



# CNRE NEWS

COLLEGE OF NATURAL RESOURCES AND ENVIRONMENT

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## THE WORLD IS CHANGING AND SO ARE WE

# College of Natural Resources and Environment

by Paul M. Winistorfer, Dean

Welcome to the new **College of Natural Resources and Environment** at Virginia Tech! On behalf of our faculty, staff, and students, we are excited to announce the formal renaming of the college. The name-change resolution went through the university's governance system, beginning early last fall, and was approved by the Virginia Tech Board of Visitors on June 7, 2010.

Our new name more accurately describes our current faculty portfolio of activities in discovery, learning, and engagement, but more importantly, it sets the stage for the future and becomes the visionary pull for the college as we move forward. It is critical that we center ourselves in the global conversations about the environment and conservation of our natural resources. Our students will inherit this planet and its myriad resources — we owe it to them to evolve in the current context and offer the very best education and experience possible.

"The College of Natural Resources and Environment" signifies the depth of our interdisciplinary research, which is a model for today's complex problems. Many of our faculty work extensively on large-scale ecological systems, both aquatic and terrestrial, and bring critical thinking to today's multi-faceted environmental problems.

The name also sets the stage for additional collaboration with campus colleagues on these issues. The college already partners with faculty in many other departments and colleges on campus, as well as with major initiatives such as Virginia Tech's Institute for Critical Technology and Applied Sciences. We hope that our name change will help propel Virginia Tech forward as a leading institution addressing the challenging problems facing our environment and the sustainable use of natural resources.

Our new name more accurately reflects our increasing focus on sustainability initiatives to effectively prepare our graduates for today's challenges in managing the environment. In May, the college announced the start of an Executive Master of Natural Resources program in the National Capital Region that focuses on leadership for sustainability (see article on page 3). An undergraduate Leadership Institute, also centered on sustainability, will commence this fall; a cohort of students from the college has been selected for the inaugural class. The college plans to offer a new bachelor's degree program in sustainable natural resources and environment beginning in fall 2011. Faculty in several departments are working on curriculum changes, course names, course content, and innovative ways to instruct complex concepts and themes of sustainability.

The college is driving a major sustainability initiative in the New River Valley that could serve as a model for land use, rural economic sustainability, and the conservation of natural resources. Other initiatives, such as a meteorology degree program, an outreach center focused on sustainable natural resources, and a forest carbon center, are in the planning stages and will be announced once they are finalized. The college seeks to endow a chair of excellence in sustainable natural resources and the environment.

In the past year we renamed our forestry department as the Department of Forest Resources and Environmental Conservation to reflect the breadth of faculty expertise, degree options, and the role of forest ecosystems in the global environment. A new degree option in that department — environmental resource management — was approved this year. Our other college departments, including fisheries and wildlife sciences, geography, and wood science and forest products, also strongly anchor the college in our relevancy to natural resources and the environment.

Through our faculty expertise and entrepreneurship, we are home to more than 15 research centers, including the Virginia Water Resources Research Center and the Conservation Management Institute, and enjoy the collaboration and support of five federal partnerships through the U.S. Department of Agriculture, the U.S. Geological Survey, the U.S. Fish and Wildlife Service, and the National Marine Fisheries Service.

*"The college has a long and rich history of exceptional contributions to our campus and noted national leadership in the arena of natural resources. The new name will give Virginia Tech a stronger position in natural resources and the environment, and will bring awareness to the many faculty, departments, and colleges at Virginia Tech working on environmental issues. Renaming the college will help create synergies for the campus among our existing programs and will magnify the contributions of the entire campus, our faculty, and our students to the commonwealth, the nation, and the world."*

Charles W. Steger, Virginia Tech President

Our vision for the college is to change with these dynamic times and stay abreast of the shifting paradigm. We want our students to leave with the knowledge base and skills to lead the way on issues pertaining to natural resources and the environment. Our goal is to graduate students who can and will change the world.

We have deep roots in forestry, fisheries, wildlife, geography, wood science, forest products, and water, and it is our leading national position that gives us the security to change for the future and be of the greatest value to society. The world is changing and so is the College of Natural Resources and Environment.

[Continued on page 2](#)

Fisheries and  
Wildlife Sciences



Wood Science and  
Forest Products



Forest Resources and  
Environmental Conservation



Geography



COLLEGE HISTORY

- 1925** First Extension forester hired
- 1959** Forestry and Wildlife Conservation group renamed Department of Forestry and Wildlife within College of Agriculture
- 1969** Department of Forestry and Wildlife becomes a division within College of Agriculture
- 1972** Forestry and Wildlife separates into two departments — Department of Forestry and Forest Products, and Department of Fisheries and Wildlife Sciences
- 1976** School of Forestry and Wildlife Resources established within College of Agriculture and Life Sciences
- 1979** Department of Forestry and Forest Products separates into two departments
- 1992** College of Forestry and Wildlife Resources established, containing three departments (Forestry, Forest Products, Fisheries and Wildlife Sciences)
- 2000** Name changed to College of Natural Resources
- 2003** National Capital Region establishes Master of Natural Resources graduate program
- 2004** Department of Geography joins the college
- 2005** Virginia Water Resources Research Center moves to the college
- 2010** College renamed College of Natural Resources and Environment

*College of*  
**Natural Resources**  
*and* **Environment**

*“Moving forward implies to me the notion of realizing, creating, and capturing opportunities to grow the quality, quantity, relevancy, and impact of our program in the College of Natural Resources and Environment across our three mission areas of discovery, learning, and engagement.”*

Paul M. Winistorfer, Dean  
State of the College Address  
August 2009



National Capital Region

Conservation Management Institute



Virginia Water Resources Research Center



VMNH THOMAS JEFFERSON AWARDS

Dean Paul Winistorfer served as keynote speaker at the Virginia Museum of Natural History’s (VMNH) 23rd annual Thomas Jefferson Awards, which honor contributions to and support for the natural sciences. Professor Emeritus Jeff Kirwan presented the award for Outstanding Contributions to Natural Science Education, which the college sponsors, to Gary Williamson (third from left), retired park naturalist with Virginia State Parks, and Byron Carmean (fourth from left), horticulture instructor for the Chesapeake County Schools, for their work on locating and identifying Virginia’s big trees. “Byron and Gary have spent every weekend of their lives over the past 30 years going out and looking for big trees,” remarked Kirwan, a past recipient of the award. “Their contributions to science and science education are phenomenal.” Dean Winistorfer (far right) accepted the William Barton Rogers Individual Award on behalf of former Virginia Tech President T. Marshall Hahn, Jr., who donated a collection of mammal mounts to the museum. The “Hahn Hall of Biodiversity” will open later this year.



