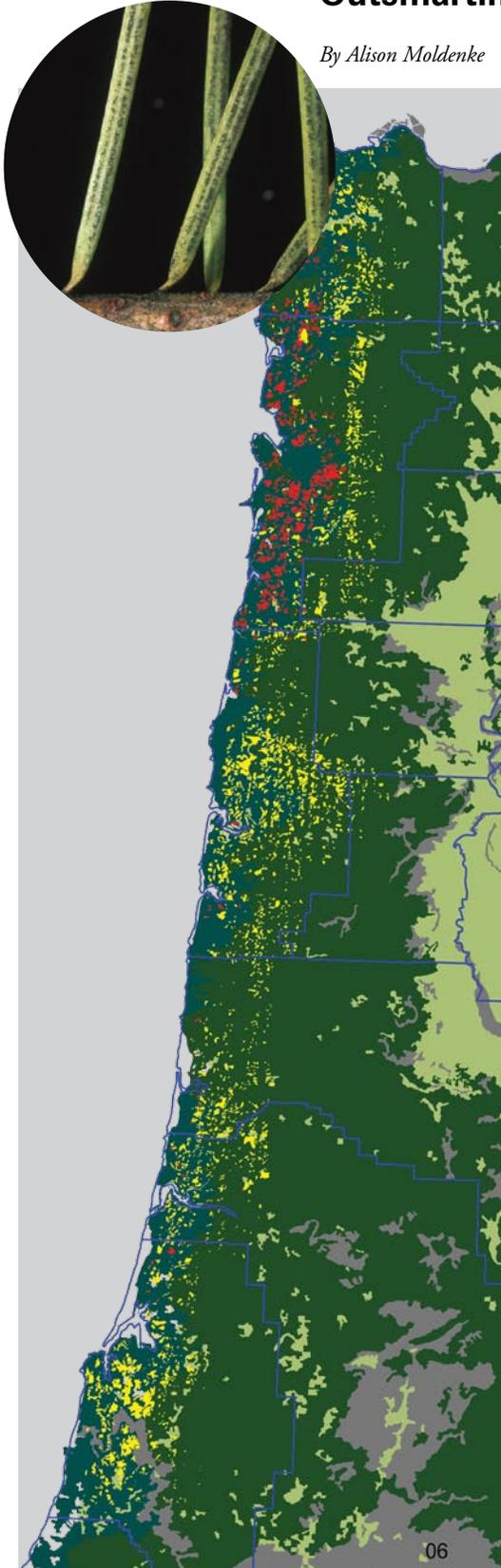


From top: McDonald-Dunn Forest vegetation in 2007, dominated by conifers (green on map); McDonald-Dunn Forest vegetation 1850, dominated by oaks and prairie (yellow/gold on map); biologically diverse patch within a prairie.

There's a Fungus Among Us!

Outsmarting Swiss needle cast in coastal forests

By Alison Moldenke



Flying over the Oregon Coast Range in the spring can be frightening, even if you like flying low in a small plane. It's the landscape below that can be distressing—thousands of acres of Douglas-fir, stripped of many of their needles by Swiss needle cast disease.

“Swiss needle cast is present just about everywhere without being a problem,” says **Dave Shaw**, Director of the Swiss Needle Cast Cooperative (SNCC). “The fungus that causes it requires optimal conditions for spores to germinate and grow, and apparently conditions are really optimal in the Coast Range.”

SNCC scientists are pursuing four research tracks: epidemiology, silviculture, soil characteristics, and tree improvement. The first two are best developed, with **Jeff Stone** (Botany and Plant Pathology) taking the lead in epidemiology and **Doug Maguire**, Hayes Professor of Silviculture (FS), heading up the silvicultural efforts.

Every April, Oregon Dept of Forestry and USFS aerial survey specialists fly over the Coast Range before budbreak in Douglas-fir to map the range of the disease. Their flights have shown that the severity of SNC ebbs and flows markedly over time and varies within a geographical zone. Even in a high severity area, there may be relatively healthy trees or plantations.

Collaborating with other scientists, Stone and Len Coop (with the OSU Integrated Plant Protection Center) have been developing a spatially explicit epidemiological model that takes into account effects of topography, elevation, aspect, and location on local weather and, hence, on the observed spatial and temporal variation in SNC severity, says Shaw. Warm winter temperatures and cool moist springs followed by wet

summers are key drivers that increase SNC. Topography, convergence and divergence of incoming weather systems, winds, and fog and drizzle are also important factors.

Maguire has been working with SNCC since it was organized in 1997. His silvicultural studies over the years have included the impact of SNC on growth and yield and, conversely, the effect of silvicultural activities on SNC severity. The permanent plots that he established nearly a decade ago allow diverse and thorough measurements to be taken over time, and his data have provided a robust quantitative understanding of the effects of SNC on growth and yield of Douglas-fir and of the effects of silvicultural treatments on pathogenicity of SNC. He has found, for example, that commercial thinning can be carried out on SNC-affected plots without negatively affecting the stands, so structure-based management on state lands can be continued without making the disease worse.

Maguire has been collaborating with **David Hann**, Professor of Forest Resources, and **Sean Garber**, research assistant in Forest Science, to develop a new module for the ORGANON growth-and-yield model to estimate growth impacts of SNC. “This is very important work that really helps landowners determine growth, allowable cut, and harvest schedules,” says Shaw.

In the long term, Shaw, Maguire, Stone, and their collaborators hope to meld the epidemiological and silvicultural models. Managers would then be able to predict SNC severity at the plantation level based on historical weather regimes or future climate scenarios. More information about SNCC is available at <http://www.cof.orst.edu/coops/sncc/>.

Pretty but Perilous

Protecting Forests and Meadows from Weedy Interlopers

By Alison Moldenke

To the casual observer, a patch of sulfur cinquefoil is a beautiful meadow sunlit with flowers. But to a weed specialist like **Steve Radosevich**, Emeritus Professor of Forest Science, it's a field overrun by a pernicious weed that threatens native plants and forage.

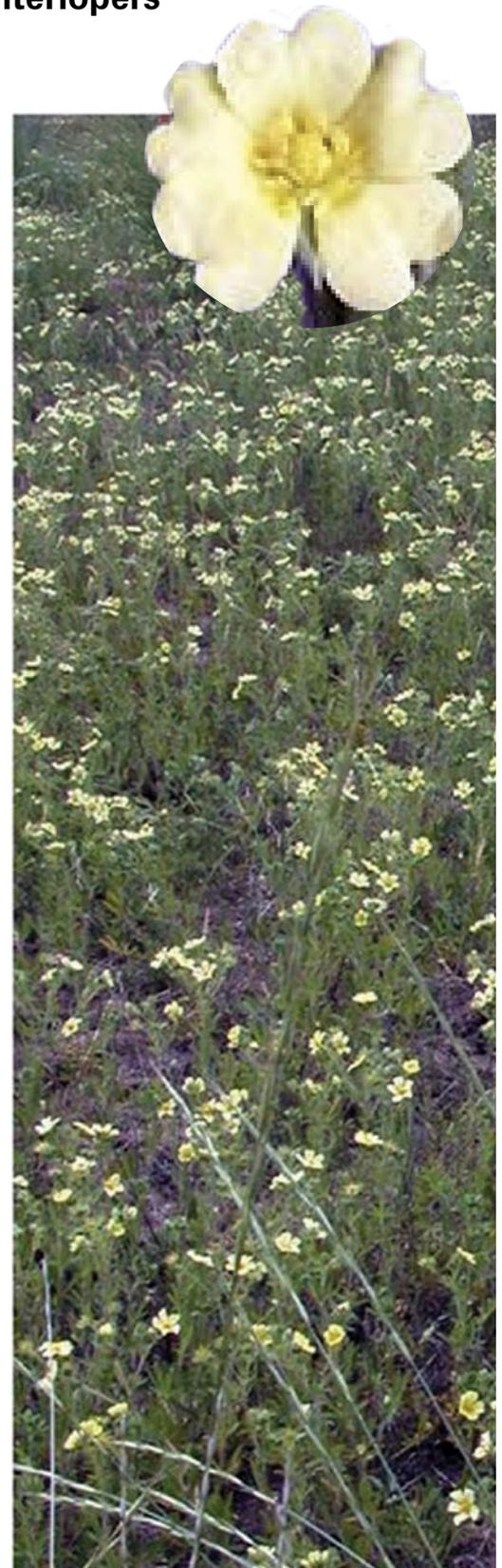
The cinquefoil, known more formally as *Potentilla recta*, is one of 109 invasive nonnative species in the Pacific Northwest. Cinquefoil thrives in forest meadows, old pastures, and other sunny disturbed areas; it also grows on rangelands and in open forest stands. It spreads easily, but its principal threat is its competitive ability. As it gobbles up space and nutrients, it threatens native plant communities, diminishes plant diversity, and decreases food supplies for wildlife.

Invasive plants were formerly known as weeds, and their relationship to forest regeneration and sustainability has captured Radosevich's attention for some 30 years. When he started out, weeds were controlled primarily by herbicide spraying and burning. His experience has convinced him that new, more lasting approaches to control are needed. "Over the years, good biological and ecological studies pay off more than herbicide spraying trials," says Radosevich. "Herbicides are like medicine; if you need them short-term, use them; but long-term, get healthy, and you won't need them." Herbicides are like medicine in another respect: repeated applications are expensive. Finding ways to avoid them would save land managers money.

For Radosevich, his Research Associate **Bryan Endress** (now, Associate Director for Plant Conservation for the Zoological Society of San Diego), and their collaborators, control of the sulfur cinquefoil and other invasive species

presents a continuing challenge and requires innovative approaches. Their research program is centered in the Blue Mountain Ecoregion, the primary habitat of the cinquefoil in Oregon. Their many-pronged study assesses habitat risk, projects spread of the species, and examines its biology, competitive ability, and strategies for containment. In one approach to control, the group is setting up experiments to determine the ability of native cinquefoils and grasses to compete against the invasive species. In other studies, they are examining the dependence of *P. recta* and native cinquefoils on insect pollinators and whether grazing by cattle, deer, or elk affects cinquefoil success.

