



Informed Decision Making in Municipal Watersheds: *Forestry Initiative Recognized*

A Western Carolina University faculty member was honored Tuesday (Dec. 4) for assistance he has provided to Western North Carolina municipal leaders as they deliberated the long-term management of their towns' watersheds.

Peter Bates, associate professor of natural resource conservation and management, and his students conducted inventories of forest resources in WNC watersheds to help officials determine if forest management activities within the watersheds could be ecologically and economically viable.

Bates received the recognition at a ceremony celebrating the permanent conservation of the town of Sylva's 1,088-acre Fisher Creek watershed, also known as Pinnacle Park. The gathering was attended by state legislators and officials representing Sylva, the Southwestern Commission regional council of governments, the Land Trust for the Little Tennessee and the N.C. Clean Water Management Trust Fund.

Acquired by Sylva in the 1920s and no longer used as the town's source of water, the Fisher Creek watershed is being preserved through a conservation easement conveyed by the town to the state. In return, the town will receive a \$3.5 mil-

lion grant from the Clean Water Management Trust Fund.

Bates, with the assistance of his students, has conducted timber inventories in the Fisher Creek watershed, in Bryson City's Lands Creek watershed, which also is no longer used as a water source, and in Waynesville's still-active Allen's Creek watershed. The combined acreage in those watersheds totals about 10,000 acres.

Paul Carlson, executive director of the Land Trust for the Little Tennessee, said Bates also has been assisting local private landowners who haven't known where to turn for environmentally sensitive forest management advice. Carlson said Bates "represents

the best of the university's connection to local communities – helping the communities understand better their resources and the conservation of them."

Bill Gibson, executive director of the Southwestern Commission, said the commission's board and the board representing the Land Trust for the Little Tennessee have approved a letter commending Bates' work that will be sent to WCU Chancellor John W. Bardo.

Bates told the officials at the Sylva ceremony that he and his students "are proud to have an opportunity to partner with the municipalities and others who have assumed the complex, but vitally important, task of protecting these properties in perpetuity." Bates said his goal is "to provide them with sound and unbiased information to help in that process."

Congratulating Bates are (from left) Paul Carlson, executive director of the Land Trust for the Little Tennessee; Wendy Ford, dean of WCU's College of Arts and Sciences; and Bill Gibson, executive director of the Southwestern Commission regional council of governments.



Studying Abroad Brings New Adventures *by David Huffstetler*



Volcan Arenal (volcano) in Costa Rica

Our local mountains create an excellent playground for NRCM majors, but for volcanoes and monkeys one must be prepared to travel. These were just a few things I was able to see while studying abroad in Costa Rica. I also saw great beaches, 'flew' by zip line above a forest canopy, and experienced some of the most breathtaking rafting in the world.

Many programs are available that allow you to learn a new language or subject in another country. I

traveled with a program called Amerispan

(www.amerispan.com), which offered me four classes, a host family to stay with, and several excursions — all for about \$5,600 (plus airfare); only about \$800 more than WCU's tuition. Western Carolina's Department of International Programs and Services (www.wcu.edu/ips) also offers many programs, some of which allow you to travel as an exchange student for the same tuition you pay at WCU. A number of 12 week language classes and volunteer opportunities (that can be done year round) also exist for under two thousand dollars.

International universities offer credits in NRCM-related fields such as agriculture, biology, and geology, as well as,

liberal studies courses. Several of these courses are also taught in English, the language of globalization. The best thing to do is start asking questions, do your research, and make up your mind early to make your trip of a lifetime come true. For more advice on fleeing the country, email David Huffstetler, mrdhuffstetler@gmail.com

David Huffstetler is a NRCM Senior (Soil & Water Conservation) from Forsyth County.



A spider monkey at Lake Nicaragua in Costa Rica

Nature Conservancy Trail Clean-Up: Wil Whitfield

On a Saturday in September, members of the NRM-150 class and the NRC Club assembled to clean up a trail that starts from the Water Rock Knob parking lot on the Blue Ridge Parkway, past Yellow Face and towards Black Rock. A group of twelve NRCM students, faculty and friends armed with loping shears, rakes, and various other hand implements started clearing the dense underbrush that choked the trail.