GMIT PARTNERS

The college signed a memorandum of understanding with the Southern Virginia Higher Education Center (SVHEC) and the Galway-Mayo Institute of Technology (GMIT) in Ireland. The agreement, which will facilitate the exchange of Irish and American students and staff among the three institutions, includes the development of new distance learning modes for the delivery of joint modules, programs, and future collaboration on research projects in marine science, natural resources, and the built environment. GMIT is internationally known for its furniture program, based at Letterfrack, a small village on Ireland’s west coast. Pictured (L-R): Marion Coy, president of GMIT; Dean Paul Winistorfer; Betty Adams, executive director of SVHEC; and Professor Robert Bush.

JOB POSTINGS ON HOKIE NATION NETWORK

Hokie Nation Network, a free social and professional networking site exclusively for Hokies brought to you by the Virginia Tech Alumni Association, includes job postings. Log in, create your profile, and start networking today! Visit [www.alumni.vt.edu/hnn](http://www.alumni.vt.edu/hnn).



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## National Capital Region Offers New Programs for Sustainability Leadership

The college is expanding its graduate-level programs in the National Capital Region to focus on leadership for sustainability. One key element is the recent establishment of an accelerated 18-month Executive Master of Natural Resources degree program ([www.cnre.vt.edu/xmnr](http://www.cnre.vt.edu/xmnr)).

This peer-to-peer experiential learning program is designed to meet the needs of working professionals with management and administrative experience who are interested in career advancement. To accommodate students' busy schedules, classes meet one weekend a month at Virginia Tech's campus in Falls Church. The program culminates in a 10-day international residency and capstone project in which students work with a team of faculty mentors and real-world clients to tackle complex sustainability challenges.

"Students will gain a robust understanding of a broad range of environmental sustainability challenges, including climate and energy policy, land use and water resources, biodiversity conservation and ecosystem services, green building and infrastructure, population growth, and public health," said David Robertson, program coordinator.

Applications are now being accepted for the first cohort of students to begin the program in September 2010. In addition to the new master's program, the college has also started a China Sustainability Initiative and a series of professional development seminars, workshops, and short-courses in the National Capital Region. International experience and a global perspective are key elements to all of the new programs.



Graduate students studying natural and cultural preservation during a China Sustainability Initiative trip discovered a golden hokie bird at the foot of Cang Mountain in Dali City in South China.

## STUDENT NOTES



Wyatt Blevins (L) and Carson Rejzer took fourth place in the regional and seventh place in the national college fishing championships. (Photo by Brett Carlson, FLW Outdoors)

## Fishing for a National Title

Andrew (Wyatt) Blevins, a sophomore fisheries sciences major from Pulaski, Va., and teammate Carson Rejzer, a sophomore building construction major, finished seventh in the first-ever National Guard Forrest L. Wood (FLW) College Fishing National Championship held this spring in Knoxville, Tenn. The students qualified to compete by placing fourth in the regional championship in Charlotte, N.C., last fall. Fellow Virginia Tech fishermen Charlie Machek and Scott Wiley finished second in the regional championship and went on to place 19th in the national championship. The university's third team, Ryan Slate and Caleb Brown, finished 11th in the regional championship, but missed qualifying for the national championship.

"These fine young men are a credit to Virginia Tech and to what the FLW college fishing program represents," remarked Julie Huber of FLW Outdoors.

As a reward for their success in the regional championship, the second and fourth place teams earned a combined \$16,500 for the university and \$16,500 for the university's fishing club. *FLW Outdoors Magazine* named Virginia Tech as one of the top five bass fishing colleges in the nation in its January/February 2010 issue.

## McManamay Receives Outstanding Student Achievement Award

Ryan McManamay, a doctoral student in fisheries and wildlife sciences, is the Ph.D. recipient of the 2009 Jimmie Pigg Memorial Outstanding Student Achievement Award. Named in honor of the long-time supporter of student activities, the award recognizes university students who are outstanding in research, education, and professional endeavors. It was created by the Warmwater Streams Committee, a technical committee within the Southern Division of the American Fisheries Society.

McManamay was recognized for his contributions to coldwater fisheries conservation. In the spirit of Jimmie Pigg, McManamay participates in outreach and education by holding fishing days for children and stream conservation workshops. In addition, he helped revive the New River Valley Chapter of Trout Unlimited and has served as its president since 2006. With his Ph.D. research focus on stream restoration, a rapidly growing aspect of fisheries science, McManamay is currently evaluating the downstream effects of the Santheelah Dam in North Carolina on the lower Cheoah River.



## Haworth Takes First Place in Undergraduate Writing Contest

The Virginia Outdoor Writers Association, Inc. (VOWA) recognized John Haworth of Virginia Beach, Va., a sophomore fisheries sciences major, for his first-place winning entry in the association's fifth annual Collegiate Undergraduate Writing Contest. Virginia Tech students have been well represented in the contest; this is the fourth consecutive year that a Virginia Tech student has won first place.

