



CNR NEWS

Wynne VIP guest of NASA for shuttle launch

COLLEGE OF NATURAL RESOURCES
Virginia Polytechnic Institute and State University

Amidst all his dashing to and fro as the whirlwind associate forestry professor works so diligently on advancing remote sensing for the world, Randy Wynne got to witness a thrilling sight last summer in a VIP seat three miles from the launch of a shuttle from the Saturn V facility. "I was moved by how our country has accomplished so much," Wynne said. "Putting a man on the moon has always seemed incredible to me and so did that launch."

The launch served as the capstone of a forum where representatives from Texas, Virginia, and Colorado met with the NASA associate administrator of education and discussed ways NASA can improve its educational programs in schools and colleges for K-12 grade students, undergraduate students, and graduate students. The Space Grant Consortium director from each of the three states attended as well.

NASA is a strong partner with the Virginia Space Grant Consortium, a collection of five colleges (including Virginia Tech) and other organizations that represent diverse aerospace research. NASA, which helped found Virginia Tech's remote sensing program by establishing the Center for Environmental Applications of Remote Sensing in 1997, plans to provide more money nationally for aerospace research and to set up new pilot programs in the three states that attended the forum.

Aware that interest in the space program has waned in the past several years, NASA wants to increase its visibility. "With the education program, their intent is to be more proactive to encourage the next generation to take more interest than we currently see today," Wynne said. "Part of the effort will be to parlay research activities into educational components for a broader constituency." Wynne's current research with NASA uses only seven graduate students, but he hopes NASA's new education efforts will increase student involvement in his and similar projects nationally. Wynne is the



The shuttle stands tall and proud while waiting for the final countdown to begin.
Photo by NASA



principal investigator, however, there are six co-investigators. Professor John Seiler; associate professors Tom Fox, Steve Prisley, and Phil Radtke; senior research associate Ralph Amateis, and research scientist David Arthur Sampson, all forestry faculty members, are co-investigators of the prestigious grant, as well as industrial engineering professor Kostas Triantis and NASA Ames research scientist Christopher Potter. Wynne and his collaborators are currently in the second year of a three-year grant (the college's share of a larger \$1.8 million grant) funded by NASA that focuses on carbon cycles. A large portion of the research was subcontracted to other institutions, including George Mason University and the National Council for Air and Stream Improvement (NCASI).

The NASA grant, entitled "Decision support for loblolly pine carbon management: from research to operations", focuses on research using satellite data to measure carbon sequestration in differently managed stands of forest pines. NASA's interest in earth research is not new, Wynne said. "NASA has a mandate to use its assets to improve our understanding of the earth's atmosphere, geosphere, and biosphere; all interact with each other," he noted.

The data are analyzed in the college's Center for Environmental Applications of Remote Sensing (CEARS), developed in partnership with multiple university departments and other industries, institutions, and governments to provide environmental solutions that incorporate state-of-the-art remote sensing data. Established in 1997 as a NASA center of excellence in applications of remote sensing to regional and global integrated environmental assessments, CEARS continues to be funded in part by NASA. Wynne and geography professor Jim Campbell headed the development of CEARS in the college, and serve as co-directors of the center.

For Wynne's study he is using loblolly pine stands throughout the southeastern United States. Two NASA-launched sensors, MODIS and Landsat, collect information over the forests every day (MODIS) or 16 days (Landsat). "The spatial resolution is better on the Landsat (30 m on a side); MODIS resolution is 250 m (on a side)," Wynne noted. "The satellites record only the visible to thermal infrared portion of the electromagnetic spectrum."

NASA plans to make the results available for worldwide use in forest management, and in the future will conduct more earth science research using satellite technology. "NASA engineered and launched the satellites and puts lots of money into data distribution. All that's been done in a wide range with tangible societal benefits. Now they want to leverage these investments for decision support," Wynne explained, "including forest management in intensively managed forests."

Our common prediction framework will give forest landowners access to predictions of growth, yield, output, and carbon pool dynamics – and estimates of prediction accuracy – at the scales at which forests are managed," Wynne explained.

Randy Wynne had an incredible experience as he viewed the liftoff of a shuttle from the VIP section of NASA. Photo by NASA.



Randy Wynne and family met several astronauts while at the launch site, including Cmdr. Stephen N. Frick, USN, who is commander for STS-122, which lifted off in February and has returned to earth. L-R: Daughter Hannah, wife Cindy, Cmdr. Frick, son Jacob, and Randy Wynne.



FROM THE DEAN'S PERSPECTIVE

As has been my custom in years past, I like to use the first newsletter of the new year to reflect on our accomplishments as well as to look ahead. Nothing could have prepared us for the trauma we experienced both as a community and as individuals in mid-April. As we continue on the road to recovery and seek to regain some degree of normalcy, we remember those who were lost or injured along with their families and seek ways to support them as they strive to recover their footing and move forward.

