

# Branching Out

Orono, Maine • Summer 2018

## Director's Welcome



The summer solstice has come and gone and we are in the throes of good hot/humid tree growing weather. This past year was also wonderful for growing knowledge through research by our faculty and students. I think you'll enjoy reading about the broad range of actions—from 3D printing of "wood" to Bicknell's

Thrush and rural youth. Our students saw a similar broad range of experiences—whether it was January forest operations or studying the Allagash Wilderness Waterway. The generosity of alumni and friends continues to amaze me and the students who benefit from over \$400,000 in scholarship donations are a tangible example of that.

But what about the throes? The School of Forest Resources is continuing its change in faculty and staff, with new faces with expertise in remote sensing, forest industry business development, forest bioproducts, and forest ecosystem physiology. Keep tuned to our web page ([forest.umaine.edu](http://forest.umaine.edu)) and Facebook (@theschoolofforestresources) for an announcement about our new silviculture faculty.

I hope you enjoy the new section in the newsletter that gives an update on what alumni are doing. Is there someone in there you know? Do you have an update to share?

Finally, in a brazen act of entrepreneurial self-promotion, the University Forest is now able to build on your sweet memories at UMaine by selling maple syrup boiled up in the Thomas J. Corcoran Sugar House. And, if you find yourself in Orono, stop by the local brewpubs for a pint of Green Growth, a pale ale brewed with Norway spruce tips from the Demeritt Forest, with



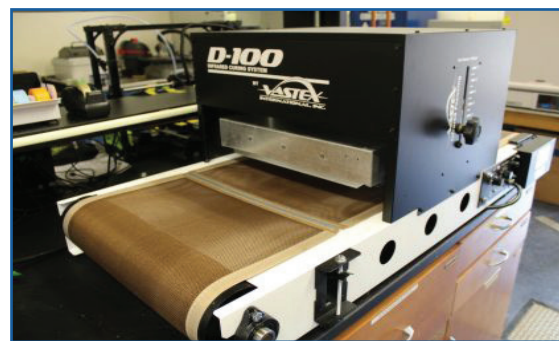
**Dr. Stephen Shaler**  
Director & Professor  
School of Forest Resources

\$1 from each pint sold going to the building of the new sugar house. Indulge yourself, enjoy the rest of your summer and stay connected.

P.S. Have some memories or photos of your days at UMaine that you would like to share? Please email them to [sfr@umaine.edu](mailto:sfr@umaine.edu) and we'll post them on our website and Facebook page!

## Emerging Technologies

Renewable nanomaterials and emerging technologies for forest products is the prime interest of **Assistant Professor Mehdi Tajvidi**, who was recently awarded a public-private partnership grant to develop next-generation cellulose nanofibrils (CNF) building materials. Tajvidi also is developing and testing a lighter alternative to traditional drywall made with CNF and wood particles, which he hopes will serve as a better insulator and have a fire resistant core. Looking forward, Tajvidi and his team in the **Laboratory of Renewable Nanomaterials** are teaming up with G-O Logic, a Maine-based building products firm, to create a lightweight interior wall covering system that's easy to mold into various shapes. This project is in its early stages with adhesion and dewatering mechanism challenges still to be overcome.



Professor of Forest Operations, Bioproducts & Bioenergy **Douglas J. Gardner** is also involved in research in the areas of adhesion and surface science and cellulose nanocomposites. His advisee, Lu Wang, who received his Ph.D. in May, targeted his dissertation on CNF-reinforced plastics for 3D printing applications.



## SFR RESEARCH SPOTLIGHT

**Dr. Mindy Crandall** and graduate student **Maren Granstrom** are working with the Penobscot Experimental Forest team to develop a user-friendly guide to the long-term outcomes of different silvicultural treatments. Outcomes measured encompass both ecological and economic considerations, including wildlife habitat, potential carbon storage and standing value. Granstrom is working on a master's degree in forest resources as part of this U.S. Forest Service funded project.

Another research effort by **Dr. Crandall** is to gather youth perspectives on their communities in northern Maine through surveys and listening sessions in an effort to better understand the role that community can play in shaping teen goals and aspirations for the future. Project partners include UMaine Cooperative Extension, Piscataquis County Chamber of Commerce, Helping Hands with Hearts and local schools. Doctoral student **Nicole Bernsen**, herself a former high school teacher, will use this data for her dissertation, and community partners will be using it to better target programs and local economic development options in order to increase the retention and recruitment of young people in rural Maine.

Beech trees are at the center of research by **Dr. Aaron Weiskittel** and colleagues, who found that the increase in beech are causing declines in other tree species. The researchers analyzed nearly 20 years of U.S. Forest Service data on beech, sugar and red maple, and birch in Maine, New Hampshire, New York and Vermont.