The objective was to reach Black Rock, about two miles from the trailhead, by twelve o'clock. The first half-mile went smoothly until a hornet's nest was uncovered. A new path was cut around the hazard and work continued. The next mile was completely covered in dense underbrush, which took time to clear and

slowed the pace to a crawl. Twelve o'clock came, stopping us at Skidder Gap, about a quarter mile from Black Rock. Tired and sweaty, we retreated to the parking lot, eager to feast on the waiting cold cuts and pasta salad. Plans to finish cleanup from Skitter Gap to Black Rock are already underway.

Participants included Andrew Lawson, Chris Miller, Cory Sutton, Dakota Rogers, Jenny Mozeley, Josie Prince, Katie Godwin, Mason Philippi, Mike Vang, Robbie Kreza, Tyler Gray, Will Whitfield, Pete Bates, Kris Bates, Ron Davis, Joni Storie, Chris Storie (photographer) and Jay Coward.

Wil Whitfield is a NRCM Senior (Forest Resources) from Surry County, NC.



NRC Club and NRM150 Class (September 2007)

Sampling Salamanders in Balsam Mountain Preserve Josh Combs

NRCM professor Ron Davis and five of his students visited the Balsam Mountain Preserve on Saturday October 6th, 2007. The students assisted the Preserve Head Naturalist, Blair Ogburn, in maintaining cover-board traps in the creek beds and other wet areas. These coverboards are designed to 'lure' salamanders and various other amphibians into the dark, moist and cold underside after a hard rain. These traps are made of simple plywood (1ft x 2ft, 2ft x 3 ft) or roofing tin (2 ft x 2ft) and covered with litter. The students were all interested in learning

about salamanders, millipedes, earthworms and other creepy crawlies. They compared habitats and learned how to identify organisms. Ron also demonstrated the radio-antenna tracking of a timber rattlesnake that he had previously tagged. It was an enjoyable and educational experience for the students. Blair invited the students back to Balsam Mountain Preserve for future visits.

Josh Combs is a NRCM Junior (Forest Resources) from Wayne County, NC.



Blair Ogburn and students inspecting a cover board for evidence of salamanders.

NRCM Alumnus Evaluating Habitat Connectivity

Jennifer Extine, who earned a BS in NRM program is now a graduate student in Biology at WCU. She is working with NRCM Professors Laura DeWald and Ron Davis on a research project designed to determine if golf courses can provide connectivity between fragmented landscapes. Jenny used presence of interior-dependent forest bird species as an indicator of interior habitat on golf courses. Using the bird census data and GIS, Jenny will be comparing habitat patches and vegetation characteristics of golf courses where she has found interior-forest birds to those golf courses where the interior-forest birds were absent. The identification of



Evaluating habitat connectivity of golf courses.

golf course habitat patch attributes that connect landscapes will enable landscape architects to incorporate these characteristics into their golf course designs. Improved connectivity using reserved landscapes such as golf courses will facilitate movement of animals across the increasingly developed landscape of western North Carolina. Conservation of a variety of species will be improved by providing a mechanism to circumvent the increased fragmentation that accompanies development.

8 Students Attend Forestry Convention in Oregon

by Erin Beck & Weston Van Denabeele

The Society of American Forester's 2007 National Convention was held in Portland, Oregon. A group of eight forestry students attended to meet other students and forestry professionals from around the country, and to present the results of three research projects. The students included: Erin Beck, Weston VanDenabeele, Brad Elliott, Jenny Mozeley, Kevin Griffin, Mason Phillippi, Chris Miller, and John Austin.

Students made poster presentations of their research related to deer browse effects on forest regeneration in Western North Carolina, the effectiveness of crop tree release treatments in coppice stands, and changes in woody debris following harvesting. Students were asked to

summarize their posters for interested participants during the convention. Students attended several technical sessions on forestry related topics, and field trips were offered at the end of the week that toured the coastal Douglas-fir forests,



Chris Miller describing his poster

Cascade Range volcanoes, wood processing facilities, and other components of the Pacific Northwest.

