

Faculty & Student Publications

De Urioste-Stone, S.M. McLaughlin, W. J. Guilfoyle, K. Inglebret, E. & N. Sanyal. (2013). Co-administration in the Zunil Regional Municipal Protected Area, Guatemala. *Journal of Park and Recreation Administration*, 31(3): 61-76pp.

Hiesl, P. and J.G. Benjamin. 2013. Applicability of International Harvesting Equipment Productivity Studies in Maine, USA: A Literature Review. *Forests* 4:898-921.

Hiesl, P. and J.G. Benjamin. 2013. A Multi-Stem Feller-Buncher Cycle Time Model for Partial Harvest of Small Diameter Wood Stands. *International Journal of Forest Engineering* 24(2):101-108.

Jansujwicz, J., A.J.K. Calhoun, J.E. Leahy, and R.J. Lilieholm. 2013. Using Mixed Methods to Develop a Frame-based Private Landowner Typology. *Society and Natural Resources* 26:945-961.

Jansujwicz, J.S., A.J.K. Calhoun, and R. Lilieholm. 2013. Using citizen science education and outreach to engage municipal officials and private landowners in vernal pool conservation. *Environmental Management* 52(6):1369-1385.

Jarcuska, B. and M. E. Day. 2013. The effect of age on height growth in even-aged saplings of *Fagus sylvatica* L. *Trees Structure and Function* 27:1821-1825.

Lilieholm, R.J., S.R. Meyer, M.L. Johnson, and C.S. Cronan. 2013. Land Conservation in the Northeastern United States: An Assessment of Historic Trends and Current Conditions. *Environment* 55(4):3-14.

Lynn, K., Daigle, J., Hoffman, J., Lake, F., Michelle, N., Ranco, D., Viles, C., Voggeser, G., and Williams, P., 2013. The impacts of climate change on tribal traditional foods. *Climate Change Journal* 120: 545-556.

Nelson, S.J., K.E. Webster, C.S. Loftin, K.C. Weathers, 2013. Shifts in controls on the temporal coherence of throughfall chemical flux in Acadia National Park, Maine, USA. *Biogeochemistry* 116(1-3): 147-160. DOI: 10.1007/s10533-013-9884-7.

Peng, Y., D. J. Gardner, Y. Han, A. Kiziltas, Z. Cai and M.A. Tshabalala. 2013. Influence of drying method on the material properties of nanocellulose I: thermostability and crystallinity. *Cellulose* 20:2379-2392.

Peng, Y., D. J. Gardner, Y. Han, Z. Cai and M.A. Tshabalala. 2013. Influence of drying method on the surface energy of cellulose nanofibrils determined by inverse gas chromatography. *Journal of Colloid & Interface Science*. 405:85-95.

Vogesser, G., Daigle, J., Lake, F., Lynn, K., and Ranco, D. 2013. Cultural impacts to tribes from climate change influences on forests. *Climate Change Journal* 120: 615-626.

For more publications please visit the faculty pages of our website:
forest.umaine.edu

Faculty in the News

Dr. Robert Lilieholm was featured discussing Maine's forests and wood pellets on NPR's Marketplace, produced by Jack Rodolico. The piece was titled "New England Cranks up its Wood-burning Stoves."

In October, the Bangor Daily News produced a Forest Products Week supplement that featured **Dr. Jeffery Benjamin**, **Dr. Jessica Leahy** and research by **Dr. Robert Rice** and **Dr. Aaron Weiskittel**. The supplement comes out every year and is widely read by the forest products industry and the general public.

Dr. Robert Seymour, the Curtis Hutchins Professor of Forest Resources at UMaine, was interviewed by the Maine Public Broadcasting Network for a report on the Maine Bureau of Parks and Lands' plans to increase the amount of wood it cuts every year.

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Branching Out

University of Maine School of Forest Resources Newsletter

Winter 2013/14

Director's Welcome



At this time of the year when the calendar page is flipped (for those of us who still use a paper calendar) it's natural to think about what has and what will be happening. The core business of SFR is undergraduate education. Our undergraduate student body has been growing with an increase from 127 to 142 in the three

undergraduate degree programs. We received notification in early December that the undergraduate programs as well as the Master of Forestry program are re-accredited by the Society of American Foresters (SAF) for ten years. In addition, the Forest Operations, Bioproducts, and Bioenergy degree was accredited by the Society of Wood Science & Technology (SWST). We are working to reinvigorate the double degree in Forestry/Wildlife Ecology, promote a concentration in Forest Ecology under the Environmental Ecology System (EES) program, and are also exploring the development of Conservation Law and Tourism concentrations within the Parks, Recreation, and Tourism degree.

The plenary session of the SAF National Convention in October was "Silviculture Matters." The program was led by our own Professor Robert Seymour. Also on the program was Associate Professor Jessica Leahy. The Barrington Moore Memorial Award in Biological Science was presented to Dr. Thomas Fox, a 1980 Maine forestry grad. Congratulations Tom!

On a personal note, I am truly excited about the opportunity to promote and advocate for the faculty, staff, and students of the School of Forest Resources. My first few months have been filled with wonderful meetings with alumni and stakeholders who hold all that we do and represent in high regard. The passion that we all have about the forest is palpable and reassuring. I pledge to do my best to help continue making SFR even better. Alumni and friends, please feel free to contact me – I'll make the time to listen and learn.

Sincerley,

Dr. Stephen Shaler
 Director & Professor
 School of Forest Resources



Award to Study Maine's Seasons

The University of Maine, in collaboration with Schoodic Education and Research Center (SERC) Institute, was one of nine awardees to receive funding from the NOAA Fisheries Service Northeast Region to support educational projects in New England to provide hands-on learning experiences for K-12 students to foster greater understanding of and connection to local watersheds.

