

Fall 2015

FOCUS

THE MAGAZINE OF OSU COLLEGE OF FORESTRY

Oregon State
UNIVERSITY

**Chile Initiative cascades into
new research collaborations**

Dean's Column



As I begin my fourth year as the Cheryl Ramberg-Ford and Allyn C. Ford Dean of the Oregon State University College of Forestry, I continue to be impressed by the work of our students, faculty, and staff. Due to their hard work and dedication to our working forest landscapes, the College continues to be a global leader in forestry research and education.

Some of their incredible work has revolved around a number of important initiatives to position the College as an innovative leader, promoting programs focused on managing landscapes that will enhance people's lives and improve the health of our lands, businesses, and vital ecosystems.

One of these initiatives is an effort to internationalize our college with a focus on the Pacific Rim. To meet the changing needs of our society, students at Oregon State graduate with the intention of making a positive impact in Oregon and throughout the world. Their experiences at Oregon State play an important role in their profession of choice, and we strive to give them the tools necessary to be leaders in the field. To continue our position as a worldwide leader in forestry education, it is crucial that we provide international opportunities to our students, faculty, and staff to promote the importance of collaboration and encourage personal and professional growth.

With that in mind, I joined a number of others in the College on an excursion to Chile to start the process of increasing student and faculty exchanges between the two countries while launching new cooperative research projects. The similarities that exist between Oregon and Chile in climate, geography, economics, and the forests industry make the partnership a natural one, and I am excited about what has been accomplished and the future opportunities that exist. In this issue of *Focus*, you will learn about the growing partnership and how we have funded almost \$100,000 in collaborative research projects between the two countries.

The program with Chile is just one example of how we are working to give the College a stronger international presence. In the past three years, student participation in international research and study abroad programs has more than tripled, including a recent trip by students to France to study renewable materials, wood science and engineering. We have also started building relationships with companies and agencies in Australia and New Zealand to develop key wood quality and supply-chain initiatives. Finally, we recently hosted a contingent from Vietnam to share educational program information and completed a trip to Korea to create partnerships with this important Asian market.

As we work to expand our international reach, the College continues to be a center of excellence for research and education. This issue aims to share some of those stories as we prepare for the start of the new school year. I hope you take the opportunity to read through the issue and learn more about our work, people, and accomplishments. Please feel free to contact me at any time, as I am always excited to learn about the endeavors of our alumni and friends.

A handwritten signature in black ink that reads "Thomas Maness". The signature is written in a cursive, flowing style.

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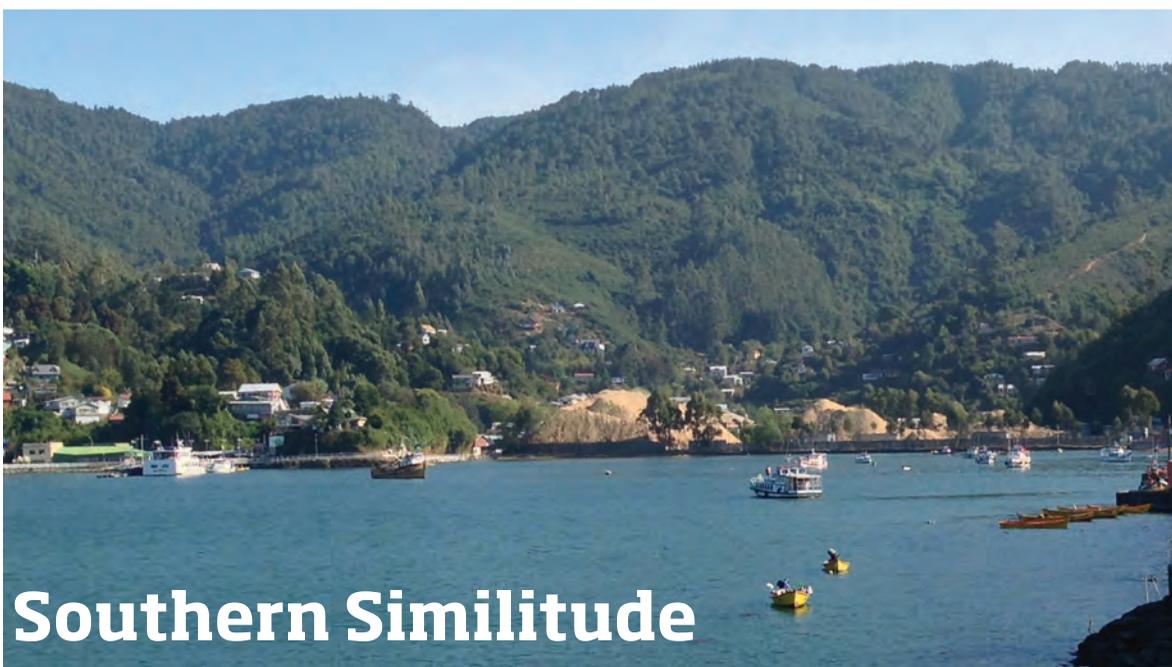


Cover photo:
*waterfall in Huilo
Huilo Biological
Reserve in the
Chilean Patagonian
Rainforest (by
Michele Justice,
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Chile Initiative offers opportunities for international collaboration, chance to explore new but familiar landscapes

by Bryan Bernart

Imagine a place with a temperate climate of warm, dry summers and mild, wet winters—somewhere with coastal mountains, lush and fertile valleys, and a booming forest industry. It may sound like Oregon, but to get there you have to go south—over 6,000 miles south—to Chile, a country at the core of a new and expansive internationalization effort at the OSU College of Forestry.