Contestants in VOWA's annual high school and collegiate writing competition, which encourages youth and young adults to cultivate their creative talent, write a personal narrative describing an outdoor experience and how it has shaped their current path. Haworth read his winning essay, "Fairy Dust," which describes one of his most treasured scuba diving trips to a Virginia shipwreck, at VOWA's annual conference in Charlottesville.

Haworth says that despite his academic interests in marine science, "My natural talents exist in communication, imagination, the arts, and entrepreneurship — skills I believe could offer some uniqueness towards environmental restoration efforts." Haworth has also initiated the Chesapeake Bay Student Network (<http://web.me.com/cbsn>), a student-led organization to spread awareness, education, experience, and action towards restoration of the Chesapeake Bay. He plans to continue his efforts with the Chesapeake Bay Student Network after college while pursuing a career with an organization such as the Chesapeake Bay Foundation or the National Oceanic and Atmospheric Administration. He also plans to maintain an active creative side as a freelance photographer, outdoor writer, and artist.

## Vaughan Honored With Emeritus Status



Mike Vaughan

**Mike Vaughan**, professor of wildlife, has been honored with the title “professor emeritus” by the Virginia Tech Board of Visitors after 30 years of service. Vaughan, known by many as “the bear guy,” achieved international recognition for his leading research on the biology, ecology, and management of bears. For 22 seasons, he and his students studied adult bears and their cubs at the world-renowned Virginia Tech Center for Bear Research, one of only two sites in North America involved in captive bear research.

Bears captured by the Virginia Department of Game and Inland Fisheries in its annual round up of animals that disturb farms and homeowners were typically kept at the center from August to May before being relocated and released back into the wild. During the 3-4 month winter hibernation period, pregnant females give birth, offering Vaughan and his team a unique opportunity to study both mature adults and developing cubs.

The years of gathering data and conducting research on the captive bears has produced a wealth of knowledge in the field of bear physiology and behavior. Recent research efforts have focused on how aspects of the bear’s hibernation process can be applied to problems faced by humans such as osteoporosis, high cholesterol levels, and depression, possibly leading to medical breakthroughs in human health.

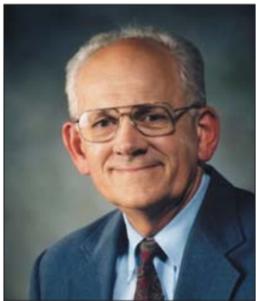
Vaughan’s research contributions have been published in more than 100 peer-reviewed scientific journal articles and book chapters. He has filled leadership roles in the Wildlife Society and the International Association for Bear Research and Management, served on several working groups and advisory boards, and been recognized with numerous prestigious awards. Of his many professional accomplishments, Vaughan says that one of the most important was mentoring over 40 graduate students who now hold responsible positions in public agencies and academia.

Though officially retired, Vaughan continues to work on various research projects, including one examining the possible effects of widening portions of U.S. Highway 64, which runs through the Alligator River National Wildlife Refuge in Manteo, N.C., where black bears and red wolves live.

Mike and his wife, Lynn, have built a home on their family farm in Pittsboro, N.C., where they will be partners with Lynn’s brother in a beef cattle operation. Though they plan to sell their home in Christiansburg, they will be frequent visitors to the area. Mike still has active graduate students and research projects, which will keep him involved with the college for at least another two years.

## Faculty Recognized by Society of American Foresters

**David Wm. Smith** and **Shepard Zedaker** were honored by the Society of American Foresters (SAF) at its annual convention last fall.



Smith, the Shelton H. Short Jr. Professor Emeritus of Forestry, received the society’s Gifford Pinchot Medal, which recognizes outstanding contributions by a forestry professional who has demonstrated excellence in the administration, practice, and professional development of North American forestry. This honor, which is awarded biennially, is one of six national awards presented by the society last year. Smith, who was named an SAF Fellow in 1998 and served as the organization’s president in 2002, has received a number of national SAF honors.



Zedaker, professor of forestry, has been elected an SAF Fellow. The society recognizes less than 5 percent of its members with this honor, which is given to those who have demonstrated excellence in volunteer involvement, consistent leadership, and advancement in forestry by education, public policy, research, or technology transfer. “This is an exceptional recognition bestowed upon Shepard Zedaker by his peers for outstanding service to the society and to the profession. It is an honor that few receive and one that he deserves entirely,” remarked SAF President Bernard Hubbard.

## Hindman Named to Rural Builder Hall of Fame



**Daniel Hindman**, assistant professor in wood science and forest products, was selected as the 2010 honoree to the Rural Builder Hall of Fame in the educator/academic research category. Hindman focuses his research on green building, which he views as “a kind of engineering problem — to make a more efficient building using less material, less energy, and creating a good quality structure.” He recently worked with the

National Frame Building Association’s technical and research committee on helping post-frame builders to recognize that post-frame building is a form of green building. At the National Frame Building Expo in Louisville, Ky., where he received his award, Hindman outlined his position on post-frame’s role in green building in his presentation, “How to Promote a Low-Cost, Sustainable ‘Green’ Building.”

## Murphy and Klopfer Release Case Study Publications



*Brian Murphy (L) and Michelle Klopfer collaborated on two publications about utilizing case studies in teaching.*

Professor **Brian Murphy** and Research Associate **Michelle Klopfer** of the fisheries and wildlife sciences department collaborated with colleagues from South Dakota University on two recently released publications. *Case Studies in Fisheries Conservation Management: Applied Critical Thinking and Problem Solving* challenges students to develop critical-thinking and problem-solving skills that will serve them as future natural resources professionals. The accompanying instructor’s guide pairs each case with a detailed set of teaching notes that cover lesson plans, supplemental reference materials for instructors not familiar with the case topic, and a CD containing case-linked PowerPoint presentations. Both publications are available from the American Fisheries Society ([www.afsbooks.org](http://www.afsbooks.org)).

