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FALL 2016

The Department of Forest Resources and Environmental Conservation

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Geospatial Education To Bring Drone Technology to Virginia's Community Colleges

The National Science Foundation's Advanced Technological Education Program provided a grant to the Geospatial Technician Education-Unmanned Aircraft Systems project. This brings the project closer to offering training on operating drones to Virginia's community college students.

John McGee has worked for almost nine years alongside the Virginia Space Grant Consortium and the Virginia Community College System expanding geospatial technician education. "There's a lot of activity in this field in Virginia already and we want to make sure that Virginia's workforce is well poised to meet emerging industry needs," McGee said.

The Virginia Space Grant Consortium and McGee have partnered with faculty from Thomas Nelson, Mountain Empire, and John Tyler Community Colleges to develop curriculum that will help instructors establish courses that will benefit students. The project seeks to provide a range of options, from individual courses to various levels of



certificate programs.

McGee expects that students could see small unmanned aircraft system (sUAS) courses in Virginia's

community college system within the next year.

Courses will focus on helping students develop skills necessary to maintain and pilot devices safely, use and analyze data from a variety of sensors, and pass the Federal Aviation Administration's remote pilot certificate exam. McGee says that now is the ideal time to introduce the technology into Virginia community colleges because new regulations have paved the way for others to pilot aircrafts, not requiring them to have a pilot's license.

The Virginia Community College System serves as a pipeline for the workforce and for universities. John McGee is a professor within the department and a geospatial specialist with Virginia Cooperative Extension.

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 **VirginiaTech**
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From the Department Head



Jay Sullivan

Forests comprise nearly one-third of land cover worldwide, including more than 60% of Virginia, and forested ecosystems and associated watersheds represent a critical aspect of state, national, and worldwide environmental health and human well-being. With their extent and composition, forests play an important role in sustaining the earth's climatic conditions, representing a key component of global carbon and water cycles, and land surface albedo. Forested watersheds are fundamental in providing quantities and qualities of water, both surface and subsurface, to support human life. Forests contain and support floral and faunal populations locally and internationally, and comprise critical habitats for

innumerable threatened and endangered species. Economic and social systems in many parts of the world are dependent upon healthy forests to provide products ranging from lumber and fiber to commercial biofuels, fertilizer, fodder, and household fuels, as well as many other market and non-market goods and services that sustain local households in developing countries and robust economic conditions in developed regions, including our Commonwealth.

The more I learn about forests, the more I truly am in awe, but I also have to recognize that conservation of forested ecosystems is complex, involving bio-geo-physical aspects which are inseparably linked to social-political-economic institutions and realities, all of which span ownership and political boundaries. I am thankful to be a part of a program that has such recognized strength in addressing these complex issues, has such a dedicated and productive faculty and staff team, has passionate students, and is so well supported by our forward-thinking administration and dedicated alumni. Thank you all for the part (whatever role) you play in this important endeavor. We continue to need and count on your support in the months and years ahead.

Go Hokies in 2017!

Welcome New Faculty and Staff



Grey Evenson

Grey Evenson joined the Department of Forest Resources and Environmental Conservation in July of 2016 as a Postdoctoral Associate working with Daniel McLaughlin. His research focuses on the wetland conservation and restoration planning and the watershed-scale aggregate hydrological effects of wetlands. Evenson came to the department after completing a two-year postdoctoral position with the US EPA's Office of Research and Development in Cincinnati, Ohio. He completed his Ph.D. in Geography at Ohio State in 2014. When not working, Evenson enjoys spending time with his wife and two cats, working on his house, and tinkering with computers.

Highlights: Teaching - Research - Extension

Forest Modeling Research Holds Annual Cooperative Meeting



During the indoor session on the second day, Virginia Tech personnel **Harold Burkhart**, **Ralph Amateis**, and **Quinn Thomas** summarized collaborative efforts with other scientists and institutions in North America to evaluate the impact of climate change on the growth of loblolly pine forests in the Southern United States over the coming decades.

The 38th Annual Meeting of the Forest Modeling Research Cooperative (FMRC), hosted by Campbell Global, was held in Brookeland, TX, December 2-3.

A one-day field trip with about 20 participants representing the forest products industry visited research and operational activities in loblolly pine plantations growing under intensive

management. Stops on the field tour included once-thinned and twice-thinned plantations established with intensive site preparation and approaching final harvest. A stop for lunch at the nursery offered an opportunity to compare and discuss the growth of advanced genotypes on similar sites and consider which genotypes might be best suited for different product objectives.

