



# CNR NEWS

## FEDERAL PARTNERSHIPS ARE KEY IN THE DEPARTMENT OF FISHERIES AND WILDLIFE

In its support of a wide range of innovative research — with projects as diverse as monitoring horseshoe crab abundance and recruiting promising students to the field of population dynamics — the college's federal partnerships are key, allowing both the college and the federal agencies to combine resources and ideas in relationships of mutual benefit. "We are fortunate to have four major federal partnerships in the Department of Fisheries and Wildlife Sciences alone," says department head Eric Hallerman. "These partnerships facilitate a variety of important research and recruiting activities."



*Through the National Marine Fisheries Service's Research, Training, and Recruiting Program, talented students with an interest in population dynamics attend programs that teach them about the field's possibilities, such as this workshop in the Florida Keys.*

The Horseshoe Crab Research Center, funded by the National Marine Fisheries Service and directed by Eric Hallerman, focuses on monitoring the crab's relative abundance, its ecological interactions with shorebirds, and the management implications of its genetic subpopulations. "The center's purpose," explains Hallerman, "is to conserve the horseshoe crab resources for all users: the crabs themselves, shorebirds, fishermen, and people who enjoy going to the beach." In recent years, the crab's use as bait, as a source for LAL (a chemical that detects bacterial contamination in injectable drugs), and as a food source for migratory birds, coupled with impact from years of unrestrained exploitation, has made conservation critical. The center was established because fisheries managers realized the need for reliable data when setting use limits for the species. "In the absence of good information," says Hallerman, "the Fisheries Service is shooting in the dark." The Horseshoe Crab Research Center ensures that it won't have to.

Associate Professor Andrew Dolloff, team leader of the U.S. Forest Service Southern Research Station's Coldwater Fisheries Research Unit, keeps his agency from shooting in the dark when it comes to setting policies for freshwater fisheries. While many Forest Service activities are forestry oriented, the agency's decisions invariably impact surrounding freshwater systems, making Dolloff's fisheries expertise necessary. Dolloff's research focuses on brook trout; he creates detailed maps of where they exist within streams and investigates possible effects of climate change on their distribution, as well as how physical barriers affect their genetic variation. Though employed by the Forest Service, Dolloff works from Virginia Tech, enabling him to collaborate with college faculty on multiple projects and to access major research in his field. "This is synergistic," Hallerman says of the arrangement. "Everybody gains."

Conducting research germane to the needs of the U.S. Fish and Wildlife Service, the Virginia Department of Game and Inland Fisheries, and other state and federal agencies is a major goal of the U.S. Geological Survey's Cooperative Fish and Wildlife



*Students working with the Horseshoe Crab Research Center drill a hole in a horseshoe crab to mark it with a numbered tag. When the crab is recaptured, the tag will tell managers how far it dispersed from its spawning site.*

COLLEGE OF NATURAL RESOURCES  
 Virginia Polytechnic Institute and State University

*Scientists from the U.S. Geological Survey's Cooperative Fish and Wildlife Research Unit at Virginia Tech collect field data to inform conservation of Virginia's imperiled freshwater mussels.*



Research Units. The units also focus on recruiting and funding graduate students to study fish and wildlife ecology and management. To fulfill these goals, Professor Paul Angermeier, who leads Virginia Tech's unit, researches a range of topics related to the ecology and conservation of aquatic ecosystems, with an emphasis on freshwater fishes. The research supplies needed information to various funding agencies while also providing valuable learning and training experiences for his graduate students. First implemented in 1935, the cooperative research units across the United States have been so effective at recruiting and training professionals and producing scientific knowledge that the program has required few changes since its introduction.

In contrast to the cooperative research units' longevity, the National Marine Fisheries Service's Research, Training, and Recruiting Program is only in its seventh year. The program also seeks to increase the number of qualified scientists in the field it supports, which in this case is marine population dynamics. "We identify students with tremendous talent in this field and recruit them into the program," explains Associate Professor Jim Berkson, who serves as program leader. "We train the students and conduct research for the agency." Berkson and the college's teaching faculty work to instill enthusiasm for marine population dynamics in promising students during a competitive annual workshop in the Florida Keys and through an even more selective summer research program. These top students go on to earn graduate degrees in the field; since the program's implementation, eight of the best students have chosen to study at Virginia Tech.

Through federal partnerships, the college can provide students with more research and education opportunities, and the agencies it partners with can better meet their mandates. By placing their units at Virginia Tech, the agencies benefit from the expertise of the college's faculty while the college enjoys an expanded research presence, the ability to educate top students, and the presence of talented agency employees. "In working together," Winistorfer emphasizes, "we strengthen our efforts, synergize on resources and outcomes, and raise both the parties and the work we do. We value and appreciate our federal partners."

### Websites

Horseshoe Crab Research Center

[www.nmfs.vt.edu/HSCwebsite/index.htm](http://www.nmfs.vt.edu/HSCwebsite/index.htm)

USDA Forest Service Southern Research Station's Coldwater Fisheries Research Unit

[www.trout.forprod.vt.edu/default.htm](http://www.trout.forprod.vt.edu/default.htm)

U.S. Geological Survey's Cooperative Fish and Wildlife Research Units

[www.coopunits.org/Virginia/](http://www.coopunits.org/Virginia/)

National Marine Fisheries Service's Recruiting, Training, and Research Program

[www.nmfs.vt.edu/about.htm](http://www.nmfs.vt.edu/about.htm)



By the time you receive this newsmagazine, we will be deep in the thralls of spring — flowing sap, growing leaves, singing birds, spawning fish, and maybe a bit of “senioritis,” if you can remember and be truthful. We have another group of excellent students graduating in May and the job market is tougher than usual. If you are in need of great, young talent, please call us and give our new graduates a chance to get on the career road.



Paul Winistorfer (L) welcomed Rolling Stones keyboardist and tree farmer Chuck Leavell to the college's inaugural showcase event.

The highlight of our spring was hosting Rolling Stones keyboardist Chuck Leavell on April 6, who honored us with his presence and good message at our first College Showcase event at the Inn at Virginia Tech. We displayed the college's departments and programs during the day, followed by our student awards and keynote presentation by Chuck, who also signed copies of his book, *Forever Green: The History and Hope of the American Forest*, visited with our students and faculty, and delivered an important message on land stewardship and partnerships. He performed a handful of great tunes, talked of his life experience, and wowed us all with his grace and kindness. Thank you, Chuck, for being with us and to all who participated. It was a great day for the college with lots of attention, recognition, and celebration for all that we do.