**Drs. Amber Roth, Anil Kizha, and Mindy Crandall** have been awarded funds from the Cooperative Forestry Research Unit to study Bicknell's Thrush and habitat use (Roth), the effects of timber harvesting operations on the soil (Kizha), and landscape-level evaluation of deer wintering habitat (Crandall & Roth).

What topics are you interested in hearing about in future issues of Branching Out?  
Let us know!  
[sfr@maine.edu](mailto:sfr@maine.edu)  
207.581.3794

## FACULTY TRANSITIONS

### NEW FACES



**Dr. Parinaz Rahimzadeh-Bajgiran** will be joining SFR as the Assistant Professor of Remote Sensing of Natural Resources in September. Dr. Rahimzadeh's research focus has been on ecosystem water stress detection, forest health evaluation and forest productivity estimation through measuring vegetation biophysical characteristics, evapotranspiration and soil moisture using optical and thermal infrared remote sensing sensors at different scales. Dr. Rahimzadeh will be teaching SFR-400: Applied GIS in Fall 2018.



**Shane O'Neill** has joined the SFR staff as Forest Industry Business Development Manager. Shane's focus is on aligning university resources with the forest industry. He would love to work with alumni in the industry: What are your challenges? What can we do to solve them? What work force needs do you foresee? He can be reached at [shane.r.oneill@maine.edu](mailto:shane.r.oneill@maine.edu).



**Dr. Jay Wason** will join the faculty as Assistant Professor of Forest Ecosystem Physiology on September 1. Dr. Wason was most recently a postdoctoral research associate at the Yale School of Forestry & Environmental Studies, studying the structure of xylem networks in response to drought conditions.



**Dr. Ling Li**, Assistant Professor of Sustainable Bioenergy Systems, will also join SFR in September. Dr. Li comes to us from the University of New Brunswick where she was a Research Scientist in the Wood Science and Technology Center at UNB. Her focus has been on solid biofuels, wood composite products and finite element analysis.

### DEPARTURES

Dr. Robert Rice, Professor of Wood Science, retired in December. We wish him well!



## Alumni and Student News

**Dan Christensen** (B.S. For Eng., '77) received the 2018 Distinguished Alumnus award. Dan retired after a 38-year career in the natural resource industry, the last 14 as President & CEO of Hancock Natural Resource Group. Dan gave a great talk to our students on his experiences from the forest to the boardroom.

*Donors in attendance:* **Bud and Helen Blumenstock, Donna Cassese, Beth Dehaas, Terri Coolong, Eric Griffin, Michael Griffin, Holly and Dennis Violette, Don Phillips, Shirley Randall, Jim Robbins, and Sarah "Sally" Medina.**

### Where They Are Now / Where They Are Headed

Tony Award winner **Don Holder** (B.S. '80) was nominated for the 2018 Best Lighting Design for Broadway's *My Fair Lady* • **Neil Koch** (PRT) has been appointed Interpretive and Visitor Service Manager at Hopewell Furnace National Historic Site • **Alper Kiziltas** (Ph.D. '04) is a research scientist with the Sustainable Biomaterials and Plastic Research Group of Ford Motor Company • **William Tze** (Ph.D. '03) is Associate Professor of Bioproducts and Biosystems Engineering at the University of Minnesota • **Evan Nahoor** will be working for Thomas Donnelly Logging in Long Lake, NY, this summer • Rising EES senior **Cassandra Carroll** will be participating in a biology REU at Tufts University • **Corey Ridley** is joining L&A Ridely Logging in Jay after graduation • Junior **Marshal Bertrand** will be gaining valuable experience at the Advanced Structures and Composites Center on campus • New M.F. student **Alex Ashby** will join the Albany Water Dept. under a Working Woodlands Agreement with The Nature Conservancy • M.S. grad **Ben Farber** heads to Madison, WI, to begin work at the Forest Products Lab.

## School of Forest Resources Awards

SFR Director Steve Shaler was delighted to announce the establishment of the **Park Street Scholarship Fund**, initiated by anonymous donors to provide financial assistance for incoming freshmen who graduated from high schools in Maine and northern New England. Four scholarships totaling \$30,000 will be awarded annually to incoming students. In addition, the School was thrilled to award over \$400,000 in scholarship funds to nearly 100 students at the April awards banquet. Below are a sampling of the award recipients.