Research plans and goals for the coming year were established.

The mission of the FMRC is to develop tree growth and stand development models that advance the science of forest modeling and provide land managers with decision support capabilities needed to practice economically viable and environmentally sustainable forest management.

Venison Food Safety Workshop “From Field to Table” by Jason Fisher



The white-tailed deer is the most sought-after game animal in North America, and that fact is known by hunters all across the country. Meanwhile, as deer populations grow to record numbers, a great opportunity exists to feed needy families each year in Virginia through the Hunters for the Hungry Program – visit <http://www.h4hungry.org/>. Venison donated to this program feeds thousands of individuals each year. Over 6,106,606 pounds – 24.4 million quarter-pound servings have been donated by hunters since the program began in 1991.

Last year alone, over 300,000 pounds of venison were donated in Virginia. Maintaining this critical program for the needy in Virginia is important because in recent years many people are returning to processing their own foods, to include venison. Due to this interest, a need exists to be aware of certain precautions when obtaining, preparing, and preserving venison. Families who choose to pursue the white-tail are enjoying their own version of “grass-fed” meat that is both organic and safe. One of many controversies surrounding venison harvested from the field includes lead poisoning from deer harvested with lead ammunition. Details on this research were shared along with other information at a hands-on workshop held September 16 at the Scottsburg Volunteer Fire Department.

(continued page 7)

Highlights: Teaching - Research - Extension

Virginia Ranks Fifth Among States on 2016 Champion Trees National Register



Eric Wiseman

With 57 national champion trees, Virginia ranks fifth among states having the most Big Tree

specimens. The 2016 registry can be found at the American Forests website <http://www.americanforests.org/>.

Virginia gained 12 new national champion trees this year but several trees were also delisted. Trees were delisted because of a change in American Forests' measurement requirements for trees with split or multiple stem trunks, according to **Eric Wiseman**, associate professor of urban forestry and arboriculture and coordinator of the Virginia Big Tree Program. These types of trees are sometimes difficult to measure and guidelines were tightened up to ensure they were being judged fairly and equitably across the country. With these new guidelines there are plans to remeasure and resubmit some multistemmed trees to the register.

The Virginia Big Tree Program is managed by the Department of Forest Resources and Environmental Conservation (FREC). Over 300 native and non-

native tree species in Virginia are included in the register.

Eligibility for inclusion on the register includes trees that must be at least 9.5 inches in circumference and at least 13 feet in height. Only certain species of native and naturalized trees are considered eligible.

To determine the size of a tree there is a formula used. That formula includes trunk diameter (measured 4.5 feet above the ground), height, and the average crown spread. From these measurements, a point value is assigned to each tree. Champions are the trees with the most points.

There is often frequent turnover on the registry, as older trees die. Some trees, however, can grow more quickly when presented with optimal growing conditions. Wiseman explains that the mild climate in Virginia provides optimal growing conditions for many tree species, helping to keep multiple Virginia champions on the register year after year.

If you have a champion tree on your property, Wiseman recommends having a certified arborist examine it to identify any threats or deficiencies early on.

The Virginia Big Tree Program website is <http://bigtree.cnre.vt.edu/>.

Photos of National Big Trees from Virginia



Photos top to bottom: laurel oak in Chesapeake, dwarf hackberry in Alexandria, and water tupelo in Greenville.

Highlights: Teaching - Research - Extension

Grants Awarded to Marc Stern and Bob Powell of Clemson University



Marc Stern, in partnership with Professor Bob Powell at Clemson University, recently won two grants, one from the National Science Foundation's Advancing Informal Science Learning program and one from the Institute for Museum and Library Services, to investigate the drivers of successful environmental education programs for children in National Parks and nature centers across the United States.



Stern and Powell traveled to Yosemite National Park in December to lead a workshop with the Education Committee of the National Park Service Advisory Board, and the Executive Directors of the Association for Nature Center Administrators and the North American Association for Environmental Education. The purpose of the meeting was to get input on appropriate outcomes for environmental education programs to be measured in a national study that will compare the relative success of different approaches to environmental education.

The study will take place over the next three years.