Although the cinquefoil is their test species, the models and control methods that Radosevich, Endress, and their collaborators develop from the data will provide the basis and framework for a regional research program that will enhance understanding of the basic biology and demography of many invasive plants. Shared with managers and other researchers, this understanding will lead in turn to development of effective strategies for adaptive management and habitat restoration. "We need multiple strategies of control and intervention," Radosevich points out. "We've been looking at separate pieces; now we're able to look at the problem holistically." A holistic approach requires many collaborators. Their primary collaborators include **Catherine Parks** and other USDA Forest Service scientists, as well as scientists from the Oregon Department of Forestry and Department of Fish and Wildlife, the Umatilla and Wallowa-Whitman National Forests, and the Nature Conservancy.



2007 National Timber Bridge Competition

by Jebediah Wilson



Seniors and graduate students in Dr. **Rakesh Gupta's** Wood Design course, WSE 458/558, took home prizes in the National TimberBridge Design Competition in spring of 2007.

The competition consists of the design, construction, and testing of a model timber bridge and is open to student chapters of American Society of Civil Engineers (ASCE) and Forest Products Society (FPS) in the United States and Canada. Southwest Mississippi Resource Conservation and Development (RC&D), Inc., coordinates the annual competition, which is made possible by a grant from the USDA Forest Service through its Wood in Transportation Program, with additional financial support provided by Unit Structures LLC.

The objectives of the competition are to promote interest in the use of wood as a competitive bridge construction material, generate innovative and cost-effective timber bridge design techniques, and develop an appreciation of the engineering capabilities of wood among future transportation and forest products engineers. Cash prizes are awarded in several categories including Best Overall Design, Best Support Structure, Best Deck Design, Most Practical Design and Most Innovative design.

This year's OSU team had 19 members from among the Civil Engineering and Wood Science and Engineering programs. The team is self organized, choosing leaders amongst themselves. After several brainstorming sessions the group decided on a tied-truss design. Wood members were donated by Conrad Lumber in Coos Bay and Coyote Steel in Eugene supplied material for the fabrication of the truss connections. Construction and testing of the 12.5 feet (3.8 m) long and 55 inches (1.4 m) wide test bridge both took place at OSU, culminating in the application of ~4500 lbs to the bridge deck. Bridge deck deflection was measured to evaluate the bridge effectiveness.

Real world application of the course material is essential to a successful design. In addition to meeting the qualifications for the competition, a successful bridge design—with less than 10 mm of deck deflection when loaded—will also result in no final exam for the Wood Design class. The incentive seems to be effective: in more than 10 years of teaching the course, Gupta has yet to administer a final exam.





The 2007 OSU team won 2nd place in Most Aesthetic Design, taking home \$200. The 2006 OSU team also entered their bridge in this year's competition, winning 2nd place in Most Practical, Best Support Structure, and Best Overall Design, for combined prize total of \$900.

More information about the competition can be found at <http://www.msrd.org/bridge.htm>.

Jebediah Wilson is a dual-major graduate student between the Wood Science and Civil Engineering Departments, and was a member of the 2007 bridge design team. He is currently conducting research to determine wave forces on wood framed structures with Dr. Rakesh Gupta of the WSE Department. Photos by Bryan Bernart (FCG) and Jeremy Mikkelsen (CE).



Great "Green" Chemistry

Wood science researcher receives prestigious Presidential Challenge Award

College of Forestry Professor **Kaichang Li**, who invented a non-toxic adhesive for production of wood composite panels, was recognized with a 2007 Presidential Green Chemistry Challenge Award. The award was given in June 2007 at the National Academy of Sciences in Washington, D.C., by the Environmental Protection Agency. EPA sponsors the Green Chemistry Awards program, which honors innovators who have helped reduce waste or toxins in manufacturing processes.

Li, one of just seven people or organizations in the nation to be honored, received the "Greener Synthetic Pathways Award." Also recognized were Li's industrial collaborators in the development of this product, Columbia Forest Products of Portland, Oregon, and Hercules Incorporated of Wilmington, Delaware.

Li's work in developing this new type of alternative adhesive was inspired several years ago by his observation of mussels on the Oregon coast, clinging tightly to rocks despite being pounded by constant waves. "I was amazed at the time to see these small mussels attach themselves so strongly to rocks," said Li, an expert in wood chemistry and adhesives. "I didn't know of any other type of adhesive that could work this well in water and withstand so much force."

The mussels' byssus, small threads that attach them to rocks and other surfaces, is a protein with a very unusual composition that results in the ability of mussels to stick tightly to surfaces despite being inundated in water.

Li began his research through chemical modifications of soybean protein using mussel adhesive protein as a model. He later developed a unique curing agent that is able to convert inexpensive, abundant, and readily available soybean flour to a superior adhesive for bonding wood. In collaborative work with private industry, a strong, environmentally friendly, cost-competitive adhesive was used to replace toxic urea-formaldehyde resin in commercial production of wood composite panels, such as plywood and particleboard.

Last year, Columbia Forest Products converted all its plywood plants to the new adhesive, replaced the use of more than 47 million pounds of the conventional formaldehyde-based adhesive, and at each of its plants reduced emissions of hazardous air pollutants by 50-90 percent. Continued commercial development and expanded use of the new adhesive is anticipated.

This award program was created after passage of the 1990 Pollution Prevention Act, which made it national policy to reduce pollution at its source whenever feasible. It encourages scientific solutions to real-world environmental problems associated with the design, manufacture, and use of chemicals. During the past 12 years that these awards have been made, the advances they recognize have led to the elimination of over 940 million pounds of hazardous chemicals and solvents, 600 million gallons of water, and 340 million pounds of carbon dioxide.

Excerpted from an article by Dave Staath, OSU News and Communications Services

Forest Service Chief Guest Speaker at Student Forum

Abigail “Gail” R. Kimbell, the 16th Chief and first female Chief of the US Forest Service and an Oregon State University graduate, joined forestry and natural resources students in a discussion forum at the College of Forestry on Friday, May 11.

The forum, led by Forest Engineering graduate student Elizabeth Toman and Professor Paul Adams (FE), provided an opportunity for Chief Kimbell to talk candidly with students about opportunities in the natural resources profession, particularly for women and under-represented minorities.

Before moving on to a discussion of forestry topics, Kimbell first spoke about her childhood in New England, her college years at the University of Vermont, and what compelled her to come west for graduate school at OSU. Kimbell grew up in Vermont, where she spent her free time hiking, fishing, and camping on the White Mountain National Forest. Although she joked about having to endure “forced marches” to “bug infested lakes” for fishing as a child, she nevertheless developed a lifelong love for the outdoors. That passion blossomed into a desire for a career in natural resources during a time when the field was still largely dominated by men.

Kimbell attended the University of Vermont, where she met fellow forestry major **Paul Adams**, who would graduate a year after Kimbell in 1975. Adams, who joined the College of Forestry in 1980 after earning his MS and PhD from the University of Michigan, was especially pleased to welcome Kimbell back to Corvallis.

“It’s a rare opportunity for our students to be able to meet with the Chief of the Forest Service” said Adams. “And it’s especially exciting when the Chief is one of our own graduates with experience working in Oregon, not to mention someone as outstanding and personable as Gail.”

After graduation in 1974, Kimbell headed West, where she met her future



husband, OSU Forestry alumnus **Edwin Stryker** (Forest Engineering, BS ‘66, MS ‘77). She joined the Forest Service in 1977, eventually serving in a variety of forester positions in Alaska, Oregon, and Washington. Kimbell has also served as forest supervisor for the Tongass National Forest in Alaska, Bighorn National Forest in Wyoming, the Pike and San Isabel National Forests and the Comanche National Grassland in Colorado, and the Cimarron National Grassland in Kansas. “I’ve worked in some pretty fabulous places, and some pretty remote places,” she said. “I had the opportunity to learn a lot through all of that.”

Kimbell entered graduate school at the OSU College of Forestry in 1979, earning her master’s degree in forest engineering in 1982. Although she found the program quite challenging and even difficult at times, Kimbell said that she particularly appreciated the opportunity to study across disciplines and it has shaped her view of the field. “I was considering forests as a whole and how forest engineering interacts with that whole,” she said. “It helped me learn how to think, and to think critically.”

The ability to take a broad, yet critical view and to be able to consider many perspectives has served Kimbell well during her career with the Forest Service, which has spanned some exciting and contentious times. “There’s a lot to be learned through debate and discourse,” she said, noting that while debate is very healthy, “I hope sometimes we can agree on things.”

In 2002, Kimbell joined the national headquarters in Washington DC as associate deputy chief for the National Forest System. The following year, she was named Regional Forester of the agency’s Northern Region, headquartered in Missoula, Montana, which also includes northern Idaho and North Dakota. The Northern Region encompasses more than 25 million acres of public land on twelve national forests and four national grasslands. She succeeded Chief **Dale Bosworth** in February 2007. As Forest Service Chief, Kimbell oversees an organization of over 30,000 employees and a budget of nearly \$5 billion.

After the discussion forum, Chief Kimbell attended a reception in her honor in Richardson Hall, where she had the opportunity to talk with members of the College. She returned the next evening to join fellow alums for the 75th Fernhopper Banquet. “Our College and OSU are justifiably proud to have played a role in educating the first female Chief of the U.S. Forest Service,” said Dean **Hal Salwasser**. “It was a treat to have Gail back on campus to interact with students and faculty.”

From the Mountains, to the Prairies, to the Ocean...

An Extension forester covers it all

By Alison Moldenke

From the Cascade Mountains, to the Willamette Valley prairies, to the Pacific Ocean—that's the stretch of Lane County, and that's the territory served by *The Treeman*: **Steve Bowers**, Extension Forester and Associate Professor of Forest Engineering. On occasion, he's shouldered Extension duties in other counties as well, so foresters and woodland owners outside of Lane County may well have benefited from his assistance.

