

# FOCUS

THE MAGAZINE OF OSU COLLEGE OF FORESTRY

Fall 2013



## A Bird's Eye View

Michael Wing and his students discover forestry applications for Unmanned Aerial Vehicles

**Oregon State**  
UNIVERSITY

# Dean's Column



Fall is my favorite time of year. I know that many people see autumn as a time when the year is coming to a close, but for me it is just the beginning. Salmon are returning to their home rivers to begin the renewal of life. Faculty return to campus with fresh ideas, borne of their summer field studies. Students heed the call back to the classroom.

In fall, the waters are clearest, so we can see deeper into the heart of things. As I begin my second year as Dean, we continue to think deeply about the future of the College of Forestry, and create new initiatives that will help the college make a difference to our rural and urban communities who rely on healthy working forests for survival.

I am excited to welcome both our incoming and returning students to a new year full of possibilities. This fall, we began our new Forestry Professional School—a two-year intensive forestry program designed to graduate the strongest field foresters in the nation. Students' first learning experience took place in September, before formal classes even started, with a two-week immersion experience in the new Field School. They learned about forests in their outdoor labs, and learned about each other at the campfire. What better time than fall to be in the forest in Oregon?

We're also excited to be recognized in the top 10 forestry programs in the world in the 2013 QS World University rankings, based on our outstanding research, teaching and international reputation. We prepare our graduates to work in diverse communities and cultures around the world. They will help create healthy landscapes that include healthy ecosystems, vibrant communities, sustainable businesses, and healthy people connected to the land. And they will learn the tools they need to do that in the classroom and the field this fall.

To help us share the news about the exciting changes underway as well as those still to come, I am happy to announce that Ann Mary Quarandillo has joined us as the new Director of Marketing Communications for the College of Forestry. She brings new energy and fresh ideas for sharing stories on the work of our world-renowned faculty and the efforts of our exceptional students. This issue of *Focus* highlights some of those efforts and once again emphasizes the broad range of work associated with forestry and natural resources.

For those of you who have known us well, I invite you to renew your relationship with the college and learn about our exciting new direction as the premiere national and international College of Forestry focused on growing healthy landscapes. For those of you just getting to know us, the stories in this issue will show you the breadth and depth of the work our faculty and students contribute to that goal every day.

A handwritten signature in black ink that reads "Thomas Mess".

---

On March 12, 2013, exceptional College of Forestry faculty and staff were honored at the Annual Dean's Awards and Retiree Recognition.

**Outstanding Faculty and Staff for 2012:** *Fostering Student Success*, Jo Tynon and Marv Pyles; *Service*, Christine Olsen and Mark Shulze; *Research/Scholarship*, Kaichang Li; *International*, Robin Rose and Jo Albers; *Support Staff*, Chelsey Durling; and *Extended & Continuing Education*, Amy Grotta. **Honored Retirees:** Cheryl Alex, Fred Bierlmaier, Glen Murphy, Karla Rhoads, Jay Sexton, Viviane Simon-Brown.

# FOCUS

THE MAGAZINE OF OSU COLLEGE OF FORESTRY

Dean  
Thomas Maness

Development Director  
Zak Hansen

Managing Editor  
Caryn M. Davis

Writer  
Bryan Bernart

Designer  
Sandra Arbogast

Photographers  
Bryan Bernart, Jim Johnson,  
Forestry Communications, and  
others

**How to Reach Us**  
Address changes:  
Tonya Fodge  
Oregon State University  
Foundation  
850 SW 35th Street  
Corvallis, OR 97333  
Tonya.Fodge@oregonstate.edu  
(541) 737-9846

Other questions/comments:  
Caryn Davis  
College of Forestry  
Oregon State University  
154 Peavy Hall  
Corvallis, OR 97331-5704  
caryn.davis@oregonstate.edu  
www.forestry.oregonstate.edu

For information specifically about the *Focus* magazine and other publications, call (541) 737-4270. For questions about College of Forestry events and other matters, contact the Dean's office at (541) 737-1585, or visit the website at [www.forestry.oregonstate.edu](http://www.forestry.oregonstate.edu)

*Focus* is published by Oregon State University College of Forestry. Our goal is to keep Forestry alumni, friends, faculty, staff, and students informed about the College of Forestry and its many activities and programs.

All or parts of this publication may be reproduced with credit to the OSU College of Forestry. Oregon State University is an Affirmative Action and Equal Opportunity employer and complies with Section 504 of the Rehabilitation Act of 1973. Gift funds provided to the OSU Foundation and the College of Forestry help pay for color reproduction of the *Focus*.

Does the College of Forestry have your e-mail address? Please help the college save money and improve communication by sharing your e-mail address. Please send an e-mail to [Tonya.Fodge@oregonstate.edu](mailto:Tonya.Fodge@oregonstate.edu) and ask us to update our e-mail records. Thank you.

## Contents

### Things are Looking Up

Michael Wing and the future of UAVs for forestry applications 2

### People, Poverty, and Natural Resources

Supporting biodiversity conservation and rural livelihoods in Africa 4

### Renewable Materials in South America

WSE student Elijah Wilson's journey abroad 6

### Forest Giants

Denis Lavender, Richard Hermann, and Douglas-fir 8

### Interpreting the Outdoors

The Oregon Master Naturalist Program is training your friends and neighbors to be stewards of the environment 10

### Roots of Tomorrow

SEEDS students succeed in school 11



Cover: Jon Burnett, a College of Forestry M.S. student, works in faculty member Michael Wing's Aerial Information Systems lab, where they are finding new and innovative uses for modern unmanned aerial vehicles (UAVs),

like measuring tree growth, monitoring forest fires or analyzing landscape patterns. Photo by Bryan Bernart.