Approximately a year ago, Thomas Maness, the Cheryl Ramberg-Ford and Allyn C. Ford Dean of the College of Forestry, had an idea, one that would prove to be a groundbreaking first step: What if the College took advantage of the similarities between Oregon and the country of Chile to foster research collaboration between the two places for their mutual betterment? “One of the College’s top priorities is internationalization. In fact, that’s why my position was created,” says Associate Dean for Graduate and International Programs John Bliss. “Internationalization is no longer ‘fringe,’ and it isn’t something that would be nice to do—it’s absolutely critical if we’re serious about being a global leader in forest research and education. We have to broaden and deepen the ties our faculty and students have with their international counterparts.”

After Bliss and International Programs Director Michele Justice made an initial trip to begin

collaboration with key academic, industry, and conservation partners, they set plans into motion for the Chile Initiative, which launched in November 2014 with a visit by Dean Maness. In March 2015, they and six College of Forestry faculty members took a 21-hour plane ride halfway around the globe to learn about forestry in a place that, in the words of John Bliss, is “in some ways the mirror image of the Willamette Valley, and simultaneously, quite different.”

The group from OSU—which included new CoF faculty member Carlos Gonzalez-Benecke (FERM), originally from Chile—visited five universities. They began in Santiago, finding common ground with colleagues at Universidad de Chile and Pontificia Universidad Católica de Chile.

In Concepción (about 300 miles south), the group was welcomed at two universities, Universidad de Concepción and the Universidad de Bío-Bío, a world leader in wood science. Serendipitously, Dean Maness also has personal ties to Concepción, having done work there for several years.

At the Universidad de Concepción, “the Biotechnology Center is amazing,” says Sara Robinson (assistant professor, WSE), one of the six OSU faculty members invited on the spring trip. “The infrastructure they have, their machinery—their government put a lot of money into that,

and it's every lab nerd's dream. There's so much support for research."

The next stop was in Valdivia, near the 40th parallel south, where the Universidad Austral de Chile (UACH) has a long history of instructing future professionals in the fields of forest management, conservation, and products. The university is also home to the scientific journal *Revista BOSQUE* ("Forest Magazine"), published triennially.

During a forestry tour, the members of the OSU group were enthusiastic about the chance to explore the landscape and, being foresters, couldn't resist the chance for hands-on investigations. Bliss fondly describes a scene that took place in a coastal temperate alerce (*Fitzroya cupressoides*) forest that felt "almost like something out of a movie," wherein different CoF faculty were studying disparate elements of forest science, all in the same place and at the same time: "I could see Kevin Bladon [assistant professor, FERM] kneeling down in a stream and scraping things up off of the bottom, while Chris Still [assistant professor, FES] is looking up in the canopy to check out the different kinds of growth going on. At the same time, Dave Shaw [associate professor, FERM, and Extension forest health specialist] has a pair of binoculars he's turned backwards to use as a microscope, and Sara Robinson is hacking into downed logs with a machete to find fungal growth (spalting). It was hilarious," Bliss recounts, "but at the same time, extremely inspirational."

The next step is the launch of six new cross-collaborative research projects (see below). "We asked people throughout the College, not just those who went on the trip, for their best ideas for joint research," Bliss notes.

The response was enthusiastic. Forestry faculty from all three departments are working with Chilean colleagues in areas as diverse as hydrology in native forests to the development of wood-based composites. The list of Chilean partners includes not only universities, but major industry leaders ARAUCO and Forestal Mininco,



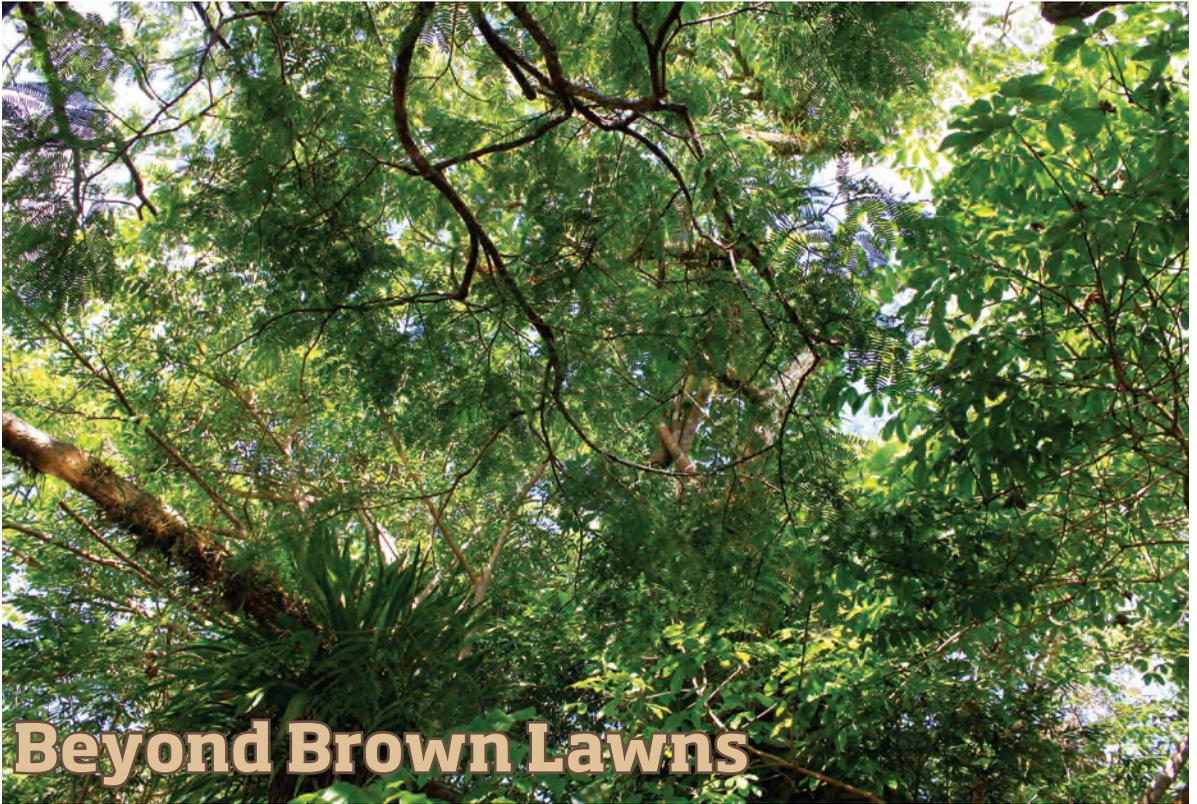
Photos (left): approaching the Harbor of Corral, Costa de Valdivia, on the ferry (by John Bliss); (above) group at the headquarters of the Nature Conservancy's Valdivian Coastal Reserve (left to right): Carlos Gonzalez-Benecke (FERM), Chris Still (FES); John Bliss (OSU), Carlos LeQuesne (Professor of Forestry and Natural Resources, UACH); Sara Robinson (WSE), Jeff Morrell (professor, WSE), Patricio Carey (Director of Graduate School, UACH), Andrés Iroumé (Dean of the Faculty of Forest Sciences and Natural Resources, UACH), Dave Shaw (FERM), Alfredo Almonacid (Director, Valdivian Coastal Reserve Protected Area for The Nature Conservancy), Layla Osman (Specialist in Marine Conservation, Valdivian Coastal Reserve Protected Area for The Nature Conservancy) and children Ignacio and Valentina, and Kevin Bladon (FERM; photo by Michele Justice).

