



School of Forest Resources Newsletter



Director's Welcome

The School of Forest Resources has completed another busy and successful academic year and our future continues to look bright. Graduation was held on May 10 and nearly 30 students were awarded degrees across the five academic programs offered by the School. The School teamed up with the Department of

Wildlife Ecology to host a luncheon for the graduates and their families and friends prior to graduation, and over 250 people attended. Needless to say, it was a festive and enjoyable occasion.

One of the highlights of this past year was the awarding of the first **George L. Houston Scholarships** to graduate and undergraduate students. In total, two Houston Graduate Fellowships were awarded and 12 Houston Scholarships were offered to undergraduates. The scholarship program is helping the School attract some of the best students from around the country to our forest-related programs. For example, the number of first-year undergraduate students enrolling in our programs this fall is about 50% higher than last year. The quality of the students who are enrolling is also improved. And, we expect even greater numbers in the future as the full effects of the \$12-million Houston Scholarship program come to fruition.

In other news, over the past year the School has conducted a search for a permanent Director. My interim appointment ends on June 30, 2008. **Dr. Robert Wagner** will become the first permanent Director of the School on July 1, 2008. As many of you know, Dr. Wagner has been with the School for about 10 years and is currently the Director of the **Cooperative Forestry Research Unit**. We look forward to Bob's appointment as Director and we wish him well in this new position.

Finally, I would like to thank the faculty, staff and students in the School for their welcoming spirit and their willingness to work with me over the last two years. We have made great strides because of their efforts. As I noted, the future of the School is bright because of them, and even greater accomplishments will be forthcoming because of their dedication and hard work. It has been my pleasure to be part of this great School for the past two years.

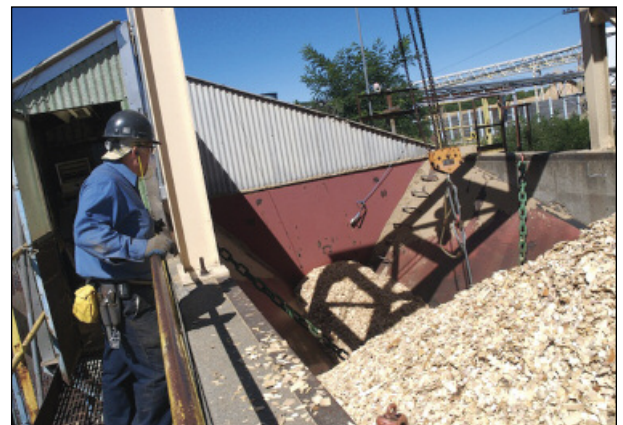
Steve Reiling
Steve Reiling, Interim Director

Forest-based Federal Grants Awarded

Two large federal grants highlight forest-based research at UMaine. In April, the US Department of Energy awarded a \$30 million grant to support the construction of a biorefinery at the former paper mill in Old Town. The grant continues the work of UMaine Professors **Hemant Pendse**, **Stephen Shaler**, and other scientists at UMaine's **Forest Bioproducts Research Initiative**, moving toward making forest-based ethanol through a process based on patent-pending technology created by **Professor Adriaan Van Heiningen**. The funding was awarded to a consortium involving UMaine, **Red Shield Environmental**, and **American Processes Incorporated**.

Also in April, a US Department of Defense grant of nearly \$13 million was awarded to fund the next stage of **Advanced Engineered Wood Composites Center R&D** work aimed at developing composite shipping containers fitted with sensors that allow for tampering detection. This work has significant potential implications for both the shipping industry and for homeland security. This grant was awarded to **Maine Secure Composites**, an

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Woodchips ready for processing





Expo visitor gets hands-on experience

"All Things Woods" Expo

The 2nd annual "All Things Woods" Expo in Portland on April 26 was a great success, drawing 800 attendees—roughly twice as many as last year. Organized by **Forests for Maine's Future**—a partnership between the University of Maine's **Center for Research on Sustainable Forests**, the **Maine Forest Service**, the **Small Woodland Owners Association of**

Maine, and the **Maine TREE Foundation**—the event was free to the public and offered folks a chance to learn about and celebrate Maine's forests. This year the event offered wood and woods-related vendors, exhibitors, and many activities. Presentations included the **Chewonki Foundation** on Maine's owls and predators, youth-oriented activities by the **Maine Discovery Museum**, and workshops and interactive demos from **Maine Audubon**, the **Maine Bowhunters' Association** and others. "Timber" (aka **Tina Scheer**) of television's "**Survivor**" brought in crowds off the street with her traveling "Chics with Axes" show, and Smokey Bear visited throughout the day to promote **Maine's Wildfire Awareness Week**. **Forests for Maine's Future** is already planning the third annual event for the spring of 2009.