On the positive side of the ledger, this has been a year of continued growth both in terms of student numbers and in faculty. We are approaching 500 students in our undergraduate program with a major part of that increase coming from students majoring in geography. While our total graduate enrollment remained a little over 200 students, we have had an increase in the number of doctoral students and this is in part a reflection of the growth of our research program and the initiation of our new interdepartmental doctoral program in geospatial and environmental analysis. Our contribution to the overall research portfolio of the university remains strong with expenditures from contracts and grants totaling in excess of \$12.4 million in FY 2007. When put on a per faculty FTE or per square foot of research space basis we are second only to the College of Engineering.

This past year also saw the addition of a significant amount of new research space with the opening of Latham Hall. This is really first rate space combined with the added plus of providing an environment in which people with related research interests from a variety of disciplines are located together. This integrated environment provides a setting in which interactions will lead to synergies that would be unlikely to be realized otherwise.

We have also seen growth in new faculty positions with the addition of four new faculty members: two focused on remote sensing, one in the area of bio-based materials, and one in wildlife diseases. In addition we have added a new faculty position in forestry Extension and reprogrammed funds within the college to create a fulltime Associate Dean for Engagement position.

This year also saw the inaugural year of the Wood Enterprise Institute. This "student run business" provided a group of students in the wood science and forest products department the opportunity to form a business and develop, manufacture, and market a product. This has proven to be an invaluable experience in business operations, product development, and personnel interactions. Similarly, under the leadership of wood science department head Paul Winistorfer and with assistance from forestry department head Harold Burkhart, an initiative has been undertaken to further the development and vitality of the secondary wood processing industry in Southside Virginia through the development of a Wood Links training program in conjunction with local high schools, community colleges, the Higher Education Center, and the local business community. This is a unique venture and one with great potential to contribute to both education and economic vitality.

An important objective identified in both the current college and university strategic plans is the initiation of a meteorology program in the college. In the coming year we will continue to work with the university provost to find a way to begin the development of this very important opportunity to strengthen and diversify our programs. Unfortunately, from a financial perspective, the year ahead does not look as favorable as we might hope due to budget reductions caused by a revenue shortfall at the state level. The full impact of this situation is not yet clear and probably will not be fully understood until after the completion of the Virginia Legislature's session. While the state's revenue shortfall is not good news, we will nevertheless continue to work to enhance our position and sustain the growth of the college. We have worked out a strategy to protect vacant faculty positions which are essential to sustaining our position in the top tier of natural resource programs in the country.

Dean Mike Kelly visits with former visiting forestry professor Jungkee Choi of Korea during fall graduation.



An important part of maintaining our status among the best colleges are the funds provided through your gifts to the college and its programs. In our Fall 2007 issue of the CNR News we announced the beginning of the public phase of the Campaign for Virginia Tech. The college has set some ambitious goals as a part of that campaign, goals that become doubly important in the face of the continued erosion of the support that we receive from the Commonwealth. Virginia Tech is a powerful engine for change throughout the Commonwealth, and we want to make sure that engine continues to run on all cylinders. Your financial help is critical if we are to be as successful as we need to be. There are a number of options for giving in support of our efforts, some of which can actually provide you with retirement income. If you would like to discuss a possible gift please contact me. We have identified a number of important needs, some with naming opportunities. All gifts, no matter the amount, are valued and contribute to the collective impact. Thank you for your continuing support.

J. M. Kelly



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Woodburned Cypress Honors April Heroes

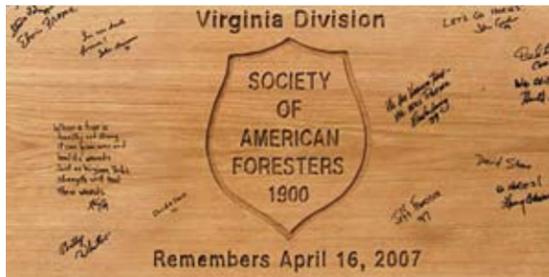
A new memorial plaque now hanging in the lobby of Cheatham Hall honors those who lost their lives in the April 16 tragedy at Virginia Tech. Harry Rogers, a 1973 alumnus of forestry and president of Big River Cypress and Hardwood, Inc., of Blountstown, Fla., presented the plaque and a contribution on behalf of the Southern Cypress Manufacturers Association to Virginia Tech President Charles Steger. Each of the association's members donated \$100 to the Hokie Spirit Memorial Fund for a total of \$3200.

The plaque is woodburned with a Hokie memorial ribbon in each corner and professor Nikki Giovanni's encouraging words, "We will prevail, We will prevail, We will prevail, We are... Virginia Tech." Listed below the quote are the names of each of the 32 victims who lost their lives and the date.



Attending the presentation for Dean Mike Kelly, who was out of town, were: L-R: Rich Oderwald, associate dean for academic affairs; Harold Burkhart, forestry department head; Bob Smith, associate dean for engagement; Eric Hallerman, fisheries and wildlife department head; Virginia Tech President Charles Steger; Harry Rogers, 1973 alumnus representing the Southern Cypress Manufacturers Association; Paul Winistorfer, wood science department head; and Bob Bush, associate dean for research and graduate studies.