and government and nonprofit organizations such as the Instituto Forestal (INFOR) and The Nature Conservancy's Valdivian Coastal Reserve. College of Forestry students will benefit from these partnerships too, as they gain valuable international work experience alongside research mentors in Chilean forests and labs.

This year, the College will welcome a number of Chilean scholars to Corvallis as the research partnerships gain momentum. "It will be extremely exciting to follow these projects as faculty explore new opportunities and meet fascinating colleagues from around the globe," Bliss says. "So often you may have lofty aspirations for things like this, but no budget, or no personnel. Here, we have everything. We're ready to make it happen!"

Chile Initiative Project Proposals

1. *Ecosystems in the sky: dynamic processes of old-growth canopies in Chile and the Pacific Northwest*, Christopher Still, Dave Shaw, Steve Perakis, Camilla Tejo
2. *Segundo Coloquio de Silvicultura en Bosques Nativos—Establishing OSU as a cooperating partner*, Klaus Puettmann, Pablo Donoso, Daniew Soto, Alvaro Promis
3. *Using Acoustic Sensors and Mobile Terrestrial LiDAR for Market-Driven Harvest Planning and Forest Management*, Temesgen Hailemariam, Sean Garber, Guillermo Trincado
4. *Vulnerabilities to Climate Change of Forest Plantation Species and Their Bi-continental Competing Vegetation: Research Planning*, Carlos Gonzalez-Benecke, Barbara Lachenbruch, M. Paulina Fernández, Alonso Pérez
5. *OSU-UBB-NSF Collaborative Education and Research*, Fred Kamke
6. *Geologic and topographic control on Mean Transit Time in Coastal Range of Chile*, Catalina Segura, Andres Iroumé, Julia Jones, Jeffrey McDonnell



Beyond Brown Lawns

Climate change and the drying of the Amazon rainforest may create feedback loop that holds catastrophic consequences for all

by Bryan Bernart

Thomas Hilker, an assistant professor in the Department of Forest Engineering, Resources & Management, is off to Brazil. Well, that's somewhat premature—he's packing for Brazil, and is leaving in the morning. "I'll be gone for six straight months," he says, sounding a little tired. "This project will be a continuation of the research we've already been working on, which is on carbon feedbacks in the Amazon."

It's June, and outdoors, the mercury is rising as the West Coast prepares for what's shaping up to be a hot, dry summer—and, given that this is an



Canopy (above) and bird in Parque Nacional do Jaú, Amazonas (by Artur Warchavchik, Wikimedia Commons. CC-BY-SA-3.0).

El Niño year, things may even be a little toastier than usual. The El Niño weather phenomenon (a climate cycle in which the Pacific Ocean's warmest waters sit offshore of northwestern South America), has global repercussions, but temperature changes are only one of its many impacts.

In Brazil, where Hilker is headed, El Niño brings rain to the Center-West and aridity to the North. Unfortunately, the North includes some 60% of the Amazon Rainforest, a bastion of biodiversity and a vital carbon store, and for already drought-stricken Brazil, the prospect of increasingly dry weather is a frightening one indeed. Even as Oregon suffers through a fourth year of drought, parts of Brazil have been affected by dryer climates for the past fifteen years.

Drought conditions significantly impact the growth of plants, as is evident from the brown lawns, shriveled leaves, and withered flowers we may see in our own small yards and gardens for a few summer months. A less obvious connection, however, is that reduced vegetation production results in decreased carbon sequestration. When

this happens at a massive scale and over a long period of time, the impact can be enormous. With more CO₂ ending up in the atmosphere, the atmosphere in turn heats up, potentially resulting in further vegetation die-back, which in turn releases more carbon. In this way, drought conditions can create a feedback loop. What, exactly, that may mean for Brazil, and the world at large, is hard to say—at least without further research. Hence, Hilker’s imminent trip.