## Attention Job Seekers and Employers!

The Student Services Office offers an employment site where alumni can find job announcements and employers can advertise their open positions.

See what's available at [jobs.forestry.oregonstate.edu](http://jobs.forestry.oregonstate.edu)  
Or call 541-737-1594 to advertise your open position(s).



# Things are Looking UP

## Michael Wing and the future of UAVs for forestry applications

by Bryan Bernart

The desire for a bird's eye view of the landscape is nothing new. Michael Wing, assistant professor of geomatics in the Forest Engineering, Resources and Management department, points out that armed forces, hobbyists, and curious citizens have been putting cameras on flying craft for more than 100 years. "Some of the first applications of aerial photography were for tracking troop movement," he explains. "As often happens with emerging technologies, the military pushed development along, just as they've done in our day with small, modern UAVs (unmanned aerial vehicles), built for surveillance."

Wing's research is centered on civilian uses for these versatile and technologically advanced machines, using UAV technology to study patterns in tree growth and forest composition, with

*Combining technological research with the joy of remote controlled flying machines makes the sky the limit for faculty member Michael Wing (left) and his research team, including M.S. student Jon Burnett. Photos by Bryan Bernart.*

many other applications on the horizon. Through his work, he seeks to gain new perspectives on problems facing foresters.

Wing arrived at OSU nearly 20 years ago. As he was completing his Ph.D., he became interested in Geographic Information Systems (GIS), as well as remote sensing. "GIS allows us to use digital spatial data. Remote sensing, or a given remote sensor, is what sits on a UAV or airplane and takes images of the earth's surface," he explains. "To use these together, to pull information out of images, has been a longtime interest of mine."

Most of Wing's research has to do with

measuring objects located somewhere in the environment. “My research has been fairly varied,” he says. “I’ve looked at everything from crime in the national forest system to how to route biomass shipments through the forest transportation network as fast as possible.”

In fall 2012, Wing and his team produced two peer-reviewed publications related to unmanned aerial surveillance, one describing a flight taken in the McDonald-Dunn research forest and the other with wildfire. His interest in the latter came about after a trip through eastern Oregon two summers ago. “I was driving home from Bend in mid-July and I passed through Sisters when there was a wildfire nearby. They were evacuating locations around the city and were getting ready to evacuate Sisters itself,” Wing explains. “I started thinking about how useful it would be if there were someone on the ground who could, using a UAV, very accurately guide evacuations and loiter, using the craft, in dangerous areas, to gauge what a fire was doing.”

In light of the recent Yarnell Hill Wildfire tragedy, in which 19 members of an Arizona fire crew perished in a single blaze, Wing may have hit on both a worthy and timely cause. Although the FAA keeps a very close watch on UAV use—requiring extensive permits in order to conduct flights even at lower altitudes and on private lands—his team is considering applying for an emergency Certificate of Authority on the Warm Springs Reservation that would permit a reconnaissance flight in response to a threat to public safety.

Outside of applications during emergencies, UAVs have already proven useful in research surveying forest structure. During his team’s first flight in McDonald-Dunn Forest, Wing’s UAV took high-resolution photos of the landscape below for future analysis back in the lab. “What was amazing to me was that, as I was viewing live imagery sent down by the aircraft, I could make out individual trees and patterns, and could immediately understand information about the species,” he explains. “For a forester, a UAV is a really exciting thing to have in my toolbox.”

Future flights may take place on private lands and be used to survey the impact of Swiss Needle Cast on local conifer stands. The team intends to look at areas known to have been affected by SNC in the past and to examine how the situation looks today. A search and rescue (SAR) research flight is also planned for McDonald Forest. “We plan to



locate objects associated with SAR missions and see whether we can detect them from a remotely controlled helicopter,” Wing says.

Not limited to photography within the spectrum of visible light, such vehicles may be equipped with other sensory equipment, Wing says. He recently learned that one of his proposals for a Light Detection and Ranging (LIDAR) sensor had gained funding. LIDAR enables researchers to collect highly accurate topographical information. Understandably, Wing is excited about what this means for future research: “We can gather a quantity of data, in hours, that it took a PhD student nearly a year to amass, working on the ground. Simply put, this is terrific!”

Given recent national press on the subject of drone surveillance, is he concerned that people will bristle when they read about UAVs, in regards to his research? “A little bit—this is a touchy topic,” he says. “In many states, bills have been proposed that would limit UAV use, even for civilian applications. Some of these have failed, which is a relief for those of us who want to use this technology to study forests or for emergencies such as to track rising flood waters, and for other purposes that don’t often make the news.”

Wing is nevertheless positive about the potential for UAV use in Oregon. “People seem better educated about potential benefits here,” he says. “The fact that we’ve been allowed to fly means that I can spend my time working on plans to do a fish count for a local river, using remote sensing tools, in an unmanned aircraft. Wouldn’t that be cool?”



# People, Poverty, and Natural Resources

## Supporting biodiversity conservation and rural livelihoods in Africa

by Bryan Bernart

While completing her master's degree in environmental studies at Yale, H. Jo Albers was struck by the fact that rural people in developing countries relied so heavily on natural resources for a large portion of their effective income. In interacting so closely with the natural environment, they could be viewed as de facto natural resources managers. For Albers, that realization shone a new light on the circumstances and issues of rural poverty in developing countries, and informed her doctoral work at Berkeley, where she studied analytical economic models, as well as social forestry, ecology, and Thai.