As an Extension forester, Bowers must be versatile, as well as well-traveled. Lane County includes 4,620 square miles, 90 percent of which is forestland. The other 10 percent includes the state's second-largest urban area, and the county is home to nearly 10 percent of the state's population. A typical day for Bowers might involve leading a workshop for small woodland owners, coordinating a tree farm tour, answering a question about urban forestry in Eugene, and coming up with a solution for a harvesting problem in Oakridge.

A big part of Bowers' job is bringing

forestry to many diverse audiences. As an Extension forester, he has organized nearly 70 conferences and workshops for those interested in forest issues, especially those having to do with his specialties: harvesting, marketing, and timber measurements. "I focus on hands-on approaches that promote group interaction and that participants can relate to their own experience," he says. "I encourage participants to learn from each other."

As a complement to his workshops, Bowers co-developed Varplot: Stand Measurement Software, which he characterizes as a user-friendly timber-cruising program for woodland owners. He also developed and maintains the Log Buyers Directory, which lists primary log manufacturers (lumber, veneer, and fiber operations), timberland procurement companies, log home (log) buyers, and sort yards in southwest Washington, Oregon, and northern California. Woodland owners can use this resource, which is available online and in hard copy, to find the best price for their timber.

In his spare time, Bowers writes. The "Tips from the Treeman" column has an estimated readership of 100,000. The "Dear Abby"-type column fields questions ranging from a schoolgirl's concern—"Trees make sugar, so do they get diabetes?"—to more conventional queries—"What's killing all my grand fir trees?" "Do you know of any organic solutions for household pests?"—and more traditional forest-related issues. He's a regular contributor to the Master Woodland Managers Gazette. Recently he published *Managing Woodland Roads: a Field Handbook*. This pocket-size, color illustrated manual synthesizes a variety of materials about and experience with design, inspection, maintenance, and repair of such roads.

His work has been recognized by several awards. Most recently, he received a Newer Faculty Award from OSU Extension for developing educational workshops for small woodland owners. He also received the Bronze Educational Award from the National Association of Natural Resource Extension Professionals twice for the *Backyard Woodland Resource Notebook* and the *Lane Woodland News*.



Forestry Through A Prism

Fifty Years of Variable Plot Sampling

by Carrie Breckel



The sky was threatening rain as people in colorful raingear walked two by two through McDonald Forest. Each pair stopped at a different point in the trees and slowly lifted a small piece of glass through which they peered at the wet forest. Were they art students, gazing at the landscape? Were they biologists, studying the foliage around them? What were they looking for?

These people were not art students or biologists, but foresters enrolled in the OSU College of Forestry outreach course, “Variable Probability Sampling,” taught by Dr. **John F. Bell**. He has taught the popular course at least once every year since 1957, an accomplishment that was honored with a golden anniversary celebration at the College in April 2007. In addition to the OSU workshops, Dr. Bell has taught the course more than 20 times in eight other U.S. states, Canada, Chile, and Australia.

“Variable Probability Sampling” is a five-day course that offers information on two methods of determining volume and value of forest stands: variable plot sampling and 3-P sampling. The classes feature guest speakers and top instructors. “What we do is teach foresters more efficient procedures and new ways of looking at what they do,” Bell explained.

Bell and two of his three co-instructors, **Kim Iles** (BS ’69, MS ’74), and **David D. Marshall** (BS ’79, MF ’81, PhD ’91), are OSU Forestry alumni. Iles and Marshall both did their master’s program with Dr. Bell and both men have assisted with the workshop for about 30 years. The third co-instructor, **Norman T. Marsh**, has been involved in the workshop for 45 years and is considered one of the top timber cruisers in the Northwest.

Bell’s dedication to variable plot sampling has made him an instrumental

figure in the gradual adoption of what was once a new timber cruising method. Dr. Bell said, “It just takes a long time to have it widely accepted.”

Bell’s interest in variable plot sampling began during his 10-year career in the Oregon State Forestry Department, where he was responsible for calculating allowable annual cuts. To do this, it was necessary to determine the basal area of immature stands. Foresters were then using what is called a “fixed area plot” method of sampling. “It took time and work surveying plot boundaries when the objective was to measure trees,” Bell said. “Then I heard about a forester running around the woods with a crystal ball.” This magical crystal turned out to be a wedge prism, a small piece of glass that looks like a single lens from a pair of eyeglasses.

In 1948, an Austrian forester named **Walter Bitterlich** introduced what he



Top: Keith Jones (FM, 1999) using a Spiegel Relaskop®; bottom, left: Norm Marsh holding a prism, John Bell, Kim Iles, and David Marshall; right, displacement seen through a wedge prism. Photos by Bryan Bernart (FCG).

called angle count sampling, commonly known here as variable plot sampling. "It's very easy to use," said Dr. Bell. "Understanding why and how it works is complicated."

The forester looks through and over the prism and the image of the tree is displaced in the glass. If the displaced tree and the real tree overlap or meet, then the tree is counted. If there is a gap between the two images, it is not counted. Each tree counted represents a certain amount of square feet per acre of trees, and this is the basal area. "So instead of having to do all these individual tree measurements, we just count the trees," Bell explained.

The new "variable plot" method was as accurate as the fixed area plot method, but took between a third and half as much time. Bell introduced the idea of using this revolutionary form of sampling for

timber sales in the Oregon State Forestry Department. "We had great results," he said, "I think the State Forestry Department was the first public agency to sell timber based on variable plot sampling cruises."

With the successful results, Bell was asked to assist Lu Alexander, class of 1940, with a variable plot sampling workshop in 1957, when OSU and the Central Oregon chapter of the Society of American Foresters combined efforts to educate professional foresters on the new method. The workshop moved to OSU in 1959, when Bell became an assistant professor in the School of Forestry, and it has been offered every year since.

The curriculum of the variable plot sampling course has changed over the years with improved procedures introduced by Dr. Kim Iles. The development of computers and hand calculators has

made the data more accurate and easier to process. In the early years, the students collected the data, and the instructors processed it. Now, students can do their own data entry and practice using the software in the forestry computer lab. According to Bell, this is important because it allows students to look closely at their data and statistics.

This is exactly what the students were preparing to do after a day of peering at Mac Forest through their prisms. Like hundreds of students before them, they were beginning to understand the enormous practical value of variable plot sampling...and the reason the course has been going strong for 50 years.

Carrie Breckel is an editorial assistant with the Forestry Communications Group, College of Forestry, and is a senior at OSU. She is majoring in English, with a minor in French.

Meticulous Measurements Yield Meaningful Models

By Alison Moldenke

"My mandate when I arrived at Oregon State was to create growth-and-yield models," says **David Hann**, forest biometrician and Professor of Forest Resources. So, for some 29 years, he has. Biometricians create mathematical models to depict virtual forest stands and then test which models are best at predicting stand behavior under different conditions. One of Hann's major contributions has been developing rigorous sampling methodologies and data quality procedures that produce valid, broadly applicable models while reflecting actual operational practices.

Biometric models are built using statistics applied to data obtained from actual forest stands, and obtaining data sets adequate for the task has presented a continuing challenge. Such models require years of painstaking work to put together and validate. The model that is perhaps best known to Oregon forestland managers is ORGANON (OREgon Growth ANalysis and ProjectiON), an individual-tree growth model developed for Southwest Oregon, Northwest Oregon, and the lands of the Stand Management Cooperative in Oregon and Washington. Developing the first two versions of ORGANON required about a decade. Hann and his collaborators had to collect the data, develop the software, the database and the model, and make sure the individual equations worked well together ("not a trivial process", Hann points out). The model for Southwest Oregon is based on data Hann collected as part of the FIR (Forestry Intensive Research) and northern spotted owl habitat projects; the model for Northwest Oregon is based on data from

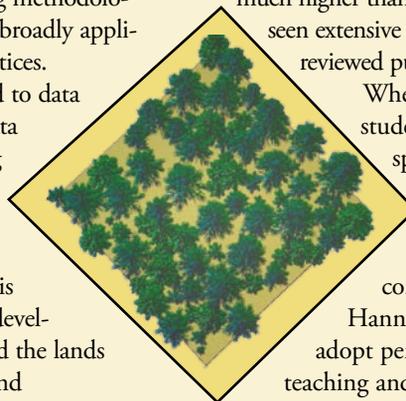
the inventory he set up for the College Forests. Hann is constantly refining the model and revising it for application to different species mixes, stand structures, and management activities, including forest health and maintaining threatened species.

"Two things distinguish ORGANON from other regional growth and yield models," Hann points out. "The quality of data is much higher than in any other model, and each variant has seen extensive and exhaustive verification through peer reviewed publication—no other model can say that!"

When Hann started out as an undergraduate student, his first decision was how much to spend for a slide rule. Over the decades, he has ridden the cusp of the computer revolution, from a small mainframe with a 32K central memory to personal computers with nearly unlimited capacity.

Hann was among the first in the College to adopt personal computers for both research and teaching and was probably one of the first in the region to use them for statistical analysis.

When Hann arrived at OSU, most forestland managers were using little books of normal yield tables. The one whole-stand model available required a mainframe computer. Now, managers use electronic growth-and-yield models that can be run on laptop computers. Much has changed, but usable, precise growth-and-yield models that cover diverse situations remain invaluable to forestland managers.



Starker Tree Planting Day 2007

Around two hundred elementary school students and their parents descended on Starker Forests land on a gorgeous day in January 2007 for the 16th annual “Starker Tree Planting Day.” Coordinating the event and joining in the fun were dozens of student volunteers from the College of Forestry (members of the OSU chapter of the Society of American Foresters), the Philomath High School Forestry Club, members of Boy Scout Troop 2, Venture Crew 122, and employees from Starker Forests.

Starker Forests hosts the local event each year, not only to educate the community about reforestation, but “to get people out in the woods in a fun way,” said College of Forestry alumnus **Dick Powell** (FM, '67), public outreach forester for Starker Forests. “It also gives the kids (and their parents) a sense of accomplishment and pride in doing something good.”