NEWS NEWS, SEND US YOUR NEWS Please let us know what is happening in your life so we can include the news in our next college newsmagazine. Send your information to Shirley Paine at shirl07@vt.edu; or 324 Cheatham Hall, Blacksburg VA 24061. Thanks. We would love to hear from you. Send it NOW while you are thinking of it!



Traveling White Oak Board Remembers April 16

The Virginia Division of the Society of American Foresters (SAF) found a unique way to honor those who lost their lives April 16 and also offer encouragement to the Virginia Tech community as it faces the one-year anniversary of the horrific tragedy. The SAF executive committee recently presented a nine-foot white oak board to the college that had traveled

across the state receiving signatures and words of encouragement from SAF members. White oak was chosen because it represents strength, symbolizing Virginia Tech's strength and resolve in the aftermath of April 16, 2007.

Beginning with Virginia's SAF 2007 summer meeting hosted by the Rappahannock Chapter, the board traveled to six different chapters around the commonwealth. Donated by Ontario Hardwood Company, Inc., the board was designed, planed, treated, and transported by SAF members. The board will be displayed on the second floor of Cheatham Hall between the undergraduate computer lab and the dendrology lab.



In remembrance of April 16, the Virginia Division of the Society of American Foresters (SAF) presented a woodburned memorial white oak board to the college. L-R, front: assistant professor of forestry John Munsell; associate professor of forestry Carolyn Copenheaver; associate dean of research and graduate studies Robert Bush accepting on behalf of the college; Virginia SAF chairman Greg Scheerer; SAF member Mike Hinchey; and associate Extension agent Bill Worrell, Russell County. L-R: SAF member Jeff Watts; SAF member Charlie Huppuch; Extension agent Adam Downing, Madison County; District Extension program leader Dan Goerlich, Danville; and lecturer Neil Clark, Tidewater Agricultural Research and Extension Center.

Promotions and Tenures Granted

Three Professors in CNR were recently granted tenure and promoted.



Brian Bond

The Virginia Tech Board of Visitors has granted tenure and promotion to now associate professor of forest products Brian Bond. His current research program focuses on improving efficiency in sawmills and lumber drying operations in Virginia.



Carolyn Copenheaver

Carolyn Copenheaver was approved for tenure as associate professor in forestry. Her research focuses on forest ecology, land-use history, stand dynamics, and succession. She uses tree rings to reconstruct historical environments and disturbances.



Marcella Kelly

Marcella Kelly was promoted to associate professor in fisheries and wildlife and granted tenure. Kelly has received two college awards for excellence in teaching plus the appreciation award from fisheries and wildlife graduate students. She developed a 10-day field intensive wildlife course for undergraduate students, where students are required to set up a remote camera survey for wildlife. The first survey in 2004 collected photos of deer, bears, turkeys, bobcats, and coyotes.

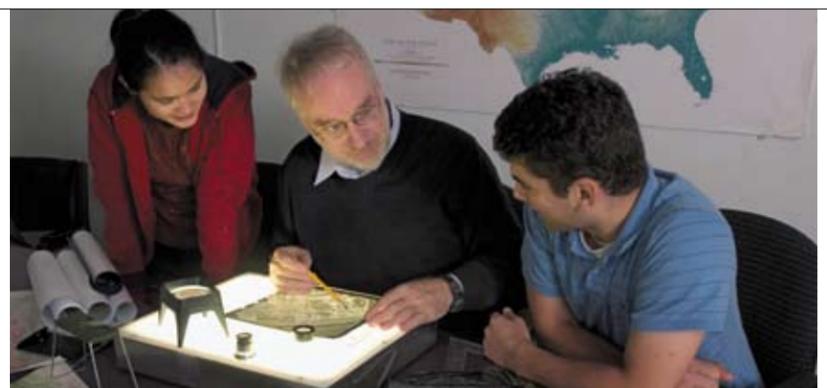
Jim Campbell Receives 2007 Undergraduate Alumni Advising Award

Geography professor Jim Campbell garnered the 2007 Undergraduate Alumni Advising Award for his excellence as an undergraduate adviser. The award recognizes an individual who serves undergraduates in exemplary ways. Campbell has been teaching geography since 1976, after he received his Ph.D. from the University of Kansas, Lawrence.

Campbell's position as an undergraduate adviser provided him with a different perspective on the institution and how students interact with the institution. When commenting on his experience as an adviser, Campbell said, "This has provided me a perspective on the trajectory of students during their time at the university, as they gain experience and develop focused interests that develop career choices. After a while, that kind of understanding improves the way that a faculty member

organizes his or her courses and presents material in the classroom."

Campbell's experience and effort as an adviser has helped his students become successful with their career at Virginia Tech. Senior Levi Coldiron said, "He's been a really good adviser and has always taken care of anything I needed and is always willing to go out of his way to make sure his students are progressing towards their degree." When recognizing Campbell's accomplishments, Kim Brown, University Studies Director, said, "Thank you for your commitment to providing effective academic advising to students at Virginia Tech. You are an asset to the Virginia Tech family." Bill Cartensen, professor and head of the Department of Geography, joined Brown saying, "Clearly Jim is an asset to the Virginia Tech geography family as well."