In this issue we introduce a new header in the newsmagazine — partnerships — and highlight several examples of our federal partnerships in the Department of Fisheries and Wildlife Sciences in our cover story. On behalf of the entire college, I offer our collective thanks and appreciation to our federal partners living and work-

ing among us. You bring resources, expertise, synergism, collegiality, and increased capacity to our mutual endeavors. It is said that nothing happens in this world without a relationship, and our relationship/partnership with our federal agencies is very strong and productive. We also include news about our partnerships with the Virginia Forestry Educational Foundation, the Southern Virginia Higher Education Center in South Boston, and Danville Community College. Reaching to and working with partners in the state is more critical than ever.

We have received generous private support to launch our first cohort of students in the inaugural College of Natural Resources Leadership Institute, beginning in fall 2010. Our goal is to complement our very strong scientific/technical education in the college with exposure to concepts and examples of leadership. This academic year experience will include travel to Richmond and Washington, D.C., to visit with state and federal leaders. Steve McMullin, professor of fisheries and wildlife sciences, will serve as the director of the institute. We plan to bring leaders who serve in various roles in our world of natural resources to campus to interact with our students throughout the year. Leadership in natural resources and the environment is critical for the future.

We add another faculty retirement to our ranks early this summer. Professor Tamim Younos, who has worked in the Virginia Water Center for many years, will begin relaxing July 1. We wish him well as he charts a new path forward and thank him for his many contributions to the college. And Kenny Albert, senior technician in the wood science and forest products department, retired in April. Kenny had been with the college for 35 years and we wish him the very best as he transitions to a new beat.

If you are traveling near Blacksburg this spring or summer, please find time to make your way to campus. I welcome your input and visits at any time. Let us hear from you! We appreciate your continued interest in and support of the College of Natural Resources. From all of us in the college...

Warm regards,

Paul M. Winistorfer  
Dean  
Email: [pstorfer@vt.edu](mailto:pstorfer@vt.edu)



COLLEGE OF NATURAL RESOURCES

[www.cnr.vt.edu](http://www.cnr.vt.edu)

Spring 2010 Quarterly Newsmagazine

Dean Paul M. Winistorfer

Editor Lynn M. Davis ([davisl@vt.edu](mailto:davisl@vt.edu))

Associate Editor Helen Thompson

Assistant Editors Kaitlin Cannavo,

Gina Hale, Holly Kays

Designer Joe Swope

Photography Contributors Lynn Davis, Gina Hale,

Brian Murphy, Jim Stroup

Printer Progress Printing of Lynchburg, Va.

Department of Fisheries and Wildlife Sciences

[www.fishwild.vt.edu](http://www.fishwild.vt.edu)

Department of Forest Resources

and Environmental Conservation

[www.forestry.vt.edu](http://www.forestry.vt.edu)

Department of Geography

[www.geography.vt.edu](http://www.geography.vt.edu)

Department of Wood Science and Forest Products

[www.woodscience.vt.edu](http://www.woodscience.vt.edu)

Conservation Management Institute

[www.cmiweb.org](http://www.cmiweb.org)

Virginia Water Resources Research Center

[www.vwrrc.vt.edu](http://www.vwrrc.vt.edu)

National Capital Region

[nr.ncr.vt.edu](http://nr.ncr.vt.edu)

Virginia Tech does not discriminate against employees, students, or applicants on the basis of race, color, sex, sexual orientation, disability, age, veteran status, national origin, religion, or political affiliation. Anyone having questions concerning discrimination should contact the Equal Opportunity/Affirmative Action Office.

Stay in Touch with VT News

The Virginia Tech News Daily E-Mail is your connection to Virginia Tech news and information. Delivered overnight, Monday through Friday, it includes the latest news, campus notices, and events, with extensive links for detailed coverage. To find more information about this service, see a sample e-mail, or subscribe, visit

[www.vtnews.vt.edu/email.php](http://www.vtnews.vt.edu/email.php).

Lunch With Nobel Laureate Andrew Weaver

College department heads, select graduate students, and faculty with climate-related research projects enjoyed the rare privilege of having lunch with Nobel Laureate Andrew Weaver of the University of Victoria. Weaver, one of the world's foremost climate scientists, is lead author in the United Nations Intergovernmental Panel on Climate Change — the group that shared the Nobel Peace Prize with Al Gore in 2007. During the informal lunch, Weaver answered questions and shared some of his thoughts on climate change, including that the real solution at this point in time is to transform our energy system from fossil fuels to non-fossil fuels. He quoted from a cartoon that he thought summed up the matter well: “What if it all is a hoax and we

Nobel Laureate Andrew Weaver (R) chats with Associate Dean Bob Smith.

created a better life for nothing?” Weaver spent the day on campus as part of the university's 26th Graduate Research Symposium and presented the symposium's keynote address.



College Enters MOU With VSU, VDOF

The college signed a memorandum of understanding (MOU) with Virginia State University (VSU) and the Virginia Department of Forestry (VDOF) in January to cooperate on forestry research and activities. The MOU stems from the 2009 Farm Bill provision that allows 1890 land-grant institutions access to McIntire-Stennis forestry formula funding.

The goal of the MOU is for the three institutions to utilize each other's strengths to achieve common goals of increased knowledge and application of forestry research to improve the conservation and management of Virginia's natural resources. Janaki Alavalapati, department head of forest resources and environmental conservation, has begun discussions with VSU and VDOF leadership about ways to cooperate and leverage their mutual interests in forestry research and outreach. Some of their objectives include working together to identify, investigate, and communicate forestry research topics, projects, and geographical areas of focus.

“Working together leverages our capacity to address critical forestry research needs, and that is a good thing for the commonwealth and our forestry sector overall,” Alavalapati observed.



(L-R, seated) Paul Winistorfer, dean of the College of Natural Resources; Carl Garrison, state forester, Virginia Department of Forestry; and Robert Turner, Jr., vice president of development and acting chief operating officer, Virginia State University, sign the MOU joined by the representatives from the three participating institutions.

## Stones' Chuck Leavell Resonates at College's Inaugural Showcase

Chuck Leavell, more widely known as the Rolling Stones' longtime keyboardist than for his vast forest farming and conservation leadership, wowed guests with his down-to-earth, engaging, gracious manner at the college's first open house to showcase programs and projects on April 6 at the Inn at Virginia Tech. In addition to invited friends of the college, the event was open to the campus, community colleges, area high schools, and the public to recognize current students' achievements and to inform potential students about the college's areas of study.

Thanks to forestry professor Tom Fox, who has worked and developed a friendship with Leavell over the years, the Macon, Ga., tree farmer agreed to be the special guest at the showcase. "We wanted college faculty and students to have the opportunity to meet Chuck, learn of his work, and hear his passionate story of land conservation and management," remarked Dean Paul Winistorfer. "We were also looking for the very best person to keynote our new college inaugural showcase, where we highlight all the college is to students on our campus." The daylong event featured department displays, academic programs and majors, research posters, and student clubs, with faculty and students in attendance to talk personally about what the college offers.