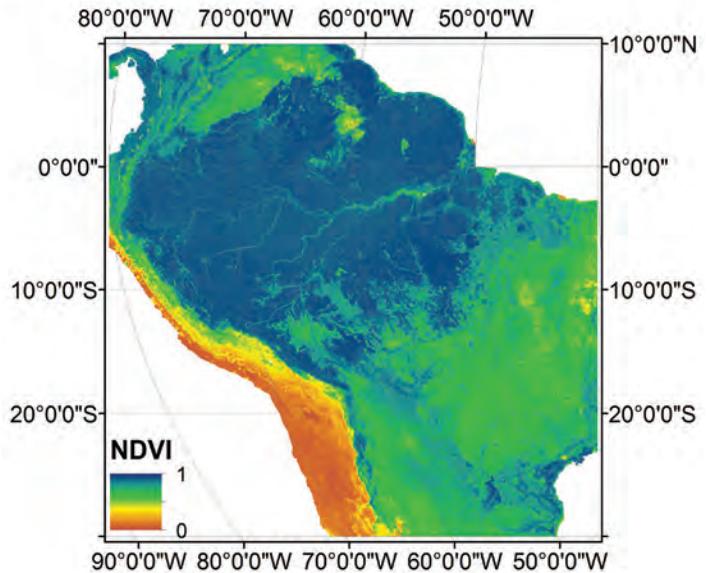
“Our current research is into the exact relationship between the decline of precipitation and the decline in vegetation over time,” says Hilker. “There have been studies in the past that have investigated this, but they’ve either been locally limited (not much data outside of a small region), or they’ve been over a larger swatch of territory, but have been hindered by limitations in remote sensing technology, which functions poorly over tropical areas.”

Hilker’s research involves measuring the amount of greenness in images of the Amazon Rainforest taken by satellites. If there is a lot of cloud cover (as is common in tropical areas), it is difficult to get a clear shot of the surface, and consequently, difficult to ascertain the accuracy of the data collected.

In his newest research, this has become less of a problem. “We’ve been using a new data algorithm, developed by NASA’s Goddard Space Flight Center, to look at a single point in the landscape from multiple angles, which allows us to get a more comprehensive view of the surface.”

Hilker published research on this topic in the fall of 2014 reporting that, since the year 2000, precipitation has declined across most of the tropical evergreen forest and across 80% of the subtropical grasslands. If this continues, it could result in massive changes in the Amazon’s ecosystem during the rest of the 21st century.

“The Amazon is a very important ecosystem. It contains 25% of global primary productivity, and its ecosystems are incredibly dense and productive,” he says. In 2010, as much as 20% of total CO₂ emissions globally have been estimated to be a result of drying in the Amazon. “No one really knows the numbers, but there are several hundred gigatons (billions of tons) of carbon stored in that system. If it collapses, you can stop burning any fossil fuel at all and it won’t save anything. If a system is pushed too far, it could double or triple



“Greenness” of the Amazon– basin observed from space. By observing changes in visible and near infrared radiation, we can approximate the photosynthetic production of vegetation and its changes over time.

our CO₂ emissions on a global scale, which would be catastrophic.”

Will the drought continue, vegetation productivity decrease, and CO₂ output increase, resulting in the collapse of complex ecosystems in the Amazon and elsewhere? Time will tell. For now, all Hilker can do is continue his research. “As far as factors that we can impact go, anywhere there’s a drought, decreasing our own water use can help alleviate some of the drought conditions,” he says. “On a national scale, ultimately, I feel that we need a radical change if we’re going to save the system. It will have to be a 180-degree reversal on how we approach the environment and resource use.”



Thomas Hilker, Assistant Professor in Remote Sensing, FERM (by Bryan Bernart).



The French Connection

International exchanges send OSU students to Nantes, French students to Corvallis to study renewable materials, wood science and engineering

by Bryan Bernart

The College of Forestry International Programs Office enables students from every academic background to find and enjoy a lively and interesting international experience. Additionally, the College welcomes international students and scholars to Corvallis for collaboration with OSU colleagues.

During the 2014-2015 school year, two OSU students majoring in renewable materials, Christina Lawrence and Dylan Dripps, spent six months at l'École Supérieure du Bois (ESB), a school focused on wood science and technology in Nantes, France, and two French students from ESB, Thibault Grandvuiet and Antoine Martin, spent six months in the Wood Science & Engineering Department at OSU. In the spring of 2015, when all four students were in Corvallis simultaneously, they met to share their impressions and experiences on studying wood science abroad.

My understanding is that this is the first time this exchange has been offered, right?

Christina: Yes, ESB approached our department, WSE, and asked if anyone was interested in doing an exchange, so Dylan and I

stepped up and offered ourselves as guinea pigs for it [Dylan and Christina both laugh]

Had you ever been to Europe before?

Christina: I went in 2010 and visited a few places, including Paris, but ESB and Nantes were a whole new experience from that. It was really nice to get more of the culture, more of the low-key aspects of France that I missed out on before.

Antoine: ESB is north of Paris, on the West Coast.

Did it feel like a college town?

Dylan: Absolutely. I think about 30% of the residents in Nantes are students or are under the age of 30. It feels like a really young city.

Thibault: But our university is only 300 or 400 people. It's like if it were only the College of Forestry.

Dylan: ESB is very similar to the CoF, and so is the content in the courses, but they add an aspect of civil engineering as well.

Dylan and Christina, what were your first impressions upon arriving in Nantes, and at ESB?

Dylan: Well, I have no French knowledge [everyone laughs]. I also got lost when I took a

(continued on p. 9)

Photo (left to right): exchange students Antoine Martin, Dylan Dripps, Thibault Grandvuiet, and Christina Lawrence at OSU (by Bryan Bernart).

