Randy Wynne has been selected by the U.S. Geological Survey and NASA to be a member of the Landsat Science Team. Wynne joins a team of scientists and engineers who will provide technical and scientific input on issues critical to the success of the interagency Landsat program.

“Since Landsat was first launched in 1972, we have gained an unparalleled view of the Earth’s surface,” Wynne said. “That Landsat archive, which used to cost $500 to $600 per scene, is now publicly available for free. It is a sea change in the way we can use these data.” His research will test different means to fill the gaps in the ability to morph Landsat sequences into periodic time series.

Tom Fox has been elected as a Fellow in the Soil Science Society of America. Being chosen as a Fellow is the highest recognition bestowed by the organization; the honor is limited to only 0.3 percent of the society’s more than 6,000 members. Fellows have made outstanding contributions in an area of specialization such as research, teaching, or administration.

He was recognized during the society’s 2012 annual meeting in Cincinnati, Ohio, on October 24.
Dear friends and colleagues:

Each year the Fall issue of “Forestry” brings extra joy for me and the Forest Resources and Environmental Conservation (FREC) because it gives an opportunity to say Thank you and to wish you the very best for the New Year! I am pleased to inform you that FREC had another great semester. Thanks to our dedicated and talented faculty, staff, students, and our supporters. By glancing through this newsletter, you will note the diversity of our faculty, staff, students and alumni accomplishments. Let me highlight a few.

- Our new undergraduate major “Environmental Informatics” and college and university wide undergraduate degree in “Water: Resources, Policy, and Management” are moving forward in the university governance.
- Mr. Kyle Dingus, FREC Futures Intern, has been crisscrossing the Commonwealth of Virginia to promote our undergraduate majors and minors by visiting with guidance counselors of high schools and community colleges. With the help and guidance from faculty, alumni and friends, he has visited more than 40 high schools or community colleges in 20 counties.
- Our growth is continuing. Since June 2012, two postdoctoral associates and one research associate have joined us to advance our excellence in teaching, research, and outreach.
- Mr. Mike Hincher, Vice President of The Forestland Group; Mr. Easton Loving, District Procurement Supervisor at MeadWestvaco; Mr. Edward Sontag of Enviva; Dr. Darrel Williams, Chief Scientist at Global Science & Technology, Inc.; and Mr. Keith Cline of the USFS Urban and Community Forestry Program have joined us to serve on FREC’s Advisory Board.

We are proud of the accomplishments of our students, faculty, and alumni. In particular, Dr. Thomas Maness, one of our alumni, has become the Dean of the College of Forestry at Oregon State University in the fall of 2012!

I will take this opportunity to wish you and your families a great holiday season and the very best for 2013!

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**FREC Futures Intern Update**

Since starting our work in August, Kyle Dingus, our Futures Intern, has been very active in spreading awareness about the Department’s undergraduate programs across the Commonwealth. Notable achievements have been visits to 64 high schools, 5 community colleges, and 8 other venues relating to recruitment opportunities. Lecturing for 16 classes about the Department’s programs and their relation to environmental resources across the Commonwealth has been another way to reach out to students. Additionally, participation in Envirothon trainings for high school students, attending the Virginia Association of Science Teachers (VAST) conference in Williamsburg with Dean Stauffer, and collaborating with the Department’s two ambassadors to construct a career book have been other tasks. In the future, Kyle is planning to increase visits to high schools and community colleges along with finding ways to reach out to FREC alumni and friends to seek new venues for recruitment. If anyone has suggestions or questions please feel free to contact the Futures Intern at any time at kdd8989@vt.edu.
Welcome New Faculty and Staff

On July 25 Dr. Dashzeveg "Gana" Gantulga joined FREC as a Postdoctoral Associate. She will support the research of Jason Holliday (FREC) and David Schmale (Plant Pathology and Weed Science).

