

Spring 2016

FORESTRY

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Department of
Forest Resources and
Environmental
Conservation

Department of **Forest Resources and Environmental Conservation**
Cheatham Hall, Room 313, Virginia Tech
310 West Campus Drive, Blacksburg, VA 24061
540/231-5483 • Fax 540/231-3698 • <http://www.frec.vt.edu/>

In this issue:

Soil Rehabilitation

Unmanned Aircraft

From the
Department Head

Welcome New
Faculty and Staff

Highlights – Teaching,
Research, Extension

Spotlight – Faculty,
Staff, Students

Alumni Corner

Social Networking

How to Donate

Equal Opportunity/
Affirmative Action
Statement

Newsletter Designer
and Coordinator:
Tracey Sherman

Newsletter Editing:
Kathryn Hollandsworth

Please send information
for future issues to
Tracey@vt.edu

Soil Rehabilitation



Virginia Tech researcher **Susan Day** and other faculty in the College of Agriculture and Life Sciences, and three former FREC students, have developed a soil rehabilitation method that can help fix compacted, rock-hard soils left behind after land development and building construction. Trees planted in these situations have as much as 84 percent greater canopy than those in untreated soil, as they are stripped and compacted and mixed and layered until they have little in common with soil in agricultural and forested

lands. The Soil Profile Rebuilding method uses compost and special subsoiling techniques to create pathways through soil for root and water penetration. A backhoe is then used to break up the compacted soil incorporating compost to a depth of two feet. Four inches of topsoil is then applied and rototilled to a depth of six to eight inches, followed by planting of trees and shrubs whose roots help the soil continue to develop. This approach works because it doesn't just break up the soil; it also affects biological activity in the soil. This is a useful tool for designers seeking SITES (Sustainable Sites Initiative) accreditation for the U.S. Green Building Council.

Unmanned Aircraft Has Endless Applications

Virginia Tech can manage land resources using a small 1.5-pound unmanned aircraft, commonly called a drone. The fixed wing eBee carries true color and infrared sensors that gather land-use and land-cover data supporting inventory mapping and is under the direction of a licensed pilot. It is comprised of flight planning software, camera and sensor technology, the eBee aircraft, and post-processing data software.



Forestry applications for the unmanned aircraft include inventorying forests, identifying changes in urban forests, and monitoring forest health, while agricultural applications include assessing soil erosion, water runoff, and crop health. Facilities planners can analyze pedestrian traffic and lighting needs, plan for emergencies, continued page 9

From the Department Head

I had the opportunity to spend a couple of days in March with the VT Forestry Club while they competed at the annual Southern Forestry Conclave in Clemson, SC. One evening, I was standing by the campfire with our students, and a young man in our club came up to introduce himself to me. He quickly turned our conversation to the topic of his professional mentor, and he spoke emphatically about their relationship and the impact that his mentor had on his professional outlook. It turned out that his mentor was Paul Revell, Urban and Community Forestry Coordinator for the Virginia Department of Forestry, who unbeknownst to the student was in late stages of a battle with pancreatic cancer. When I returned to where I was staying that night, I checked my email and learned that Paul Revell had passed away earlier that day. At breakfast the next morning, I pulled the young man aside and broke the news to him, and we sat and talked again about Paul's dedication and willingness as a mentor before the competition began for the day.



Dr. Jay Sullivan
Professor and Head
Forest Resources and
Environmental
Conservation

Later that morning this student was competing in the pole climb competition, which involves a timed climb of a 20' peeled pole (unaided--no spikes), and tapping a chalk bag placed on top. Our student was not close to winning or even placing in the competition. However, he was among the approximately 50% of competitors who completed the climb successfully, struggling to finish, but refusing to stop until he slapped that chalk bag and stopped those watches. Upon returning to the ground, he announced: "That was for Paul Revell."

Paul Revell was not just a friend of our program and FREC Advisory Board member. He was a dedicated professional who was willing to quietly take a student, a future professional, under his wing and pour into him personally. Of course, none of us can know the long-term impact of Paul's mentoring this student (although if the persistence in that pole climb is any indication...), but I have no doubt that the student will always remember Paul, his commitment, and his love for his work. How much more lasting impact could any of us hope to have on our profession?