All of these interests came together when Albers joined the College of Forestry, where she is a professor of applied economics in the Forest Ecosystems & Society department. Albers explores multiple facets of environmental policy in low-income nations, with a recent emphasis on Tanzania. "In these countries, the government may own the forest, but they have very little funding to go in and really be on the ground, either managing or enforcing access restrictions on rural people," she says. "What attracted me to the College of

Forestry is the idea that I could do interdisciplinary work, and use the structure of my economic decision models, but work with natural scientists and other social scientists to make sure those frameworks reflect other characteristics of the setting aside from the pure economics."

An economic framework, Albers explains, is a means to describe how people make decisions under different circumstances. Her economic frameworks look at the impact of policy on people's welfare and on the resource by examining people's decisions and tradeoffs within an ecological, institutional, and economic setting. "I find that most people think that economics is all about dollars, and just adding up costs and benefits, but I've always been interested in where markets don't work perfectly," she notes. "Economics is not about money. It's about the fact that we want to use our resources—time, money, trees, brain power—to our best end. We want to make ourselves happy, but we can't do everything. We have to make choices. Economics is really the study of how people make tradeoffs and decisions."

Many things that people consider in their

decisions are difficult to assess, however. “Environmental services, such as fresh air, don’t go through a market, but that doesn’t mean they aren’t valuable,” says Albers. “My frameworks don’t rely on dollar values because people constantly make tradeoffs between things that are valued by markets and things that they value for themselves, such as fruit for home use or leisure or education. Many of my models consider how people make decisions about using their time, with the constraint that they don’t have an unlimited amount of time to split between different labor and other activities. For example, I might ask how an NGO’s beekeeping project alters people’s decisions about how much time to spend in agriculture or in collecting fuelwood and bamboo shoots from the forest. I can then see how policies alter the resource, whether a forest or a coastal area, and how the policy affects rural livelihoods.”

Also factored into this complicated equation is ecotourism, seen as a more socially and environmentally responsible approach to visiting natural areas worldwide, which has been popular since the 1980s. Albers has incorporated research

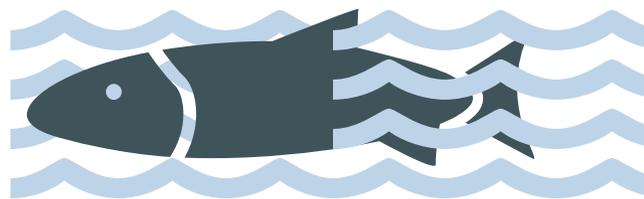


on ecotourism into her studies because ecotourism offers some people job alternatives to extracting from the forest or sea, and because parks often make payments to local communities to change their resource use.

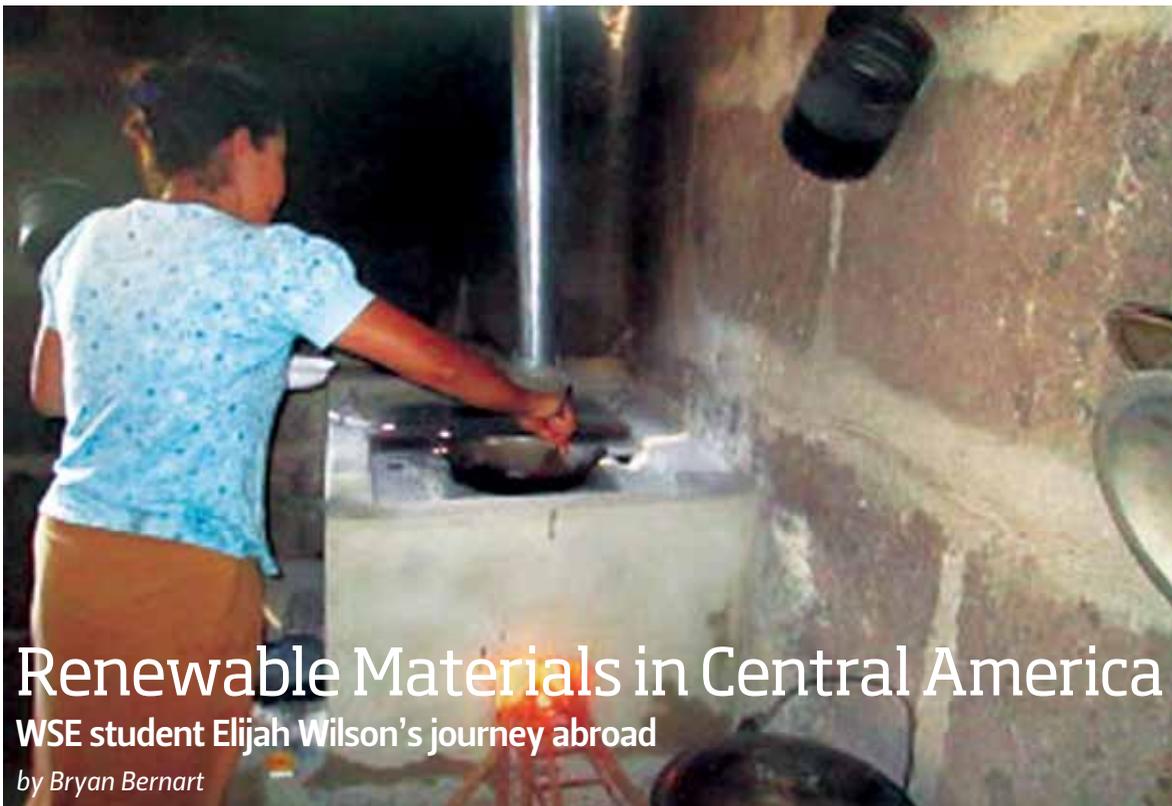
“There’s been an expansion of marine protected areas worldwide, including in Tanzania, Costa Rica, and South Africa,” she says. “I’m looking at how the people who have relied on resources in those marine environments react to the protected areas. The ecotourism element comes in because the marine protected area is expected to generate tourism, which then generates payments and jobs within the region.” The goal is to develop the ecotourism industry in a way that enables those people to make a smooth transition to different types of livelihoods. But there are hurdles. “Very few of those who are actually extracting these resources have the skills needed to work in ecotourism. As a result, those jobs often go to people who didn’t live in the area before the park’s creation.”