HIGHLIGHTS Teaching-Research-Extension

Tracking Invasion Patterns of Japanese Spiraea

Jeff Feldhaus (graduate student in FREC), Carolyn Copenheaver (Associate Professor in FREC), and Jacob Barney (Assistant Professor in Plant Pathology and Weed Science) recently completed a research project tracking the invasion patterns of Japanese spiraea at Buffalo Mountain Natural Area Preserve in Floyd County, Virginia. The Virginia Tech team worked in cooperation with Claiborne Woodall (Western District Manager for the Virginia Natural Heritage Program) and found the invasive species was seldom found under closed forest canopies, but appeared to be successfully established in high light environments such as along abandoned roads and powerlines. Full results from the project will be published in Natural Areas Journal in Summer 2013.

Digital Tool Allows Public to see Urban Tree Canopy Coverage in Neighborhoods

Residents and policymakers from 26 communities across Virginia can use a specially developed digital tool to view and access the tree canopy covering in their own city or neighborhood. Through a partnership with the Virginia Department of Forestry, faculty members at the Virginia Geospatial Extension Program based in the department of FREC have developed the Urban Tree Canopy Mapper. The user-friendly tool allows both professionals and average citizens to zoom in for views and create custom maps of the urban tree canopy in their communities. This critically important tool can be useful and practical for everyone.

Expanding the urban tree canopy results in many benefits — improvements in water quality, decreases in air pollution, decreases in heating and cooling costs, and an increased quality of life for residents. More and more cities and towns are developing plans for increasing and maintaining a quality tree canopy to provide environmental, economic, and social benefits.

Growing Virginia Kids and Trees for Virginia’s Forests

Free seedlings will be available to youth, thanks to a partnership with Virginia Cooperative Extension/4H, Virginia Department of Forestry, Virginia Forestry Educational Foundation, Virginia’s Customer Owned Electric Cooperatives, and Old Dominion Electric Cooperative. Pine seedlings are generally available without restriction while hardwood seedlings will be available on a limited basis. To request seedlings, contact your county Extension Office. For more information: http://frec.vt.edu/freeseedlings/.
Olli-Pekka Kuusela is a doctoral candidate in the Department of FREC working on research topics ranging from tropical deforestation and industrial concession design to cap-and-trade policies. In the summer of 2012, he was selected to participate in a Dissertation Fellowship Program at the Research Department of the Inter-American Development Bank in Washington, DC. He was among six other Ph.D. fellows, all currently working on research topics related to economics of climate change and adaptation, natural resource use, and policy instruments for pollution control. The purpose of the fellowship program is to provide opportunities for Ph.D. candidates to work on their own research while at the same time engage in discussions with the IDB’s staff. Kuusela would like to thank his host Dr. Sebastian Miller at the IDB, and his academic advisor, Dr. Gregory S. Amacher, for making possible this unique and stimulating professional experience. He would also like to thank the staff at the Research Department for their kind friendliness, and the other dissertation fellows, new life-long friends, for a great summer in DC.

Center for Advanced Forestry Systems Receives Renewed Funding

The National Science Foundation has renewed funding for the Center for Advanced Forestry Systems. Thomas Fox and Harold Burkhart received a $300,000 grant from the National Science Foundation to continue their work with the NSF Center for Advanced Forestry Systems through 2016. The NSF Center for Advanced Forestry Systems was formed in 2007 and has become the largest Industry/University cooperative research center sponsored by NSF. The Center for Advanced Forestry Systems links the Forest Productivity Cooperative and the Forest Modeling Research Cooperative at Virginia Tech with other forestry research programs at NC State, the University of Georgia, University of Florida, Purdue, University of Maine, University of Idaho, University of Washington and Oregon State University. The overall goal of the program is to conduct the basic research needed to understand the fundamental factors determining forest productivity and sustainability and then conduct the translational research that will produce management tools needed by forestry in the United States to remain globally competitive. Tom Fox serves as the Virginia Tech site director for the CAFS program.