Chuck Leavell ([www.chuckleavell.com](http://www.chuckleavell.com)) spent the day speaking with the media and mingling with the crowd, as well as signing copies of his book, *Forever Green: The History and Hope of the American Forest*. The talented musician, who has played keyboard for performers such as Eric Clapton, George Harrison, The Allman Brothers Band, and The Black Crowes, is not only a long-time tree farmer but also an accomplished author and co-founder of The Mother Nature Network ([www.mnn.com](http://www.mnn.com)), the number one most visited independent environmental website in the world. The environmental advocate is a respected authority on forestry and conservation, and has testified before Congress with Professor Emeritus Dave Smith on forestry issues.

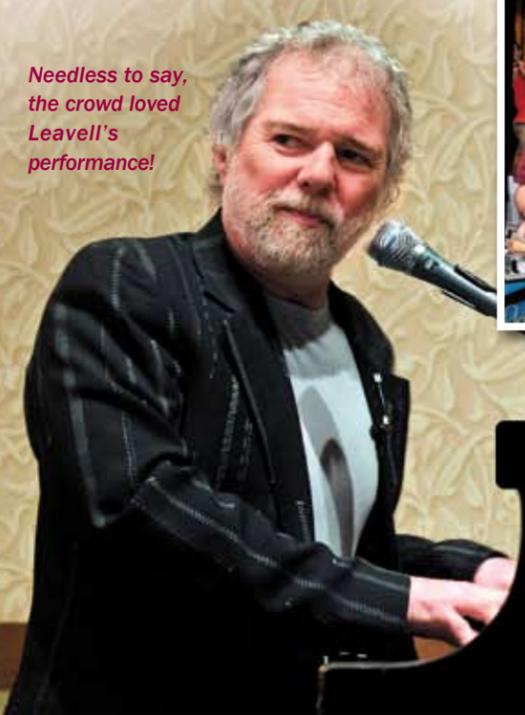
"My wife got me into tree farming decades ago when she inherited some forest land from her grandmother," Leavell said. "After that I really had to work hard at my music because it took us 15 years to pay off the estate taxes!" Over the years, he and his wife, Rose Lane, have acquired additional parcels and now own more than 2,000 acres. In 1999, they were given the ultimate honor for their management of their pine and oak forest, Charlane Plantation, by being named National Outstanding Tree Farmers of the Year out of 80,000 family farms.

"I am such a strong proponent of forest farming because trees are renewable, biodegradable, and sustainable," he added. "My family, trees, and music are my passions."

Leavell, who describes what he calls the "invisible forest health crisis," which is the loss of natural land to development, puts much effort and attention to preserving green space and natural lands. He and his wife open their farm to provide educational experiences for kids, offering them the opportunity to get outdoors and learn the importance of forestry and natural resources.

"This was an extraordinary opportunity to host Chuck Leavell because he is one of the world's foremost environmentalists," Winistorfer noted. "He has a very genuine way of connecting with people from all perspectives of forestry issues." At an invitation-only event to close out the showcase, Leavell talked about his experience with The Rolling Stones and his life on the farm, which he said kept his values in balance. He explained what made The Stones an effective, long-lasting partnership and how those same principles can be applied to successful partnerships to sustain the environment. "You don't have to think or be alike to be a good team," he opined. He also pointed out that if it were not for trees, he would be without his beloved piano. To the delight of the crowd, he gave a lively rock 'n' roll and blues performance that brought down the house. He sure did rock!

Needless to say, the crowd loved Leavell's performance!



Professor John Seiler (L) demonstrates carbon sequestration to Chuck Leavell using a sealed terrarium, lights, and a carbon dioxide analyzer.



Attendees who climbed into the storm chaser van were able to track a developing storm in the Midwest on the van's computer.



Leavell signed copies of his book, *Forever Green: The History and Hope of the American Forest*.



Arvind Bhuta, a Ph.D student in geography, shows an attendee tree ring analysis from a tree core sample.

## Promotions and Tenure



**Tom Fox** has been promoted to professor in the Department of Forest Resources and Environmental Conservation. Fox, who specializes in forest soils, silviculture, forest fertilization, and tree nutrition, is also co-director of the Forest Nutrition Research Cooperative, a university-industry partnership that has worked with forest landowners in the United States and Latin America to increase the productivity and sustainability of plantation forestry.

how a changing global environment affects the health of declining fish and wildlife species.



**Lisa Kennedy** has been promoted to associate professor with tenure in the Department of Geography. Her research focuses on reconstruction of decadal to millennial-scale environmental history, including changes in climate, vegetation, fire, and human

activities in the Caribbean and the southeastern United States through analysis of lake sediments, soils, and tree rings. One of her ongoing projects, in the field of paleotempestology (the study of storms), is aimed at reconstructing the long-term history of hurricane landfalls in the Dominican Republic and their impacts on vegetation and fire patterns.



**Bill Hopkins** has been granted tenure at his currently held rank of associate professor in the Department of Fisheries and Wildlife Sciences, where he heads up the Wildlife Exotoxicology and Physiological Ecology Program. His research aids in understanding



**Kyrille Goldbeck**, who has served as the college librarian since 2005, has been promoted to assistant professor, extra-collegiate faculty. Her primary

focus is connecting researchers to high-quality information resources. She also advocates for resources to support the research and instructional needs of the college. Her recent research interests include the LibX project (<http://libx.org>) and working with Associate Professor Carolyn Copenheaver on the examination of citation patterns in forestry disciplines.



**Matt Yancey** has been promoted to Extension agent, extra-collegiate faculty. Yancey teaches sustainable forest management and the importance of forestry, forestland, and related natural resources. His Extension activities include the Virginia Forest Landowner Education Program, the Virginia SHARP Logger Program,

woodland safety, and providing research-based answers to specific questions from the public related to forestry and trees.

## PARTNERSHIPS

### Virginia Forestry Educational Foundation— Important Partner of College

From funding scholarships for students in the college to contributing \$15,000 to the Virginia programs of Project Learning Tree, the Virginia Forestry Educational Foundation (VFEF) serves a key role in protecting Virginia's forest resources through the education of its youth. For 52 years, the foundation has worked towards its goal to "support educational programs that speak to the benefits of forests and forest products and to perpetuate the state's forest heritage through conservation."

"We have a whole series of programs that VFEF supports," says John Hosner, professor emeritus, former head of the school that became the College of Natural Resources, and current member of the VFEF board of directors. The organization distributes funds through a granting process that allows individuals who teach youth about forestry and conservation to submit proposals. Over the years, VFEF has supported K-12 programs such as 4-H, the FORSite Forestry Outreach Project for Virginia Schools, and Project Learning Tree, an international organization that trains educators to incorporate environmental education into their classrooms.