FREC Spring 2016 Advisory Board Meeting

We had a very productive and successful FREC Advisory Board Meeting on April 12. Our sincere thanks to the advisory board for attending the meeting this spring. The Advisory Board's support, guidance, and commitment to our department and the college are greatly appreciated. Easton Loving called the meeting to order, introductions were made and a tribute to honor the contributions of Paul Revell was presented. Loving advised the Board members and faculty of why he and Sullivan decided to hold this year's Advisory Board meeting in Cheatham Hall: to create a better connection with the faculty and students moving forward.

Loving wrapped up serving two years as Chair; Mike Hinchey has taken over as the new Chair and Danette Poole is the new Chair-elect.

Welcome New Faculty/Staff



Michelle Baumflek is a Post-Doctoral Research Associate in the Department of Forest Resources and Environmental Conservation at Virginia Tech. Her research focuses on combining traditional and academic ecological knowledge to promote the sustainable use and stewardship of culturally important plants and fungi. Michelle holds an M.S. in Community Based Resource Management from the University of Vermont, a B.S. in Environmental Biology from the State University of New York College of Environmental Science and Forestry, and a Ph.D. in Natural Resources and American Indian Studies from Cornell University. Michelle loves to garden, fish, and forage for edible plants, and can often be found looking for something good to eat in the woods around her house.



Jesse Kreye joined the Department of Forest Resources and Environmental Conservation in March of 2016 as a Research Scientist. His research focuses on fire behavior and fuel dynamics in forest ecosystems, restoration of fire-excluded ecosystems, and the efficacy and ecological effects of fuels treatments. Jesse earned a B.S. in Forestry and an M.S. in Natural Resources from Humboldt State University and a Ph.D. in Forest Resources and Conservation from the University of Florida.



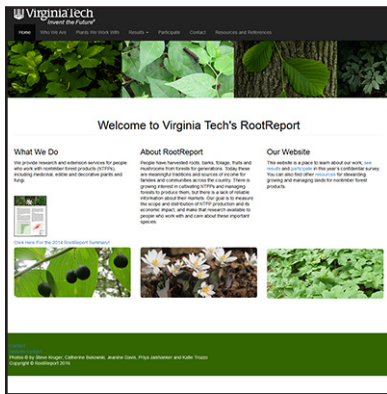
Terri Keffert joined the Department of Forest Resources and Environmental Conservation in March 2016 to serve as Volunteer Coordinator for the Virginia Master Naturalist program in the Charlottesville office. Terri has a professional background in marine/estuarine ecology and restoration at Virginia Institute of Marine Science, water quality at Chesapeake Bay National Estuarine Research Reserve, wetland mitigation, and historic seed preservation. She earned her B.A. in Biology from Christopher Newport University. When not teaching butterfly identification classes and leading citizen science surveys, Terri loves to explore new cultures and all in the natural world.



Jay Raymond (2016 Ph.D. Forestry) joined the Department of Forestry Resources and Environmental Conservation as a Postdoctoral Associate working with Thomas Fox. He is working on understanding the fate of applied fertilizer nitrogen in loblolly pine plantations in the southern United States through the use of stable isotopes. Raymond received a B.S. in Forestry from the University of New Hampshire in 1999 and an M.S. in Plant, Soil, and Environmental Sciences from the University of Maine in 2011.

Highlights: Teaching - Research - Extension

Measuring the Volume of Medicinal Plants Harvested in Eastern Deciduous Forests



www.rootreport.frec.vt.edu

Non-timber forest product (NTFP) harvests and their economic impact are often difficult to measure. Since 2012, FREC researchers have been developing a confidential, voluntary method for systematically measuring the volume of medicinal plants harvested in eastern deciduous forests. For several of the species this is the first multi-year, multi-state data for harvest amount, harvest distribution and product price. In Spring of 2016 **Steve Kruger, John Munsell, Tracey Sherman, Stephen Prisley**, FREC alum Jim Chamberlain of the US Forest Service, Jeanine Davis of NC State and Ryan Huish of UVA-Wise created and launched RootReport (www.frec.rootreport.vt.edu), an online platform for the project. RootReport was designed to collect data, but also to make the project useful for participants and other NTFP stakeholders. The site provides summarized results from previous

years, market assessment fact sheets for individual products and extension services and other resources for cultivating and stewarding NTFP species.