Kids began by attending a brief session of “How to Plant a Tree School,” taught by the high school and college students. Then, with shovels in hand, they headed out to plant Douglas-fir seedlings on the recently harvested site just south of Philomath, Oregon. Afterward, each tree planter received a free t-shirt and enjoyed plenty of hot dogs and hot chocolate, served up by Boy Scout Troop 2.

By the end of the day, students had planted 10 seedlings each, learned how to plant each seedling, and, most important, had a great time. “We enjoy tree planting, and would like to come back next year,” said **Michelle** (9) and **Clare** (6) **Jayawickrama**, who attended the event for the second year in a row with their father, **Keith Jayawickrama**.

Emma Nylin (8) wholeheartedly agreed. “Next year I want to come back and plant bunches of trees, more than ten!” she said. Her younger brother, **Caleb** (6), was just happy to have the opportunity to dig holes and drink hot chocolate.

Parents seemed to enjoy the event at least as much as the kids did. “It’s a really great family activity,” said **Lesley Nylin**, Emma and Caleb’s mom, who works in the Forest Engineering office. “This is our third year in a row and we’ll probably be back again next year!”

“This is a fun and healthy activity with my children,” said **Keith Jayawickrama**. “Living in an urban setting, back-to-the-earth activities (including rain, sleet, and mud) are not that common for us.” Jayawickrama, who is the director of the Northwest Tree Improvement Cooperative at the College of Forestry, added “I also appreciate a chance for my children to better understand what Dad does for a living!”

Helping families learn about forestry while spending a fun day together outdoors have been key goals of Tree Planting Day since Starker Forests initiated the event in 1992. “This is a very positive yet unobtrusive way that Starker Forests promotes forestry in Oregon,” said Jayawickrama.

For information about the 2008 Starker Tree Planting Day and other educational activities, visit <http://www.starkerforests.com/Education.htm> or contact **Dick Powell** (541-929-2477, dick@starkerforests.com) at Starker Forests. Past tree planters can check out this website to see how much the trees have grown: “What do the trees you planted look like today?” <http://www.starkerforests.com/Pictures/TreePlant1992-2006/index.htm>

Gary Blanchard (OSU '61), Emma Nylin, Judd Lehmann (OSU '07), Keith, Clare, and Michelle Jayawickrama



SUCCESSFUL COLLEGE OF FORESTRY GRADUATE STUDENTS—CONGRATULATIONS!

Pablo Crespell, PhD**Wood Science**

“Organizational Climate and Innovativeness in the Forest Products Industry”

Winifred Frick, PhD**Forest Science**

“Influences of Island Characteristics on Community Structure and Species Incidence of Desert Bats in a Near-shore Archipelago, Baja California, Mexico”

Christopher Knowles PhD**Wood Science**

“Measuring innovativeness in the North American Softwood Sawmilling Industry”

Josh Halofsky, PhD**Forest Resources**

“Evidence of a Trophic Cascade among Wolves, Elk, and Aspen in Yellowstone National Park”

Daniel Hayes, PhD**Forest Science**

“Remote Sensing for Monitoring Regional Carbon Dynamics Associated with Land Cover and Land Use Change along the Mesoamerican Biological Corridor”

Eun Ho Im, PhD**Forest Resources**

“The Economics of Carbon Sequestration in Western Oregon Forests”

Jingyi Li, PhD**Forest Science**

“Stability of Reporter Gene Expression and RNA in Transgenic Poplars over Multiple Years in the Field under Vegetative Propagation”

Todd Schroeder, PhD**Forest Science**

“Understanding Changes in Forest Cover and Carbon Storage in Early Successional Forests of the Pacific Northwest using USDA Forest Service FIA and Multi-temporal Landsat Data”

NaDene Sorensen, PhD**Forest Science**

“Regeneration and Growth of Several Canopy Tree Species in the Maya Forest of Quintana Roo, Mexico: The Role of Competition and Microhabitat Conditions”

Aaron Weiskettel, PhD**Forest Science**

“Development of a Hybrid Modeling Framework for Intensively Managed Douglas-fir Plantations in the Pacific Northwest”

David Alley, MF**Forest Engineering**

“Spatial and Temporal Runoff Response to Snowmelt, and the Influence of Geomorphology in a Headwater Catchment, Central Eastern Cascades, Washington”

Adin Berberovic, MS**Wood Science**

“Numerical Simulation of Wood Drying”

Cameron Carroll, MS**Wood Science**

“Wood Materials and Shearwalls of Older Light-frame Residential Structures”

Alison Cross, MS**Forest Science**

“Tree Species-soils Relationships in Old-growth Forests of the Oregon Coast Range”

Jochen Czabke, MS**Wood Science**

“Lean Thinking in the Secondary Wood Products Industry: Challenges and Benefits”

Amy Eckert, MS**Forest Science**

“Field Classification of White Pine Blister Rust Stem-cankers on Resistant Western White Pine in Northern Idaho and Determination of Respective Tissue Damage through Tree Ring Analysis”

Aaron Eklund, MF**Forest Engineering**

“Estimating Logging Revenue and Costs through Simulation While Implementing Various Snag Retention Strategies”

Daniel Evans, MS**Forest Engineering**

“Dissolved Nitrogen in Surface Waters and Nitrogen Mineralization in Riparian Soils within a Multi-Land Use Basin”

Robert Lance George, MS**Forest Science**

“Baseline Stream Chemistry and Soil Resources for the Hinkle Creek Research and Demonstration Area Project”

Cody Hale, MS**Forest Engineering**

“A Physical and Chemical Characterization of Stream Water Draining Three Small Oregon Coast Range Streams”

Mark Hauck, MS**Forest Science**

“Isotopic Composition of Respired CO₂ in a Small Watershed: Development and Testing of an Automated Sampling System and Analysis of First Year Data”

Kelly Hodgson, MF**Forest Science**

Project paper: “Literature Review and Problem Analysis of Knotweed Species in the Pacific Northwest”

Dana Howe, MS**Forest Science**

“Identifying Candidate Genes associated with Cold Adaptation in Douglas-fir using DNA Microarrays”

Jian Huang, MS**Wood Science**

“Development and Characterization of New Formaldehyde-free Soy Flour-based Adhesives for making Interiorly Used Plywood”

Glenn Kohler, MS**Forest Science**

“Predators associated with Hemlock Woolly Adelgid (Hemiptera: Adelgidae) Infested Western Hemlock in the Pacific Northwest”

Adam Mazurkiewicz, MS**Forest Engineering**

“Measurement and Modeling the Physical Controls of Snowmelt in the Pacific Northwest”

June Mitsuhashi-Gonzalez, MS**Wood Science**

“Limiting Copper Loss from Treated Wood in or near the Aquatic Environment”

Arijit Sinha, MS**Wood Science**

“Strain Distribution in OSB and GWB in Wood Frame Shear Walls”

Christoph Schauwecker, MS**Wood Science**

“The Phytosanitation of Solid Wood Packaging Materials using Wood Preservatives”

Nicole Younger, MS**Forest Resources**

“Can Sulfur Reverse the Effects of Swiss Needle Cast?”

Foresters go to Washington

DC internships help shape future career goals

By Thomas Thompson

The experience of an internship is something that can shape one's future and lead to bigger and better things. **Alex Johnson** and **Julia Lauch**, both graduates of the OSU College of Forestry, have each had their own unique internship experiences in the past few years. Johnson's internship took him to Washington, D.C., where he interned as a Congressional Black Caucus Foundation Fellow from August 2006 to May 2007. Lauch's internship with the National Association of State Foresters Foundation also took place in Washington D.C., where she attended and reported on congressional hearings and wrote newsletters sent to state foresters from September 6, 2005 to December 9, 2005.

When they began their internships, Johnson and Lauch each hoped to gain knowledge and experience in their respective fields of study and interest.

Through their internships, they each found what they were looking for and came away with great experiences, knowledge, new contacts, and a strong sense of where they want to go with their future careers.

Johnson, a resident of Portland, Oregon since 1990, received his Bachelor of Science degree in Natural Resources in 2004, with a specialized option called



“Cultural Dimensions in Recreation.”

According to **Clay Torset** (Head Advisor, Student Services), Johnson “intentionally combined courses that would synthesize social sciences, ethnic studies, and outdoor recreation, developing a solid context for his ambition to facilitate the involvement of communities of color in natural resource issues.”

Johnson then went on to receive his

Master of Public Policy: Applied Diversity Policy degree from OSU in 2006. During his internship, Johnson was appointed to serve in the office of Congressional Black Caucus Representative **Alcee L. Hastings** of the 23rd Congressional District of Florida, which includes much of Broward County, Fort Lauderdale, and West Palm Beach.

The Congressional Black Caucus Foundation Congressional Fellows Program provides an opportunity for individuals who have completed a graduate degree to apply their expertise to public policy development. Johnson's responsibilities during his internship included policy papers, briefs, and hosting policy issue forum on Capitol Hill. Another task Johnson was responsible for was developing legislative responses to issues that impacted his CBC representative's constituents and the rest of the nation.

Johnson's internship not only provided him with experience and knowledge, but it opened doors that have already led to new opportunities. “This experience turned out to be directly tied to my career options,” Johnson said. “I was recruited to continue working for Representative Hastings as a policy advisor, which I accepted at the beginning of May.”



Lauch, who received her B.S. degree in forest management from OSU in June 2007, grew up playing with her siblings in the forests of Eugene. She comes from a long line of loggers and her grandfather was a forester in the Northwest his entire career. Lauch began working for the Oregon Department of Forestry the summer she graduated from high school and has been working there ever since. The positions she has held include Incident Commander Type 4, Task Force Leader, Strike Team Leader, Engine Boss, Crew Boss, Dozer Boss, Fire Investigator Type 3, and Fire Warden Class A. At the College of Forestry, Lauch has been active in student clubs and served as a university ambassador for a year. She also has proven to be a leader in the classroom, both academically and in organizing student projects according to Professor **Bruce Shindler** (Forest Resources).