The foundation supports the study of forestry and forest products at the college level with the 16 annual scholarships it awards to Virginia Tech students, ranging in value from \$1,300 to \$7,000 per year. During the 2009-10 academic year alone, VFEF contributed \$59,000 to the college in scholarships.

Though it is an independent organization, VFEF's relationship with Virginia Tech is one of mutual benefit. VFEF benefits from the service of Virginia Tech faculty such as John Hosner and David Smith, the Shelton H. Short Jr. Professor Emeritus of Forestry, as well as from people such as VFEF President John D. Farmer, Jr.,

*The VFEF helps support programs such as the 4-H Junior Hokies Showcase. Activities include examining aquatic insects collected from a stream on the Virginia Tech campus.*



a college alumnus, and VFEF Vice President J. Ken Morgan, Jr., a long-time friend of the college. In turn, the college benefits from the support VFEF offers to its students.

"I would like to hold up the Virginia Forestry Educational Foundation and publicly recognize what it has done for us," says Dean Paul Winistorfer. "Because of VFEF's efforts, general appreciation for and conservation of Virginia's magnificent forest resources has increased, and many students who otherwise would not be able to are pursuing their forestry-related dreams. VFEF is very important to our college students and the future of the forest industries in Virginia, and I thank VFEF, the board of directors, and the many generous contributors for their leadership and generosity."

For more information or to make a tax-deductible contribution, write to the Virginia Forestry Educational Foundation, 3808 Augusta Ave., Richmond, VA 23230-3910, or contact John D. Farmer at 804/754-0205 or [jdfarmer@aol.com](mailto:jdfarmer@aol.com).

### Partnership Brings Wood Education Programs to Southside Virginia

As his graduation from Halifax County High School drew closer, Mackenzie Stevens was still without a plan for life after high school. That is, until he enrolled in a WoodLINKS USA affiliated woodworking program through the Southern Virginia Higher Education Center (SVHEC) in South Boston. The class ignited a passion for Stevens and classmate John Barry; the two built a beautifully designed and finished chair that earned them first place in the Association of Woodworking and Furnishings Supplier's nationwide Fresh Wood Competition.

Halifax County's WoodLINKS program is a partnership with Halifax County Schools and SVHEC, an institution that offers degree and dual-enrollment possibilities through its partnerships with 11 public and private colleges and universities, including Virginia Tech. The university's partnership with SVHEC is long standing, but its collaboration on the WoodLINKS program originated four years ago, when Paul Winistorfer, then the department head for wood science and forest products, began to float the idea among Halifax County community leaders.

"In the past four years, leaders in Halifax have taken strong leadership of this initiative and are synergistically creating programming that doesn't exist in this country," Dean Paul Winistorfer explained. "Under one of SVHEC's signature programs, Product Design

and Development, a number of partners are contributing to a \$10 million renovation of the American Tobacco Warehouse in South Boston to create a 21st century educational space that will be the finest in the country. Such efforts require a strong relationship with the community." Last October, SVHEC celebrated a ribbon-cutting for the facility's \$500,000 first phase, with completion of phase two expected by the end of this year.

Just 30 miles to the west, Danville Community College (DCC) has established the second WoodLINKS program site in Virginia in partnership with Danville Public Schools. DCC recently opened its new wood products lab and is planning on future expansion of its facilities and capabilities.

At maturity, the WoodLINKS program in Virginia will create a seamless educational pathway between high schools and Virginia Tech, generating interest in wood science at the high school level and preparing students for an education and career in the discipline. The program will make transition to the college's wood science program an easy process, whether students enroll directly after high school or attend either SVHEC or DCC first. Though high school wood shop may not have been considered a serious academic class in the past, the WoodLINKS program is changing that. "This program is a paradigm shifter," said Winistorfer. "The lab space is computer oriented and design driven, with sophisticated manufacturing equipment. The course entails mathematics, design, architecture, materials science, fabrication, and engineering."

Virginia Tech's partnership with SVHEC and DCC has much potential, as Mackenzie Stevens and John Barry's blue-ribbon accomplishment proves. But the benefits of the partnership will extend beyond the long-term goal of motivating promising students to study wood science; it will also allow for research collaboration, short courses, and educational training at the SVHEC and DCC facilities. On a regional scale, the partnership will become an economic engine for the region by recreating its manufacturing base. This spring, students from Virginia Tech's Wood Enterprise Institute traveled to the SVHEC to use their state-of-the-art facilities in manufacturing a project they designed, incorporating a student from yet another partner, the Galway-Mayo Institute of Technology in Letterfrack, Ireland. According to Winistorfer, this is the essence of partnership. "In a partnership," he pointed out, "you can do more together than any of you could do by working alone."



*The ribbon-cutting ceremony at the Southern Virginia Higher Learning Center (SVHEC) included (L-R) SVHEC Product Design and Development Technician Clint Johnson, South Boston Mayor Carrol Thackston, SVHEC Executive Director Betty Adams, Dean Paul Winistorfer, SVHEC Board of Trustees Chairman Bobby Howard, and SVHEC Product Design and Development Technician Kevin Chrystie.*

Photo by Sandra Smith Conner

### MOU Signed With Chilean University

Virginia Tech has recently signed a memorandum of understanding (MOU) for a new joint center established in partnership with Austral University in Valdivia, Chile. Faculty from the school for veterinary medicine initiated a relationship with Austral University in 1996, with the partnership growing over time to include the colleges of science, agriculture and life sciences, and natural resources. The partnership is particularly beneficial to the College of Natural Resources since the region around the Chilean university is richly endowed with lakes, hot springs, volcanoes, and the longest navigable river network in the country. It is also home to the Valdivian temperate rainforest, which has been designated a nature sanctuary by the United Nations Educational, Scientific, and Cultural Organization.

Dean Paul Winistorfer fully supports the Chilean venture. He and four other Virginia Tech faculty members recently traveled to Chile to explore the surroundings and attend the first board meeting of the new joint center, to be called the Center for Science and Global Sustainability. "As this relationship grows and gets traction, we can look at our work in the southern cone of the world and see what

an opportunity it is for us to have a physical presence in this area," explained Winistorfer. The college has participated by hosting students, faculty exchanges, and Chilean graduate students completing degree requirements at Virginia Tech. The Department of Forest Resources and Environmental Conservation will host two undergraduate students from Austral University this fall.



*The region around Austral University in Chile is rich with mountains, lakes, and rivers.*



## Wildlife Sciences' Lombardi Earns Duerr Scholarship

Senior wildlife sciences major **Thera Lombardi** of Annandale, Va., received a \$1,500 Jean B. Duerr Memorial Scholarship, awarded annually to female students who demonstrate high academic achievement, leadership, and involvement in extracurricular activities and community service.