South America's Invasive Beavers



Beaver imported decades ago from North America to Tierra del Fuego in South America now number over 100,000 and are causing significant ecological damage. North American beavers have wiped out 30 percent of forests along rivers and streams in Tierra del Fuego, a remote archipelago located at the southern tip of South America. This has caused the greatest landscape change to the forests in the last 10,000 years.



In order to eradicate them, it requires the participation of every landowner in the area. Research shows that payment programs help, but getting all landowners on board is the problem. **Michael Sorice** and graduate student **Anna Santo** (M.S. Forestry - 2015) studied landowner preferences in this island chain on the other side of the world. Their research found that landowners were willing to participate in a beaver removal program designed around landowners' unique interests. Specifically, landowner participation increased under certain conditions including increased payments, increased expectations of program success, and low requirements for landowner involvement.

The research suggests that identifying landowner preferences during the design phase of a conservation program can result in innovative agreements better adapted to the local context. "Payment programs for ecosystem services are about more than just payments," Sorice said. "When they are codesigned with local stakeholders, they will achieve wider participation."

Highlights: Teaching - Research - Extension

New Leaders Continue Mission for Center for Environmental Applications of Remote Sensing

The Center for Environmental Applications of Remote Sensing (CEARS) was started 19 years ago by **Randy Wynne** (FREC) and Jim Campbell (Geography) as an interdisciplinary approach to address grand challenges in earth and environmental science. It was named a NASA center of excellence in applications of remote sensing to regional and global integrated environmental assessments.

Valerie Thomas, associate professor of forest remote sensing in FREC, and Yang Shao, assistant professor of geography, were named the new co-directors of the Center.

Thomas received her bachelor's degree in environmental engineering from the University of Guelph, Ontario, Canada, and her master's and doctoral degrees in earth system science from Queen's University in Ontario and was hired in 2007 by FREC. She supports the interdisciplinary geospatial and environmental analysis doctoral program. She has been an active leader of the Center for Environmental Applications of Remote Sensing as well as the university-wide Interdisciplinary Graduate Education Program in remote sensing and the college's environmental informatics program.

Shao received his bachelor's degree in geography from Nanjing University, Nanjing, China, and completed his doctorate at the University of North Carolina-Chapel Hill in 2007. He served as a postdoc at the U.S. EPA before joining Virginia Tech's Department of Geography in 2011, and also supports the geospatial and environmental analysis doctoral program. Thomas and Shao will continue the center's strong research, education, and outreach programs, providing sound science for decision-making.



Appalachian Trail Study



Virginia Tech is conducting a National Park Service-funded four-year study of the Appalachian Trail to assess the condition of the tread, visitor-created side trails, and associated recreation sites (shelters, campsites, and day-use sites). The study is led by **Jeff Marion** (FREC and the U.S. Geological Survey) and **Jeremy Wimpey**, a recent FREC Ph.D. Field staff include **Johanna Arredondo** (FREC M.S. student), **Mitch Rosen** (FREC undergraduate), and **Fletcher Meadema** (a recent VT undergrad). This summer they are assessing the southern one-third of the A.T., from Blacksburg to Springer Mountain, GA. The study will establish baseline resource conditions from a 10% sample of the trail, and enable statistical modeling aimed at identifying the influential factors that affect recreation-related impacts. Results will be applied to develop Best Management Practices for the sustainable design and management of the Appalachian Trail's tread and recreation sites, and to improve

low-impact Leave No Trace practices.