## Faculty Recognized by Alumni Association

The college fared well in the 2009-10 Faculty/Staff Awards program sponsored by the Virginia Tech Alumni Association. Three faculty and one doctoral student received awards of excellence.



**Harold Burkhart**, University Distinguished Professor and Thomas M. Brooks Professor of Forest Biometrics, received the Alumni Award for Excellence in Graduate Academic Advising, which recognizes faculty members who have been especially dedicated and effective in advising graduate students. In the 41 years Burkhart has been a member of the Virginia Tech community, 29 master’s degree students and 27 doctoral candidates have completed degrees under his direction. In addition, he has served as a member

of more than 150 graduate student advisory committees in a variety of academic programs from across the university. Graduate students from Austria, The Netherlands, Portugal, Spain, Mexico, Korea, and South Africa have studied with Burkhart as part of degree programs from their home institutions.

Fiji, and Antarctica, and has taught courses in Cuba, Belize, and the Dominican Republic. He serves as director of the Memorial Center of Excellence at the Institute of Forestry in Nepal and was presented a Scholar of Excellence award by the European Union.



Receiving the XCaliber Award was a team consisting of Professor **Bruce Hull** and doctoral student **Courtney Kimmel** of the Department of Forest Resources and Environmental Conservation, and Jennifer Sparrow, director of emerging technology and new ventures, Learning Technologies. The XCaliber award (shorthand for exceptional, high caliber contributions to technology-enriched learning activities) is presented by the Virginia Tech Center for Innovation in Learning to recognize individual faculty members or teams who integrate technology in teaching and learning, and celebrates innovative, student-centered approaches to learning activities. The team was recognized for integrating Web 2.0 educational technologies into the Nature and American Values course. According to student evaluations, the technologies added to the course helped students develop and present logical arguments on controversial issues and become better informed and engaged on issues affecting their future.



**Tom Hammett**, professor of forest products marketing, received the Alumni Award for Excellence in International Education. Hammett, who serves as coordinator of international programs for the college, was recognized for his dedication in leading efforts to internationalize the Virginia Tech campus. Over the past 10 years, Hammett introduced new and popular overseas courses in a variety of locations, such as Nicaragua, New Zealand, India, Panama, Australia,



## Sheffield Works to Protect Northern Rocky Mountain Gray Wolf

The May 2009 removal of the Northern Rocky Mountain gray wolf from Endangered Species Act (ESA) protection has generated much controversy regarding the species' risk of extinction. Steven Sheffield, adjunct professor for the college in the National Capital Region, along with four co-authors, presented the dangers of this delisting in the December 2009 *BioScience* article, "The Northern Rocky Mountain gray wolf is not yet recovered." Sheffield's research partners include Bradley Bergstrom of Valdosta State University, Sacha Vignieri of Harvard University, Wes Sechrest of Global Wildlife Conservation, and Anne A. Carlson of the Defenders of Wildlife and the Wilderness Society.

This article seeks to show the importance of the wolf to its indigenous ecosystem and provides evidence supporting its continuing threat and the improbabilities of full recovery if the delisting remains. In comparison to the once-endangered grizzly bear, which was removed

from ESA protection after occupying 68 percent of its original range, the Northern Rocky Mountain gray wolf occupies a mere 26 percent of its original range. "The present population is insufficient for maintaining a viable network of populations," the authors explain. "The decision also violates the policies of the U.S. Fish and Wildlife Service on distinct population segments and does not address the deficiencies in state management plans that leave wolf populations at risk."

After the disappearance of the Northern Rocky Mountain gray wolf from the region in the 1930s, the species began to re-inhabit areas of northwest Montana in the 1970s. The 1973 Endangered Species Act protected these new populations, and the U.S. Fish and Wildlife Service reintroduced the gray wolf into areas of central Idaho and Yellowstone National Park in 1995. In recent years, hunters, farmers, and livestock ranchers have argued for the delisting.



*The Northern Rocky Mountain gray wolf was removed from Endangered Species Act protection in May 2009.*

A March 2008 Bush administration ruling removed the Northern Rocky Mountain gray wolf from ESA protection, but the listing was restored by the U.S. District Court in July 2008, only to be delisted again and later affirmed by current Interior Secretary Ken Salazar. Since its removal from ESA protection, nearly 200 wolves have been killed by hunters in Idaho and Montana.



## Wood Science Receives Scanning Electron Microscope

The wood science and forest products department's Quantitative Wood Anatomy Lab recently received a new scanning electron microscope (SEM). Acquisition of the JEOL NeoScope Benchtop SEM was made possible through funding from the Sustainable Engineered Materials Institute. The compact benchtop SEM operates in either low or high vacuum mode and has three settings for accelerating voltage; magnifications as high as 20,000X and as low as 10X are possible.

"What's great about this new microscope is how easy it is to use for students new to electron microscopy and the direct integration of image acquisition and analysis software into microscope operation," said interim department head Audrey Zink-Sharp. "We can visualize and measure our experiment results rapidly without extensive time spent learning system operation and complicated image acquisition attachments."

Scanning electron microscopy offers advantages such as increased depth of field unmatched by light microscopy, a wide area of view that makes it easy to image entire surface areas, and images that have a three-dimensional aspect. The JEOL NeoScope also has NIKON NIS image analysis software integrated into its image capture program.

*Audrey Zink-Sharp demonstrates the new scanning electron microscope, which produced this high-magnification image of cellulose filaments.*

## Kelly Presents Jaguar Research

Marcella Kelly, associate professor of wildlife, seeks to expand her research outside of the academic setting into a more welcoming, universally engaging environment. "It's always great to share with the general public because I don't think the public knows what fascinating things go on," she remarked.