Jim Campbell With Students

De Beurs Joins Department of Geography

Kirsten de Beurs joined the college this fall as assistant professor of geography. Originally from the Netherlands, she earned her M.S. in agricultural systems science from Wageningen University in the Netherlands. She received her Ph.D. in natural resources from the University of Nebraska in Lincoln.

De Beurs' research focuses on the analysis and monitoring of land surface changes as a result of human impact in addition to global climate change effects. She has a special interest in land-use change in northern and central Eurasia due to the collapse of the Soviet Union.

Prior to Virginia Tech, she worked as a postdoctoral research associate at the University of Wisconsin in Madison. As a student, she won a prestigious NASA Earth System Science Graduate Fellowship.



Kirsten de Beurs

College Welcomes John Munsell



John Munsell

John Munsell has joined the college as an assistant professor of forestry and forestry management Extension specialist. He comes to the college from the State University of New York's College of

Environmental Science and Forestry in Syracuse, N.Y., where he received his M.S. and Ph.D. in forest resources management. He earned his B.A. in sociology from Tulane University in New Orleans, La.

Munsell's research combines sociology and forestry by merging socio-psychological measurements and field forestry observations. Past research projects include the use of Best Management Practices on non-industrial forests in New York City's water supply system, and comparing timber harvesting practices on non-industrial forests in New York state and Mississippi.

He has extensive forestry experience, including serving as the assistant program manager for New York City's Model Forest Program, where he designed and coordinated numerous forest management and water quality workshops.

Teen co-authors study with aquaculture professors

After working on a project with Virginia Tech's Aquaculture Center for more than a year, Karl Sorenson, a 14-year-old Salem High School freshman, recently competed against 39 other students as a semi-finalist for the 2007 Discovery Channel's Young Scientist Challenge.

After several of his fish died in his aquarium at home, Sorenson wanted to figure out a way to treat sick fish. He approached the staff at the Aquaculture Center with a project proposal to anesthetize fish to determine why they were sick before they died. The staff was intrigued and gave Sorenson scientific literature in addition to pointers on how to handle fish in the laboratory. Sorenson and researchers at the center decided to use cobia, a large, warm water fish, in order to find the best anesthetic.

Sorenson used three anesthetics and examined the blood chemistry of cobia with a special machine to understand which anesthetic was the least stressful

on the cobia. Very little is known about cobia, which is predicted to be a food fish in the future.

The Aquaculture Center plans on using Sorenson's research in a scientific journal publication that he will co-author with center director, Ewen McLean, and researcher, Steven Craig. He will be the youngest co-author the center has ever worked with.

Sorenson was awarded the "Star Gazer" prize for being the "most observant" during the science challenges. His prize is a trip to the Lowell Observatory in Flagstaff, Ariz. to work with astronomers at a research station at Anderson Mesa.

"To even have gotten in the top 40 says a lot about the student and our aquaculture folks who have worked with him on the cobia project. Cobia could help the U.S. make up its fish deficit of \$8 billion annually. The topic is incredibly important to the U.S. economy," said Lynn Davis, the college's public relations director.



Karl Sorenson (C) at the Aquaculture Center lab with mentors Steven Craig (L) and Ewan McLean (R).

Lindsey Appointed Teaching Fellow

Kieran J. Lindsey has been appointed a Postdoctoral Teaching Fellow in the Natural Resources program in Virginia Tech's National Capital Region, although she will be based in Blacksburg.



Kieran Lindsey

Lindsey received her Ph.D. (2007), M.S. (2003), and B.S. (1997) in Wildlife and Fisheries Sciences at Texas A&M, where she also held a graduate assistantship from 2002-2006.

Lindsey co-authored the first textbook covering urban wildlife, which is a rapidly growing field. *Urban Wildlife Management* was recognized as the Outstanding Book in 2007 by the Texas Chapter of The Wildlife Society, and named to the "Outstanding Academic Title" list by CHOICE magazine. Lindsey's primary responsibility will be the development of two new online courses for the Natural Resources Distance Learning Consortium; she will also mentor graduate students.

Forestry Welcomes Thomas to Faculty

Valerie Thomas joined the college this fall as an assistant forestry professor. Prior to coming to the college, she was a post-doctoral fellow at Queen's University in Kingston, Ontario, Canada.

Originally from Prince Edward Island, Canada, Thomas received her Ph.D. from Queen's University in 2006. Her research primarily involves modeling of canopy-scale photosynthesis through a full multi-scale remote sensing analysis. Thomas also spent a year in Indonesia researching and teaching about remote sensing and GIS.



Val Thomas

STUDENT NOTES

Undergraduate Awarded Research Grant To Study Pre-European Forestry

Christopher W. Fields-Johnson, a senior majoring in forestry and forest resource management, was awarded the Virginia Academy of Science Undergraduate Research Grant for 2007-2008. Under the tutelage of Carolyn A. Copenheaver, Fields-Johnson is using the \$500 grant to fund studies of species-site relationships in pre-European settlement forests of Giles County, Va. His research is focused on reconstructing the pre-European forest composition of the county by mapping witness trees from the first land surveys that were conducted from 1785-1817. He will present his findings to the academy in May.