Highlights: Teaching - Research - Extension

Arboriculture Field Skills Course Teaches Students Hands-On Tree Care

Urban forestry professor **Eric Wiseman** has taught Arboriculture Field Skills at Virginia Tech for over ten years. The course revolves around a four-day field practicum the week after spring commencement. Leading up to the practicum, Wiseman meets with the students periodically during the semester to discuss tree care practices and the tree care profession. He even has professional arborists from around the state video-conference with the students to tell them about their career paths. During the field practicum, students learn an assortment of tree care techniques ranging from tree climbing to pest management. Wiseman receives instructional assistance from numerous professional arborists (several who are Virginia Tech alumni) and collaborates with the Virginia Tech grounds staff to work with campus trees during the course. Partial funding support for the course is provided by the Mid-Atlantic Chapter of the International Society of Arboriculture. New to the course this year, students concurrently studied for the Tree Care Specialist Certificate from the Tree Care Industry Association. This credential will give students an advantage when applying for internships and employment with tree care companies.



Students Participate in Forestry Field Studies Tour



Seventeen Forest Resource Management and Forest Operations and Business undergraduates and two graduate students participated in a five-day Forestry Field Studies Tour throughout Virginia during the week of May 16. The group lodged at the Airfield 4-H Center in Wakefield, VA. The tour led by **Scott Barrett** and **Chad Bolding** spent each day in the field visiting logging operations, touring mill facilities, examining field sites displaying a range of management strategies, and meeting with forestry professionals in numerous aspects of the profession. Students toured a forest operations training center, a pellet mill, a wood-fired power plant, the VDOF Garland Gray Nursery, a plywood mill, two pine sawmills, and a

pulp mill. Students also visited both Piedmont and Coastal Plain sites displaying intensive pine silviculture, pre-commercial thinning, and numerous mechanized logging operations including high production clean chipping. The Southeast Chapter of the Society of American Foresters, chaired by **Neil Clark**, held a meeting with the students and provided dinner. In addition, a panel including Chris Harris, William Snyder, Neil Clark, and Madison West gave presentations encouraging the students to set priorities, work hard, and find a life/work balance. Thanks are due to our many hosts, alumni, and company representatives for making the trip a success!

Highlights: Teaching - Research - Extension

Students Plant Black Willow Saplings around Philpott Lake



Officials who taught children about soil and water issues and helped them plant trees included (from left) Jason McGhee of the Virginia Department of Forestry, **Kyle Peer** of Virginia Tech and Virginia Cooperative Extension, and Dan LaPrad of the Army Corps of Engineers. During the last week of March and the first week of April, 800 students planted 400 black willow saplings at Philpott Lake as part of the Streamside Trees in the Classroom program. “They’re really excited about” the tree tending and planting, Kristen Welsh (second-grade teacher) said. The trip also was a treat for the kids, she said: “It’s nice to get out of the classroom and have a break like this, even though

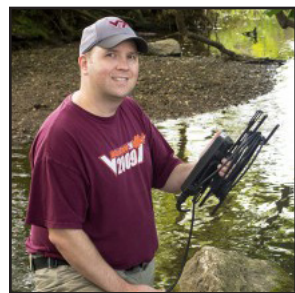
they’re still learning.”

Stern Gives Keynote Address and Leads Workshop



In March, Sustainable Northwest hosted the Region 6 Forest Collaboratives Workshop in Hood River, Oregon. **Marc Stern** gave the keynote address, entitled “Trust ecology: Building relationships for resilient collaboration.” He also led a workshop entitled “How trust gets built (or not) in collaborative natural resource management (and what difference it makes).” The event was the first time all 33 forest collaboratives across Oregon and Washington came together to share knowledge and lessons learned, and advance solutions to common challenges. The workshop included a series of plenary sessions and tracks that engaged participants in a dialogue about relevant forest management issues.

Timpano is Co-author on a New Salinity Paper in Science



Aquatic life can suffer when high concentrations of dissolved salts enter freshwater ecosystems, a process known as salinization. An international, multi-institutional team of researchers that includes FREC graduate student **Tony Timpano** recommends ways that humans can protect freshwater from salts in a recent article in the journal *Science*. The paper is a call to awareness and an effective path forward. The recommendations include the use of less water for agricultural practices, less salt for road de-icing, less discharge or sequestering salts during mining operations, and re-routing of urban salt discharges to retention basins rather than treatment plants or streams. One important recommendation, said Timpano, is fostering cooperation

between scientists and other stakeholders. “Getting all those stakeholders to the table and communicating that science to those stakeholders is critically important for any biodiversity protection effort to work.” This is critically important for any biodiversity protection effort to work.