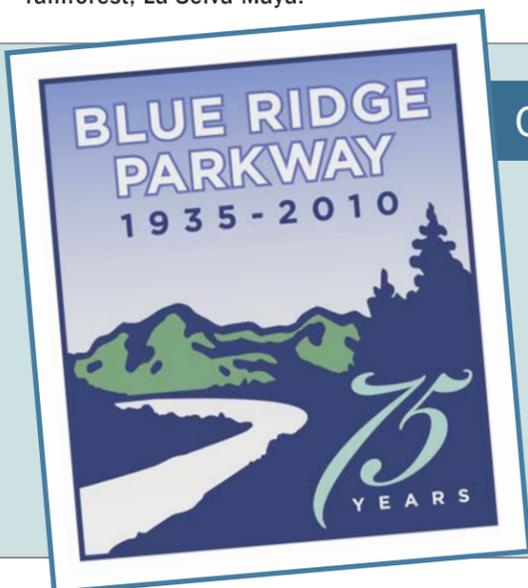
Working with John Henderson, director of Cornell University's archaeology program and author of *World of the Ancient Maya*, the two gave a presentation at the Smithsonian Institution on "Belize of the Maya." While Henderson opened doors into the archaeological wonders of Belize's ancient Mayan civilization, Kelly delved into Belize's jaguar terrain. She devotes much of her time researching the expansive range of wildlife in Belize's tropical rainforest, La Selva Maya.

Kelly also presented her research to the Blacksburg community through Café Scientifique, a movement to promote the accessibility of scientific ideas to the general public outside of an academic setting. Her discussion of Belize's jaguars, the largest cat in Central and South America, introduced listeners to this mysterious species' importance to its ecosystem. Claudia Wultsch, one of Kelly's doctoral students, presented photographs and studies of their innovative, non-evasive research tracking jaguars in Belize.

The team used a combination of resources, including heat- and motion-sensored cameras to photograph the large cats, and former bomb and drug dogs to find jaguar scat for genetic analysis. "We are basically one of the first projects worldwide using dogs, cameras, and genetics on this sort of scale," Kelly claimed. She and Wultsch continue to examine their collected data and are eager for further interaction with the community.



*The movements of jaguars in Belize are tracked using heat- and motion-sensored cameras.*



## CELEBRATE THE 75TH ANNIVERSARY OF THE BLUE RIDGE PARKWAY

Register now for the symposium:

### Imagining the Blue Ridge Parkway for the 21st Century

Virginia Tech's College of Natural Resources and Environment is hosting a conference on sustaining the communities, environments, and economies along the parkway corridor AND featuring

keynote speaker **Richard Louv**, widely acclaimed author of *Last Child in the Woods*

October 14-16, 2010  
The Hotel Roanoke & Conference Center

Open to all citizens, including community leaders, local business people, policy makers, park planners, tourism leaders, and academics.

Register online: [www.cpe.vt.edu/reg/brp21](http://www.cpe.vt.edu/reg/brp21)  
Exhibitors invited: [www.cpe.vt.edu/reg/brp21ex/](http://www.cpe.vt.edu/reg/brp21ex/)  
**540.231.2014**

## College Gifts Support Service Learning

The college recently received two gifts — \$68,750 from Primland Resort and \$46,120 from the Acorn Alcinda Foundation — that will provide opportunities for students to experience their education in a way that also gives back to the local community. Students will engage in service learning projects and participate in field-based research experiences, giving them valuable field experience outside of the classroom.

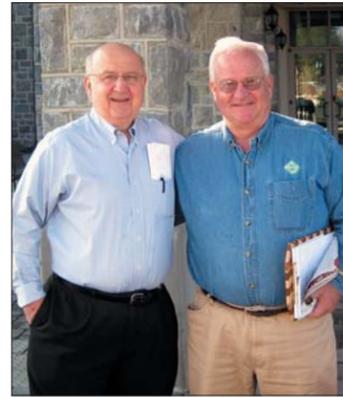


(L-R) Brooks Bradbury, Primland general manager; Dean Paul Winistorfer; Berengere Primat Serval, president of Primwest Holdings, Inc.; Steve Helms, Primland vice president; and Development Director Bob Mollenhauer met at Primland to discuss arrangements for the gift.

The gift from Primland, a world-class resort in Meadows of Dan, Virginia, that offers golf, hunting, fishing, and other outdoor activities, will fund a program offering students hands-on field studies and service learning opportunities on site. Results of the student projects, such as establishing baseline water quality data for streams, developing management plans for coldwater fisheries and wild bird populations, collecting geospatial data, and surveying important cultural plants, will directly influence natural resource management practices at Primland.

“The program will create a living classroom in which students will work closely with faculty members on real-life research projects,” said Paul Winistorfer, college dean. “We are proud to have our students and faculty associated with Primland in this mutually beneficial way.”

For information about making a donation to the college, contact Bob Mollenhauer, director of development, at 540/231-8859 or [bobm5@vt.edu](mailto:bobm5@vt.edu).



Jan Kennedy (L) and Kit Kennedy, co-directors of the Acorn Alcinda Foundation, visited campus this spring to hear faculty reports on the grant proposals.

The Acorn Alcinda Foundation gift also supports student field-based research projects such as wildlife video imaging and forestry research that will investigate high-risk fire areas and communities in Virginia. “The Acorn Alcinda Foundation has been a long-time donor to the college and a partner in developing students to be productive citizens as well as advocates for the environment and its natural resources,” said Dean Winistorfer. “We appreciate the financial support of the foundation and the foundation’s personal involvement with the faculty and students of the college.”

## INTERNATIONAL CROSSINGS

### Hammett Strengthens Partnership with Nepal’s Institute of Forestry

Tom Hammett, professor of forest products marketing and coordinator for international programs for the college, helped establish the Conservation Leaders Memorial Center of Excellence (MemCoE) based at the Institute of Forestry (IOF) in Nepal. Hammett is part of the collaboration between Virginia Tech’s Office of International Research, Education, and Development, Yale University, Principia College, and Paul Smith’s College partnering with MemCoE to help strengthen the academic system of the IOF and ultimately educate Nepal’s conservation leaders of the future.