Christopher Fields-Johnson



Three-Paw Sumatran Tiger Puts Grad Student in International Spotlight

A wildlife science graduate student made international news last summer when an endangered three-pawed Sumatran tiger was caught on camera in a protected wildlife park in Indonesia. Sunarto, (Indonesians only have one name) a wildlife biologist working with the World Wildlife Fund (WWF), said he believed the tiger was the same one that lost a paw escaping from an illegal trap in the area in November 2006.

Illegal snares placed by poachers are a grave danger to the country's wildlife, but especially so to the Sumatran tiger, which has a world population of less than 400. Rich in rainforests, Indonesia has 45 protected areas totaling 96,400 acres, including the Tesso Nilo National Park on Sumatra Island, where the tiger's picture was snapped. Clearing forests for palm oil plantations and agriculture also poses threats to the country's small population of rare tigers. "Only a dozen animals are estimated to live in this park," Sunarto said. "If we don't stop this, they will soon be gone."

"Our tiger work shows that Virginia Tech involvement in science-based research can contribute to the conservation actions in my field," he said. "My work with the World Wildlife Fund helps ensure that management of wildlife is based upon a good knowledge resulting from rigorous scientific works," Sunarto noted.

A Ph.D. student whose adviser is associate professor of wildlife science Marcella Kelly, Sunarto works with Sybille Klenzendorf, an earlier Ph.D. graduate of the college wildlife program and now director of species conservation for WWF.

Ph.D. student Sunarto sets up cameras to photograph tigers.

The Sumatran three-legged tiger caught by cameras made international news.



Honor Society Gives Free Tutoring

Xi Sigma Pi, the college's honor society, provides tutoring free of charge to students within the college who have difficulty with courses. The Chi Chapter of Virginia Tech seeks both to recognize and encourage academic excellence among forestry and wildlife students. All juniors and seniors in the college with a grade point average of 3.0 or above, and graduate students with a 3.5 or above, are invited to join the society.



(L-R) Back: James McCabe, Matthew Foley, Nathan Lambert, Chris Garlock, Jacob Wine, Josh Widmer, Josh Johns, Heidi Metz, Middle: Barry Ewell, Laura Hendrick, Adam Scouse, Bhae-Jin Peemoeler, Charlotte Hansen, Dawn Aksamit, Kirk Dunn; Front: Rachel Diersen, Elyssa Klopfenstein

Conservation Senior Wins Undergrad Writing Award

Joshua Johns, a senior majoring in natural resource conservation, won the second annual Undergraduate Writing Contest sponsored by the Virginia Outdoor Writers Association, Inc. (VOWA) last summer. Johns was recognized at the Outdoor Writers Association of America's annual conference held in Roanoke, Va. Johns is an ambassador for the college and president of Xi Sigma Pi, an academic organization that seeks to recognize and encourage academic excellence among students in the college.



Josh Johns takes first prize in undergrad writing contest.

Forestry Graduate Student Wins Top Honor for Thesis

Brett C. Kiser, a 2007 master of science graduate in natural resource recreation, was awarded the ninth annual prestigious Gold Watch Award by the William Preston Society this past fall. The Gold Watch Award, established in 1999, is given to two master's level graduate students each year who present an original idea with the most potential to benefit all people. Kiser, who received his bachelor's degree in geology from Virginia Tech in 2005, introduced computer modeling methodologies to the field of national park and wilderness management. He is currently a research associate in the college's forestry department.



Brett Kiser Honored as William Preston Society Winner L-R: forestry department head Harold Burkhardt; honoree Brett C. Kiser; president of the William Preston Society, Cecil "Max" Maxon; and assistant forestry professor Steve Lawson.

WEI Prepares Students For The Real World

Across from the Virginia Tech airport, ten students from the Department of Wood Science and Forest Products are busy innovating at the Brooks Wood Products Center. These students are part of the Wood Enterprise Institute (WEI), a student-run enterprise developed by professor Earl Kline. He developed the program to teach students the skills to run a successful wood products business in the forestry and wood products industry, which generates more money for Virginia than agriculture.

The WEI teamed up with mentors in the wood industry and toured their operations to get a feel for what they had to accomplish. The students had to come up with a product based on consumer needs and designed a business plan to bring their product to the market. Their product is a personalized bookshelf;

however, the young entrepreneurs emphasized their success is not dependent on the income it generates. Senior Adam Birkett explained, "The group goal is not about selling the product, it's about selling the program. If we can do that and keep this institute alive, we've been successful."

Kline is optimistic that the program provides skills to become efficient in the business. Kline shared, "The more practice at effective business skills, the more competitive business you can help create. Everything you get out of this program is a learning experience and we're having fun doing that. We hope that this program continues to grow so that more students can take this lifelong learning experience with them into the future."



Wood Enterprise Institute Members (L-R) Front: Thomas Blount (has graduated), Wes Sanders (has graduated), Jesse Paris, Mike Elebash, Josh Hosen, Rob Hart, Daniel Roethle Back: Earl Kline, John Foster, Adam Birkett, Kevin Eberling, Becky Dawson, Kevin Knight.