Of the two dozen streams that Timpano monitors, those located near coal mining operations have shown the highest salt concentrations and insect losses.





Spotlight: Faculty - Staff - Students

Annual Awards Recognition Celebration - April 2016

Outstanding Student Organization Member Recognitions:

- CNRE Student Council - **Hannah Nyquist**
- Forestry Club - **Bobby Nance**
- Forestry Graduate Student Association - **Kriddie Whitmore**

Undergraduate Student Recognitions:

- College Ambassadors for 2016-17 - **Alex Cassell, David Formella, Andi Greene, Jenny Hwang, Hannah Nyquist, Olivia Plant, Shaifali Prajapati, Amanda Roberts, Jason Sprouls, and Kenny Townsend**
- Leadership Institute Members for 2015-16 - **David Tilson and Michaela Wenger**
- Student Council Members for 2015-16 - **Hannah Nyquist**
- Xi Sigma Pi National Forestry Honor Society for 2015-16 - **Dylan Casciano, Julia Franz, Hannah Nyquist, and Taylor Richmond.**

Graduate Student Recognitions:

- A.B. Massey Outstanding Doctoral Student Award: **Kristin McElligott**
- H. E. Burkhart Outstanding Master's Student Award: **Brian Parkhurst**
- College of Natural Resources and Environment Outstanding Master's Student: **Brian Parkhurst**
- Outstanding Teaching Assistants: **A.J. Lang**

Endowed Scholarships Administered by the College of Natural Resources and Environmental

- Dean's International Study Scholarship - **Emily Huth**
- William O. Ross Scholarship - **Emma Cross**
- Richard B. Vasey Scholarship - **Dylan Dawson and Andrew Downs**

Scholarships Administered by the Department of Forest Resources and Environmental Conservation:

- Arborscapes LLC Urban Forestry Annual Scholarship - **Michael Webb**
- Bartlett Tree Foundation Annual Scholarship - **Michael Webb**
- John M. and Janet H. Doughty Endowed Scholarship - **Dyllan Taylor and Hallie Hallerman**
- Peter P. Feret Memorial Scholarship - **Fatima Berrios and Elena Mircoff**
- Richard Foster Urban Forestry Scholarship - **Michael Webb**
- Jeffrey Andrew Fuerst Memorial Scholarship - **Kylie Campbell**
- Herman William Gabriel Scholarship - **Eli Podyma**
- Mr. and Mrs. Thomas C. Newbill Scholarship - **Hannah Nyquist**
- George and Mary Ragsdale Scholarship - **Andria Greene**
- K.S. Rolston Memorial Industrial Forestry Operations Scholarship - **Matthew Jones**
- Gretchen and Clyde Smith Memorial Scholarship - **Heather Harcum**
- J. Russell Smith Scholarship - **Connie Henshaw**
- Sustainable Water Scholarship - **Kylie Campbell and Margaret Carolan**
- Timberland Management and Investments Scholarship - **Michaela Wenger**
- Thomas A. Walbridge Scholarship - **Cullen Anderson**

(continued page 9)

Spotlight: Faculty - Staff - Students

Annual Awards Recognition Celebration - April 2016 (continued from page 8)

Scholarships Provided through the Virginia Forestry Educational Foundation:

- John D. Farmer Scholarship - **Cullen Anderson**
- Georgia-Pacific Corporation Scholarship - **Matthew Jones**
- William August Stuermann and Mable Beard Stuermann Scholarship Fund - **Stuart Baker, Louise Cohn-Still, Jeremy Feister, Niall Goard, Colton Harris, James Latane, Cory Sammler, and John Wood**

Annual Scholarships Administered by the College:

- Mike Hinchey Annual Scholarship - **Chioma Ichoku**
- Jacob B. Huffman Annual Scholarship - **Karley Korbe**
- Brent Keefer Annual Scholarship - **Jessica Lord**

Faculty Recognitions:

- Outstanding Teaching Award - **John Seiler**

Schoenholtz Attends White House Water Summit



The White House brought issues of water to the public forefront at a special Water Summit in March. **Stephen Schoenholtz**, Coordinator of the Water: Resources, Policy, and Management bachelor's degree, presented the university's commitment to water sustainability and security. The degree program encompasses faculty from five of Virginia Tech's eight colleges and is the first of its kind in the United States. Virginia Tech was one of 150 invitees from across the nation to participate.