Virginia Master Naturalist Program Holds Events

FREC faculty and staff with the Virginia Master Naturalist program (**Michelle Prysby, Tiffany Brown, and Terri Keffert**) held several significant events this semester. In late August, they had their largest statewide conference for the program ever, with more than 200 attendees and dozens of concurrent training sessions on a wide variety of natural resource topics. They also organized a series of Leadership Days for local Virginia Master Naturalist volunteer leaders. 121 volunteers attended one of four day-long leadership workshops around the state, learning skills such as working effectively as a volunteer board, retaining volunteers, and solving conflicts.



Participants in the Virginia Master Naturalist Leadership Day for the Southwestern Region December 3, 2016, in Blacksburg



From left to right: Michelle Prysby, Terri Keffert, and Tiffany Brown.

Highlights: Teaching - Research - Extension

Research and Multicultural Partnership Uncover Climate Change in Trees

Thanks to a grant from the U.S. Department of Agriculture's Agriculture and Food Research Initiative on Climate Variability and Change, **Carolyn Copenheaver**, along with student Brittany Butcher and faculty member Ketia Shumaker of the University of West Alabama, studied the effects of climate change on sugar maples.

Six U.S. universities will be involved in the climate change study, which is part of a larger three-year project. Each university will be responsible for researching how a different set of tree species reacts to changing climate conditions.

The researchers visited the Allegheny National Forest in northwestern Pennsylvania to understand the effects of climate change on trees on the East Coast. Tree core samples were collected. This is a technique that allows them to see the tree's annual rings without cutting the tree down. Samples are about the size of a drinking straw. Narrow rings indicate poor conditions while wide rings indicate good growth conditions.

The researchers used temperature and precipitation data to analyze the tree rings, but were puzzled to find no real relationship between this data and how fast the trees were growing. A breakthrough came when discussing the project with colleagues at the University

of Alaska in Fairbanks, another participant in the Department of Agriculture study.

"They suggested looking at relationships between tree groups before 1950 and tree groups after 1950," said Copenheaver. "The effects of climate change really began to appear during that later time period."

Once the researchers changed their focus, they soon discovered that prior to 1950, sugar maples were not particularly sensitive to precipitation levels. Post-1950, however, they became increasingly sensitive.

According to Copenheaver, drought conditions caused by climate change have put stress on the trees. "Before 1950, these trees didn't experience drought conditions. Now that they do, the trees are changing how they are responding to climate. Even though we don't have mortality in Eastern forests like in some other places, we are seeing stress related to lack of moisture."

The Multicultural Academic Opportunities Program's Summer Research Symposium was held in August, and student Brittany



Brittany Butcher, center, a senior at the University of West Alabama, spent 10 weeks studying the effects of climate change on trees with Associate Professor Carolyn Copenheaver, left, of Virginia Tech's department of FREC, and Ketia Shumaker, Associate Professor of Biology at the University of West Alabama.

Butcher presented a poster and oral presentation of the group's findings. Hosting 46 interns from around the U.S., the program is designed to increase representation of traditionally underrepresented groups in graduate programs at Virginia Tech and provide holistic support to both undergraduate and graduate students.

Butcher's internship included preparation for graduate school through a variety of workshops, professional development opportunities, and Graduate Record Exam prep courses offered through the program, in addition to conducting research with Copenheaver and Shumaker. Brittany plans to return to Virginia Tech to pursue a master's degree in geography.

Highlights: Teaching - Research - Extension

Different Tree Species Use the Same Genes to Adapt to Climate Change, Researchers Find

An international research team from six universities, including Virginia Tech, is working to better understand how trees adapt to changing climates.

Their results, published in the journal *Science*, discovered that two distantly related tree species use the same genes to adapt to the range of temperatures in their geographical region.

Jason Holliday and **Haktan Suren** are part of the team investigating how trees adapt to different climatic conditions.

“A central question in biology is: how repeatable is the evolutionary process? One way to address this question is to study different species adapting to similar environments and ask whether the same genetic solutions enable that adaptation,” said Holliday, who

is one of the study’s co-authors, along with Suren.

The team studied two different conifer tree species, lodgepole pine and interior spruce, collecting seed from more than 250 locations in western Canada and then sequencing more than 23,000 genes in each tree.

Analysis revealed that both pine and spruce use the same suite of 47 genes to adapt to geographic variation in temperature and to appropriately time acquisition of cold hardiness, allowing plants to tolerate the adverse conditions of winter.

One implication of this work is that environmental adaptations may be genetically constrained. While variation in observable traits, such as cold hardiness, likely involves hundreds of genes,

Holliday explained, a subset is required for adaptation to occur, even when comparing species that diverged long ago. This result has implications for ongoing adaptation of tree populations to climate change.