Limb-iless

Wood manufacturing students salvage branch wood from historic Corvallis walnut tree to create artisanal openers

by Bryan Bernart

It's May, and the wood shop in the Oak Creek Building is awash in half-assembled bottle openers. Kent Davis, instructor in the WSE department, sits at a low table, observing a stack of sanded wooden pieces on one of its ends and a carton of brass fasteners on the other. He leans over and looks through a different box, this one full of finished openers, and hands me one—it's smooth and pleasingly heavy, evoking old-time, hand-made craftsmanship. "The class ended in March, but our demand was 400% what we expected, so I'm still making them," he explains, gesturing at the boxes. "The project was massively successful—I'm actually paying students to keep assembling them through the next year."

This is no small achievement; for the students of WSE 375, success is not guaranteed. At the beginning of the term and with \$500 seed money, students in the course decide on a wood product to manufacture as a class over the next 10 weeks. They are responsible for all aspects of product manufacture, which they take from concept to market. In the winter of 2015, students initially came up with three different ideas for the product they'd complete by spring.

"It was between ping pong paddles, lap desks, and bottle openers," says Brent Lawrence, a Business Marketing major. "Once we had the ideas, we had to think of design constraints that could impact the manufacturing of our product."

These constraints include the wood the class elects to purchase for use in the product, the capabilities and limitations of the machines in the shop, the skill level of the students, and the time that the class has to manufacture the items before they have to be distributed — all important factors for any manufacturing setting.

For this term, all of the lumber came from one source: the branch wood of a single, special tree on the north side of OSU's campus. To make way for the construction of Johnson Hall, which began in September 2014, an Oregon black walnut tree occupying the site had to be cut down.

The tree was obviously rather old, but it wasn't until the students in WSE 375 began delving into accounts of Corvallis history that they learned the tree was actually planted in 1890 by Florence Avery, daughter of Corvallis founder Joseph Avery. Davis says that students are taught that successful products often have a compelling story



(continued on p. 11)

Photos by Brent Lawrence, Business Marketing, OSU.



Bonding Wood and Family Trees

Modeling work bridges research interests in wood composites and genealogy

By Bryan Bernart

Professor John Nairn studies bonds that hold wood composites together—while also creating apps that help genealogy enthusiasts find family connections and shared histories.

For anyone who's met the multi-talented professor in the Department of Wood Science & Engineering, these seemingly divergent research interests are no surprise. Already well known for his work in composites research, Nairn arrived at Oregon State University in 2006 as the Richardson Chair in Wood Science and Forest Products, following a long stint at the University of Utah. During his years living in Utah—"a hotbed of genealogy research"—and working as a professor of materials science and engineering, Nairn developed a keen interest in genealogy himself. Nearly 20 years ago, he embarked on a project to write his own genealogy software to fill a previously unrealized niche for a kind of user-customizable genealogy data reader and editor. In so doing, Nairn drew on his experience with computer modeling. Now, his materials modeling software and his genealogy software share some of the same code. Although the fields of genealogy

and composites science are entirely unrelated, Nairn's work demonstrates that some computing tools are extremely valuable across disciplines.

Mild mannered and quietly funny, Nairn replies to the question, "how do you talk to a complete lay person about materials science and computer modeling?" with a laugh and an admission: "Not too easily."

At its core, though, it's not incredibly difficult to understand—especially with Nairn's guidance. As he explains, much of his work is, in essence, about running experiments virtually instead of in a lab. "Right now we're looking at wood adhesive bonds in a collaborative project with Professor Fred Kamke," he says. "Fred's students are studying the x-ray structure of wood adhesive bonds down to the cellular level—this is, of course, the study of the bond between pieces of wood separated by an adhesive. What we do is put the wood in an x-ray machine, pull on it, and observe how it deforms under load, which is a means of gathering data about how a given adhesive performs."

While running lab-based experiments is one useful way of obtaining data about wood

adhesives, it could be more efficient, and allow for a greater range of experimentation, if the process could be virtualized. So, how does one create a model of an experiment—the data from which is accurate enough to be applicable to the real world?

“Two important concepts in computer modeling are verification and validation,” Nairn explains. “To say a model is verified is to say you’re written the software correctly, and, depending on what you think you’ve implemented, it’s giving you the right answer. A model is validated when the data it produces is the same as data gathered in an actual experiment with the same parameters.”

The process of validating a model requires a huge number of calculations, however. “You have to run a lot of them, and so what I’ve done in my software is write a high-level scripting language that allows you to run simulations over and over again,” he explains. “This is critical, because without automation, you’d be running 50,000 calculations one at a time, and of course, you’d soon give up!”

In Nairn’s genealogy program, scripting fulfills a completely different task. “In most genealogy software, a user has limited control over how the data is displayed. The programmer, and not the user, has decided, for instance, that a page will contain a person’s name, his wife’s name, and his parents’ names. The user must then fill those things in,” he says. “Well, what if you didn’t want to see all those things? What if you want to see just a part of that data, or something else entirely? You’re out of luck.”

But Nairn’s program utilizes scripting in order to give users control over what data they see. “In this instance, when you write a script, the script will read your data and display it in any way you’ve told it to. This is much like how two different websites can each read the same data, but show it to you two different ways, based on their different code.”

He is now working to get his genealogy software, GEDitCOM, on mobile devices. “I want to give users the chance to share their family trees with anyone—this would enable more people to participate and also take an interest in their shared histories.”

(continued from p. 6)

train the wrong direction at 2:00 in the morning and had to hitchhike back home. It was a little rough at first, but all of our classes were taught in English, so that was good.

What was ESB like?

Christina: We had classes pretty much 9-to-5 Monday through Friday. Every once in a while we’d have a Tuesday or Thursday off.