The novel water degree prepares students for jobs with public agencies and nongovernmental organizations, as well as with architecture, urban planning, engineering, scientific, and technical consulting firms. Student **Maggie Carolan** of Stafford, Virginia, is a member of the Virginia Tech team led by Marc Edwards that uncovered the water crisis in Flint, Michigan. Edwards has been leading the effort to assess the extent of the city water crisis.

Unmanned Aircraft Has Endless Applications

continued from front page

and use thermal sensors to monitor energy use. The aircraft can also be utilized to conduct wildlife inventories. "The college has been operating the eBee in Virginia and abroad over the past several months," **John McGee** explained. "A research team traveled to Panama and mapped 1,000 acres of rainforest to support the conservation of wildlife, including endangered species.

The eBee flies autonomously, under the direction of a licensed pilot. The aircraft operates on parameters provided through the flight planning software prior to launching. A smart plane, it continually assesses wind speed, wind direction, and other data. The pilot can also monitor environmental conditions and modify the flight plan and captured imagery while the plane is in flight.



Spotlight: Faculty - Staff - Students

John Peterson Receives University's 2016 President's Award for Excellence



John Peterson was one of the recipients to receive The President's Award for Excellence for 2016. The award is presented annually to up to five Virginia Tech staff employees who have made extraordinary contributions by consistent excellence in the performance of their jobs or a single incident, contribution, or heroic act. Each recipient is awarded a \$2,000 cash prize.

John has been a lab specialist advanced for the university for 22 years, providing extensive work for administrators, faculty, and graduate students. He has helped develop Virginia Tech's tree biology web, computer and smartphone-based educational material since 1997. More recently, he was a part of the team that created vTree, the most downloaded mobile application for tree identification. He

has also been the primary programmer of Woody Plants in North America, a tree identification multimedia tutorial with 960 species and over 25,000 color photographs.

Outside of his official duties, Peterson is known for his outreach, service and teaching for the department. He often hosts the Virginia Master Naturalists at his farm for a tree walk and picnic dinner. His outreach work includes reaching middle and high school students with forestry knowledge.

Forestry Graduate Student Association Takes Lead in Spring Seminar Series

The Forestry Graduate Student Association (FGSA) took the lead in organizing the departmental seminar series for the first time this Spring. The series of events included a full schedule of invited speakers, presentations by FREC graduate students, postdocs, faculty, and a poster symposium. The outside speakers were invited and hosted by FREC graduate students and featured scholars with expertise in several of the sub-disciplines within the department.

These included Drs. Scot Smith and Matt Cohen from the University of Florida's Department of Forest Resources and Conservation, Dr. Richard Hauer from the University of Wisconsin-Stevens Point's Department of Forestry, Dr. Richard Thomas from West Virginia University's Department of Biology, and Sam Fuhlendorf from Oklahoma State University's Department of Natural Resource Ecology and Management. FREC faculty members **Kelly Cobourn**, **Thomas O'Halloran** and postdoc **Kevin Horn** also gave presentations along with nine graduate students (**Ranjith Gopalakrishnan**, **Christopher Wade**, **Kristin McElligot**, **Keith O'Herrin**, **Mandy Zhang**, **Tyler Hembey**, **Deborah Nemens**, **Kriddie Whitmore**, and **Jake Diamond**). Finally, five graduate students wrapped up the semester by presenting their research in the poster symposium on April 29.

Overall, the seminar series was an opportunity to learn from and network with scholars from outside the department while also increasing exposure and enhancing understanding of the diversity of research that goes on within. We look forward to another great seminar in the Spring of 2017. Planning is already underway and we will reach out to the department soon for your feedback, ideas and suggestions.