The first of five partnership objectives was to establish MemCoE, which has yielded positive preliminary results since its initiation in March 2008. So far, the partnership has funded five collaborative research teams, opened two on-campus mentoring centers, recruited 12 U.S. faculty to work in the program, reviewed procedures to ensure

the partnership’s sustainability, conducted grant-writing workshops, and established programs to improve social inclusion. Activities to help IOF faculty excel in project management, proposal writing, and research reporting skills are still on its agenda. The future will also bring new universities into the partnership and develop the capacity to sustain these MemCoE activities.

Hammett has played a critical role in the establishment of MemCoE and the partnership program. Among his many program contributions, he has led grant-writing workshops for IOF faculty members and mentored MemCoE Coordinator Abadhesh Singh during his administrative training at Virginia Tech. “Our efforts are really about trying to get faculty working together internationally and to raise the IOF’s recognition both inside and outside Nepal, as well as creating new opportunities for Virginia Tech students and faculty,” Hammett commented.



Tom Hammett (L) and IOF faculty member Bal Ram Bhutta (with camera) ride an elephant to visit research sites in the Parsa Wildlife Reserve in southern Nepal.

## Hokies Teach Geography in the Dominican Republic



Biological sciences junior James McWhorter quizzes a group of students on the continents and oceans.

As part of the fall 2009 semester abroad program, undergraduate students in adjunct geography instructor Stacy Boyer’s medical geography course taught 70 Haitian children their first geography lesson. For the service-learning component of the course, students taught basic geography for two days at Batey Munoz school in Puerto Plata on the Dominican Republic’s northern coast, one of three

grassroots schools funded by Project Esperanza (“hope” in English). Virginia Tech students Caitlin McHale and Kristen Preve established Project Esperanza in 2005 as a student organization; the two alumni have since turned it into a fully operating non-profit.

The Spanish term “batey” refers to communities of Haitian immigrants who live in settlements on or adjacent to sugar cane plantations, which are set up by companies to house Haitians employed to cut cane. Many of the Haitians who live in bateyes are without documentation and are therefore not recognized by the Dominican government. Although some were coaxed across the border with the promise of good wages and a chance at a better life, most of the batey residents live in extreme poverty without access to the most basic resources, including education.

“At the bateys, it is clearly visible that a good portion of the children are very eager to learn. I imagine it would be extremely frustrating, knowing you are capable of learning but not having the resources or opportunities to

do so,” commented Jessica Linkous, a junior majoring in biochemistry. “It was very rewarding to teach the children even the small amount that we did. The fact that they didn’t know all the continents was shocking.”

With the help of interpreters, as well as maps and globes donated by the Virginia Geographic Alliance and school supplies donated by a church in Floyd, Virginia, Boyer’s class taught the Haitian children about continents and oceans in their native Creole language. Some activities included coloring maps and flags of their country and participating in their first geography bee.

Boyer and her students were so strongly impacted by this experience that they sponsored a micro-finance project — a small seed loan — to assist women in the community with their candle-making business. Over spring break, the group returned to Batey Munoz school to establish an Internet learning center near the school that will provide income for teachers and improve the children’s education through access to technology.

### Memorial Plaque Dedicated

On April 16, 2010, a plaque was placed in front of the American elm that had been planted on campus in honor of the victims of the tragedy three years earlier. The plaque reads, “American elm (*Ulmus americana* ‘Princeton’) donated by the Virginia Urban Forest Council, planted by the Virginia Tech Urban Forestry Club in memory of April 16 victims.” Those in attendance included (L-R) John Pancake of the Virginia Tech Horticulture Club, Jen McKee, a Virginia Tech Urban Forestry Club alumna and current college staff member, and Mason Patterson of the Virginia Urban Forestry Club.



## Knuth Named Cornell Vice Provost and Dean

**Barbara Knuth** ('86 Ph.D. in fisheries and wildlife sciences) has been named vice provost and dean of the Cornell University Graduate School for a five-year term. Knuth, who joined Cornell's Department of Natural Resources in 1986, is a professor of natural resource policy and management, and associate director of the Human Dimensions Research Unit, where she oversees a research program focusing on human attitudes and behaviors related to the environment, specifically those associated with the use and management of natural resources. She also resides as senior associate dean in the College of Agriculture and Life Sciences, focusing primarily on developing faculty programs pertaining to applied social sciences, environmental sciences, and food and nutritional sciences in many of the college's departments.



**Barbara Knuth**  
(Photo courtesy of Cornell University)

"I am honored to be taking on this dual role in university leadership at such a critical time for setting the future direction of Cornell," said Knuth. "As dean, I look forward to working with the graduate faculty, students, and the university leadership to increase the visibility of the Graduate School and ensure Cornell continues to provide an excellent graduate education through our research and professional graduate degree programs and postdoc positions. As vice provost, I welcome the opportunities and challenges working with the provost, president, deans and other university leaders toward positioning our university strategically as we approach our sesquicentennial."

## Alumni Update



**Samuel Wathen** ('77 M.S. in forest biometrics) has been named interim dean of the E. Craig Wall Sr. College of Business Administration at Coastal Carolina University, where he is responsible for the day-to-day administration of the college.

Wathen, who joined the Coastal Carolina faculty in 1993, teaches statistics, decision analysis, and operations management. After graduating from Virginia Tech, Wathen was employed by Jari Forest Products and visited its project site in the Amazon River basin on two occasions. He earned a Ph.D. in operations management from the University of Minnesota and is co-author of *Statistical Techniques in Business and Economics*.



**Mitch Blair** ('01 B.S. and '04 M.S. in forestry) has joined BASF Professional Vegetation Management as a sales specialist for the Midwest region. "We value the research background that Mitch brings to us, because he's had the opportunity to work with many types of chemistries and he understands the benefits that BASF brings to the market," said Derek Miller, BASF national sales manager. Blair spent five years as a research scientist at the University of Kentucky's Department of Plant and Soil Sciences and has worked for an aerial application company as well as a distributor.