New Members Join Forest Productivity Cooperative

Five new forest industry members have joined the Forest Productivity Cooperative. Agropical and IFOM (Mexico), COMPO Agro (Chile), Greenwood Resources (USA), and Klabin (Brazil) joined the program in 2012. The Forest Productivity Cooperative now has 62 members that own more than 50 million acres of forests in the USA, Mexico, Colombia, Venezuela, Brazil, Argentina, Uruguay, Chile, Ecuador and Indonesia. The Forest Productivity Cooperative is an international research and technology transfer program working with the pine, eucalyptus and other species in both temperate and tropical regions. The mission of the Forest Productivity Cooperative is to create innovative solutions that enhance forest productivity and value through sustainable management of site resources. The primary research focus is to develop precision silvicultural regimes that are biologically sound, economically viable and environmentally sustainable. Tom Fox serves as the Co-Director of the Forest Productivity Cooperative along with colleagues at North Carolina State University and the University of Concepcion.
FREC Extension Faculty Contribute to Success and Award Recognition

The Virginia Sustainable Forestry Initiative (SFI) Implementation Committee recently earned the 14th Annual SIC Achievement Award presented by SFI (www.sfiprogram.org). In presenting the award, SFI noted the committee’s work with partners, including Virginia Tech Department of Forest Resources and Environmental Conservation, Virginia Cooperative Extension, and other organizations throughout Virginia. FREC faculty members are actively involved in the VA SFI implementation committee and partner with the committee to develop and deliver educational programs.

Program partnerships with the Virginia SFI Implementation committee include the VA Forest Landowner Education Program (http://cnre.vt.edu/forestupdate) led by Jennifer Gagnon, Virginia’s Link to Education about Forests (LEAF) (http://valeaf.org) led by John Munsell, and the VA SHARP Logger Program (http://sharplogger.vt.edu) led by Scott Barrett.

Extension Program Receives Education Grant

The Virginia Forest Landowner Education Program received a second Education Grant from the American Tree Farm System for 2013 to expand the award-winning Real Forestry for Real Estate (RFRE) program. This program puts sustainable forest management information in the hands of new forest landowners through partnerships with real estate professionals. The 2013 grant will be used to continue to offer "Real Forestry for Real Estate" continuing education classes (10 in 2013), as well as to develop a field-based program on timber valuation (as requested by previous class participants). Four timber valuation classes will be offered.

In addition, a print publication, Managing Your Woodlands: A Guide for New Landowners, will be created. This publication will replace the New Landowner Packets which had previously been given out to class participants. It will be more compact, easier to store and transport, and have a more professional feel than the Packets. This publication will have a back pocket, where specific information can be placed, and will allow local programs to customize the publication.

Finally, grant funds will be used to evaluate the impact of the RFRE program on sustainable forest management in Virginia.

For more information, please contact Jennifer Gagnon, jgagnon@vt.edu, 540/231-6391.
Dendrology App Released for Android

Virginia Tech Tree Identification brings the award winning Virginia Tech digital dendrology material to your Android smart phone. It contains fact sheets for 969 woody plants from all over North America with in-depth descriptions, range maps and thousands of color images of leaves, flowers, fruit, twigs, bark and form.

Users can narrow the species list for any location in North America using the phone's GPS, network signal or any entered address or zip code. Basically the application can become “Woody Plants of Where You Are Standing”. For example, it can become the “Woody Plants of Southwestern Oregon,” the “Woody Plants of Central Park” or the “The Woody Plants of 37.108 lat., -80.452 long., elevation 2118.”

Users can further narrow the species list by answering a series of very simple tree attribute questions such as where the plant is growing, leaf shape, leaf arrangement, flower color or fruit type.

The species list can also be narrowed by typing a keyword such as oak, Abies, red or palm. For example if oak is typed only oaks found in the defined area will be listed.

A feature also allows you to send any tree related question to “Dr. Dendro,” a tree expert in the Department of Forest Resources and Environmental Conservation at Virginia Tech. You can send a tree description or pictures of your plant and experts will help with identification.