Jason Holliday



Haktan Suren

Venison Food Safety Workshop “From Field to Table” by Jason Fisher (continued from page 3)

Venison jerky, sausage, and canned meat can be easily prepared safely in your own home with a few inexpensive tools and preparation needs. Of course, there are processing facilities around the state that will do this for you and do a good job for around \$100 or around 75 cents per pound if you bring the meat deboned in a cooler. Be sure to ask first, as some processors only wish that the deer be brought in “hide-on” as this can prevent some forms of contamination.

Wild venison is high in protein and contains less saturated fat than ham, salmon or lean roast beef. Only salmon compares favorably to venison in caloric content and cholesterol, and only chicken breast has less fat (but more cholesterol). In numerous books, magazines and websites devoted to healthy eating, venison is prominently listed and described in detail. Four ounces (112 grams) of venison supplies almost two-thirds of the daily requirement for protein (depending on a person’s body size and activity level) and almost one-third of the daily requirement for iron, yet only has about 186 calories and 1.4 grams of saturated fat. Heart disease and cancer are sometimes linked to overconsumption of some red meats because of their relatively high fat and cholesterol content. Yet we all need protein in our diets, and meat is a good source.

Highlights: Teaching - Research - Extension

What Happened in the Climate Change Conference in Marrakech?

Carol Franco and **Randy Wynne** participated in the negotiations of the 22nd Session of the Conference of the Parties (COP 22) of the United Nations Framework Convention on Climate Change in Marrakech, Morocco, November 7-18, 2016, as members of the government delegation of the Dominican Republic. Franco and Wynne negotiated the agenda items of Land Use, Land Use Change, and Forestry, Issues related to Agriculture, and Financing. The meeting brought together around 22,500 participants, including 15,800 government officials, 5,400 representatives of UN agencies, intergovernmental organizations and civil society organizations, and 1,200 members of the media.

The Conference focused on three main areas: (1) better understanding of the architecture of the Paris Agreement; (2) identification of areas of convergence and divergence between developed and developing countries; and (3) the adoption of a road map to achieve the necessary decisions for finalizing the operationalization of the Paris Agreement by 2018.

The Paris Agreement was adopted on December 12, 2015, in Paris, and 178 parties signed it in New York on April 22, 2016. The Agreement entered into force on November 4, 2016, after 55 parties from the convention ratified it. As of January 5, 2017, 122 parties

have ratified the Agreement, while others are in the process. COP 22 in Marrakech confirmed the world's support for its implementation, with over 70 heads of state, besides ministers and heads of delegations, expressing the need and urgency to move forward to the operationalization stage.

Some of the main outcomes of COP 22 were:

1. Operationalization of the Paris Committee on capacity building.
2. Forward movement on discussions about the periodic "adaptation communications" (potential elements) and accounting for developing countries' adaptation actions.
3. Start of discussions on public finance accounting.
4. Start of considerations on the scope of the mechanism, what can or will trigger it, and ways to account for parties' different circumstances and capabilities.
5. Request from parties for guidance on how to organize the facilitative dialogue in 2018.

Also, during COP 22, heads of state, governments, and



From left to right: Carol Franco, Randy Wynne, and Solhanlle Bonilla

delegations issued a political declaration called the "Marrakech Action Proclamation for our Climate and Sustainable Development." The main goal of this proclamation was to issue a signal for a transition to a new phase of implementation and action. This proclamation calls for fast and high political commitment and further action to reduce greenhouse gas emissions, increase resilience, and foster adaptation actions. Furthermore, developed countries confirmed their pledge to mobilize US\$100 billion per year by 2020 to support climate action in developing countries.

The negotiations will resume in May 2017 with the annual Subsidiary Bodies Meeting, and Fiji will assume the presidency of COP 23 to be held in Bonn in November 2017. Progress was made in Marrakech, but there is still a lot of work to be done to achieve the goals agreed upon in the Paris Agreement.

Spotlight: Faculty - Staff - Students

Schoenholtz Serving as President of the National Institutes for Water Resources



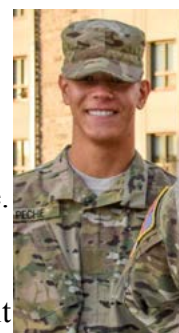
Stephen Schoenholtz

Effective October 1, **Stephen Schoenholtz**, Professor of Forest Hydrology and Soils and Director of the Virginia Water Resources Research Center, is serving a one-year term as President of the National Institutes for Water Resources (NIWR), the network of 54 water resources research institutes and centers located in each state, the District of Columbia, and three U.S. territories established through the 1964 Water Resources Research Act. Coordination and interaction among the Institutes and the U.S. Geological Survey, which administers funding for the Institutes, is facilitated by NIWR. The NIWR network represents the only authorized federal-state program that focuses on water resources research, education, training, and outreach.