With successful implementation of her frameworks, Albers hopes that, 20 years from now, a country like Tanzania (where she conducted previous research) might have a thriving and more environmentally responsible economy. Albers looks forward to returning to Africa soon for additional research, this time as a Fulbright Scholar to Tanzania. “I’ll be there for four months, which allows so many more opportunities for making connections with local managers, farmers, and rural people than I’m afforded on shorter trips,” she says.

Albers is quick to point out that international study, of any length, is always enriching. “In my courses, I try to bring up examples from places I’ve worked, worldwide, and I’m always glad when students come up to me after class and talk about their own experiences in Latin America, Southeast Asia, or elsewhere,” she says. “You don’t have to think only about ‘your own backyard’ - there’s a whole world out there!”



*Photos (top left): Jo Albers and collaborator Liz Robinson interviewing women who extract non-timber forest products from a forest and who do forest reserve-sponsored beekeeping in the forest as well, Kibaha, Tanzania; (left) crossing the bay to get to an island that has forest users and fishers but also an eco-lodge within Mafia Marine Park, Tanzania.*



# Renewable Materials in Central America

## WSE student Elijah Wilson's journey abroad

by Bryan Bernart

College of Forestry undergraduate Elijah Wilson, a renewable materials major, spent the 2012-13 academic year interning in Nicaragua for AsoFenix, an NGO dedicated to improving life in rural communities, through the IE<sub>3</sub> Global Internships program. When he took time to talk with us on a rainy Saturday afternoon in May, Wilson had been in Nicaragua for nearly 8 months, and was eager to share his experiences abroad with friends, his cohort, and his instructors back home.

### ***How did you get involved in the Renewable Materials program?***

In high school, I was interested in forest and civil engineering and I originally wanted to major in that, but I realized that I enjoyed being in the College of Forestry much more. A friend introduced me to the Renewable Materials program, and I researched it a bit. After meeting with David Smith, the advisor, I decided that this was something I felt strongly about—this is something I really want to do. So I went with it.

### ***Where did you learn about the IE<sub>3</sub> program?***

A year ago, I was talking with a member of the FPS club who was getting ready to study abroad in Australia. After hearing about his program, I realized that, with financial aid, an international

program could actually be affordable for me too. Through OSU, I found a program called Renewable Energy Community Development, and I thought, “Whoa, that sounds really great! I need to go abroad.”

### ***Before now, have you ever traveled abroad?***

Never. I committed to 10 months and had never done it before.

### ***Wow. How much Spanish did you speak before you left?***

None, actually [laughs]. My program doesn't have a language requirement. However, I've learned so much Spanish in the last few months, I'm going to minor in it when I return to OSU and finish my degree.

### ***Does your internship involve a specific project?***

The NGO I'm working for was established with the goal of benefiting rural communities directly. Members of the organization would go to communities and ask if there was anything, specifically, that would improve peoples' lives. As a result, they explored a lot of renewable energy sources, such as micro wind turbines and hydroelectric dams. In addition, they learned that women and children in some areas often

had to carry heavy buckets of water over a kilometer, each way, in order to provide for their families. So they were able to install solar water pumping systems. Without the need to spend so much time procuring water, women have more time available for other projects, and children have more opportunities to attend school.



**What element of the work do you participate in?**

I'm working on improving cook stoves, specifically, with the adoption of improved wood cook stoves that we've been working on. I interface with community representatives about their needs.

**How does your work relate to the study of renewable materials?**

Improved cook stoves are directly related to wood science. In the wood science community, it comes up every now and then that the main thing people use wood for, worldwide, is as fuel for cooking. The interesting thing to me is that the stoves used most often are really inefficient. Improved cook stoves are designed to use less wood. They also allow smoke to exit the cooking area through a chimney, so it doesn't cause negative health problems in the home.

**What's your day-to-day life like?**

In my day-to-day life, it's back and forth. I'm at our office in Managua a lot, but there are weeks when I go out a lot to the communities and spend time there working, as well as to vacation and hang out with the families. I've made a lot of Nicaraguan friends—we all like to go sight-seeing.

**Any noteworthy adventures?**

One of the best things I've done here is volcano-boarding. You

slide down the side of a volcano on a little board, riding the gravel and small rocks. You get going really fast, maybe 30 or 40 MPH—it would hurt if you fell down, though, so you have to be careful [laughs]!