Forest Modeling Research Cooperative Annual Meeting Held

The 34th annual meeting of the Forest Modeling Research Cooperative was hosted by Larson and McGowin in Mobile, Alabama, on December 5-6. Thinning operations in loblolly pine plantations was the focal point of the field trip. Reports on ongoing research projects, software development, and plans for future research studies were provided the following day by Virginia Tech personnel Harold Burkhart, Ralph Amateis, Charles Sabatia, and Colleen Carlson, and an annual business meeting was conducted. The cooperative maintains a region-wide system of growth and yield plots in operational plantings of loblolly pine, installs and maintains designed experiments to address growth response to selected silvicultural treatments, and collaborates with other research groups when developing the data bases needed for modeling growth and yield of managed forests.
The Virginia Department of Forestry established the Crown Award to recognize an individual or entity that has not only gone beyond the call of duty, but has set a standard of excellence others can only admire. Kirwan is only the fourth recipient in the history of this award, which is the highest honor the State Forester of Virginia can bestow.

Kirwan dedicated many years to researching trees in Virginia as coordinator of the state’s Big Tree Program and is co-author of the “Remarkable Trees of Virginia” book. He has spoken to thousands of children about the trees in the book. Among his many accomplishments are leading a natural resources and environmental education program that reached more than 360,000 youth, incorporating service learning into classes taught in both CNRE and in the American Indian Studies program, and serving the public as a 4-H agent for VCE.

Eric Wiseman receives Early Career Scientist Award

Eric Wiseman is the recipient of the International Society of Arboriculture’s Early Career Scientist Award. The award recognizes scientists in the field of urban forestry and arboriculture who demonstrate exceptional promise and high career potential for producing internationally recognized research.

Wiseman, one of nine people selected for the society’s 2012 Awards of Distinction, accepted his award at the local chapter meeting in Cumberland, Md., on October 2.

Wiseman has published 18 articles in peer-reviewed scientific journals and trade magazines. In addition, he is known for his work on roadside arboriculture management, citizen monitoring of the emerald ash borer infestation, and predicting urban canopy coverage through tree growth.

Zedaker Visits Belize on Behalf of Partners of the Americas

Shepard Zedaker traveled to Belize November 4 through November 7 to attend a forum on the Building Capacities for Sustainable Forested Landscapes’ Stakeholders Forum at the University of Belize.

Shep met with representatives from the Belize Forest Department, the Yalbac Ranch Forest, Forest Land Group, Belize University, US Embassy to Belize, and Partners of the Americas, to discuss forestry capacity building initiatives for Belize. The focus was on increasing the capacity of forest managers for wildland fire suppression and prescribed fire use. Shep also toured sites on the Yalbac Ranch Forest that had been devastated by a 2011 wildfire.
Chris Kiser and Tom Fox Win Best Paper Award

Chris Kiser (Ph.D. Forestry 2011) and Tom Fox won the best paper award for their presentation “Fine Root Production of Loblolly Pine Clones Growing in Two Contrasting Soil Types” at the 2011 Soil Science Society of America International Meeting.

Chris Kiser is an Assistant Professor of Forestry at Abraham Baldwin Agricultural College in Tifton, GA.

Elizabeth Moore receives Outstanding Young Scientist Award

Elizabeth Moore received the "Outstanding Young Scientist Award" at the 2012 International Union of Forestry Research Organizations’ Small-Scale Forestry Working Group Conference in Amherst, Massachusetts. Elizabeth is a graduate student working with Dr. John Munsell in the area of Human Dimensions. The Young Scientist award is given to a single conference attendee under the age of 35 that demonstrates exceptional promise as a scientist. Competitors for this award included academic faculty, research scientists, and other graduate students. Elizabeth’s research used illustrations and hands-on activities to collect data on the roles of identity, cooperation, and technique preferences in the adoption of agroforestry systems by Central African Republic refugees and host-national Cameroonians in the Adamaua Province of Cameroon in Western Africa. The objective of her work is to improve food security and resource sustainability in the region by helping aid agencies such as the International Medical Corps successfully integrate trees into gardening and farming systems in areas where refugee populations have increased dramatically.