"The scholarship has helped me pay for school so I can take time off work to be an active member of The Wildlife Society. I traveled to the national

*Thera Lombardi holds an American oystercatcher for banding on Martha's Vineyard in Massachusetts.*

conference in Monterey, Calif., in September 2009 and participated in the student conclave in March 2010," Lombardi said.

In addition to her involvement in The Wildlife Society, Lombardi is the co-captain of the Virginia Tech Club Field Hockey squad. "This scholarship has really given me the opportunity to enrich my education with extracurricular activities," explained Lombardi, who is one of the four winners selected from over 100 applicants. She plans to complete her undergraduate degree in December 2010, continue on to graduate school, and eventually hopes to have a career at a university or government organization.

## Squibb Earns Girl Scout's Highest Honor

**Cari Squibb**, of Eggleston, Va. is the college's most recent recipient of the Gold Award, the highest achievement given by Girl Scouts of the USA. Achieving the Gold Award is no easy feat; it takes commitment and dedication to meet the required 65 hours of volunteer community service.

"Being a Girl Scout has opened up so many wonderful opportunities for me that I probably never would have had otherwise. I have made lifelong friends and have gotten a head start on my career," Squibb explained.

For her Gold Award project, Squibb developed SOL-related activities for the U.S. Forest Service and helped raise awareness about the decreasing population of candy darters, an endangered fish, in Giles County. Squibb teamed up with Sheryl Lyles of the U.S. Forest Service in Blacksburg to help make the Glen Alton

Tract of Big Stoney Creek a kid-friendly educational area and taught campers at Rainbow's End Day Camp about water quality and the candy darter. She also created an informational brochure about the candy darter, which is available to the public at the Giles County Extension Office and the Department of Game and Inland Fisheries office in Blacksburg.

Squibb, a first-year wildlife sciences major, has been a Girl Scout for 12 years and hopes to continue her commitment to service during her career at Virginia Tech. "I plan on staying at Tech after I get my bachelor's degree, and hopefully earning a master's in wildlife science. My dream is to travel to the Galapagos Islands and see the finch species Darwin worked with," Squibb stated.

*Cari Squibb helps Girl Scouts at Rainbow's End Day Camp identify benthic macroinvertebrates.*



## Esson Completes Undergraduate Research on Red Wolves

**Thomas Esson**, a junior wildlife sciences major from Wells, Maine, completed a 10-week Summer Undergraduate Research Fellowship (SURF) on the home range of red wolves in North Carolina. Esson was among 13 students selected for the competitive fellowship, offered by the Fralin Life Science Institute at Virginia Tech to undergraduates who wish to pursue life sciences research full-time during the summer.

Esson monitored the home range and movement patterns of red wolves along U.S. Route 64 in North

*Thomas Esson monitors the home range and movement patterns of red wolves along U.S. Route 64 in North Carolina.*

Carolina with Marcella Kelly, associate professor in fisheries and wildlife sciences, and doctoral student Christine Proctor. "The experience was highly beneficial for me as a student," Esson remarked. "I was introduced to a variety of field techniques, including radio telemetry and GIS, all while helping with a fascinating project." Esson explained that the widening of U.S. Route 64 could have considerable impact on the survival of an endangered, reintroduced species like the red wolf.

Over the past several months, more wolves have been collared and additional GPS data has been collected. Esson plans to continue analyzing the data to determine the locations of road crossings and the degree to which the highway allows for wolf movement.

## INTERNATIONAL CROSSINGS



## Haitian Earthquake Hits Close to Home

Professor Emeritus Dick Neves, internationally recognized for his mussel research, has long been engaged in community service projects. As a member and now chair of the Haiti Committee at St. Mary's Catholic Church in Blacksburg, Neves and the committee oversee the schooling and feeding of 164 schoolchildren in Pignon, a town 40 miles north of Port-au-Prince. Scholarships enable the children to attend school, and food is delivered weekly from Port-au-Prince to provide them lunch, which is typically their only meal of the day.

Neves fears that not only will the recent earthquake impact the food shipments to Pignon, but that those fleeing the capital city into the countryside will overwhelm the fragile and poor communities in the rest of Haiti. Neves awaits news on his many contacts in Haiti, including former students, as they deal with the earthquake's aftermath.

*T-shirts featuring this photo of students in Pignon are being sold to raise funds for the project. The \$20 price will provide a student with either lunch or tuition for 2 months. To purchase a t-shirt, contact Dick Neves at [mussel2@verizon.net](mailto:mussel2@verizon.net).*

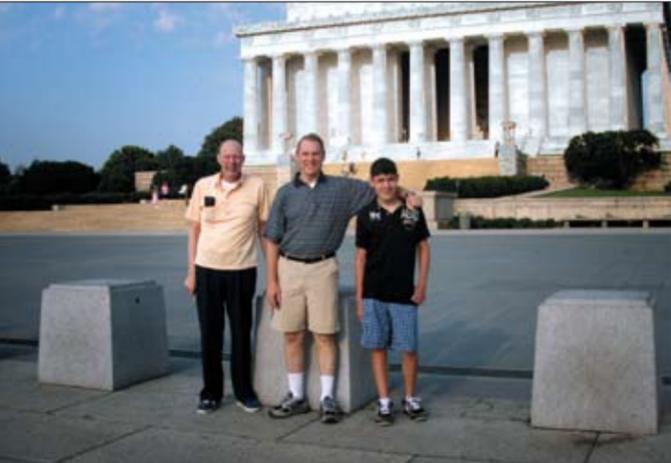
## Calif. Businessman Pledges \$1 Million Gift

Entrepreneur and businessman **Mike Metzenthin** of California has generously pledged a gift of \$1 million to the Department of Wood Science and Forest Products. Having no prior association with Virginia Tech, Metzenthin's first visit to the university last summer yielded a great deal of success in search for recipients of his benevolence. When he returned home, he promptly contacted an attorney to establish an estate plan intended to support a number of select programs on campus, including the Wood Enterprise Institute and the Innovation and Design Laboratory in the wood science department.

Metzenthin, a former member of the U.S. Navy, strongly values the principles of hard work, utilization of the mind, and putting one's money to good use. With no family to inherit his substantial wealth, Metzenthin hopes to ensure his money endows undertakings and accomplishments founded upon his own ideals. He cherishes the individual and those organizations that take risks in order to market new and desirable products, which he discovered at the college. "This is a scary time in our country and, ultimately, what is going to pull us out of our financial mess is the small businessman and the entrepreneur, not the government," he claimed. "I feel thankful and honored that I am able to play a small role in this work at Virginia Tech."

Dean Paul Winistorfer, who met with Metzenthin during his campus visit, said, "Every now and then you meet a special person who has in his heart the will to do good things for others, who is willing to use personal sacrifice and savings for others, and who has vision for the future. Mike Metzenthin is this very special person and we in the college are thankful for his support of the students and their activities in the Wood Enterprise Institute."