The award will fund a collaborative project entitled "the Future of Four Seasons in Maine." This 3-year project, which will build upon previous research by partner SERC Institute, supported by an earlier NOAA B-WET grant, will engage 1,275 students and 30 high school teachers with professional scientists in research about the changing nature of the snowpack across Maine. We will emphasize the coastal climate zone where snowmelt provides clues for diadromous fish migration and changes in flood flows. Data will be used to expand the number and the geographic scope of existing monitoring programs. The creation of an ongoing field-based snowpack monitoring program will bring students into regular contact with working scientists and has the potential to continue year after year.

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Faculty Spotlight



In August, the School of Forest Resources welcomed Dr. Shawn Fraver as the Assistant Professor of Forest Ecosystem Science. Before arriving at the University of Maine he was an Associate Research Professor at the University of Minnesota, a Research Ecologist with the USFS Northern Research Station and a Post-Doctoral Associate at Mid-Sweden University, Sundsvall, Sweden. Dr. Fraver is no stranger to Maine; he received his Ph.D. (Forest Resources) here at the University of Maine in 2004, under the direction of Dr. Alan White. Since then his research has covered a wide range of topics, including the ecological impacts of biofuels harvesting, fire ecology, forest stand dynamics, and old-growth forest attributes. His research is also broad geographically, with current/past projects in Puerto Rico, Chile, Sweden, Czech Republic, and various locations in the U.S. He is looking forward to continuing his research addressing carbon dynamics and alterations to forest processes under various climate-change scenarios, here in the most forested state in the nation.

Follow Dr. Fraver's research on his faculty webpage:
forest.umaine.edu/faculty-staff/directory/shawn-fraver

Retirement: Dolores Stone



After 32 ½ years of service to the University of Maine, with all of those served in Nutting Hall, Dolores Stone has retired. Dolores plans to spend her time crafting in her workshop and spending quality time with her husband, Don, and her grandchildren. Dolores was an integral member of the administrative team in the School of Forest Resources office and will be greatly missed by faculty, staff and students.

Shannon Field replaced Dolores on December 2. Shannon comes to us from Northeast Technical Institute, where she served as campus administrator and student services advisor. She earned her B.A. in English (Magna cum laude) from the University of Maine. We are happy to welcome Shannon to our team!

Faculty Spotlight Continued



Dr. Mehdi Tajvidi joined the School of Forest Resources in September. He brings 12 years of international research/teaching experience in the area of forest products and renewable composite materials to the Department. Mehdi started his scientific career at Forest Products Laboratory, Madison, WI in 2001, where he worked as a visiting scientist. After completing his Ph.D. program in Natural Resources Engineering at the University of Tehran in 2003, Mehdi held various academic positions around the world including Iran, Japan, and Canada. Mehdi's areas of research interest are production, characterization and performance evaluation of renewable nanomaterials and their composites. He is particularly interested in mechanical properties of nanomaterials and nanocomposites, structure-property relationships, viscoelastic behavior, dynamic mechanical analysis and magnetic cellulose nanocomposites. Welcome Dr. Mehdi Tajvidi!

Follow Dr. Tajvidi's research on his faculty webpage:
forest.umaine.edu/faculty-staff/directory/mehdi-tajvidi



On November 2, the SFR452 — Environmental Interpretation — class presented their conceptual proposals for the historic Braeside property to the Friends of Edith Marion Patch organization. Having been approved to proceed, the students will spend the rest of the semester implementing their projects on the ground. Final presentations took place in Nutting Hall in December.

Faculty Updates

Dr. Robert Wagner has been awarded The Abby Holman Public Service Award for 2013 by Maine Forest Products Council. He won the award for his passion, loyalty, and dedication to Maine's forest products industry, to good government, and a robust economy.

Jessica Leahy has been appointed to the American Forest Foundation's Woodlands Operating Committee. In this national-level position, Professor Leahy will serve on an advisory committee to the American Forest Foundation's Woodlands program and the AFF board of directors.

Jessica Leahy; Kasey Legaard, an associate scientist in the School of Forest Resources; **Dr. Aaron Weiskittel**; and **Emily Silver**, a Ph.D. student in the School of Forest Resources, are working with Simons-Legaard, a two-year project, titled Predicting the Future of Maine's Forests, which began in July 2013. The project was awarded a \$235,494 National Science Foundation grant.



Discover the Forest

In July, the School of Forest Resources hosted "Discover the Forest" a summer program sponsored by the U.S. Forest Services and the University of Maine. Students from Maine, Massachusetts, New York, New Jersey, Connecticut and Rhode Island participated in the weeklong camp, the first forestry camp for high school students at the University of Maine. Participants came from diverse backgrounds and places, including young women and minorities traditionally underrepresented in forestry, as well as those from rural and urban communities. The camp was organized and hosted by the university's School of Forest Resources with funding provided by the Forest Service's Northern Research Station.

Students had on-site access to the University Forest, Perch Pond and the Orono Bog Boardwalk. Northern Research Station scientists, faculty and a number of graduate students joined campers during the day for lessons and activities related to forest inventory, interpretative signs, recreation management, fish sampling, forest operations and forest management planning.

Student activities included: evening campfires, swimming, nature walks and opportunities to talk to natural resources experts. The students peppered their hosts with many thoughtful questions. They wanted to know what it means to be a wildlife manager, what a forester does on an average day, and how camp instructors became interested in their field of study.

Organizers hope that, in addition to learning about the forest, participants will discover career opportunities and set the stage for a more diverse and inclusive workforce in the future.