**Has your time abroad enriched your understanding of renewable materials?**

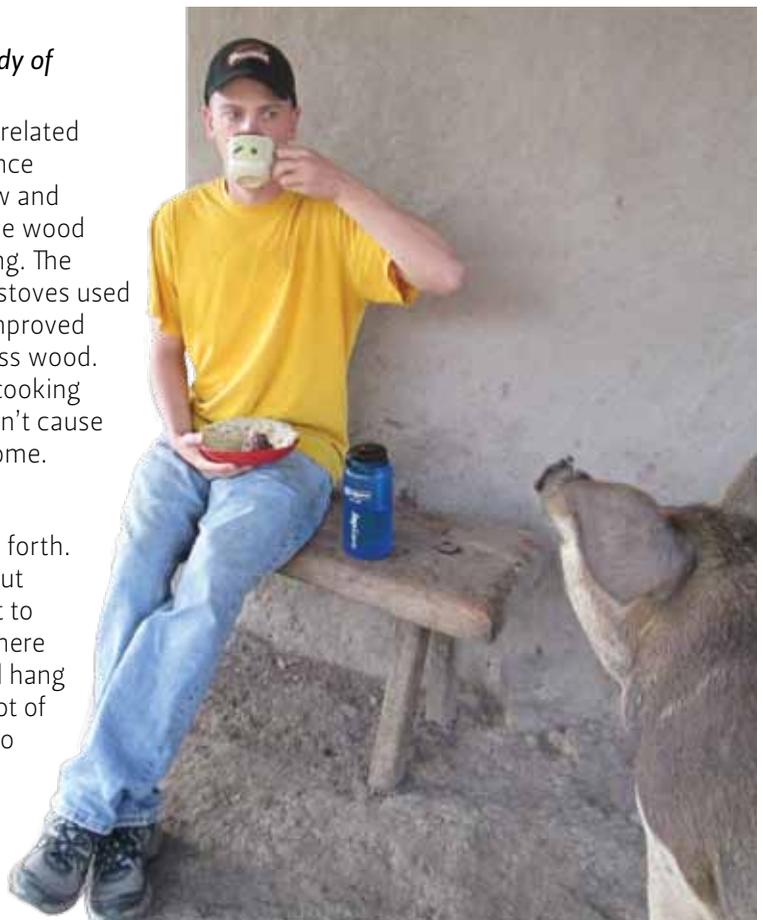
Yes. It's opened my eyes, especially in regards to how people use renewable materials outside of manufacturing and for energy.

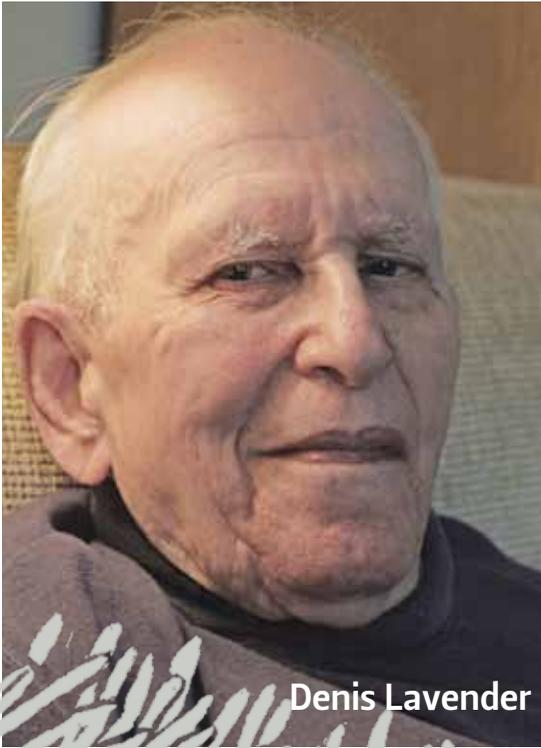
**What would you tell a fellow student considering working abroad?**

If you want to go abroad, go! Don't let anything stop you. At first, I never even considered studying abroad, because I thought that I wouldn't be able to afford it, but I was wrong. I'm really glad that I came down here.

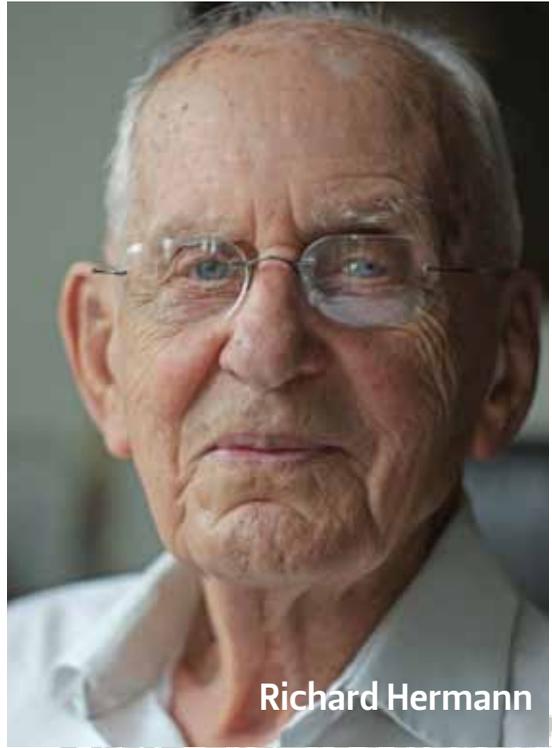
Wilson returned to the United States in June. During the past year, he maintained a blog of his experiences abroad. You can read it at <http://elijahnicaragua201213.wordpress.com>

Photos provided by Elijah Wilson.