Southern Virginia Forest Products Initiative

The Department of Wood Science and Forest Products is partnering with educational providers and industry in Southern Virginia to create a unique and strategic educational pathways platform to create and retain the future workforce in Virginia today. The educational pathways platform will span K-12 to Virginia Tech and will invoke the national WoodLINKS USA educational curriculum guidelines and model. Partners include Danville Community College, Danville Public Schools, Halifax County Schools, Morgan Lumber Company, Pittsylvania County Schools, Southern Virginia Higher Education Center, Virginia Forest Products Association, the College of Natural Resources, and the Department of Wood Science and Forest Products.

Two WoodLINKS sites have been established in South Boston and Danville. The partners are hosting a conference in March 2008 to benchmark the best national educational and industry partnership models as they move forward with creation of a regional effort in Southern Virginia. Information about the program, speakers, and registration can be found at www.wood-science.vt.edu/svfpi.



Paul Winistorfer

Water Center Vital To Community

The Virginia Water Resources Research Center, based at the college, educates citizens about water science and improves water-quality conditions nationwide. One of its projects in the summer of '07 involved eight undergraduate students from across the country working side by side with Virginia Tech professors and graduate students throughout a 10-week stay in Blacksburg. The program gave these student fellows a first-hand opportunity to participate in research projects related to sustainable management of water resources. The National Science Foundation (NSF) Research Experiences for Undergraduates funded this program.

"The essence of the program is to allow undergraduate students to work for 10 weeks in a stimulating interdisciplinary environment, while nourishing their analytical skills and creativity as future scientists and engineers," noted Tamim Younos, associate director and research professor of water resources in geography.

In addition, the Center is conducting a three-year water quality management training program in Montgomery County public schools that will educate middle and high school teachers on the latest field techniques in water quality monitoring. Science teachers will be able to "create a focused and systematic approach to educating students in environmental issues," said Younos. "The project contributes an unprecedented partnership between Montgomery County public schools and Virginia Tech."

The center also conducts studies with multi-disciplinary teams of faculty to research current water-related issues. Currently, a team led by Younos, along with two civil engineer professors, David Kibler and Randy Dymond, is exploring more efficient systems to manage storm water runoff in urban areas. Storm water runoff, which contains pollutants such as pesticides,

Marion Honored for Conservation Work

Scouting is in forestry professor Jeff Marion's blood. From Cub Scouts to Eagle Scouts, he garnered mountains of badges and honors. Now the Eagle Scout can add the highest honor given by the National Boy Scouts Conservation Committee to a scouter to his impressive stock. Marion was presented the William T. Hornaday Gold Medal from the Blue Ridge Council of the Boy Scouts of America for distinguished service to natural resource conservation and environmental improvement over an extended period of time in November.

In addition to serving in numerous positions with the Boy Scouts, the outdoor recreation professor in the forestry department works at the college as leader of the Cooperative Park Studies Unit with the National Park Service. He has designed many practices for avoiding and minimizing negative environmental impacts associated with recreational activities in parks. He is a founding member of the Leave No Trace Training Program, which educates outdoor recreationists on how to respect the land. He speaks to scouts and nonscouts, and has also carried the message to foreign countries.



Jeff Marion received the Boy Scouts of America's highest honor for distinguished service to natural resource conservation and environment.

RESEARCH SPOTLIGHT

Forestry Department Shares NSF Grant To Establish Research Center

The college's forestry department is one of four forestry programs selected for a National Science Foundation Industry/University Cooperative Research Center (I/UCRC) grant of \$1.2 million to find ways to increase the productivity of plantation forests for a multiple of products, including energy sources.

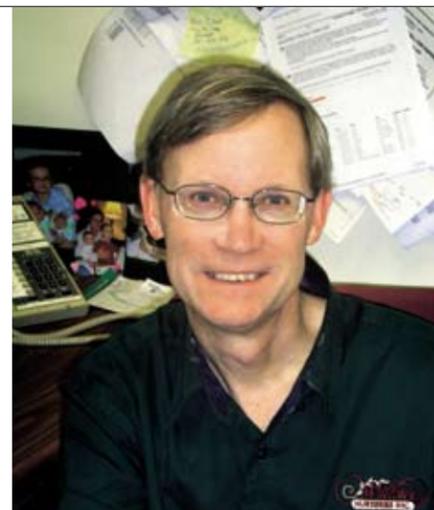
The goal is to find ways to increase the production of wood on smaller landbases through environmentally sound, scientifically-based management while preserving large areas of natural forest for other uses such as wilderness preservation, aesthetics, and recreation.

According to Thomas R. Fox, associate professor of forestry, the center will specifically work to increase the productivity of plantation forests both in the United States and Latin America for the use of wood for traditional as well as emerging products such as biobased fuels and plastics. "This can help reduce the demand for petroleum," explained forestry department head Harold Burkhart. "We must find a way to break the stronghold that petroleum has on the nation today by developing superior genetic lines that can be used to create materials now derived mostly from petroleum. There's no reason why we can't break that barrier."