Dylan: One big difference from OSU was that students aren’t taught by professors. At ESB, they bring in professionals from the industry, and they’re the ones who teach classes. When we had a class on business, they brought in a guy who starts small businesses as an entrepreneur. He’s written hundreds of business plans, and he came in right away and showed us exactly how we should do it. It was exciting, and an interesting way to learn.

Do you feel you have a good perspective on post college life from learning from people who are actively working in the industry?

Christina: Definitely. I feel like the big projects and papers we had to write could all pertain to our careers in the future.

Thibault and Antoine, what kinds of classes are you taking here at OSU?

Thibault: We only have classes in wood science. Physical and mechanical properties of renewable materials, including wood.

Antoine: At first, we also took English courses.

Have your English skills changed since you’ve been here?

Thibault: Yes, they were low when we arrived, but they’re much better now.

What, if any, differences do you notice in the curriculum here as compared to ESB?

Antoine: I think it’s similar to ESB, but in English, so, just a different vocabulary. It’s really interesting how similar the material is, actually.

Dylan: How about our units [*of measurement*]?

Thibault: [*laughs*] It’s . . . it’s horrible. Metric makes much more sense.

Christina: It’s true.

What would you tell students who might be interested in an exchange program, but are on the fence about actually doing it?

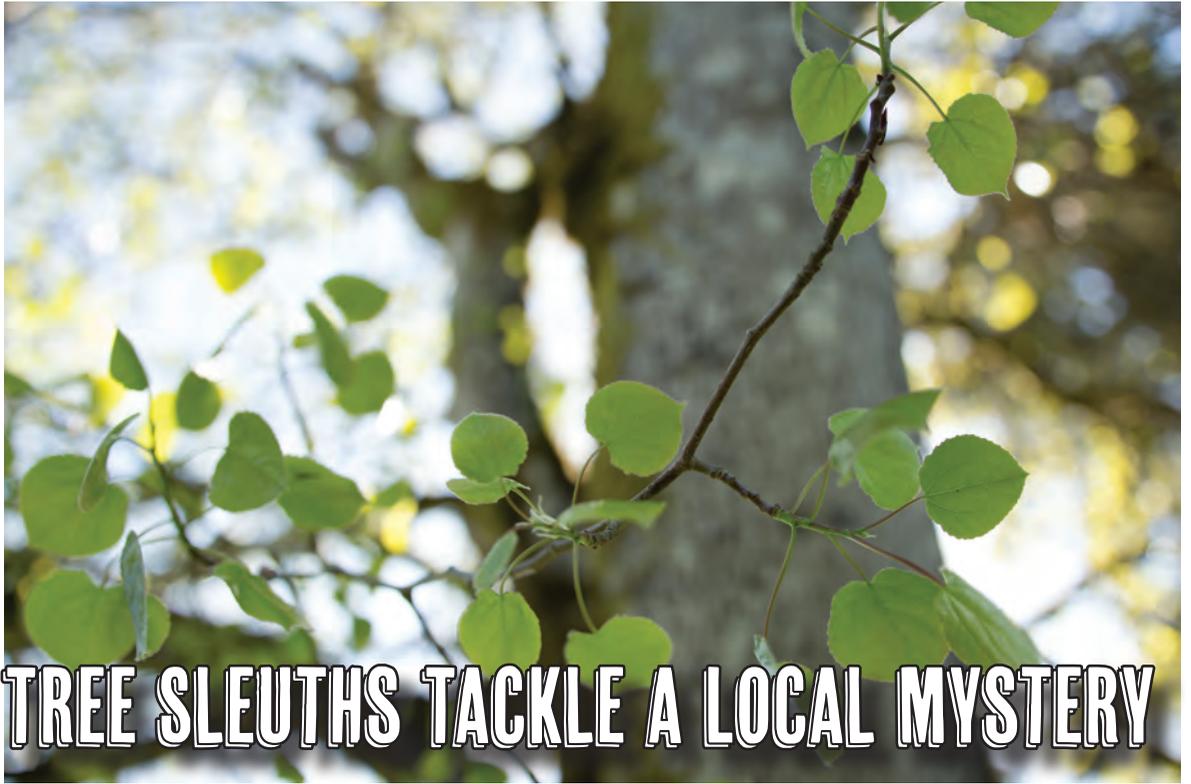
Christina: You can figure things out, even the cost. Take out loans if you have to.

Dylan: Just do it—honestly, you don’t know who you are until you put yourself in uncomfortable situations. I went there with no French language skills at all and survived. That was uncomfortable for me, but it can build character and teach you things.

Antoine: It’s an opportunity that you won’t have later, so now is the best time to do it.

Thibault: You have to go. When you travel, it gives you the desire to travel more.

Christina: Just get there.



TREE SLEUTHS TACKLE A LOCAL MYSTERY

Crowdfunding to crack “The Case of the Willamette Valley Quaking Aspens”

by Bryan Bernart

Since at least the 1920s, scientists have been aware of a cataclysmic series of floods that, 15,000 years ago, swept across eastern Washington, down the Columbia Gorge, and into the Willamette Valley. The Missoula Floods, caused by rupturing glacial dams, occurred periodically over a span of about 2,000 years, and at their peak, had a water flow of nine cubic miles per hour—more than the combined flow of every river in the world. With that kind of power, the floods moved enormous boulders hundreds of miles and left an indelible impression on the environment—but what if the floods’ legacy extended further than the physical landscape? What if the raging waters carried new species to the Willamette Valley?