Denis Lavender



Richard Hermann

Photos by Bryan Bernart

# Forest Giants

**Denis Lavender, Richard Hermann, and Douglas-fir**

by Bryan Bernart

Not long after a mid-century nature writer for *The Atlantic Monthly* crowned Douglas-fir the “New King of Trees,” two graduate students arrived at Oregon State College to begin their studies in forestry. Little did they anticipate the important role this great western conifer, *Pseudotsuga menziesii*, would come to play in their lives, and the way it would continue to link them together throughout the many decades of their distinguished careers.

With over 100 years of forestry knowledge between them, Dr. Denis Lavender (Professor Emeritus, Forest Science) and Dr. Richard Hermann (Professor Emeritus, Forest Resources) are nearly peerless in the depth of their experience in their field. The forthcoming book, *The Genus Pseudotsuga*, is a compendium of their Douglas-fir research over five decades; it is scheduled for publication in August 2013.

After serving in WWII, Lavender graduated from

the University of Washington with a BS in forest management. Unable to find a job, he applied to the Oregon Board of Forestry. “They transferred me to Oregon State. I earned my master’s in forest science from Oregon State College and my doctorate in botany from Oregon State University,” he jokes, referring to OSC’s reclassification to a university in 1961.

Hermann, originally from Germany, worked for the Bavarian Forest Service, where he first encountered Douglas-fir. “It really intrigued me. In fact, that’s what I told David Smith when I was studying at Yale,” he says. Hermann credits Smith for his choice to come to Oregon State to earn his doctorate. “And I’ve never regretted coming here.”

Hermann was teaching classes and conducting silviculture research and Lavender was researching plant physiology when the two met and became friends. Sharing lab space and sometimes completing field work together, they

earned a reputation. “His office was across the hall from mine, and we spent so much time together that Dick Dilworth, then head of Forest Management, called us ‘The Bobbsey Twins’ (referring to the long-running children’s book series),” says Hermann.

The idea for the Douglas-fir book originated as a result of Lavender’s research on Douglas-fir. The more he learned, the more he thought it would be interesting to tie together, in book form, the work he and his colleagues were doing on this species. “That’s where it started,” Lavender explains. “There are seven things I point out in the book that are unique to the book. Given that fact, I wanted the work to be a part of the wider literature on the subject.”

Lavender believed that Hermann was an ideal contributor to the project. “Dick can read and write most European languages, and for my part, I wanted to include foreign sources in the text,” Lavender says. “He and I were friends, anyway, so I asked him if he was interested in working on it, and he agreed.”

Why Douglas-fir? “Douglas-fir is the bread-and-butter tree of the Pacific Northwest—Oregon, Washington, and northern California,” says Hermann. “It’s the only tree—the only conifer of Oregon—that’s grown worldwide, in temperate regions, everywhere. It grows faster than any other conifer in those places, except for loblolly pine, which doesn’t do very well in Germany and Scandinavia. It’s the most important of all of the coniferous trees—that’s why we focused on it.” And, he pauses, “there were the questions.”

The two received a near-constant stream of questions in the form of letters. They would spend hours answering the queries, sometimes in as many as 15 pages, “in order to help others solve problems with seed germination and growth,” Hermann notes. “One day, Denis said to me, ‘Dick, why don’t we go and put all this stuff together in a book, so people aren’t always asking us these things?’”

Now, decades later, the summation of their work on Douglas-fir is nearly complete, although for a period of time, each thought that it might never happen. In the years since the inception of the project, each pursued separate research and published numerous articles in forestry.

Lavender’s career took him away from Oregon State to the University of British Columbia in 1985, where he served as the head of Forest Science Department until his retirement in 1992. Hermann remained at Oregon State until his own retirement. Since then, the two authors have

continued to contribute to the work, frequently editing and updating the manuscript. When the book is published, it will be available online through the College of Forestry website ([www.forestry.oregonstate.edu/now-scholarsarchive](http://www.forestry.oregonstate.edu/now-scholarsarchive)).

Is there a key message that the authors hope to communicate through this long-awaited volume? Lavender pauses thoughtfully before his reply: “The necessity for looking at forests from a scientific viewpoint,” he says. “For example, we can’t just go out and say ‘thin.’ We have to understand what we’re doing and why it’s important.”

Hermann believes that forestry, in the future, will be focused on maintaining the “fantastic diversity” found in forests of the past. “There is a new appreciation for the people who are in charge of managing forests,” Hermann says. “We will always need wood, but we now have come to a point of recognizing the need for a balance between maintaining Douglas-fir in forests that serve both as a recreational resource and a natural resource.” And, he adds with a smile, “I am optimistic about the future.”



*Note: One of Dr. Denis Lavender’s many contributions to the College of Forestry was the planting of The Moon Tree at Peavy Hall in 1971. The spring 2013 issue of Focus misidentified the tree’s planters. We regret the error.*



*Citizen science: Rob Pabst and Oregon Master Naturalist Paul Westerberg measuring trees at Cascade Head Experimental Forest. (Photo: Jim Johnson)*

# Interpreting the Outdoors

**The Oregon Master Naturalist Program is training your friends and neighbors to be stewards of the environment**

by Bryan Bernart

When you visit a local hiking trail, a national park, or a culturally significant area, the quality of your experience may depend on more than just the scenery. The presence of a master naturalist—leading tidepool walks, dendrology tours, or a program on the best way to camp in the high desert—can enrich your experience beyond an appreciation for the beauty of the outdoors.