During Lauch's internship in Washington, DC, she was able to meet about half of the State Foresters in the U.S., an experience she particularly valued. "They are all wonderful individuals, an incredible group of caring people," Lauch said.

Through her internship, Lauch learned a great deal from many people about the workings of forest policy on the national level, and about the National Association of State Foresters organization. During her internship, Lauch also assisted in writing and editing the testimony that State Foresters gave in congressional hearings. This allowed her to

experience the political process directly. Lauch plans to keep her interest in forest policy and law as she weighs her future career options after her recent graduation from OSU.

In order to excel at their internships, both Lauch and Johnson drew from the experience and knowledge they acquired while attending OSU. "At OSU I learned how to quickly determine what resources to prioritize and how to optimize the information that was available," Johnson said. On the value of the internship itself, he replied, "I feel that I have benefited tremendously from the experience."

Lauch was equally positive about her internship experience. "I will always carry with me the things I learned and the connections I made during my internship," she said.

"Our forestry undergrads all have a work experience requirement, but Julia and Alex have really taken their experience to another level" said Shindler. "An internship in Washington, DC is a wonderful opportunity to be part of the policy process and makes these individuals much more savvy about how and why decisions are made in their chosen field of natural resources."

Thomas Thompson graduated from OSU in spring 2007 with a Bachelor of Arts degree in English. He is interesting in writing as a career and is currently seeking additional writing opportunities. Photos (left): Julia Lach (r) at Capitol Building; (top) Alex Johnson; (right) Julia Lach with George Mason.



2007 PHI KAPPA PHI INITIATES

Eight students from the College of Forestry were among the new members initiated into the Oregon State University chapter of Phi Kappa Phi, the nation's oldest and largest all-discipline honor society. The Greek letters represent the motto, "Philosophia Krateito Photon," translated as "Let the love of learning rule humanity." The society's mission is "to recognize and promote academic excellence in all fields of higher education and to engage the community of scholars in service to others."

The College of Forestry proudly congratulates the following new members:

Juniors

- **Joy Christine Morton**, Natural Resources

Graduate Students

- **Holly Rene Barnard**, Forest Engineering/Forest Science
- **Daniel Christian Donato**, Forest Science
- **Erin C Kelly**, Forest Resources
- **Kelly Maren Kibler**, Forest Engineering
- **Claire Louise Phillips**, Forest Science
- **Robert Andrew Slesak**, Forest Engineering
- **Melanie Anne Stidham**, Forest Resources"

Forestry Students Honored by OSU

Several College of Forestry students received awards from Oregon State University at the 2007 annual Student Recognition and Awards Banquet.

First-year student **Rachel Heath** (RRM) and graduating senior **Abe Wheeler** (FM) received the Drucilla Shepard Smith award, which recognizes students who have maintained a perfect 4.0 GPA.

Graduating senior **Bill Richardson** (NR) received the Clara H. Waldo and E. A. Cummings Outstanding Student Award. Dr. Clara Waldo was a pioneer for women in education in the early 1900s. She established the Waldo Prize for women, which was merged with the E. A. Cummings Award to recognize outstanding undergraduates of both genders.

The Waldo Cummings Awards is Oregon State University's highest award for undergraduate students. It honors the top 12 graduating seniors at OSU, chosen on the basis of academic excellence and contributions to campus and community during their college careers. Recipients are selected after an intensive interview by a faculty/student committee.

The College of Forestry very proudly congratulates these outstanding students!

College Awards, Fellowships, and Scholarships

Each year at the Fernhopper Banquet, the College of Forestry gives four special awards to outstanding students who have made significant contributions and/or excelled academically.

The Pack Essay Award was established several decades ago by Charles Lathrop Pack to encourage sound communication skills for forestry and natural resource professionals. Pack Essays are restricted to natural resources and forest products-related topics submitted by undergraduate students enrolled in the College of Forestry. Essays are judged by a panel made up of professional faculty, and rankings are based on creativity, ability to conceptualize ideas, originality in the analysis of resource problems, enjoyable writing that brings issues to life, and excellent grammar and writing style. Our thanks to **John Nairn**, Wood Science and Engineering; **Barbara Bond**, Forest Science; **Jeff McDonnell**, Forest Engineering; and **Mark Harmon**, Forest Science, who made up our panel of judges for this year's Pack Essay Award. The Pack Essay Award winner receives \$300 and a College of Forestry pen. This year's Pack Essay Award went to senior **Anica Mercado** (NR) for her work entitled "The Other Fire of 1871" about the Peshtigo Fire. Congratulations to Anica on her excellence in writing!



Anica Mercado

The Kelly Axe Award, presented by the students of the Forestry Club, is awarded to the graduating senior who helps or cooperates most behind the scenes with teachers, in club projects, and with fellow students. This award is unique in that the recipient is one who generally receives little recognition for all his or her efforts. This year, the Kelly Axe Award went to **Chaylon Shuffield** (FM), member of the Forestry Club, Xi Sigma Pi, Society of American Foresters, and just completed his year of service to the College as an Ambassador for Agriculture, Forestry and Natural Resources. Congratulations, Chaylon, and thank you for so many positive contributions to our forestry community!



Chaylon Shuffield

Each year, the college recognizes a senior who has demonstrated outstanding service to the College or University, with the Harold Bowerman Leadership Award, named for Hal Bowerman, class of '31. The student selected best exemplifies the "Fernhopper Spirit" through demonstrated leadership, outstanding contributions, and enthusiastic participation in student club activities and College programs. Nominations are solicited from faculty, staff, and students, and the selection of the award is made by the College's Curriculum and Advising Committee. The award winner receives a plaque and \$500. This year, the College is proud to honor **Judd Lehman** (FM) with the 2007 Harold Bowerman Leadership Award.



Judd Lehman

The Paul and Neva Dunn Outstanding Senior Award is based on high scholastic achievement combined with potential for professional



Will Hoskins, Bill Richardson (not pictured, Abe Wheeler)

ability. Departments are invited each spring to nominate their top graduating seniors. Screening is based on GPA, how the student challenged him- or herself academically, departmental endorsement, the student's resume, and letters of recommendation. The recipient receives a \$500 award and a plaque. The Curriculum and Advising Committee faced a particularly challenging task—to pick the outstanding graduating senior from a pool of extraordinarily fine candidates. Unable to choose just one, the committee instead named three students to receive this prestigious award: **Will Hoskins** (FE), **Bill Richardson** (NR), and **Abe Wheeler** (FM). Congratulations to all three of our 2007 Paul and Neva Dunn Outstanding Senior Award recipients!

FELLOWSHIPS AND SCHOLARSHIPS

The College of Forestry is honored and privileged to award graduate fellowships and undergraduate scholarships to deserving new and returning students each year. These awards are only possible, however, through the generous contributions and continued support from our scholarship and fellowship donors.

College of Forestry Fellowships honor our top incoming and returning graduate students, nominated by their departments. Thirty-four students, at both the doctoral and master's level, were selected to receive fourteen college fellowships totaling over \$100,000 for the 2007-2008 academic year. Fellowships ranged in value from \$500 to \$6,000 dollars, with some students receiving multiple awards.

For the 2007-2008 academic year, 121 undergraduate students were selected to receive a total of 74 scholarships totaling over \$400,000. The scholarships ranged in value from \$500 to \$6,500, with some students receiving more than one award. Of the 121 students who are receiving undergraduate scholarship awards, 22 will be joining us for the first time in the fall.

Congratulations to all our award winners and scholarship and fellowship recipients.

COMMENCEMENT 2007

Students, faculty, staff, family, and friends gathered in the Peavy Hall Courtyard June 17 to celebrate the 2007 Oregon State University Commencement with the annual College of Forestry Brunch.

The College had much to celebrate this year, with 45 advanced degrees and 114 undergraduate degrees awarded. The graduate degrees included 15 Doctor of Philosophy, and 30 Master of Science. One hundred and fourteen undergraduate students received Bachelor of Science degrees.

By major, the Bachelor of Science degrees were awarded as follows: Wood Science and Technology, 8; Forest Engineering and Forest Engineering/Civil Engineering, 16; Forest Management, 24; Forest Recreation Resources and Recreation Resource Management, 17; Natural Resources, 43; and Outdoor Recreation Leadership and Tourism, 6.

This year, the College is very proud to acknowledge the achievements of 22 students who graduated with academic distinction. Graduating summa cum laude were **Dawn Marie Gaid** (NR), **Sharon Rose Gray** (NR), **William Philip Dawson Hoskins** (FE), **Jenna Lee Lindbo** (ORLT), **Chanda Gayle Monk** (NR), **Sarah Lokelani Queen** (RRM), **William K Richardson** (NR), and **Abraham Augustus Wheeler** (FM).

Magna cum laude graduates included **Jesse Park Carmine** (NR), **Kari Anne Cook** (NR), **Bodie Thomas Dowding** (WST), **Emily Joy Gregory** (FM), and **Thomas Parker Segal** (NR).

Graduating cum laude were **James Manford Bylund** (NR), **Stephanie Leah Green** (NR), **Stacie Lynn Johnson** (ORLT), **Stefanie Nicole Larew** (FM), **Melissa Ann Shelley** (NR), **Lauren Rose Sternfeld** (ORLT), **Kayla Rae Traver** (NR), and **Matthew Lee Wells** (FM).

Congratulations to all our College of Forestry graduates! We wish you the very best as you go forward in your lives and with your careers.



Debbie Bird McCubbin, Head Advisor, Student Services, retired in March after seven years with the College of Forestry. **Clay Torset**, who has been with the College since January 2001, is the new Head Advisor for the College of Forestry. Best wishes to Debbie on her retirement and congratulations to Clay on his new appointment.

Three Generations of Newtons

A forestry family spans fifty years at OSU

by Bryan Bernart



All three generations: Mike (driver), Joe (left), Dan (right).