North Carolina State University, Purdue University, and Oregon State University will join with Virginia Tech in creating the center, which will replace an earlier Center for Tree Genetics between Purdue and Oregon State, also funded by NSF I/UCRC. The current grant, which involves matching funds of \$300,000 from forest industry to each of the four participating universities, is highly competitive.

Virginia Tech will take the lead to develop quantitative models that link the results from the silvicultural and biotechnology research into a unified system. Virginia

Tom Fox, associate professor of forestry, was largely responsible for the \$1.2 million grant.



Tech and North Carolina State University will provide expertise in silviculture of forest plantations, while Oregon State and Purdue universities will emphasize forest genetics and forest biotechnology research. The industry support for Virginia Tech will come from two of the College of Natural Resources' existing research cooperatives, the Forest Nutrition Cooperative and the Loblolly Pine Growth and Yield Research Cooperative. These two programs have active research projects across the South from Virginia to Texas. The Forest Nutrition Cooperative also has research efforts in Chile, Argentina, Venezuela, and Columbia. The Loblolly Pine Growth and Yield Cooperative recently expanded into South America as well.

Burkhart and Fox coordinated the college's application for the prestigious grant, which is a culmination of four years of work on the college's part. "The NSF grant will increase the opportunities for research in many different areas," Burkhart noted.

motor oil, and trash, is conventionally stored in detention ponds, making it a leading source of pollution for streams, lakes, and ground water. The new methods may be applicable over the entire eastern half of the country, because these streams, lakes and groundwater share similar characteristics.

From county, state, and national perspectives, the Water Center has developed improved mechanisms to handle water related issues and educate citizens of all ages on water quality management.



A NSF fellow is participating in a drinking water odor experiment. Photo by: Ana Constantinescu, Virginia Water Center



Class of 1957 Reunion Lunch

The Class of 1957 members enjoyed a lunch during their reunion weekend last fall.

L-R, Crockett Morris; Bill Shiner; Fred Louis and wife, Maryella; and Feda Morton, with husband, Don. Standing, college alumni director, Patricia Bartos Foutz.



College History Sent to Alums

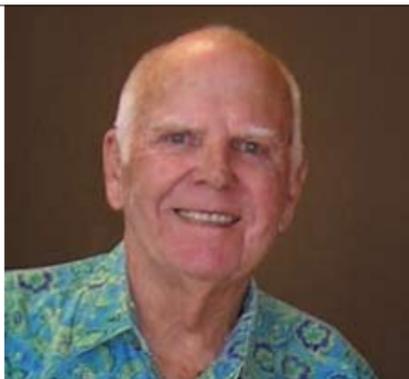
Several years ago the college entered a partnership with Virginia Tech's history department for some of its history graduate students to research and prepare a history on the college starting with the early importance of natural resources to the Commonwealth of Virginia. "Ellen Brown has seen it to completion, so to open the public phase of Virginia Tech's Capital

Campaign that was launched on October 20, 2007, the college sent a copy to each alumnus this fall," said college alumni director, Patricia Bartos Foutz. "It was sent to you under separate cover through the generosity of Thomas M. Jones, an alumnus of Virginia Tech and a long time friend of the college.

College alumni director Patricia Bartos Foutz presents a book, From Jamestown to Blacksburg: The Path to the College of Natural Resources, fisheries and wildlife sciences graduate Staci Hudy, one of 50 students who graduated during the December commencement. Each December graduate received a copy, and future graduates will also be presented with the book.

IN MEMORIAM

Tom Walbridge



Thomas A. Walbridge, forestry professor emeritus, died December 10, 2007, at Montgomery Regional Hospital in Blacksburg. Affectionately known as "Doc" to his students, Walbridge, 88, who had been in declining health with congestive heart failure, came to Virginia Tech in 1973 to build the now renowned Industrial Forestry Operations Program within the Department of Forestry.

"He had an incredible life," forestry professor Mike Aust said. "He spent many of his early years in the 1920s in Yosemite National Park, worked with the CCC program during the Great Depression, served as a Navy lieutenant in the Pacific during WWII, and even worked a brief time as a cowboy," he added.

The feisty and beloved professor had more than two decades of industry, including working in logging camps, and academia experience before coming to the college. He was instrumental in introducing mechanized logging and forest engineering to the Southeast. As a result, he was appointed the lead position in the Harvesting Research Project (HRP) in 1968, an industry cooperative of five major pulp and paper companies to research new equipment. This project served as the springboard for the current program at Virginia Tech.

After his retirement in 1989, he co-authored a textbook, *The Location of Forest Roads*. He later returned to the college several days a week to assist students in labs, and continued past his mid 80s. He also

started his own company analyzing new logging equipment.

Colleagues also remember Walbridge as a man who had many amusing stories because of his interesting life. "My personal favorite was when he was returning to Montana after his WWII service," Aust noted. "He knew the plane was flying over rugged mountain terrain and realized that airplane crashes were pretty common during the 1940s. So he carried his logging boots on the plane so he could walk out after any crash. This captured Doc's optimism that we can overcome almost any adversity."