- Helen Belyea Blumenstock Scholarship: Lydia Horne
- Ralph H. Griffin Memorial Scholarship: Margaret Mansfield
- Dr. Mirosław M. Czapowski '58 Scholarship: Xue Bai (Ph.D.)
- Charles E. Schomaker Memorial Scholarship: Maren Granstrom (M.S.)
- SWOAM Duncan Howlett Graduate Student Award: Casey Olechnowicz (M.S.)
- Lee & Sunny Allen International Student Travel Fund: Hope Kohtala, Ashley Cooper
- Robert I. Ashman Award: Christopher Gilbert
- Involvement Award: Casey Dumont, Jacquelyn Sadowski
- Dwight B. Demeritt Forestry Award: Savannah Haines
- Lawrence & Louise Robbins Forestry Scholarship: Cole Harriman
- Xi Sigma Pi High Ranking Award: Alexander Audet
- Arthur G. Randall Scholarship: Corey Kotfila, Michaela Kuhn, Aidan Pirruccello-McClellan
- Hugh Violette Scholarship and Mike & Maine Scholarship: Ethan Hill

## NEWS SNIPPETS

Capstone presentations from the Class of 2018 in **Parks, Recreation and Tourism** include Allagash Wilderness Waterway Foundation: Youth on the Waterway Excursion Surveys; Promoting Environmental and Social Responsibility on the Rocks; National Park Employment: A Guide for Students; and Reclassifying and Creating Maps for UMaine's Forests and the Penobscot Region.

Wish you could access a thesis that once lined the bookshelves of Nutting 103? You still can! Staff at the **Center for Research on Sustainable Forests** (CRSF) are scanning theses from the past 70 years into the Northeast Forest Information Source (NEFIS; [www.nefismembers.org](http://www.nefismembers.org)), an open-source website dedicated to applied forestry information about the Northern Forest. Membership is free and submissions related to all aspects of the Northern Forest (silviculture, wildlife, recreation, logging, policy, etc.) are welcome.

**Dr. Aaron Weiskittel**, Irving Chair of Forest Ecosystem Management, was promoted to Professor of Forest Biometrics and Modeling in the School of Forest Resources. His research has led to the development of empirical and process-based models to predict biomass growth and yield across a range of forest types. Dr. Weiskittel also has been named Director of the Center for Research on Sustainable Forests ([www.crsf.umaine.edu](http://www.crsf.umaine.edu)), which supports research on the management and sustainability of northern forest ecosystems and Maine's forest-based economy.

**"Forestry and Environmental Science in Maine"** ([bit.ly/ForestryMaineVideo](http://bit.ly/ForestryMaineVideo)) is a video about the research, education and overall impact forestry and environmental science at the University of Maine has on the state and beyond. You might also enjoy "How Forests Make Our Lives Better," a video from the North American Forest Partnership: [vimeo.com/244874369](http://vimeo.com/244874369).

The University of Maine is an EEO/AA employer, and does not discriminate on the grounds of race, color, religion, sex, sexual orientation, transgender status, gender expression, national origin, citizenship status, age, disability, genetic information or veteran's status in employment, education, and all other programs and activities. The following person has been designated to handle inquiries regarding non-discrimination policies: Sarah E. Harebo, Director of Equal Opportunity, 101 North Stevens Hall, University of Maine, Orono, ME 04469-5754, 207.581.1226, TTY 711 (Maine Relay System).



*“UMaine has the connections in the industry to bring the right group of cooperators together to revive the [wood measurement] course. We also have the facilities on the university forest to hold the class in a central location.”*

Keith Kanoti, Demeritt Forest Manager



Director Shaler presents Dan Christensen with the SFR Distinguished Alumnus award.

## MAPLE SYRUP AND OTHER SWEET NEWS FROM DEMERITT FOREST

A successful sugaring season on the University Forests means maple syrup is now available to purchase! Proceeds help support the operation and maintenance of the University Forests and Thomas J. Corcoran Sugar House. You can enjoy your syrup while your purchase helps to maintain skidder and sawmill equipment, ski trails and roads, student field experiences, and other vital forestry-related efforts. Half pints, pints and quarts in Rich Taste (Grade A Medium Amber) and Robust Flavor (Grade A Dark Amber) are available.

To order contact Keith Kanoti, Forest Manager  
keith.kanoti@maine.edu / 207.581.2849  
1/2 pints \$6, Pints \$10, Quarts \$18

After a six-year hiatus, the University of Maine hosted a wood measurement training program in May. The filled-to-capacity program covered scaler's licensing law, wood measurement methods scaling techniques, log rules and history, as well as hands-on practice with experts scaling logs in the university forest mill yard. The program included both classroom and field training. Participants earned a certificate that will reduce the time required as an apprentice scaler from 2 years to 6 months.

## WINTER CAMP