Spotlight: Faculty - Staff - Students

Tom Fox Named 2016 University of Maine School of Forest Resources Distinguished Alumnus



Thomas Fox, the Honorable Garland Gray Professor of Forestry, has been named the 2016 Distinguished Alumnus by the University of Maine School of Forest Resources. Fox, who earned a bachelor's in forestry from UMaine in 1980 and a certificate of advanced study in pulp and paper technology in 1981, was recognized for his career-long contributions to the field of forestry.

Fox serves as co-director of the Forest Productivity Cooperative and as the Virginia Tech site director for the National Science Foundation's Center for Advanced Forestry Systems. The overall goal of his research and outreach program is to increase the productivity, sustainability, and profitability of managed forests in the U.S. and Latin America. In 2010 he was a Fulbright Scholar and visiting professor at Pontifica

Universidad Catolica de Chile, where he worked on issues related to climate change and carbon sequestration.

Fox also gave a talk on Sustainability of Intensive Plantation Forestry in North America at a meeting hosted by the European Forest Institute EFIATLANTIC Group in Biarritz, France, in June. The meeting was sponsored as part of the IUFRO Task Force on Sustainable Intensification of Planted Forests For A Greener Future. Tom serves on the steering committee for this IUFRO Task Group.

FREC Team Members Awarded Bronze Award



A team of individuals including several from FREC have been awarded the Bronze Award for Web Sites/Social Media/Online Courses from the Association of Natural Resource Extension Professionals (ANREP) for our Virginia Master Naturalist basic training curriculum on Forest Ecology and Management (<http://www.virginiamasternaturalist.org/forests.html>). The

team included **Michelle Prysby** and **Jennifer Gagnon** from FREC, along with one of our Natural Resources Extension agents, **Adam Downing**. Other team members included Ellen Powell and Karen Snape from the Virginia Department of Forestry and Matt Brinckman from The American Chestnut Foundation. The award was presented at the ANREP conference in late June.

FREC Spring 2016 Graduates

- Kimberly Coleman
- Katie Commender
- Annika Jersild
- Jay Raymond
- Warren Reed
- Bradley Stephens
- Rodney Walters
- Sheng-I Yang

Welcome New Graduate Students!

- Raymond Ludwig
- Benjamin Poling



Alumni Corner



For more information
about the Department
of Forest Resources

and Environmental
Conservation

please contact:

Mary Williams

313 Cheatham Hall

Mail Code 0324

Blacksburg, VA 24061

540-231-5483,

frec@vt.edu

<http://www.frec.vt.edu/>



Dale Turner (1978 B.S. Forestry) established a thriving business called MagnetsUSA in 1990 based in the Roanoke Valley. He was later joined by his brother, Alan. They are determined to provide customers with superior, referral-boosting merchandise at reasonable prices.

The successful business creates marketing products such as magnetic calendars, sport schedules, and recipes. After the successful start the company has now started to expand into new lines ranging from cutlery sets to keepsake wine boxes, and stainless steel soap with custom engraving to last forever.

The aggressive growth is supported by a loyal work force of 60 full-time employees. The business was started in the Roanoke Valley and in 2015 they moved the company into its current 44,000 square foot facility in Vinton. Further expansion is possible in the future.



The Department of Forest Resources and Environmental Conservation is on social networks! Find us on Facebook (<https://www.facebook.com/vtfrec>) and Twitter (<https://twitter.com/VTFREC>). If you are a part of these social networks, look us up!

Gifts from our clients and friends have a direct impact on the quality of learning, discovery, and engagement programs that the Department of Forest Resources and Environmental Conservation offers. We invite you to become part of our team! To make a tax-deductible contribution, send your check, payable to the Virginia Tech Foundation, Inc., to: Department of Forest Resources and Environmental Conservation, 313 Cheatham Hall (0324), Virginia Tech, Blacksburg, VA 24061. For further information on memorial giving, endowed professorships, gifts of securities, planned or deferred giving opportunities or other contributions, please contact **Emily Hutchins**, Development Officer, at 540-231-8859 or send an e-mail to ehutch@vt.edu.

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