An endowed scholarship, the Thomas A. Walbridge, Jr. Scholarship Fund was set up in his name, and the first award granted in 2006. The \$1,000 scholarship is given annually to an Industrial Forestry Operations student who is in need of financial assistance. Walbridge earned a B.S. in forest engineering from the University of Washington, an M.S. from the University of Montana, and Ph.D. from the University of Michigan.

William H. Sardo

William H. "Bill" Sardo, whose contributions to the college led to the establishment of the William H. Sardo, Jr. Pallet and Container Research Laboratory, died December 29, 2007, in Washington, D.C. Sardo, 95, began his career in the wood packaging industry as an auditor for the National Pallet and Container Association after spurning a career in diplomacy with the League of Nations. A graduate of Georgetown University, he led the National Wooden Pallet and Container Association from 1947, when it had five members, until 1979 when he retired.

Mark White, recently retired director of the Sardo laboratory, noted, "Bill recognized the value of technical assistance, research, and educational center to the small family owned business members of the association, which is why he helped found the lab at Virginia Tech in 1976. This led to a unique collaboration between federal and state agencies and private industry that has endured through the decades, and, by all measures benefits Virginia Tech, the association, and their constituencies. Bill's contribution is also memorialized on the Pallets Move The World sculpture in front of the Brooks Forest Products Center at the Corporate Research Center."

Upcoming Alumni And Friends Receptions And Special Events

MARCH 19, 2008
CNR Student Awards Banquet,
6:30 p.m., German Club
Blacksburg, VA

SAT., April 26, 2008
American Fisheries Society Student Chapter
24th Annual Mudbass Tournament
8 a.m., Duck Pond
Blacksburg, VA

FRIDAY, MAY 9, 2008
Graduation
Details TBA

SATURDAY, MAY 10, 2008
College of Natural Resources Graduation Exercises
Details TBA
Blacksburg, VA

The Virginia Tech Campus image from the Ikonos satellite November 17, 2007.

Sforza's Remarkable Gift Of Thanks To The World

Geography research associate Peter Sforza had a vision. Haunted by the collective experiences of April 16th and deeply moved by the global support that the Virginia Tech community received, Sforza wanted to send a message of thanks. His vehicle of thanks became what he was an expert in – satellite imagery. With the help of the university community, he staged and broadcast to the world a human chain spelling out “VT Thanks You” on the Drillfield of Virginia Tech.

Sforza, who currently serves as coordinator for VirginiaView, a statewide remote sensing consortium, and associate director of the center for Environmental Application of Remote Sensing (CEARS), had been troubled by the satellite image for April 16, 2007, which captured the essence of that day with all the dark clouds hanging over Blacksburg.



The entire state of Virginia is shown on this MODIS satellite view on April 16, 2007, at approximately 11:35 a.m.

Five months later, a series of events inspired Sforza. During a September art exhibition in northern Virginia, he observed a woman curiously gazing at a satellite art piece showing cloud formations over North America in the form of a dragon. The image showed North America from Canada to New Orleans the day Katrina came ashore. Sforza learned that the woman was from New Orleans and had seen many of the storm's horrors. She ended up buying that art as a healing memoriam. Sforza realized that beyond the simple geographic associations that satellite imagery or maps may evoke for a person through collective or individual memories, there is also a deeper sense of place.

“It dawned on me that a perspective of the earth from outer space encourages a more global awareness and can provide a vehicle to communicate a message to the world,” he said. “The thought then came to me that I could organize an event to help convey a message of gratitude to the world through satellite imagery.”



The town of Blacksburg and surrounding areas as captured from the Ikonos satellite view on November 17, 2007.

With only seven weeks to plan in order to coincide with a timely football game for maximum television coverage, Sforza worked tirelessly. Meticulously coordinating every aspect of the event to cover any setbacks, the one thing that remained out of his control was the weather. Rain would keep many people indoors, potentially leaving gaps in the human chain of letters. Since cloud cover could prevent the satellite from getting a clear shot of the Drillfield during the satellite passover, Sforza arranged for an airplane and helicopter to take overhead photos as well in case the weather was poor. Sforza's vision of “VT Thanks You” was spread worldwide in spectacular, real time, Southwest Virginia fall colors. Sforza uses state-of-the art scientific imagery to develop techniques and his website, www.Satellite-Art.com, to raise awareness of other issues today. His next project is assisting the New River Land Trust to develop a poster of the New River from space that shows its range from the headwaters in Ashe County, N.C., to the Kanawha River near the West Virginia-Ohio border.

The Department of Geography was the university sponsor for the event with help from across the campus in addition to the foresters and engineers and much corporate support.



Peter Sforza with wife Florence, who was supportive of the project in many ways, daughter Meghan, and dog Abby.

Virginia Tech To Host Society of Environmental Journalists

Virginia Tech, with the college serving as the lead partner, has been selected to be the university host for the Society of Environmental Journalists' annual conference, Oct. 15-19. SEJ was founded in 1990 to advance public understanding of environmental issues by improving the quality, accuracy, and visibility of environmental reporting. The university is raising funds to help underwrite costs. If your company would like to be a sponsor, or you would like to make a personal donation, please call the college at 540/231-6157.