Quaking aspen, common across much of Canada and the upper Midwest and Northeast, is quite scarce in Oregon west of the Cascades. With that in mind, the half-acre stand of aspen southeast of Corvallis is a massive anomaly. Once they learned of the stand, OSU University Distinguished Professors Steve Strauss and Bill Ripple, both in the Department of Forest Ecosystems & Society, went to investigate. They

theorized that the stand did not originate as a result of artificial propagation, but rather that the species was carried here in the Missoula Floods, millennia ago. “Aspen trees could have sprouted from root material deposited in the Willamette Valley by these ancient floods,” explained Ripple. Once established, aspen stands can live thousands of years through the constant regeneration process of root sprouting.

At present, little evidence exists to support the idea that tree species can be transported across great distances in such events. To test this hypothesis, Strauss’s research group planned to sample the DNA of different aspen populations in an effort to determine the origin of the stand. If it was genetically similar to aspen populations found along the flood path, it would constitute evidence that the stand came to the Willamette Valley via the Missoula floods. However, the cost for the genetic analysis to collect the necessary data was prohibitively steep. What to do?

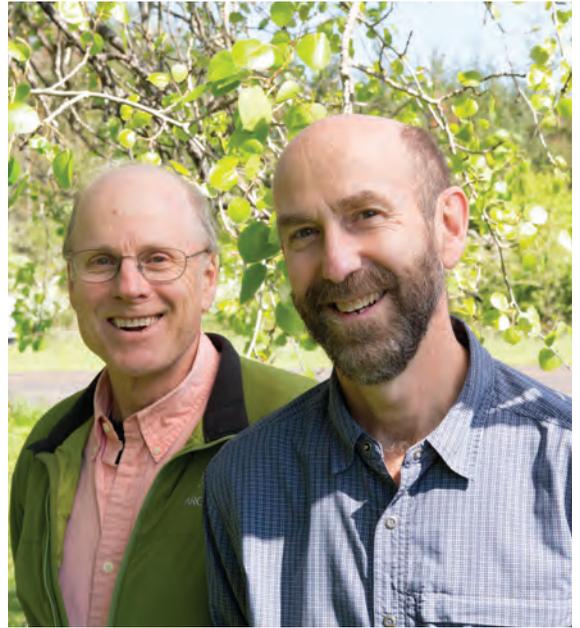
Enter Experiment.com, a new and unusual crowdfunding platform. Although crowdfunding efforts for artistic endeavors and business ventures are ubiquitous, crowdfunding to support

scientific research is a relatively novel approach. Experiment.com separates itself from the rest by focusing on “discovering, funding, and sharing science” worldwide. Members can choose to fund projects in a variety of fields or develop their own projects.

At the urging of OSU graduate (and contributing researcher) Collin Peterson, Strauss put the project up online. Initially, the group sought \$4,000 to cover the cost of DNA sequencing. Once community members caught on to the project, however, the effort snowballed. All told, the team, consisting of Strauss, Ripple, Peterson, and Rich Cronn, raised over \$6,000—enough to not only cover initial expenses, but also to expand the scope of the work.

“It was absolutely great to have the crowd not just fund, but help to create the project. At least 5 of the 70 or so contributors told us about other stands to consider, and in a few cases actually made collections and mailed the aspen branches or leaves to us,” says Strauss. “I loved using the platform to correspond with our supporters about the project—we actually thanked and talked with every one of them.”

Strauss says that due to the community’s strong support for the research, the team will be able to analyze about two dozen aspen groves from throughout the west. In the future, Strauss would like to continue with research into potential propagation of species due to the Missoula Floods. In fact, one supporter of the aspen crowdfunding campaign may have



Professors Bill Ripple (left) and Steve Strauss beneath a large quaking aspen in Corvallis (photos by Bryan Bernart).

already tipped him off to the next species he may study. “One of our crowdfunding sources pointed out some black cottonwood stands that might have had the same origin,” he says. “If the aspen research comes back in support of our hypothesis, it would be very exciting to see what else may have come to the Willamette Valley thousands of years ago in the Floods.”

You can read more about the aspen research at experiment.com/u/dL86Lg.

(continued from p. 7)

behind them. “In this case, the story is the wood,” he says, “although, it’s branch wood, which isn’t good for as many kinds of things and would normally be thrown away.”

Of the class’s three concepts, only one was popular with the group as well as a suitable use of their wood: the bottle openers. Both models of the “Avery Openers” are quite sturdy. The “Joseph” is a bar blade style of opener, and the “Florence” has an opener recessed into one side. Both are simple, effective designs that prominently feature the walnut. “A large part of the trunk is set to be made into desks, chairs, and tables,” Davis says, “but for us, as part of our renewable materials initiative, we wanted to use the branch wood for something memorable as well.”

With their designs finalized and their pitch established, the students began marketing the openers. “We decided to put an announcement in CoF Today (the College’s internal email list), among

other places, and the response was overwhelming,” says Lawrence. “There was a lot of support. We even got emails back from people saying, ‘I remember this tree! I used to look out of my office window every day and see it,’ and from others who said, ‘I don’t live in Corvallis, but I want one—can you ship them?’”

The course is designed to give undergraduates “the chance to draw on all of their forestry knowledge, gained in a variety of courses, and use it in service of manufacturing, marketing, and distributing a product of their own design,” Davis notes. Lawrence appreciates the chance to experiment with business concepts in a collaborative environment. “It’s great to have had an opportunity to apply the principles learned in business classes to actual projects.”

The course is offered again this winter. What will that term’s class come up with, and will it be as big a hit as the Avery Openers? Only its future students will know. The rest of us will have to wait and see.



College of Forestry Dean Thomas Maness (left), Marv Rowley, and Research Forests Director Stephen Fitzgerald (by Bryan Bernart).