Besides their family ties, **Mike Newton**, his son **Dan**, and his son **Joe** share a common bond: All three studied forestry at OSU. Mike Newton, Professor Emeritus (Forest Science), entered the College of Forestry in 1957, obtaining his bachelor's degree in forest management in 1959, followed by his MS in 1959 and PhD in 1964.

Twenty years later, Dan Newton also came to the College of Forestry, graduating with a degree in Forest Management in December 1978. After college, Dan entered the timber industry, where he worked for Lone Rock Timber until January, 1998 (as Chief Forester for the last several years). For the last 9½ years, Dan has been at Roseburg Forest Products, as the Manager of their Oregon timberlands (approx 450,000 acres). He retired this June to pursue forestry consulting and work on the family tree farm. Joe, Dan's son, graduated with a degree in forest management in December, 2006, and plans to continue in forestry after pursuing his football career in the NFL.

CHOOSING FORESTRY

How did the Newtons get started in forestry? As Mike recalls, his passion for being outdoors came from growing up near forests in Vermont. "My father ran a boys' prep school there that taught hands as well as heads," he says. "Forests and their uses were major subjects nested within a classic education, so as a kid, the woods were my life."

With his father a professor in the College of Forestry at OSU, Dan was never far from the subject, having had his initiation with forest work at age 7. He spent a lot of time in the woods with his dad, rehabilitating a brushfield the family had purchased near Eddyville, as well as raising Christmas trees. "For me, it all started with the work my dad and I did, learning together how to unlock the potential of the highly productive, Coast Range lands," Dan says. "We learned by getting dirty, having some successes, and by making some mistakes together. We learned what works and what does not work."

The Newtons' brushfield rehabilitation

project ended up being pioneering work in forestry at the time. As a result, "I caught the excitement," Dan says. "The joy of tree growing was well developed before I started forestry at OSU and has only gotten stronger with time. By the way, some of the trees I planted for my dad are more than 110' tall now. How cool is that?"

For Joe, with both his father and grandfather already in forestry, it might have seemed natural to think about exploring other options and possibly choosing a different path. But as it turns out, the cone doesn't fall far from the tree. "I have always enjoyed spending time outdoors and in the forest," Joe says. "In my freshman year of college, I finally realized that's what I wanted to study."

STUDYING FORESTRY AT OSU

Mike, Dan, and Joe all agree that there have been changes in the study of forestry at OSU over the past 50 years. "The College of Forestry is much more based in technology today than it has been in the past," Joe observes. "The core curriculum has changed slightly with less emphasis on the sciences—and computers have made it a lot easier for my generation to study forestry."

The scientific base for studies has been de-emphasized, Mike agrees, adding, "The undergrad curricula are less rigorous today than they used to be: 208 credits were required when I was taking my courses, now, 180 are enough to obtain a degree in Forest Management."

However, forestry students of today also face extra challenges that are perhaps more complex than in earlier times, he notes. "Graduates today need to understand elements of wildlife and watershed management (basic ecology of managed forests), forces involved in equipment operations (physics, math), maintenance of multiple resources (soils, geology and their interaction with biology), and, finally, political winds and what drives them."

Mike also observes that the education



(Left to right) Jessie (Joe's sister) with mom, Kathy, Joe, and Dan Newton.

he and Dan received was focused almost entirely on forest management toward landowners' objectives, while Joe learned about social values in addition to how to harvest timber.

"It seems the curriculum has moved somewhat away from production (plantation) forestry," Dan adds, "but I can see that Joe picked up some things that are better now than when I went to school."

Dan also observes that it may be a growing challenge for OSU and other forestry schools to maintain a strong commitment to plantation forestry in the future, but he feels it is of critical importance. "We compete in a global economy and we need to find better ways to grow and promote this amazing, renewable resource—efficiently," he says. "OSU is doing a lot to understand how the ecosystem works, so we can effectively protect it and produce more renewable product."

OUTSIDE THE CLASSROOM

All three Newtons had to work hard and stay focused to get through school, but the challenges outside the classroom differed for each. "I was also married and had a couple of kids by the time I got here, so there were not many idle hours," Mike says. But although he worked through college, many of his jobs were also learning opportunities in forestry. "I learned to run lines, cruise, read forest landscapes and forest histories when working for the Starkers."

Joe, a member of the Sun Bowl-winning Beaver football team, had to balance his commitment and responsibilities to the sport against the challenges of his demanding forestry major. Playing football at the NCAA Division 1 level means 3 hours in



Mike and Jane Newton

practice per day for 6 months of the year, as well as the time spent in travel to games. "Balancing forestry and football was difficult to do—both are very time-consuming activities, almost full time jobs in themselves," Joe says. "In forestry you have lengthy field labs on top of classes and making that work with football was a real challenge. Without the help of the great College of Forestry staff, I never could have done it." Still, he says, "I couldn't be happier with my decision to study forestry despite the hard work it required."

Each of the Newtons has a few favorite memories about attending school here. For Mike, it was many different things, including, timber cruising in the mensuration lab, tug-of-war with the football team (he notes that "the forestry side always won back then"), and competing in the Albany Timber Carnival.

Dan's favorite memories include the friendships and conversations with roommates and fellow forestry students. "Some of the forestry term projects were pretty challenging and it was fun getting to know my classmates as we worked together," he says. "It was a great experience and I feel like OSU did a good job of preparing me for a career that has been really good to me and my family."

Joe remembers enjoying the field labs in McDonald Forest more than anything else. "I also really enjoyed getting to know my classmates better working late in the computer lab," he says.

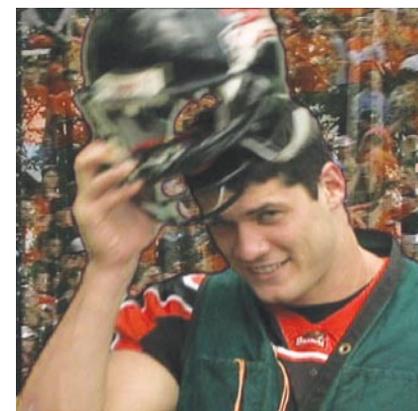
REFLECTIONS AND FUTURE PLANS

Each of the Newtons has taken something with them from their experiences in the

College of Forestry. "Having been here for 50 years, I have had a superb opportunity to observe the many ways one must weave time and timing into a view of forest behavior," says Mike. "In our field, time is a tremendous integrator of what forest ecosystems do. As a student, one often stays with the books to the extent that one doesn't get to see expressions of time in the raw. But looking at field studies over long periods provides credibility as well as logic that are denied the student or young professor."

Dan points out the incredible improvement in the forestry knowledge base over the past 30 years, much of which has come from cooperative research efforts. "It is essential to keep academia, students, and field foresters working together to solve challenges and improve productivity," Dan says. "OSU can provide knowledge and scientific rigor, while the landowners provide the land, as well as the ability to proactively manage according to the needs of the research. Learning goes both ways and we all get a little better at what we do."

Joe represents the future of forestry, which, for him, has been shaped by the two generations of Newtons before him. "My grandfather is a professor and my dad works for the industry, and each of them has a different viewpoint on forestry," Joe explains. "I think that gives me a unique perspective on the field as a whole." He looks forward to entering the field some day. "The more I learn about forestry the stronger my passion for it grows," says Joe. "It is great to be able to follow in the footsteps of my dad and grandfather."



Joe Newton appears in a College of Forestry Centennial video aired during a home football game in Fall of 2006.

75th Fernhopper Celebration

The 2007 Fernhopper Celebration on May 12 marked the 75th anniversary of the annual College of Forestry event, as well as the closing of the College of Forestry's year-long Centennial Celebration.

Festivities began at Richardson Hall, with breakfast and a welcoming speech from Dean **Hal Salwasser**. Fernhoppers and their families shared treats, chatted with friends, and walked the brand-new brick path in the Hatfield Courtyard, stopping to find their names and read the pavers.

Soon, it was time to board buses for a rolling tour of Mac Forest, emceed by **Dave Lysne** and **Chris Jackson**. A highlight of the tour was a stop for the presentation of a brand-new Link-Belt log loader, donated to the Student Logging Training Program for a year by Triad Machinery of Portland (see p. 34), followed by an informative demonstration of the Koller yarding system by the members of the student crew.

At the cabin, everyone enjoyed lunch and special entertainment coordinated by **Ed Jensen**, Associate Dean for Student Affairs. Jensen read from memoirs of past forestry students, then **Judd Lehman**, **Julia Lauch**, **Ted Kowash**, and **Chaylon Shuffield** shared their personal perspectives as students today. After lunch, **Megan Beyer** and fellow members of the Logging Sports Team demonstrated their woods skills.

That evening, Fernhoppers gathered at the OSU Alumni Center for the traditional banquet. It was a particularly memorable event this year, with special emphasis given to the history of the College. In accordance with this year's Fernhopper theme, Reflections and Recollections, **Sandie Arbogast**, **Caryn Davis**, and **Susan McEvoy** of the Forestry Communications Group (FCG) created an illustrated timeline of the College's history, which was displayed in print form during the banquet. An interactive version of the timeline will be available on the College website by fall 2007, courtesy of FCG web coordinator **Chris Smith**.

During the banquet, **Jeff Hino**, **David Zahler**, and **Steve Cox** of the Forestry Media Center gave a special screening of the DVD, "Sharing our Stories," which they produced in honor of the Centennial year. The crowd-pleasing film featured reflections from alumni on their years as students and their lives as foresters. The memorable evening finished up with a performance by the OSU Meister Singers, who once again sang the perennial favorites, "The Frozen Logger" and "Alouette," before closing with "Alma Mater."

Special recognition goes to new employee **Kira Hughes** (Student Services) for superb coordination of the entire 2007 Fernhopper Celebration. Thanks to all members of the 2007 Fernhopper Committee, including Sandie Arbogast, **George Brown**, Caryn Davis, **Nathalie Gitt**, Jeff Hino, Kira Hughes, **Lesley Nylin**, David Zahler, and Ed Jensen (Chr).





The Aufderheide Award for Excellence in Teaching went to **John Bailey** (Associate Professor, Forest Resources) and the Julie Kliever Outstanding Mentor Award went to **Clay Torset** (Head Advisor, Student Services).