For more information, please visit www.forestsformainesfuture.org or contact Summer Allen at summer.e.allen@umit.maine.edu

"All Things Woods" Expo PRT Capstone Presentations

Fifteen seniors enrolled in Dr. Jessica Leahy's **Parks, Recreation and Tourism** capstone course tackled service learning projects directed at combating nature deficit disorder during Spring Semester 2008. Projects included, among others, teaching nature art to elementary school students, conducting a formal evaluation of a residential environmental education camp, creating a documentary about high school outing clubs, and surveying Aroostook County students about their interests in learning fly fishing in physical education classes. Students then presented their posters at the "All Things Woods" Expo in Portland, ME.



Students, faculty and the public enjoying the "All Things Wood" Expo

Federal Grants

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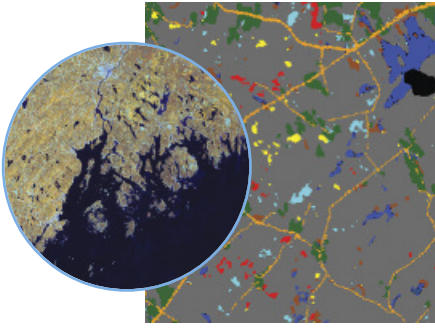
AEWC spinoff company. Congratulations to AEWC Director and UMaine **Professor Habib Dagher**, **Anthony Viselli** and others on the AEWC faculty and staff for reaching this important milestone.

There are interesting and important similarities in these two news items. In each case, these grants represent an important step toward large-scale commercialization of UMaine technology. These projects are already quite evolved, as partner businesses have recognized their potential and have become involved. And, in each case, UMaine students have already benefited from the opportunity to participate in R&D work. The new grants will create even more opportunities for current and future students.



Forest Resources Quiz Bowl

The School of Forest Resources recently hosted a Quiz Bowl Competition between graduate students and faculty/professional staff. After the regular questions, the faculty were ahead 17 points to the graduate students' 16 points. In a "final jeopardy situation" both teams lost and the final score was 1-1. The final question was, "On the Big Tree Registry, what are two of the three tree species that Maine holds records for?" The answer can be found on the back of the newsletter.



Left: satellite image of the Penobscot Bay region in 2002. Right: forest cover change classification (red/yellow is forest cover, green is agriculture, and orange is urban/transportation).

The Maine Image Analysis Laboratory

The Maine Image Analysis Laboratory (MIAL), located in Nutting Hall, is a research and analysis lab specializing in remote-sensing and geographic information systems. Under the direction of **Professor Steve Sader**, MIAL is currently involved in a wide range of studies, including 3rd-party monitoring of working forest

conservation easements in Maine. Graduate student **Kasey Legaard's** Ph.D. research examines how changes and intensity of forest harvests over the past 30 years in Maine's North Woods have affected biodiversity, including habitat for the Canada Lynx and Marten. Graduate student **Wil Mercier** is developing techniques for automating forest stand mapping processes in order to more rapidly produce high quality maps while reducing production costs. He is also looking at integrating spatial and non-spatial datasets to assess landscape vulnerability to the Spruce Budworm. **Nathan Briggs** is exploring forest cover change in Midcoast Maine and the effects of increased development on forest conversion with projections to 2030. The project was developed in order to generate an understanding of the primary factors influencing continued low-density residential development within forestlands. **Matthew Noone**, MIAL's newest member, is compiling a statewide forest cover change map.

Forest-based Nanotubes

Professor Barry Goodell and Ph.D. students **Xinfeng Xie** and **Yuhui Qian** are investigating a process that uses wood to manufacture carbon nanotubes—small cylindrical carbon molecules with high-strength and unique electrical properties that have novel applications in nanotechnology, electronics, and materials science. Conventional production is very expensive and often results in unaligned nanotubes unsuited for structural reinforcing. The method under development at UMaine makes use of the natural nanometer-scale architecture of plant cell walls as a way to produce low-cost well-aligned nanotubes from wood fiber.