FREC Cadet Chosen to Highlight the Colors at the East Carolina Game

Highlighting the colors during the pre-game ceremony at every football game, the Virginia Tech Corps of Cadets and the football team continued their partnership at the East Carolina University home game on September 24.

Paul Pechie, of Warrenton, VA, a freshman majoring in environmental resources management in the department of FREC, was chosen because of his eagerness to learn and positive attitude. He is in the Marine ROTC.



Paul Pechie

Three football players are chosen to carry the American flag, the state flag, and the team's spirit flag as they lead the team onto the field. They then deliver them to cadets chosen at the south end of the field. The football players are chosen because of their performance in the last game or at practice and the cadets similarly are chosen on their performance during training. Once the cadets receive the flags, they honor them and then carry them off of the field. Three first-year cadets are selected at home games and one or two upper-class cadets travel with the team and receive the flags at away games.

Professor Emeritus John Hosner - Honorary Founding Dean Title



John Hosner

John Hosner, professor emeritus of forestry at Virginia Tech, has been recognized with the additional tribute of "honorary founding dean" of the College of Natural Resources and Environment by the Virginia Tech Board of Visitors.

This honor comes as the College of Natural Resources and Environment marks the 25th anniversary of its founding in 1992, when it was known as the College of Forestry and Wildlife Resources. Hosner, who was named professor emeritus in 1992 and at age 91 still comes to his office at the college every day, played a significant role in the establishment of the college.

Hosner is a Fellow in the American Association for the Advancement of Science and has received many other professional and academic awards during his career. In 1982, Hosner established an endowment fund to ensure the college would always grow, and engaged industry partners to contribute generously to the fund, which was named the John F. Hosner Legacy Fund in 2015.

Spotlight: Faculty - Staff - Students

Eric Wiseman receives Alex L. Shigo Award for Arboricultural Education



Eric Wiseman

The International Society of Arboriculture awarded **Eric Wiseman** the 2016 Alex L. Shigo Award for Arboriculture Education.

The award is one of the society's Awards of Distinction and recognizes the important role that education plays in enhancing

the quality and professionalism of the arboriculture industry through sustained excellence in arboricultural education. It is named after Alex Shigo, who was a tree biologist and plant pathologist known throughout the industry for his studies on tree decay, which led to major changes in arboriculture.

Wiseman makes an effort to provide as many hands-on learning opportunities as possible. His students have been encouraged to participate in Sustainability Week, Arbor Day events, and a campus tree inventory. Some of his favorite mentorship opportunities have included involving his students in field research.

Beyond the classroom, Wiseman has served as secretary treasurer of the society's Arboricultural Research and Education Academy. He helped to develop a selection of digital educational materials for professional arborists that are now used for online learning. In addition to his dedication to arboriculture education, Wiseman is known for his work on roadside arboriculture management, citizen monitoring of the emerald ash borer infestation, and energy conservation benefits of landscape trees.

Wiseman earned his bachelor's and master's degrees from Virginia Tech and his doctorate from Clemson University.

Virginia Tech Achieves Tree Campus USA

Virginia Tech has achieved Tree Campus USA recognition for the eighth consecutive year. Recognition is for best practices in campus community forestry through the Arbor Day Foundation's Tree Campus USA program. Five national standards are also met, which include maintaining a tree advisory committee, a campus tree-care plan, dedicating annual expenditures toward trees, an Arbor Day observance, and student service-learning projects.



More than 600 new trees have been planted by students on campus since 2007. Each spring students and administrators come together for Earth Week to plant dozens of trees across campus, and in the fall they meet for Sustainability Week.

"Virginia Tech is committed to expanding and maintaining a healthy tree canopy on its campus and is consistent with the Climate Action Commitment approved by the Board of Visitors," said Jason Soileau, assistant vice president for the Office of University Planning. "This contributes to Virginia Tech being recognized as one of the nation's most beautiful campuses by a variety of national publications."