Cody Gillin Receives Scholarship

Cody Gillin received a 2012 Virginia Lakes and Watershed Association Leo Bourassa Scholarship for his academic and personal accomplishments in the field of water resources. Congratulations to Cody!! The VLWA is a non-profit organization dedicated to conducting scientific and educational efforts to protect the quality and uses of Virginia Lakes and Watersheds.

For more information on VLWA, go to www.vlwa.org.
Jeff Marion Receives Recognition

Jeff Marion received two recognitions for his work with Leave No Trace (www.LNT.org), a national education program developed to communicate low impact outdoor practices and ethics.

Jeff received the Distinguished Service Medal presented by the Boy Scouts of America for volunteer service to advance Leave No Trace education and training within the BSA. Jeff was recognized for providing 20 years of assistance to the Boy Scouts of America to incorporate Leave No Trace practices and ethics in BSA outdoor skills publications and courses. Jeff has provided significant input to the Scout Handbook, Scout Fieldbook, Merit Badge pamphlets, and numerous BSA courses. He was a founding member of the BSA Leave No Trace Task Force, a national group that guides LNT educational efforts within the BSA. He has also received the BSA Hornaday Gold Medal and Gold Badge Conservation awards for his Leave No Trace contributions to the BSA and public land managers.

Jeff was also featured in the Leave No Trace Annual Report for substantial “Member Activism”. The excerpt from the report reads “Jeff Marion, recreation ecologist with the U.S. Geological Survey and adjunct faculty at Virginia Tech, has played a critical role with the Leave No Trace Center for Outdoor Ethics since the organization was formed. A founding Leave No Trace board member and long-standing member of the Center’s Educational Review Committee, Jeff’s research and activism have helped propel Leave No Trace programming. Through his advocacy, both academically and personally, Jeff has given the Leave No Trace Center support and exposure that keeps reaching more people to make outdoor use as sustainable as possible.”

An Achievable Dream – Students Visit CNRE

FREC Futures Intern, Kyle Dingus, hosted An Achievable Dream Students visit to the College of Natural Resources and Environment on December 7 to learn more about programs that the college offers. An Achievable Dream is a program based in Newport News, VA that focuses on student success regardless of socioeconomic background.

The FREC Futures Intern, along with nine CNRE Ambassadors, provided overview of programs and gave a tour of the facilities at Cheatham Hall and a few labs in Latham Hall to highlight the community in the College, career opportunities and to highlight the dynamic and multidisciplinary research portfolio. In the future the College hopes to interact more with the students and faculty from the school. Thanks to CNRE Ambassadors Kalena Comer, Bryan Mitchell, Paul Decker, Shikhee Soeb, Morgan Brizendine, Kara Smalley, Kate Sauter, Cole Burch, and Kelly Summers who helped facilitate the visit.
Students from the Society of American Foresters, for the second time, organized an Undergraduate Research Symposium on December 3 to highlight research opportunities for undergraduates of all majors in the CNRE. Faculty members representing all departments within the college presented on their research projects and ways to include undergraduate students. Dr. Tomalei Vess, Director of Undergraduate Research for the university, explained the benefits and opportunities that are available to students who pursue research projects. Following closing remarks by Dean Paul Winistorfer, attendees enjoyed a dinner and had a chance to interact with faculty and undergraduates who had completed research. More symposiums will be planned in the future so students can continue to find out about research opportunities from this event. The College is proud of this event and would like to thank the SAF leadership and membership for the planning and facilitating the program.

Students Represent Virginia Tech at Tree Care Industry Expo

The 16th Annual Tree Care Industry Association Foundation Student Career Days (SCD), held this year in Federal Hill Park in Baltimore, Maryland, was attended by five Virginia Tech students, Garrett Williams (HORT), John Baigis (FREC), Ian Fuze (FREC), Johanna Arredondo (FREC), and Kara Dodson (FREC). The three-day event, November 8-10, offered students enrolled in arboriculture, forestry and related programs an inside look at the field they're studying.