Under the direction of Professor Earl Kline, the Wood Enterprise Institute is an experiential learning course that allows students to design, manufacture, market, and sell a product within a business context. The Innovation and Design Laboratory is a classroom and laboratory facility for learning and discovery in the Thomas M. Brooks Forest Products Center. Classes and student clubs use the facility to design, visualize, fabricate, prototype, and test new ideas in terms of aesthetics, function, safety, cost, and environmental impact.



*Mike Metzenthin (L) toured Washington, D.C., with Jim Secrist (C), director of gift planning, and his family before visiting the Virginia Tech campus in the summer of 2009.*

## College Appreciates Farmer's Long-Term Support

In 2008, the Society of American Foresters (SAF) recognized a new SAF Fellow, one of the college's most steadfast, long-term supporters, a man whose hard work and generosity have enabled many promising students to attend the college. Colleagues describe **John Farmer** ('53 B.S. in forestry and wildlife) as dedicated, sincere, honest, meticulous, and, above all, a "doer."

Farmer's career began in 1956 after a chance meeting with one of his former professors. Farmer had served in the Army after graduating but was nearing his discharge date when he and a friend traveled from Fort Jackson, S.C., to Blacksburg to see a Hokie football game. At the game, Farmer happened to encounter the professor, who advised him to apply for a job with the Virginia Electric Power Company, now called Dominion Virginia Power.

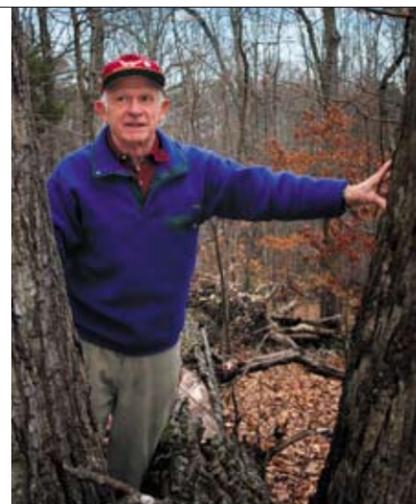
"He said they had some job opportunities and suggested I contact them," says Farmer. He followed the professor's advice, and the subsequent interview led to his first job with the power company, from which he retired in 1994. At Dominion, he was responsible for managing 20,000 acres of timber and designing innovative programs to more effectively manage growth in the rights-of-way underneath power lines.

Farmer is in his fourth decade as president of the Virginia Forestry Educational Foundation (VFEF). VFEF supports natural resources education programs for students of all ages, but its largest funding initiative is the forestry and forest products scholarships it awards to Virginia Tech students each year. In 2009 alone, donors to VFEF funded \$59,000 worth of scholarships. (See related article on p. 4.)

Not only is he president of the organization, Farmer is also one of its most generous donors, as well as a consistent supporter of the university. He is a member of the university's Caldwell Society, for donors who have contributed \$50,000 or more, and of the Pylon Society, which recognizes donors who continue to give in consecutive years. Farmer far exceeds this membership requirement — he has made at least one gift to the university for a remarkable 26 years in a row.

For Farmer, such generosity comes naturally. "I owe a lot to Virginia Tech," he says. "They educated me." The education he received at Virginia Tech was an education in a passion that still holds his fascination. After a four-decade-long career in the field, Farmer remains active in the outdoors as an avid hiker and supporter of the Boy Scouts. He shares his love of the outdoors with his wife and two grown sons.

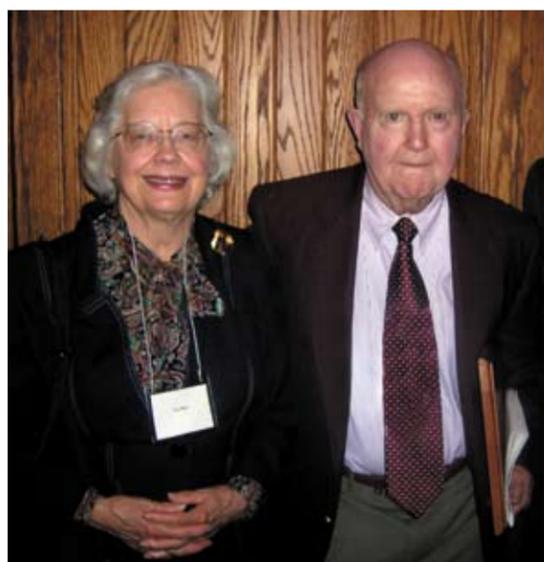
*John Farmer's efforts with the Virginia Forestry Educational Foundation have helped students of all ages across the commonwealth.*



"I saw forestry as conservation and preserving the environment," says Farmer of his initial attraction to the discipline. "It appealed to me because of my interest in the outdoors, trees, and plants." Through his work at VFEF, Farmer influences young people to feel the same way about forestry by helping them understand what it is and how to prepare for careers in the field. To Farmer, this is the most important accomplishment of his 54 years as a forestry professional — passing on his drive to conserve America's natural resources.

## Mitchell and Lois Byrd Bestow Gift Annuity

**Mitchell and Lois Byrd** recently contributed a generous gift annuity of \$100,000 to the college. Mitchell Byrd ('49 M.S. in forestry and wildlife, and '54 Ph.D. in fisheries and wildlife), who has resided on the faculty at the College of William and Mary for over 50 years, said, "I have always appreciated my education at Virginia Tech and the College of Natural Resources. Lois and I respect our roots and the value of a quality education. We are pleased to be able to give back to an outstanding college of natural resources."

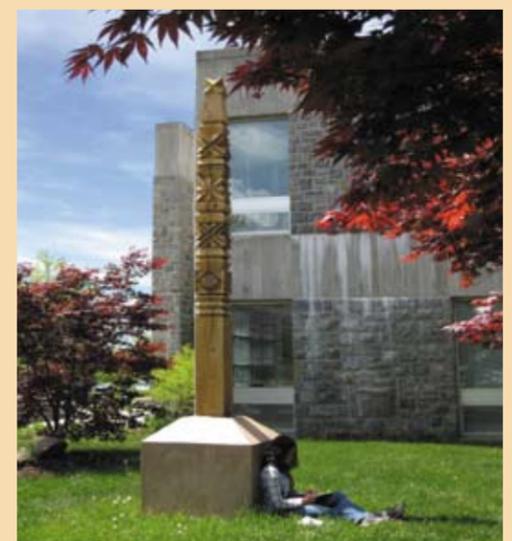


As chairman of the biology department at William and Mary, Byrd jumpstarted the expansion of the department into the college's now nationally distinguished program. After retiring in 1991, Byrd co-founded the Center for Conservation Biology, a research and education organization within the biology department, and led efforts to sustain the needs for habitat conservation in the Chesapeake Bay area. Byrd's conservation efforts in Virginia contributed significantly to the recovery of the threatened and endangered bald eagle and peregrine falcon.