The natural and cultural history of a place, taught in a way that connects those things to an audience, is called “interpretation of natural resources,” which is driven by the location’s natural features. “The overriding goal is to share the ‘so what?’ about a place with an audience. That’s where our master naturalists come in,” explains Jason O’Brien, director of the Oregon Master Naturalist Program, hosted at the College of Forestry. This non-degree adult education program trains those with an interest in the outdoors how to be effective natural resources interpreters. The first group of master naturalists trained in interpretation through this program graduated last fall, and the number of students continues to increase.

“The ‘master’ in the title implies that you are not the average adult who happens to know something about the outdoors,” O’Brien says. “It means you are seeking out knowledge and going through a sequence of intensive classes to learn about a topic - it’s a lifelong pursuit.” The program includes coursework and a volunteer component. “The expectation is that, for the knowledge you’re getting, you’re expected to give back to the community in some way, for instance, by leading a wildlife hike,” he adds. So far, Oregon master naturalists have worked for watershed councils and state parks, as well as in citizen science, including bird counts and invasive species elimination.

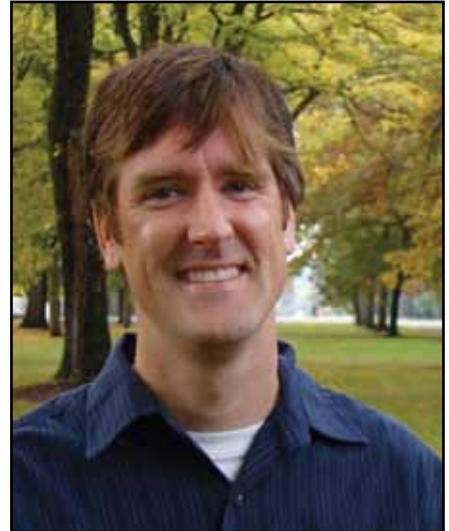
Participants study a core curriculum in natural history and natural resources management, specific to Oregon, and suited to the ecoregion in which they live. Currently, O'Brien is fighting to meet demand: "The online component can be completed with any number of students, but the in-person classes, and the training that takes place on the ground, in a given region, only happens twice a year." The program may be expanded in the future.

With a background in wildlife biology and animal ecology, and an emphasis in natural resources interpretation and non-formal education, O'Brien came to OSU from Iowa State University in 2010 after helping start the Iowa Nature Mapping program, which trained citizen scientists how to collect data from the environment. Prior to that, he worked with the Prairie Learning Center, instructing younger students on a variety of topics. "There was definitely a significant change in attitude about how they felt about the prairie, its wildlife, and its history, after exposure to the program," he says. "There was also more interest in stewardship, with kids getting involved in planting seeds and helping control invasive species." O'Brien's experience has been key to developing OSU's stewardship and interpretation program.

Master naturalists are often eager to learn skills and information that supplement their involvement in outdoor activities in their own communities and that directly aid in their volunteer efforts. O'Brien also acknowledges a larger purpose for the program. "When you have a land-grant university, whose mission is to extend knowledge from research out to the general public, the great thing is that we can take that a step further," he says. "We have a group of people becoming master naturalists, and they in turn take what we've taught them and extend it further, to their friends and neighbors. We're magnifying the reach of the university."



Master Naturalist Mary Crow leads a hike at Rimrock Ranch for the Deschutes Land Trust. (Photo: Lynn Ketchum)



Jason O'Brien is the director of the Oregon Master Naturalist Program hosted at the College of Forestry. (Photo: Danielle White)

Read more about Oregon Master Naturalists in "Corps of Discovery," from *Terra* magazine:  
<http://oregonstate.edu/terra/2013/02/corps-of-discovery>

For more information about the program, see <http://oregonmasternaturalist.org>



Tidepools at marine garden, Devils Punch Bowl State Natural Area, Otter Rock, Oregon. (Photo: Bryan Bernart)

# Roots of Tomorrow

## SEEDS students succeed in school

By Bryan Bernart



Beatrice Serrano



Luis Meza

The College of Forestry's SEEDS (Strengthening Education and Employment for Diverse Students) program was created in 2009 in recognition of the need for a support organization for minority students preparing for careers in professional forestry and natural resource management. The program now communicates with more than 40 students each year, actively working with 20 of them. In 2013, 10 SEEDS students also participated in paid work experiences with mentors from the College (as did 28 others during the two previous years).

Originally under the guidance of College of Forestry faculty members David Zahler and Edward C. Jensen, the program has a new coordinator, Seema Mangla, who earned a Ph.D. in environmental science from the College of Forestry in 2010. "As the new SEEDS coordinator, I can tell you that that the students aren't the only ones getting something out of this," Mangla says. "I'm really enjoying being able to work with them, and I look forward to helping them find a home here in the College and a path to a career they like so that, in a few years, we can all be colleagues!"

Undergraduate Beatrice Serrano, who is majoring in natural resources, became involved with SEEDS in fall 2012. "SEEDS gathers diverse students from around the college and offers us resources and information that help us succeed," she explains.

At biweekly meetings, the group discusses

many topics that are especially relevant to undergraduates, Serrano says. "Last week we talked about studying abroad. The week before, we went over internships and résumé preparation. Because the program is small, people are comfortable asking questions, and they're often questions everyone has, so we get a lot out of it."

The SEEDS program also helps foster friendships between students. "At the beginning of the year, I didn't know my suitemate, Raven Chavez, very well," says Serrano. "But then she turned up at one of the SEEDS meetings and we realized that we had a lot in common."