SCD was well attended with 174 students representing 17 colleges, universities and vocational programs from across the country. The students took full advantage of the opportunity to test their knowledge and participate in a variety of skills competitions. Events included tree climbing skills competitions and written exams. Among the big draws were a belayed scramble, a throwline toss, safety gear check, and a work climb in the trees of Federal Hill Park. Students worked to gain as many points as possible in the least amount of time.

Student Career Days, the largest FREE career development event for students in the industry, also hosts a Job & Internship Fair during TCI EXPO, with some of the biggest names in tree care. SCD 2012 sponsors include STIHL Inc., Arborwell, Bartlett Tree Experts, The Davey Tree Expert Co., RTEC Treecare, SavATree, The Care of Trees, International Society of Arboriculture, Vermeer Corporation, and Bandit Industries, Inc.
2012 SUSTAINABILITY WEEK TREE PLANTING

Tree plantings have become an annual Sustainability Week event and several undergraduate and graduate students from FREC participated in the 6th annual Sustainability Week tree planting on September 25. About 12 trees were planted, including a mix of birch and hawthorn donated by the FREC and Horticulture departments, American elm, and oaks.

Congratulations Summer 2012 Graduates

- Geiger, Richelle – Dr. Gwen Busby - M.S.
- Roberts, Tal – Dr. Chad Bolding - M.F.
- Stanley, William – Drs. John Seiler and Shep Zedaker - M.S.

Welcome New Graduate Students!

- Avera, Bethany – Dr. Brian Stahm - M.S.
- Braff, Pamela – Dr. Steve Prisley - M.S.
- Browning, Matthew – Dr. Marc Stern - Ph.D.
- Bukowski, Catherine – Dr. John Munsell - Ph.D.
- Chakurda, Taylor – Dr. John Munsell - M.F.
- Coleman, Kimberly – Dr. Marc Stern - Ph.D.

New Graduate Students (continued)

- Correll, Katie – Dr. Valerie Thomas - Ph.D. (GEA)
- DeBruler, Daniel – Drs. Stephen Schoenholtz and Brian Strahm - M.S.
- DeYoung, Clara – Dr. Phil Radtke - M.S.
- Kidd, John – Dr. John Seiler - Ph.D.
- Kimball, Lele – Dr. Eric Wiseman - M.S.
- Mitchell, David – Dr. Susan Day - M.S.
- Tacilla Villanueva, Antonio – Dr. Tom Fox - M.S.
- Wu, Yi-Jei – Dr. Valerie Thomas - M.S.
Oregon State University Names Thomas Maness
Dean of College of Forestry

Thomas Maness ('81 M.S. in forest operations), a forest economist, has been named dean of the College of Forestry at Oregon State University. He specializes in developing innovative forest policies and practices to balance traditional production with ecosystem services and has been a professor and head of the college’s Department of Forest Engineering, Resources, and Management since 2009.

In his career, he has worked for Weyerhaeuser Co. as a forest engineer in the Klamath Falls region, where he developed strategic forest planning models. He served on the faculty at the University of British Columbia, founded the Canadian National Centre of Excellence in Advanced Wood Processing, and directed the program for five years.

In his role as dean, Maness will lead a college with nearly 1,000 undergraduate and graduate students and an annual budget of about $25 million. He also will serve as director of the Oregon Forest Research Laboratory.

Maness earned a Ph.D. in forest economics from the University of Washington in 1989, earned a Bachelor of Science degree in forest-management from Western Virginia University, and a master's degree in forest operations from Virginia Tech.

The Department of Forest Resources and Environmental Conservation is happy to announce that we now have Facebook (https://www.facebook.com/vtfrec) and Twitter (https://twitter.com/VTFREC) pages. 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 Mr. Bob Mollenhauer, Development Officer, at 540-231-8859 or send an e-mail to bobm5@vt.edu.