Bob Mollenhauer, the college's director of development, accepted Mitchell and Lois Byrd's gift, declaring, "Mitchell and Lois Byrd have been generous donors and actively involved with the college for quite some time. Their continued support and involvement is a model for alumni and friends. We deeply appreciate their kindness."

The college presented the Byrds with the Friend of the College Award, given to those who have offered substantial contributions to the progression and implementation of the college's aspirations, in March 2008.

*Alumnus Mitchell Byrd, whose efforts led to the recovery of bald eagle and peregrine falcon populations in Virginia, and his wife, Lois, have bequeathed a \$100,000 gift annuity to the college.*



### GIVING TO THE COLLEGE

For information about making a donation to the College of Natural Resources, contact Bob Mollenhauer, director of development, at [bobm5@vt.edu](mailto:bobm5@vt.edu) or 540/231-8859, or visit the Giving page at [www.cnr.vt.edu](http://www.cnr.vt.edu).

## Alumni Profile

## Delissa Padilla Nieves

For **Delissa Padilla Nieves** ('08 Master of Natural Resources), the transition from academic to professional life came naturally. While a student at Virginia Tech's National Capital Region, Padilla completed a groundbreaking capstone paper that used the Sea Level Affecting Marshes Model (SLAMM) to predict how wetland and coastal habitat would change in response to sea-level rise, specifically in two national wildlife refuges in Padilla's native Puerto Rico. Her work caught the attention of the U.S. Fish and Wildlife Service (USFWS) when Brian Czech, a professor on Padilla's review committee, presented the paper to an audience of USFWS staff. Highly interested in exploring methods to assess climate change and sea-level rise in their refuges, the USFWS found Padilla's approach to be a valuable tool, and her paper went through a review process that culminated in a job offer.

At first, Padilla's job consisted primarily of completing sea-level rise analyses for USFWS refuges, work similar to the research she had done for her capstone paper. Now, in addition to her position as a coastal biologist for the National Wildlife Refuge System, Padilla is on a temporary assignment to the International Conservation



*Padilla measures the active layer of permafrost in Beaufort Lagoon, Alaska, a key site for long-term coastal erosion analysis. The Arctic National Wildlife Refuge has been measuring permafrost there since the mid-1980s in order to determine how rising greenhouse gas levels are affecting the region.*

Division as an international affairs specialist for the Mexico branch. In December, she traveled to Mexico, where she worked with government officials to select projects for funding and to coordinate these decisions with the USFWS and the Mexican government. Her position also takes her across the United States, including a trip to Alaska last summer to collaborate with employees at the Arctic National Wildlife Refuge. "They wanted to learn more about the model that I use. I was presenting, using the model, and assessing what kind of gap in information they had," explained Padilla.

Padilla speaks enthusiastically of her education at Virginia Tech. "I think one of the benefits of completing my master's in the National Capital Region is that we had the opportunity for close interaction with the agencies and institutions here," she reflected. The proximity to so many governmental and nonprofit organizations gave her insight into their operations and enabled her to interact with professors and classmates who had first-hand knowledge of the professional world. "Having that circle of people who had so much experience made me grow both personally and professionally," said Padilla. She and her college classmates still keep in contact, gathering for informal meetings and attending noteworthy seminars and presentations on campus together.

To current natural resources students, Padilla emphasizes the value of participating in research. "Sometimes organizations do not know all of the different tools and research alternatives that are out there," she observed. As her story proves, student research that fulfills an organization's need can translate into something more than just a passing grade. And as students think about their future careers, Padilla strongly recommends working for the U.S. Fish and Wildlife Service. "I wake up in the morning and I want to come to work," she said. "We have a great mission, and we do valuable work."

## Domenech Named to Governor's Cabinet

**Doug Domenech** ('79 B.S. in forestry and wildlife management) has been appointed secretary of natural resources by Virginia Governor Bob McDonnell. "Doug has a long record of working to protect and promote the natural resources of our country and our commonwealth," Gov. McDonnell remarked. "He brings a wealth of experience at both the state and national levels and joins with me in my commitment to preserving Virginia's incredible natural beauty and resources, from the Shenandoah Valley to the Chesapeake Bay."

The new secretary explained that his years at the college taught him that "you manage natural resources, you don't just leave them alone." Dean Paul Winistorfer, who has already met with Domenech on several occasions, said, "We are delighted that one of our alumni is in this important post, and we look forward to working with him these next several years."

Domenech served in a number of leadership roles in the U.S. Department of the Interior from 2001 to

2009, including deputy chief of staff to the Secretary of the Interior. He most recently served as the senior vice president of Artemis Strategies, a bipartisan government relations and strategic communications firm, where he was responsible for client recruitment and matters pertaining to energy, technology, and financial management. He began his career in the forest industry, serving in positions ranging from acting director of the Timber Management Hardwood Management Program at Alabama A&M University to director of forestry programs at the Forest Resources Association, a national technical trade association that represents producers and consumers of raw wood material.

Domenech, who has served under other Virginia governors, was appointed by Gov. George Allen to the Goose Creek Scenic River Advisory Board and the Commonwealth Competition Council, and by Gov. Jim Gilmore to the Virginia Board of Forestry. He was also a member of the Advisory Council of the Conservation Trust of Puerto Rico.



*Doug Domenech (C) met with Dean Paul Winistorfer (L) and Ken Morgan of Morgan Lumber at the Virginia Agribusiness Council banquet in January.*

As Virginia's secretary of natural resources, Domenech oversees eight agencies charged with protecting the commonwealth's air, water, soil, and wildlife. He said he will be carrying out the governor's agenda to conserve 400,000 acres of undeveloped land over the next four years, to continue cleaning up the Chesapeake Bay, to promote alternative energy and green jobs, and to decide on a plan for Fort Monroe, the historic military base in Hampton that will soon close.

## College Alumni Board Welcomes New Members

The College of Natural Resources Alumni Board recently welcomed **Joel Campbell**, president of the geospatial information company ERDAS, and **Alyssa Durden**, a master's student in the Department of Geography, as its newest members.



**Joel Campbell**

Campbell has more than 20 years of experience in the geospatial industry in a variety of senior roles, although he got his start in broadcast communications and spent 10 years in the commercial television industry. Campbell, who has served in sales, business development, and product management positions and operated his own consulting firm, joined ERDAS as its president in 2009.

Campbell has been a featured speaker, lecturer, and trainer for GIS organizations around the world. He has published articles on various geospatial trends and opportunities, co-authored a chapter in the *Manual of Geospatial Science and Technology*, and serves on an outside advisory board for the Virginia Tech Center for Geospatial Information Technology. Campbell and his wife live in Atlanta, Ga. His son is in law school at William and Mary, and his daughter is an undergraduate studying geology at Virginia Tech.