2007 OUTSTANDING ALUMNI AWARD RECIPIENTS

Leaders in government, scientific research, conservation, and industry were honored at the College of Forestry's annual "Fernhopper" awards ceremony on May 12. Seven distinguished alumni received the Outstanding Alumnus Award, which acknowledges College of Forestry graduates from across the natural resources spectrum who have made outstanding contributions to the profession and/or programs of the College:

Left to right: John Bell, Randy Clark, George Ice, Norman E. Johnson, and Abigail Kimball. (Not pictured Barry Goodell and David Neale).



John Bell ('49), OSU faculty member for 26 years and a leading forest biometrician, has delivered an annual short course on variable probability sampling for 50 years running and is author of the book, *Log Scaling and Timber Cruising*, a staple of the forestry profession for decades.

Randy Clark (MS, '86) has been instrumental in developing and directing R&D capabilities for JELD-WEN over the past decade, helping position the company as a leader in the door and window marketplace, with over 20,000 employees world wide and with interest throughout North America, Europe, South-east Asia, Australia, and Chile.

Barry Goodell (MS '80, PhD '84), professor and program leader in the Wood Science and Technology Program at the University of Maine, is a founding member of the Maine Advanced Engineered Wood Composites Center, a world class, ISO-accredited research facility.

George Ice (PhD '78) is a scientist with the National Council for Air and Stream Improvement (NCASI) and a strong advocate for science-based regulation of forest practices that may affect water quality and aquatic habitat.

Norman E. Johnson ('55, MF '56) is a forest entomologist who worked up through the

ranks of Weyerhaeuser Company, culminating in service as a Senior Vice President in the 1990s.

Abigail "Gail" Kimbell (MF '82) is the 16th Chief of the U.S. Forest Service and the first woman to lead the organization; she is responsible for overseeing 155 national forests, 30,000 employees, and a budget of nearly \$5 billion.

David Neale (PhD '84), a long-time researcher with the USFS Pacific Southwest Research Station and now professor at UC Davis, is among the top and most widely respected molecular forest geneticists in the world.

2007 OUTSTANDING HONORARY FERNHOPPER AWARD RECIPIENTS

Two individuals who have made a significant contribution to forestry and natural resources in Oregon or the college, but who are not alumni were recognized as "Honorary Fernhoppers": **Matt Hill**, Legislative Assistant to Senator Gordon Smith and **Alan Preston**, Vice President of Research for Viance, a joint venture between Rhom and Haas and Chemical Specialties, Inc (CSI).

Hill has applied his expertise with the federal legislative process to help maintain special grant funding for the Center for

Wood Utilization research and has helped secure initial federal support for the Watersheds Research Cooperative, two initiatives that help the college achieve its land grant mission for the benefit of Oregonians.

Preston spear-headed a EPRI project to develop new wood preservatives, laying the groundwork for a world-wide shift away from chromium and arsenic based wood preservatives and toward more environmentally friendly products.

Golden Jubilee 2007



Dale Frost with Hal Salwasser

Dale Frost (Forest Engineering, '52) chats with Dean **Hal Salwasser** at the welcome reception for the 2007 Golden Jubilee Weekend in June. The OSU Alumni Association hosts the annual event as a reunion for classes celebrating a 50-year anniversary or above, in 5-year increments. This year, College of Forestry faculty and Student Ambassadors for Agriculture, Forestry, and Natural Resources and Natural Resources welcomed returning alums from the classes of 1952 and 1957.

CLASS NOTES

Hermann (Herm) C. Sommer, 1949, Forest Management

Marylou and I are still living in Lakewood, WA, on Chambers Creek. All three children and our four grandchildren reside in the Puget Sound area, which makes it very convenient and pleasant. We just completed a Lindal home on the beach at Grapeview, WA, where we will spend part of our time. The family can enjoy it on the weekends, vacations, etc.

Having owned the property for 26 years, I cleared brush and planted lots of trees, perhaps 20 species. It's an arboretum. A few redwoods are saw log size.

Pat Grediagin, 1977, Resource Recreation Management

After a career with the National Park Service, I will retire summer of 2007. I presently serve as Chief Ranger, Redwood National Park, and intend to retire to Bend.

And the Golden Smokey Bear goes to . . .

. . . COLLEGE OF FORESTRY ALUM RICK GIBSON!



Rick Gibson with his Golden Smokey

Richard Gibson, who earned his B.S. in Forest management from OSU in 1975, was honored with the Golden Smokey Bear Award in 2006 for his leadership in wildland fire prevention and

education at the national, as well as state and local levels.

The Golden Smokey Bear Award is the highest national honor bestowed on wild-fire prevention professionals and is given by the USDA Forest Service, National Association of State Foresters and The Advertising Council. Gibson, fire policy and prevention manager with the Oregon Department of Forestry since 1992, is the first ODF employee to receive this national award.

The award was given in recognition of Gibson's extensive work through the National Wildfire Coordinating Group's Wildland Fire Education Working Team. He has represented the western states on the working team for the past 14 years. The team helps to promote and improve wildfire prevention communications and education for the public, as well as members of the fire service.

Gibson began his forestry career as a seasonal firefighter with the Eastern Lane Forest Protective Association. As fire policy and prevention manager at ODF, he oversees a wide-ranging program that seeks to minimize the number of wildfires caused by recreationists, rural homeowners, and forest operators. When the Oregon Forestland-Urban Interface Fire Protection Act became law in 1997, he was tasked with implementing it state-wide. The act enlists the aid of property owners to make their individual urban and suburban properties less vulnerable to wildfire so that collectively they form zones that are more fire resistant. Gibson has also worked with rangeland owners in eastern Oregon to help them form rangeland fire protection associations that maintain their own firefighting resources.

Congratulations, Rick, on this prestigious national award!

Centennial Celebration for Forestry Alum Gail Baker



Forestry alumnus **Gail Baker** (1933) celebrated his 100th birthday on January 3, 2007, with a party at the Beaverton Elks Club. On hand for the celebration were **Wendall Jones** (FM, 1954), who organized the event, **John Poppino** (FM, 1958), **Jack Smith** (1939), Regional Forester **Linda Goodman**, and College of Forestry Dean **Hal Salwasser**, along with many friends and family members.

Baker was born and grew up in the small gold mining town of Callahan, California, where he spent much of his free time hunting and fishing. Encouraged by family and friends, he attended Oregon Agricultural College and majored in Forestry, graduating in 1933. He married **Adeline Goekler** soon after graduation and the couple moved to Mount Shasta City, California, where Gail worked for the Forest Service and Adeline taught school.

During his career with the Forest Service, the couple moved 18 times. Highlights included time spent leasing and managing land in Texas for the production of Guayule, an alternative to rubber, which was scarce during the war, and a six-month stint in Chile instructing the national police force in the techniques of fighting forest fires. They spent thirteen years in Bend with their 3 children, **Beverly, Jim, and John**, before Gail was transferred to the Regional Office in 1956.

After retirement, the Bakers spent much of their time in their garden, visiting friends and relatives, traveling throughout the western U.S., Hawaii, and Europe, and attending OSU football and basketball games. Adeline died on June 2, 2002, at the age of 94. Gail still lives in the house that he and Adeline bought in 1956. He shares his house with his daughter Beverly and remains active, attending all 30 Year Club lunches and events, attending church as often as he can, and swimming, usually twice a week.



Gail Baker in 1933 (top) and at his centennial celebration in 2007.

Gift of New Machine Links Students with Future Careers

Triad Machinery donates new Link-Belt log loader to Logging Training program



Representatives from Triad machinery and Link-Belt with members of the Student Logging Training Program, May 12, 2007.

The OSU College of Forestry received a very large gift in time for the 2007 Fernhopper Day celebrations on Saturday, May 12—a brand-new Link-Belt log loader from Triad Machinery.

Triad Machinery, based in Portland, Oregon, along with Link-Belt Forestry Equipment have provided the loader to the student logging crew to use for the upcoming year. The new machine replaces an aging skidder that was being used to move logs around at the logging site, said **Jeff Wimer**, instructor and manager of the Student Logging Training Program. “The old skidder was on its last legs and was in need of some major repairs. This machine will allow us to load our own logs, which will reduce our transportation costs, and allow us to explore other opportunities to market our logs.”

Neil Kissler, a junior in Forest Operations Management who has participated in the Student Logging Training Program since January of 2005, was “nothing short of thrilled” to hear the news. “I kept thinking about what a great opportunity it will be to operate a machine that is the backbone to any forest harvesting operation,” he said. “I am very happy that our program was so fortunate to receive such a wonderful piece of equipment from Triad Machinery.”

The students wasted no time getting familiar with the machine during Fernhopper activities at McDonald Forest, even though it would still be a few weeks before they would be allowed to operate it. “The students first had to receive additional safety training

regarding working in and around the machine,” said Wimer, adding, “This gift will allow me to spend more time concentrating on education of our students and less time worrying about whether the old skidder will run another day.”

Education has always been the primary goal of the Student Logging team, although the team also is involved in some research and outreach efforts for the College. Students selected to participate in the Student Logging Training Program are usually Forest Engineering or Forest Management majors. They receive classroom instruction, as well as hands-on training on the equipment under the supervision of experienced foresters. “The student logging program sets our forestry education apart by connecting the theory to practical applications,” said **Loren Kellogg**, Lematta Professor of Forest Engineering at the College of Forestry.

“I think having this log loader is going to cement our program,” Kissler said. “Students who come through the program now and into the future are going to possess the efficient and safe operating techniques that are essential in order for a harvesting operation to be successful.” The benefits should extend beyond forestry, he added. “The knowledge gained from operating such a complex and powerful machine will serve to benefit not just the forest products industry, but any industry a student may choose to enter after graduation.”