Serrano was born in Portland, but spent her childhood in Michoacán and Guerrero in Mexico. She realized early that she had a penchant for science. "My mom always pushed me to do my classwork, but when I attended grade school, it struck me that I was really good at it," she says, laughing. After returning to Oregon, she attended McNary High School, where she often took additional biology classes. In her free time she tutored her friends and worked in a thrift store benefiting an animal shelter. After earning her associate's degree at Chemeketa Community College, Serrano transferred to OSU last year.

"I was originally considering both OSU and the U of O, but OSU has kind of been it for me since I was in elementary school—which ultimately made this an easy choice," she says with a smile, examining the black and orange scarf around her neck. Through SEEDS, she works with Chris Dunn studying fire ecology, and looks forward to graduating early to jumpstart a career in research.

Luis Meza, who is majoring in renewable materials, hails from Independence, Oregon. After



**Seema Mangla**

being invited to join SEEDS, he began an internship with Professor Jeff Morrell in the Wood Science & Engineering department in September 2011. “I considered going to school for architecture at the U of O, but I grew up working on a farm with my father, and never wanted a desk job or to be tied to a computer,” Meza says. “Since I was able to walk, I’ve gone out with him to feed and care for animals.”

Now in his junior year, Meza continues to be happy with his choice of both OSU and his major in renewable materials at the College of Forestry. He hopes to have a hobbyist farm later in life, and is currently pursuing a career in research. Through SEEDS, he continues to work with Morrell, most recently on wood degradation and carbon sequestration. “We’re examining how wood decays when it’s been buried in a landfill,” he explains. Carbon sequestration is an important part of the wood life cycle. Eventually, some wood products will wind up in landfills, and understanding how that material degrades over time will help scientists more accurately estimate total carbon sequestration.

Both Meza and Serrano are the first in their families to attend college. What advice would they pass along to other first-generation students? “Follow your interests,” says Meza. “Many kids pursue careers that their parents would want for them, but you’ll be more successful if you like what you do.” Serrano cautions against procrastination. “Get your work in on time, and be prepared, because school isn’t easy.” She adds, “In the end, though, it’s so worth it. Like everybody says, ‘*Sí, se puede.*’ (“Yes, it can be done.”)

Photos (left) by Bryan Bernart and (above) Sandra Arbogast

## Oregon Society of American Foresters OSU Outstanding Student Award

Gary Batliner, a senior in forest management, received the 2013 Oregon Society of American Foresters OSU Outstanding Student Award. He was recognized at the OSAF annual meeting in Pendleton on April 24-26.

This award is presented annually to an Oregon State University forestry student who is a member of the Society of American Foresters, participates regularly in OSU SAF activities, including a leadership role of some kind, represents the OSU SAF Student Chapter at state or national SAF gatherings, and who demonstrates good academic standing, good citizenship and excellence in extracurricular and professional work activities.



### In Memoriam

Roberta “Bobbie” K. Konnie

1921-2013

Longtime College of Forestry supporter Roberta “Bobbie” K. Konnie passed away June 28, 2013, at the age of 92. Born in Chicago, Bobbie joined the Navy after high school, and met her husband Sam Konnie while serving in San Diego, Calif. Sam, a 1951 graduate of the College of Forestry, had a long and successful career in forest engineering with Swanson Brothers Lumber Co. in Noti, Ore. The Konnies became sole owners of the company in 1986.

Bobbie and Sam gave generously to the College of Forestry for many years, and established the Konnie Family Forest Engineering Endowment Fund in 1997. It has provided funding for numerous students and serves as the primary support for acquiring and maintaining up to date forestry field equipment. The Fund is also instrumental as the College implements the new Professional School in forestry and forest engineering, including the new 2-week Field School required for all students in the program. It provided scholarships for eight students to attend the 2012 pilot Field School and provide feedback to help shape the curriculum.

Bobbie is survived by her son Larry (Annette) and daughter Patti (Gary); and nine grandchildren. She was preceded in death by her son, Danny, in 1987, and her husband in 2002.



# Homecoming 2013

October 24-26  
www.osualum.com



## Founder of Sustainable Northwest to speak at OSU Homecoming

Don't miss the opportunity this fall to hear from College of Forestry alumnus Martin Goebel about his work bringing people together to manage our natural resources. Goebel, a 2013 Alumni Fellow, will be honored by the OSU Alumni Association at several events over Homecoming weekend. As founder of the nonprofit Sustainable Northwest, he has pioneered ways for rural communities, industry, environmental and government stakeholders to collaborate to manage forests and rangelands in ways that both strengthen local economies and restore the environment.

Homecoming is a great chance to return to OSU and celebrate our College of Forestry community. See you there!

## College of Forestry Award Winners!

The College of Forestry is proud to recognize the following students, staff, and alumni for their outstanding achievements, as presented at the Awards Ceremony on Tuesday, May 14, 2013.

**Outstanding Alumni:** Mary Erickson, Dave Coates, and Larry Ilcewicz; **Kelly Axe Award:** Avery Kool; **Aufderheide Award:** Kevin Boston; **XI SIGMA PI/Julie Kliewer Mentor Award:** Laurie Holst; **Outstanding Students:** *Forest Engineering* – Bryan Feger, *Forest Operations Management* – Jake Thompson, *Forest Management* – Todd Bertwell, *Recreation Resource Management* – Sara Lynch, *Natural Resources* – Sally Murray Christensen, *Tourism and Outdoor Leadership* – Alex Scagliotti, and *Renewable Materials* – Ben Sundberg; **Harold Bowerman Leadership Award:** Will Hollamon; and **Paul & Neva Dunn Outstanding Senior Award:** Jake Thompson.

2013



Larry Ilcewicz

Mary Erickson

Dave Coates