Durden, who graduated from the college in 2009 with a bachelor's degree in geography, is the board's college graduate student representative.



**Alyssa Durden**

The Massachusetts native grew up in Hopewell, Va., and earned her associate's degree at Richard Bland College before transferring to Virginia Tech. Durden serves as vice president of the Geographic Society and as an officer for the American Society for Photogrammetry and Remote Sensing. She is a member of several academic honor societies and received the Outstanding Achievement Award from the Department of Geography last year. Durden is currently working on her master's research with Associate Professor Lisa Kennedy, studying paleogeography in Costa Rica. She loves to travel and has already completed three study abroad trips, including one this spring.

## Alumni Events Calendar

## MAY 21-22, 2010

32nd East Coast Sawmill and Logging Equipment Expo  
Richmond Raceway Complex, Richmond, Va.  
[www.exporichmond.com](http://www.exporichmond.com)

## JUNE 2-4, 2010

2010 National Forest Landowners Conference  
Skamania Lodge, Stevenson, Wash.  
[www.forestlandowners.com/content/conference-schedule](http://www.forestlandowners.com/content/conference-schedule)

## JUNE 9-11, 2010

Appalachian Society of American Foresters  
Virginia Division Summer Meeting  
John H. Kerr Dam and Reservoir Visitor Assistance Center,  
Boydton, Va.  
[www.apsaf.org](http://www.apsaf.org)

## JUNE 20-22, 2010

Forest Products Society 64th International Convention  
Monona Terrace Community and Convention Center,  
Madison, Wis.  
[www.forestprod.org/ic64/index.html](http://www.forestprod.org/ic64/index.html)

## SATURDAY, NOV. 4, 2010

Homecoming and Tailgate  
Virginia Tech vs. Georgia Tech  
Cheatham Hall, Blacksburg, Va.  
[www.alumni.vt.edu/reunion/index.html](http://www.alumni.vt.edu/reunion/index.html)



Want to network with College of Natural Resources alumni, faculty, and staff without leaving your office?

The Virginia Tech Alumni Association has launched **Hokie Nation Network**, a new social and professional networking site designed exclusively for Virginia Tech alumni, faculty, staff, and students.

Log on to [www.alumni.vt.edu/hnn](http://www.alumni.vt.edu/hnn) to join.

## Forestry: A Peaceful Weapon



**John Groninger** ('95 Ph.D. in forestry) had visited the northern region of Afghanistan several times before his recent first excursion into the more dangerous southeastern region. There, Groninger and Charles Ruffner, both forestry professors at Southern Illinois University–Carbondale, could not casually travel as civilians. Instead, they rode with a full military escort of 10 vehicles (four of them armored), 27 U.S. forces, 30 Afghan forces, and a constantly hovering U.S. predator drone. Groninger turned to Ruffner, saying, "This is probably the most expensive forestry data collection in all of history."



During a summer 2009 mission, Groninger (L) and Ruffner travel to a Forward Operating Base in Paktika, eastern Afghanistan, on a U.S. Army helicopter.

The data collection, however, was not merely to assess a commercial stand or to zone for construction. Groninger has worked in Afghanistan since 2005 and Ruffner since 2008; they use their forestry skills to improve Afghanistan's economic viability and to aid the U.S. military effort there through the Afghanistan Water, Agriculture, and Technology Transfer, a program under the U.S. Agency for International Development.

Originally, forest covered about 3 percent of Afghanistan, but drought, mismanagement, overgrazing, and years of war have reduced that number to less than 1 percent, a decrease that has devastated the country's watersheds. Water shortages are a frequent problem in Afghanistan, and forests help to regulate water — they reduce runoff and flooding by absorbing and slowing down precipitation, creating a more stable watershed flow throughout the year. "An important element of consistently getting water into the agricultural landscape," says Groninger, "is to rehabilitate a watershed so it can provide water in a steady flow, instead of just running out immediately following rainfall or snowmelt." Improved forest cover is crucial to the team's plans for watershed rehabilitation.

Developing a good management plan is the first step in this process and a large part of Groninger's and Ruffner's role. After they develop a management plan, "Military units fund local contractors to grow trees in nurseries, plant them, prepare

Groninger measures the diameter of a 320-year-old chilgoza pine. His colleagues will use the data to extrapolate local precipitation patterns to inform the design of hydrologic engineering structures for the area.



Groninger (L) receives a guided tour of a nursery in Kabul, where forestry personnel from Afghanistan's Ministry of Agriculture, Irrigation, and Livestock grow trees to restock and replenish the city's urban forest and surrounding land.



In Afghanistan, water limits the productivity of farms such as this. Watershed rehabilitation will help to increase the reliability of water availability.

Vegetation in areas such as this partially forested watershed in eastern Afghanistan is critical for sustaining agriculture in downstream areas.

terraces on hillsides, procure seeds, and plant grasses," Groninger explains. Thus, the U.S. military provides work to the local people during implementation as well as economic benefits after completion. "You know that they really appreciate this by the way they react to you when you're there," says Groninger. "This is something they really want."

Though a good management plan is essential, a strong education program is also vital to success. In some areas, Afghans are heavily dependent on the forest for survival, but they know little about how it functions or how to sustain it. "Many areas have no seedlings because overgrazing prevents them from becoming established," explains Groninger. "People don't understand that you need to have new seedlings to replace existing trees when they eventually die or are harvested." To combat this lack of knowledge, Groninger and Ruffner are developing educational programs devoted to natural resources stewardship.



The Balkh Ab River is an important source of irrigation water for northern Afghanistan.

Rehabilitation groundwork will begin this spring in the form of terraces, dams, gully ditch plugs, and range rehabilitation. Though forestry and national defense may seem unlikely partners, Groninger believes that forests are infrastructure projects just as valuable as schools and hospitals. "We're giving people a way to sustain themselves," notes Groninger. "Forestry here is at a very fundamental level of supporting human existence." In many ways, he continues, trees are safer investments than schools and hospitals, which can become targets to enemy forces. "As one of the commanders who we work with said, 'it's tough to blow up trees.'"

When he left Virginia Tech, Groninger had little idea that he would use his education while working alongside military personnel in a war zone. However, he reflects, "Virginia Tech's motto is 'that I may serve,' so it becomes natural to do these kinds of things." And Groninger is sure of his work's importance. "The Taliban is trying to get control of the people's hearts and minds, and we're struggling to appeal to their will," he says. "If you're doing watershed-related projects that help them, they are a lot more inclined to help with the military effort." Through the practice of forestry, Groninger and Ruffner have combined public relations, education, and service into a peacefully effective weapon.