Through participation in the program, the student members not only obtain knowledge and experience for themselves, they

also disseminate it to others. The students regularly assist in two forestry classes that cover harvesting practices and are available for demonstrations, tours, and other events. The student logging program also provides research support as needed, for example, in helping to field test new techniques or equipment such as synthetic rope, developed by College researchers.

The Student Logging Training Program “has been a core element of the Forest Engineering educational program for more than 20 years and is integral in helping graduates become work ready,” said **Steve Tesch**, Department Head in Forest Engineering. “Sponsors like Triad help ensure that students have state-of-the art and safe technology to use in connecting the classroom to the field.”

Representatives from Triad Machinery, including company president **Kristine Gittins**, **Glen Harper**, and **Curt McClure**, along with **Jack Frost** from Link-Belt, Dean **Hal Salwasser**, forestry faculty, students, parents, and alumni were on hand on Fernhopper Day to help celebrate the launch of the new machine and the process that made the gift possible.

Gittins explained that the effort began as part of the organization’s annual goals, which included finding more innovative ways to give back to the community. “We went looking for an opportunity to do that,” she said. “When Jeff Wimer made the request, it was right in line with what we were trying to do.”

At first, the intention was to lend the College a used machine. But, as the Triad management group began to work on the project, the creative energy started to flow. Before long, the group had set their sights a bit higher—they would work to find the College a new machine.

“The creativity was in engaging the manufacturer to work with us to provide a better machine for the school,” said Gittins. “We couldn’t be happier with the end result. Sixty-five to seventy percent of what we do is timber related, so this is a magnificent way to give back to the people who help us every day.”

The students, who were expecting a “well-used machine,” were astonished to hear the news. “I had no idea that they had gone to such lengths to get us a brand new Link-Belt 210LX—and they even went the extra mile to paint our school logo and ‘Student Logging Training Program’ on the machine,” Kissler said. “When representatives from Triad Machinery and Link-Belt came out on Fernhopper Day to present the machine to the program, there was a great feeling of gratitude towards them for everything they had done for us.”



From top: incoming freshman Kelly Fitzpatrick (WST) and parents Phyllis and Jim Fitzpatrick talk with Kristine Gittins (r), President, Triad Machinery; student checks out the new Link-Belt log loader; Jeff Wimer (r) speaks as Dean Hal Salwasser and student crew look on.

Charles Robert Ross

Charles Robert Ross, retired Forestry Extension agent died March 5, 2007, at age 97. Ross came to OSC in 1946 after working for both the U.S. Forest Service and private industry. He was well known in the profession and among the general public as author of *Trees to Know* in Oregon.

Charles and his wife, Elsie, were also well known in the Corvallis-Philomath area as founding members of the Greenbelt Land Trust. As he once stated, "It's either a greenbelt, or we will be snared in the web of American urban sameness."

Their donations over the years helped purchase greenbelt spaces in the area, as well as Chip Ross Park, which was named after their son who died at the age of 16, and Fitton Green Natural Area, which bears Elsie's maiden name.

Charles and Elsie would have celebrated their 70th wedding anniversary this summer. He is also survived by two daughters and two grandchildren. Long-time friend, Matthew Amano recently finished a biography of Ross, *Charles Robert Ross: A Remarkable Citizen*. It is being published by Franklin Press in Philomath and should be in print in summer 2007. In addition to Ross' civic involvement, Amano remembers his friend's sense of humor. "He always had a big supply of jokes. He always made us laugh," Amano said.

Scott Alan Jackson

Scott, Stephanie, and Lindsey Jackson were remembered at a service on Sunday, February 11, 2007, following the January 1 plane crash that took their lives earlier this year.

Scott Jackson, a College of Forestry alumnus (FE, 1976) who was living in Indonesia, was an adventurous man. According to Rev. Jane Meyers of the Unity Community of Central Oregon, who led the service, his life, "Revolved around the land and sea. His work as a wood products executive "was always a passion for him," she commented. "It led him to outback Alaska, Indonesia and South America." Friends described Scott as a "frontiersman" who frequently moved in search of adventure.

"It takes a lot of courage for someone to get through their life and the challenges we all face. It's a really special kind of courage Scott demonstrated in his life," said Felice Jackson DuBois, the mother of Stephanie and Lindsey. "I believe he will always be one of the most courageous people I have ever known."

His daughters, Stephanie and Lindsey, both attended the University of Oregon, and were described as vivacious women who loved life. Said Dubois, "They lived every minute as fully as any person I have ever met in this world and had more experiences and gripped life as many of us would like to do."

John Elmer O'Leary

March 15, 1920 - October 12, 2006

John Elmer O'Leary passed away peacefully on Thursday, October 12, 2006. Born in Sacramento, California, on March 15, 1920, he graduated from Sacramento Junior College in 1939. He received his Bachelor of Science degree in forestry from the University of Michigan in 1942 before entering the Navy, where he served during WWII.

After the war, John came to OSC where he completed his Master's degree in Forest Engineering in 1947, while minoring in Forest Products. While completing his studies, he married Margo, whom he met while playing tennis. They celebrated their 60th wedding anniversary together last fall.

John began working and teaching at OSC/OSU in 1949, and went on to become one of the leaders in his field over the next 40 years. His studies in logging operations led him to travel all over the world, visiting the Rocky Mountains, Europe, and the Philippines. His many accomplishments include founding the Skyline Symposium in 1969, an event held for the purpose of bringing together researchers and practitioners of unique timber harvesting systems.

In 2004, he was awarded the Lifetime Achievement Award from the Council on Forest Engineering, which honored him for his years of service to the field in both his studies and in teaching Forest Engineering students. John loved life in the Pacific Northwest and is remembered as a kind and gentle man. He will be missed for his sense of humor and passion for life.

David William Blasen

January 26, 1920 - February 7, 2007

David William Blasen passed away on February 7, 2007 at the age of 87. Dave attended school in Portland, Oregon, and graduated from Franklin High School in 1938. Upon entering then Oregon State College in 1939, he discovered an interest in forestry, specifically in the field of wood products.

After attending Officers Candidate School, Dave married Dorothy Forman on October 12, 1943, and then shipped off to Europe to serve in Central Europe and the Rheinland until the end of WWII. During his time overseas, he received a Bronze Star for meritorious service, and returned home in 1946.

While pursuing a military career as a member of the U.S. Army Reserves, Dave also started lumber brokerage in downtown Portland in 1953 with a former OSC classmate. Though he retired from the military as a lieutenant colonel in 1965, Dave continued to work at his own business, eventually expanding the company, Blasen & Granat, to include a milling operation. The company, now known as Blasen and Blasen, continues to thrive today.

Even after retiring at the age of 74, Dave continued to serve in many organizations, including the American Red Cross, Boy Scouts of America, Portland Wholesaler's Association, and The Fraternal Order of Hoo Hoo. He will be remembered for being good natured and generous, as well as a strong leader. He is survived by his wife, Dorothy, and their four children and five grandchildren

Robert H. "Bob" Mealey

Aug. 13, 1912 - April 5, 2007

Robert H. "Bob" Mealey passed away on April 5, 2007, at the age of 94. He was born on August 13, 1912, and grew up in Sweet Home, graduating from Sweet Home High School in 1932. Though he originally pursued a career in law, he eventually went on to study forestry at OSC in 1936. He married Anna McLaughlin that same year.

His career in forestry, which spanned nearly 50 years, included work with the Forest Service, running his own logging and milling company, and establishing the Linn County Small Woodlands Association.

Upon retiring from the Forest Service in 1973, Bob began work to turn his 580-acre property near Sweet Home, the Mountain View Tree Farm, into an example of excellent stewardship of forest land. Due to his efforts here and in other ventures, he was named the Oregon and Western United States Regional Outstanding Tree Farmer in 1989. In the 1980s and '90s, Bob also worked to restore the Willamette Valley native species of ponderosa pine to local areas, distributing more than 300,000 pine seedlings from his garage in Albany to those who wanted them.

In 2005, Bob completed a major gift to the OSU College of Forestry in order to set up the Robert and Anna K. Mealey Program in Forestry Ecosystem Health, which serves to maintain healthy forest practices through teaching, research, and public outreach.

In his spare time, he wrote poetry and told stories about his forestry adventures. Bob was preceded in death by his wife Anna in 1982 and by his daughter Connie in 2002. He is survived by his sister Rachel Vogel, 3 children, 12 grandchildren, and 19 great-grandchildren.

Alfeo Egidio Minato

August 14, 1925 - November 9, 2006

Alfeo Egidio Minato passed away November 9, 2006, at the age of 81. He was born in Asolo, Veneto, Italy, and immigrated to Chiloquin as a child. He grew up in Chiloquin, graduating from high school in 1942 at age 16.

During World War II, he was drafted into the Army Air Corps and was stationed in Italy with the 450th bomb group, participating in 35 bombing missions. After being honorably discharged on Oct. 19, 1945, he attended Oregon State College, graduating with a degree in Forestry and an engineering minor in 1950.

After college, he worked for various lumber firms and consulting engineers. In 1950 he was recalled to the military, serving one year during the Korean War. He was interviewed on his military service as part of the Library of Congress Veterans History Project (see <http://lcweb2.loc.gov/diglib/vhp/story/loc.natlib.afc2001001.21669/>).

In 1955 Alfeo met Marcella Morelli in Florence, Italy and were married on Feb. 5, 1956 and to this union three sons were born. They were later divorced in 1969, but remained friends.

As an international forestry consultant with the United Nations and various consulting firms, he worked in British Columbia, Canada, India, Pakistan, Honduras, Venezuela, Sierra Leone, Africa, Columbia, Mexico, and the United States. He taught forestry at Rogue Community College from 1971 to 1977 and later taught at Chemeketa Community College, retiring in 1997 after 12 years.

Alfeo was a volunteer at Evergreen Aviation Museum. He loved the outdoors and going to Chiloquin to reminisce. He is survived by his 3 sons, David of Portland, Ricky of Huntington Beach, CA, Marco of West Linn, brother Remo of Gresham, long-time friend, Marcella Van Ardenne of West Linn, and grandchildren Brandon, Kelsey, and Kyla.

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