The Road Goes Ever On

Alumnus reminisces about forestry school, career, and managing the OSU Research Forests

by Bryan Bernart

When Marv Rowley was fighting in World War II, stationed in the Philippines, his friends nicknamed him “bulldozer.” Not for any combat-related reason, but because as a first scout, he had a unique ability to travel through the thick underbrush of the jungle as if it were nothing. “They used to laugh and ask me, ‘how’d you get over there,’” he says. The answer is that the native Oregonian grew up near forestland, and a woodlot bordered the north side of his family’s property, southeast of Tualatin. “That was our playground,” he explains. “Growing up there was the best preparation I could have had for serving in the infantry.”

Now in his 90s, Rowley may move a bit slower, but his mind is as nimble as ever. On the eve of a celebration in which his decades of service to the OSU Research Forests will be recognized, he eagerly recounts his experiences as a career forester.

“When I first got to Oregon State College, I just thought of it as school,” he admits. Like the rest of his cohort, he arrived there after the war, and was a few years older than a typical college freshman and less likely to find the campus experience exciting in its own right. “I was already married by that time and was building a house, as well as living in it while we were building it,” he says. At first, he registered as a forest management student, but discovered early on that it wasn’t for him. “Other students in the program were talking about working for the US Forest Service, and having to say ‘yes, sir,’ and ‘no, sir,’ and that was one of the things I didn’t like about the Army. I didn’t have anything against forest management, but I found that forest engineering wasn’t like that, so I switched to it the end of the first term.”

Upon graduating in 1950, Rowley worked for Umpqua Plywood in Myrtle Creek, OR. “The man I was working for and I got along tremendously.



Marv Rowley strikes a pose on McCulloch Peak, McDonald Forest, c. 1979 and 2015; (below) Marv's well-used cork boots, which protected his most important forest management "tool"—his feet.

His name was James and he was a real good forester; and, though I graduated in FE, I was really interested in growing trees. He and I used to talk about the forestland we saw when we were driving in to work."

Some years later, in 1954, Rowley went to work with his brother-in-law doing contract work on forestlands. "The School of Forestry had a timber sale they were putting up in Oak Creek, and we got that," he says. "We were on contracts with the College Forests from 1959 to 1973, and when my old professor (and manager of the forest), Bill Davies, was retiring, I said to him I was concerned about who I'd be working for after that," he pauses for a moment. "He told me, 'I think it'll be you,' meaning that I could be the next manager of the forest."

For the rest of the 70s and into the 80s, Rowley managed the Research Forests, overseeing timber harvests, research, and an untold number of student employees. Amongst them was Susan Sahnaw, now the director of the Oregon Natural Resource Education Program (ONREP) housed at the College of Forestry. "Sahnaw worked for me every summer she was in school. She was tremendous—raised on a farm by Forest Grove, she worked with her father plowing and things like that growing up. She was a great forester."

Years later, Sahnaw asked Rowley to take her out to a stand she remembered planting, but couldn't remember its location. "When I showed them to her, she couldn't believe it." He gestures with both arms, making a span of several feet. "The trees were enormous."

Drawing on some 80+ years working on, playing in, and spending time around the woods, what does Rowley feel makes a good forester?



"One thing I keep saying is that the most important tool I have for managing the forests is my feet. You have to walk the ground, see what's going on, and keep your eyes open. When you do that, you'll discover the insects, diseases, and the blowdown," he says, then adds with a smile, "and you'll decide what you'll do about it."

More than 50 people turned out for the celebration and ceremony held in the forest on a beautiful day in May, during which Road 790 (the road going up to McCulloch Peak) was designated as Marvin L. Rowley Road. After the unveiling of the sign, Research Forests Director Stephen Fitzgerald presented Rowley with his own gate key, and then colleagues, former students, and family members stepped up to share stories about the man they knew as a forester and mentor. Finally, as a special treat, Rowley shared one of his many poems, "I Fell a Tree."

More poems are included in the collection of oral history interviews, *Marvin Rowley, Family History and Management of the OSU Research Forests, Benton and Polk Counties, Oregon: 1946–1995*. The book is available online here: <http://hdl.handle.net/1957/56366>.

College of Forestry News and Awards

Forestry Club Cabin Renovation

The original forestry club cabin burned down in 1949 and was rebuilt in 1950 under the leadership of then FE student, Marv Rowley, who later became forest manager (see story on pp. 12-13). For 65 years, College of Forestry faculty, students, and alums have used the cabin for a variety of activities. In recent years, however, the cabin had deteriorated with a large amount of rot in the lower walls, which were originally built from vertical half-round logs. This year, we undertook a major renovation to replace two side walls with new windows, gut and improve the kitchen, reface the fireplace, add new (and quieter) lights, and add an audio visual system. This first phase of renovations is nearly complete.

We will have a dedication of the refurbished cabin at the 2015 "Back to School Bash" on October 1st from 5:30-7:30 PM. More details will be posted on the College of Forestry website: www.forestry.oregonstate.edu.



National and Oregon SAF Awards

College of Forestry alumnus **Clark W. Seely** (Forest Management, 1977), president of Seely Management Consulting in New Smyrna Beach, Florida, SAF certified forester (CF), and formerly an executive of the Oregon Department of Forestry, has been elected vice-president of the Society of American Foresters (SAF). Seely began serving

in the national office in January 2015. He will serve as SAF President in 2016 and Immediate Past-President in 2017.

In April, Oregon SAF named **Dave Cramsey** (FM, 1991) Forester of the Year, an award given in recognition of contributions to both the forestry profession and the public. OSU student **Jessica Kessinger** (FE and International Studies) received the OSAF OSU Outstanding Student Award. The late **Hal Salwasser**, Dean of the College of Forestry from 2000 to 2012, was honored with an OSAF Lifetime Achievement Award. The posthumous award was given to his wife Janine and daughter Kaija at the annual meeting in Eugene.

COLLEGE OF FORESTRY

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