Tree Campus USA is a national program created in 2008 by the Arbor Day Foundation to honor colleges and universities for promoting healthy forest management and engaging the campus community in environmental stewardship.

The Arbor Day Foundation is a conservation and education organization with the mission to inspire people to plant, nurture, and celebrate trees.

Spotlight: Faculty - Staff - Students

Fox Serves on Accreditation Review Team for Forestry Program In Chile



Tom Fox

Tom Fox, The Honorable Garland Gray Professor of Forestry, was invited to serve on the accreditation committee that reviewed the Forest Engineering curriculum at Pontificia Universidad Catolica de Chile in Santiago, Chile. The review committee also included Dr. Miquel Espinosa from the University of Concepcion and Dr. Mauricio Ponce from the University of Talca. The committee reviewed the self-evaluation report prepared by Catolaica and then spent four days on site in Santiago in November meeting with administrators, faculty, staff and students to evaluate the teaching, research and outreach components of the forestry program. The final report summarizing the strengths and weaknesses of the forestry program was submitted to the National Commission on Accreditation in Chile.

FREC Students Attend National Society of American Foresters Convention



Virginia Tech's Society of American Foresters Student Chapter had four students (**Colton Harris, Mary Hilton, Laurel Peterson, and Morgon Slagle**) attend the SAF National Convention in Madison, Wisconsin, on November 2-6, 2016. As part of the convention, students attended technical presentations, competed in the SAF Quiz Bowl, attended the National Student Congress, and participated in interviews with potential employers.

The mission of the Society of American Foresters is to advance sustainable management of forest resources through science, education, and technology; to enhance the competency of its members; to establish professional excellence; and to use our knowledge, skills, and conservation ethic to ensure the continued health, integrity, and use of forests to benefit society in perpetuity.

FREC Fall 2016 Graduates!

- Mandy Zhang
- Abdullah Kaplan
- Trisha Sanwal
- Tyler Hemby
- Dylan Dawson
- Benjamin Poling
- Kriddie Whitmore
- Keith O'Herrin
- Alex Grieve

Welcome New Graduate Students!

- Johanna Arredondo
- Neila Cole
- Chandler Dangle
- Maggie Furrow
- Corey Green
- Ray Ludwig
- Rienzy Ayesan Mahendra
- Joshua Rady
- Alexandra Steinmetz
- David Lee
- Kiandra Rajala

Alumni Corner



2016 Abingdon Arbor Day

Kevin Sigmon graduated from Virginia Tech's School of Forestry and Wildlife Resources in 1982. He was a participant in the Cooperative Education Program, working for the U.S. Forest Service in Blacksburg and Missoula, Montana. Kevin was active in the Forestry Club, the Wildlife Society, the School newsletter, "The Ridgerunner," and the yearbook, the "Virginia Tech Forester." He enjoyed going to both Forestry and Wildlife Conclaves, remembering VT's 1980 wins in both.

After graduation in 1983, Kevin joined the Davey Tree Expert Corporation in Richmond, gaining his introduction into the world of urban forestry, arboriculture, and integrated pest management. Appalachian Power hired him in 1985 to work in Roanoke as a utility forester and then relocated him to Abingdon in 1988, where he and his wife of 33 years still reside. Kevin's primary

responsibility is vegetation management on approximately 2,400 miles

of distribution lines in Virginia and Tennessee. The town of Abingdon hired him as a part-time arborist in 2001 to plan and care for the trees on public property and rights-of-way, and he has also been Marion's arborist periodically. Kevin has been an International Society of Arboriculture (ISA) Certified Arborist since 1994.

Kevin's public service includes having served on the Board of Directors for Trees Virginia (the state's urban forest council) and for the Mid-Atlantic Chapter of the ISA. He has also served on our FREC Advisory Board. Kevin enjoys working with Eric Wiseman and Susan Day on urban forestry and horticulture field day events. His early mentors included retired Plant Pathology faculty member Dr. Jay Stipes and the late Dr. Bonnie Appleton. Kevin greatly enjoys working with the general public, advocating the "Right Tree in the Right Place" philosophy and being involved in several Arbor Days and Earth Days each year.

Kevin expresses gratitude for his Virginia Tech education. It has been extremely satisfying through the years for him to see the department progress into the nation's #1 forestry program, and to see the Urban Forestry curriculum grow so that students can now receive bachelor's and graduate degrees in that field.

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**, Chief Advancement Officer CNRE, at 540-231-8859 or send an e-mail to ehutch@vt.edu.

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