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**Hilary Camblos** ('05 B.S. in wildlife science) was accepted to attend Yale Divinity School as well as Berkeley Divinity School, the Episcopal seminary associated with Yale. After graduating from Virginia Tech, Camblos participated in Associate Professor Jim Berkson's first annual Opportunities in Marine Resources Population Dynamics Summer Experience through the National Marines Fisheries Service Research, Training, and Recruitment Unit. Back in the states after a three-year hiatus in France, Camblos is currently on track towards ordained ministry via a St. Luke's Chapel merit scholarship. She is sponsored by Christ Episcopal Church in Blacksburg and the Episcopal Diocese of Southwestern Virginia.

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**Alex Miller** ('06 B.S. in fisheries science and environmental policy and planning, and '09 M.S. in environmental economics) received the International Association of Aquaculture Economics and Management 2010 M.S. Thesis Award for his thesis, "An economic evaluation of the nutrient assimilation potential for commercial aquaculture in the Chesapeake Bay." The award recognizes research excellence and contribution to the profession by an M.S. graduate in the area of aquaculture economics. Miller's research, which was conducted with Associate Professor Kurt Stephenson in the Department of Agriculture and Applied Economics, indicates that under reasonable conditions, oyster aquaculture can remove nutrients from bay waters at a unit cost comparable to other nutrient-removal technologies. Miller, who spent several summers in the Arctic and Subarctic researching seaweed species distribution with Walter Adey of the Smithsonian Museum of Natural History, is currently the staff economist for the Gulf States Marine Fisheries Commission in Ocean Springs, Miss.

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**Jeff Trollinger** (M.S. '87 in forestry and wildlife) was named the Virginia Department of Game and Inland Fisheries 2009 Wildlife Biologist of the Year for his outstanding service in managing the completion of the Virginia Birding and Wildlife Trail, the nation's first statewide wildlife viewing trail. Trollinger, who has been with the department since 1999, became its first Watchable Wildlife Program manager in 2001. He also received the 2010 Henry S. Mosby Outstanding Wildlife Professional Award from the Virginia Chapter of The Wildlife Society, named in honor of the renown researcher who served on the Virginia Tech faculty for over two decades and helped found The Wildlife Society.

Trollinger recently received his graduate certificate in Wildlife Recreation and Nature Tourism from the University of Wisconsin-River Falls. He also serves on two working groups in Southwest Virginia formed by Rep. Rick Boucher — the Rocky Knob Advisory Committee (now incorporated as Blue Ridge Heritage, Inc.) and the High Knob Observation Enhancement Group to replace the High Knob Observation tower that burned down near Norton — and on the Blue Ridge Parkway 75th Anniversary Board.

Trollinger lives in Gum Spring, Va., with his cat and four dogs and spends a great deal of his time working on projects at St. Michael the Archangel Catholic Church in Glen Allen.

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## He Receives Governor's Award



**Helen He (C)** receives the Governor's Volunteer Service Award from Israel "Izzy" Patoka (L), director of the Governor's Office of Community Initiatives and Interagency Relations, and Anthony Brown, lieutenant governor of Maryland. (Photo by Mao-Fen Yu, World Journal)

**Helen He** ('04 Master of Natural Resources), administrative and program assistant for the Natural Resources programs in the National Capital Region, was awarded the annual Maryland Governor's Volunteer Service Award for her dedication and work with the Chinese community. "Helen's commitment to the Chinese community has been tireless. She is a true go-to person, a valuable bridge for our outreach work," said Lily Qi, liaison for Asian and Middle Eastern Americans, Montgomery County Executive's Office of Community Partnerships, who nominated He for the award. "She has supported and promoted many county projects and events, and has also been very active in our Census 2010 efforts to help ensure that everyone in Montgomery County is counted," she added. He received the award, given to groups or individuals who have demonstrated commitment and dedication to community-based organizations, churches, and schools, at a National Volunteer Week event at the senate office building in Annapolis.

## Alumni Events Calendar

### SEPTEMBER 12-16, 2010

American Fisheries Society Annual Meeting  
Westin Hotel and David L. Lawrence Convention Center,  
Pittsburgh, Pa.  
[www.fisheries.org/afs10](http://www.fisheries.org/afs10)

### SEPTEMBER 20-21, 2010

Virginia GIS Annual Conference  
Cultural Arts Center at Glen Allen, Glen Allen, Va.  
[www.virginiagis.org](http://www.virginiagis.org)

### SEPTEMBER 29 - OCTOBER 2, 2010

North American Association  
for Environmental Education Annual Conference  
Buffalo Niagara Convention Center, Buffalo-Niagara, N.Y.  
[www.naaee.org/conference](http://www.naaee.org/conference)

### OCTOBER 2-6, 2010

The Wildlife Society 17th Annual Conference  
Snowbird Conference Center, Snowbird, Utah  
[www.wildlifesociety.org](http://www.wildlifesociety.org)

### OCTOBER 17-20, 2010

Southeastern Association of Fish  
and Wildlife Agencies Annual Conference  
Beau Rivage Resort and Casino, Biloxi, Miss.  
[www.seafwa.org/annual\\_conference.php](http://www.seafwa.org/annual_conference.php)

### OCTOBER 27-31, 2010

Society of American Foresters National Convention  
Albuquerque Convention Center, Albuquerque, N.M.  
[www.safnet.org/natcon10/index.cfm](http://www.safnet.org/natcon10/index.cfm)

### THURSDAY, NOVEMBER 4, 2010

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

## Do You Want To Learn More?

Alumni, are you looking for continuing education, professional development, or online learning opportunities? Visit these websites for more information:

The Natural Resources Distance Learning Consortium [www.nrdlc.org](http://www.nrdlc.org)

VTalumnNet for Virginia Tech Alumni [alumni.iddl.vt.edu](http://alumni.iddl.vt.edu)

College of Natural Resources and Environment programs in the National Capital Region [natrespro.nvgc.vt.edu](http://natrespro.nvgc.vt.edu)

Virginia Tech Extended Campus centers [www.vt.edu/where\\_we\\_are/extended.html](http://www.vt.edu/where_we_are/extended.html)

Virginia Forest Landowner Education [www.cnre.vt.edu/forestupdate](http://www.cnre.vt.edu/forestupdate)

To the surprise of many, the agricultural fields surrounding the Virginia Tech campus support more than simply crops and livestock. Scattered throughout the rolling fields to the west of Route 460 are valuable and unique wetlands known as calcareous fens. Like other wetlands located near heavily used agricultural and developed lands, these areas are degraded by nutrient loading from agricultural and urban runoff. Virginia Tech took its first step to protect these wetlands in 2004 by erecting fences to exclude cattle from the identified wetlands and followed up with an extensive tree planting project in 2005.

Last fall, a core group of eight students in a new service learning course focused on wetland restoration took it upon themselves to continue the wetland restoration efforts and learn about freshwater wetlands. Jeff Feaga, a doctoral candidate and research assistant in the Department of Fisheries and Wildlife Sciences who taught the course, recognized an opportunity to combine academic learning, student engagement, and community service.

In the original tree planting effort, Virginia Tech faculty and volunteers planted thousands of saplings throughout the extensive wetland system with species chosen for their ability to survive in wet areas. Each tree was secured with a stake and a bio-degradable tube to provide protection in the first few years of growth while allowing sunlight to pass through.

According to Feaga, the goal of his course is “to combine student engagement and service within the context of wetland restoration and familiarize students with the unique conditions that define wetland ecosystems, and teach students how to recognize the attributes of degraded wetland systems.” With his encouragement, the students decided to survey the trees planted in the wetlands to find out whether the effort had been effective. They worked diligently during class and on evenings and weekends to record data on over 900 trees at the site, evaluating eight wetland sections and mapping the fenced perimeters with GPS. Working in pairs of two, students carefully inspected each tree and recorded its status and species.

The students determined whether each tree was still alive, if it was large enough to survive without a tree tube, and if there was any damage that could be quickly remediated. Tree tubes are beneficial for several years of growth; however, the students found that in a few cases, the tubes were doing more harm than good. Some tubes were lying on the ground because the stakes had been broken. Others had been used as nesting sites for small rodents, with the trees showing signs of damage from chewing and moisture-related rot.

“We wanted to look at the status of tree survival for research purposes and hopefully improve survival of the trees we were able to assess,” Feaga noted. “A good study in the future would be to look at the ultimate survival of trees in the areas we assessed versus unassessed areas.”

Approximately 280 of the 939 trees checked had survived and were expected to reach maturity. Despite the low survival rate, Feaga and his students remained optimistic. Young trees often have high mortality rates, particularly in wetlands that have no existing tree cover. The 280 live trees are considered a great success and will benefit the wetlands for years to come.

In addition to the wetland tree assessment, students made trips to other wetland restoration projects in the region. Wildlife science majors Jacob McPherson and Chad Stachowiak developed a herptile (reptile and amphibian) sampling protocol for use on a restored wetland in Craig County, Va. “The herptile sampling was carried out to survey the diversity of reptile and amphibian species that were dispersing to and using a restored wetland,” explained Feaga.

As a result of their effort, “The students learned the importance of promoting natural resource education and awareness on the Virginia Tech campus, particularly as the university plans to grow in both size and demographics of the enrolled students,” Feaga remarked.

*This article was written by Jeff Feaga and his eight students: Corey Dunn, Mark Hepner, Bennie Johnson, Rachael Johnson, Jacob McPherson, Brittany Schultz, Chad Stachowiak, and Megan Walker.*

*The group (photo right) gathers after a morning of removing tree tubes. They were often joined by volunteers from the Virginia Tech Chapter of The Wildlife Society and other organizations.*



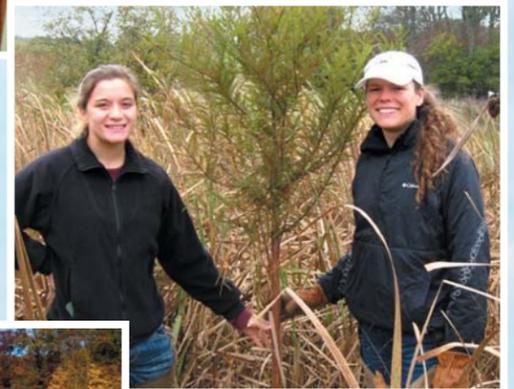
*Corey Dunn (L) and Chad Stachowiak work to stabilize a sawtooth oak recently free from its tree tube.*



*Bark damage and moisture related rot are evident on the base of this bald cypress.*



*Although cute, mice are one of the main reasons that tree tubes have to be removed. They make their home inside the tubes and, in the process, chew on tree bark and bring in nest materials that facilitate moisture rot.*



*Megan Walker (L) and volunteer Catherine Clark with a bald cypress, a species that grows in the most saturated areas of the wetlands.*



*Jeff Feaga takes a break on a pile of tree tubes that have been removed from young trees.*



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**Yes, Hosner is still running!**

Alumni often ask if John Hosner is still running. In fact, the retired head of the college's forerunner, the School of Forestry and Wildlife Resources, beat the world record for the 85-year-old bracket of the 1-mile run during the Southeastern Regional Masters Championship in Track and Field in June. He ran the mile in 8 minutes, 22 seconds — breaking the old record of 9 minutes and 18 seconds set in 2005, despite the 96-degree heat. Hosner has set three world records in his 35 years of masters running!