Faculty News

William Tze, **Doug Gardner**, **Stephen Shaler**, and **Carl Tripp** have been chosen as co-recipients of the 2008 **Forest Products Society L.J. Markwardt Engineering Award** for their paper entitled "Evaluation of Load Transfer in the Cellulosic-Fiber/Polymer Interphase using a Micro-Raman Tensile Test." The award, which consists of a plaque and \$1,000 honorarium, will be presented at the Society's 62nd International Convention in St. Louis... **Professor Barry Goodell** was elected incoming Vice President of the Forest Products Society.



UMaine Woodsmen Meet

The UMaine Woodsmen Team held their annual Home Meet on March 22, 2008. Teams from **Unity College**, **Colby College**, and the **University of New Hampshire** attended the competition. UMaine fielded 2 men's teams, 2 women's teams, a Jack and Jill team, and an alumni team. The Maine men and women both won the overall competition and took home plaques in events such as Team Sawing Relay, Vertical Block Chop, Axe Throw, Horizontal Block Chop, and several others. These lumberjack-inspired events help connect students and community members to the working forest, and bring a bit of excitement and fun to an otherwise demanding job.



Faculty Profile

Dr. Aaron Weiskittel is the new forest biometrics and modeling faculty member supported by the Forest Bioproducts Research Initiative. Aaron completed his Ph.D. and M.S. in forestry with **Doug Maguire** (UMaine graduate and former faculty member) at Oregon State University. Prior to joining the faculty, Aaron was a researcher with **The Weyerhaeuser Company** in the Pacific Northwest. Although his expertise is in the plantation forestry of the Pacific Northwest, Aaron does have a background in hardwood silviculture as he obtained his BS in forestry from Ohio State University. His research interests include improving regional growth and yield models, individual tree volume predictions, and understanding regional variation in maximum site productivity.



Graduate Student Profile

Julia Briedis

While growing up I spent much of my time in the woods of New England. This appreciation for the outdoors is what led me to focus my undergraduate studies on ecology at **Bates College**. To enrich my college coursework and learn about another part of

the world, I traveled abroad to Tanzania for a semester to study the conservation issues and ecology of East Africa. My experiences abroad and throughout college sparked my interest in forestry. Summer internships doing field work with **Manomet Center for Conservation Sciences** initiated my exploration into the realm of forestry in Maine. For a change of scenery, I moved to the Pacific Northwest where I worked for a Forest Service contractor installing Forest Inventory and Analysis plots. Working much of the time in the rugged terrain of the Cascade mountain range, everyday was its own adventure. Having seen many forests in Oregon and Washington after three years of work, it was time to return home to New England. I came to the University of Maine for a master's degree in forestry to further pursue my interest in forested ecosystems and hope to eventually contribute to the sustainable management of New England forests.

Kathy Carter and Jim Philp Announce Retirement

Kathy Carter and **Jim Philp** announced their retirement starting summer of 2008. Kathy has been with the School of Forest Resources for 27 years, teaching and conducting research in the area of community and agro-forestry. Jim has been active for over 24 years in extension forestry working with loggers and mill owners. Both have impacted the lives of thousands and will be greatly missed.

Students Receive Top Honors

Ben Wasserman, a student in Wildlife Ecology, received the Robert I. Ashman, Sr. Award... **Jeremy Leicy** and **Charles Therriault** shared the Dwight B. Demeritt Academic Achievement Award... **Spencer A. Perry** received a \$5,000 Scholarship from the Composite Panel Association.

LAST CALL

HELP!! We need a NAME for the newsletter
The winner will receive a SFR hat and UMaine T-shirt.
Submit your entries to Dolores Stone at 207-581-2887
or email her at stone@umenfa.maine.edu

The School of Forest Resources at the University of Maine has been a leader in educational excellence, cutting-edge research, and public service and outreach for over 100 years. Our mission is to promote the understanding, efficient use, and sustainable management of forest resources for the well-being of Maine, the United States, and the world. We pursue these goals to ensure healthy ecosystems, strong economies, and a high quality-of-life for current and future generations here in Maine and beyond.

In complying with the letter and spirit of applicable laws and pursuing its own goals of diversity, the University of Maine shall not discriminate on the grounds of race, color, religion, sex, sexual orientation, including transgender status or gender expression, national origin, citizenship status, age, disability, or veteran's status in employment, education, and all other areas of the University System. The University provides reasonable accommodations to qualified individuals with disabilities upon request.

Questions and complaints about discrimination in any area of the University should be directed to the Director of Equal Opportunity, the University of Maine, 5754 North Stevens Hall, Room 101, Orono, ME 04469-5754, telephone (207) 581-1226 (voice and TTY).