Erin is a NRCM Junior (Forest Resources) from Buncombe County, NC. Weston is a NRCM Senior (Forest Resources) from Union County, NC.



The crater at Mt. St. Helens

Student Awards for GIS Day @ WCU: Staci Mellon

The Geosciences and Natural Resources Department celebrated its 2nd Annual GIS Day at Hunter Library on November 14th, 2007. Many of Western's faculty, staff, and students displayed their GIS and remote sensing projects by holding workshops and special presentations throughout the day. The student presentations held on GIS Day included "Mapping River Cane", "Managing Black Bear Habitat", "Timber Rattler Habitat", "Stream Flow Monitoring", "Mapping Tree Species", and "Mount St. Helens". Congratulations to all. The winners of the Best Student Presentation went to Carey Burda and Jenny McKibben and second place went to Andrew Larrimore and Charlie How-

ell. First place for the Best Student Poster contest went to David Taunton and second place went to Eric Dodson.

Faculty and staff workshops conducted on GIS Day included "Hydrology and DEM's", "Introduction to ArcGIS", "Mapping Census Data" and "GIS and Wildlife Habitats". Blair Bishop from Haywood Community College also joined the celebration by conducting the "GPS Data Collection" workshop. If you'd like to view the PowerPoint slides that accompanied each presentation, please visit <http://paws.wcu.edu/JBugden/GISDAY2007.html>.

Eric Dodson and David Taunton awards for poster presentations

2007's GIS Day was a great success with over sixty presenters, exhibitors, judges, and sponsors participating. We're looking to continue this momentum with the 2008 event by opening student presentations to all WCU and Haywood Community College students.

Staci Mellon is a NRCM Junior (Landscape Analysis) from Frederick, MD.



Habitat for the Endangered Southern Bog Turtle

In November 2007, the NRM 330 (Wildlife Management) class traveled to the Pisgah National Forest for an afternoon of volunteering with the NC Wildlife Resources Commission. Under the supervision of NCWRC biologist Gabrielle Graeter, the afternoon was spent helping to enhance habitat for the endangered southern bog turtle.



Poaching combined with habitat loss from land use and forest succession have dramatically reduced populations and students spent the afternoon clearing away brush to prevent the small bog from reverting back to forest.

James Wallenwender, Mike Vang, Allen Shearl, Gabrielle Graeter (of the NCWRC), Josh Combs, Jessie Chittick, Chris Miller

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Upcoming Events

Monday March 10th—Registration is open for **Summer 2008** courses. Courses offered from Geosciences & Natural Resources include Geog440: Regional Geography of Australia (May Mini-Mester); Geol140: Investigations in Environmental Geology (May Mini-Mester); and Geog103: Cultural Geography (Summer sessions).

Monday March 31st—Geog300 Weather & Climate class is going to Coweeta Hydrologic Laboratories (CWL) in Otto, NC. CWL collects weather data from sample sites throughout the watershed and corre-

lates biophysical variables to determine best management strategies.

April 1st is Advising Day—NRCM is hosting a **pizza party and advising session in Stillwell 253 starting at noon**. Stop by for pizza, a brief presentation on NRCM course offerings for the next two years and a discussion with your NRCM advisor about **Fall2008** course selections. Registration opens April 2nd (seniors), April 4th (juniors), April 7th (sophomores) to April 9th (freshmen).

Tuesday April 22nd is Earth Day. Popular activities include the Tuck clean up.

Friday April 25th—A farewell to Larry 'Doc' Kolenbrander who will be retiring in June 2008. A reception will be held Friday afternoon in the Stillwell atrium with optional informal tours available of the newly renovated building. In addition, if students and alumni indicate interest, there will be a camping trip planned for Saturday at the Whitmire farm. More information to follow.

Please feel free to share the newsletter with other alumni or students of NRCM. To ensure receiving future information from NRCM, please let us know your current email and mailing address.

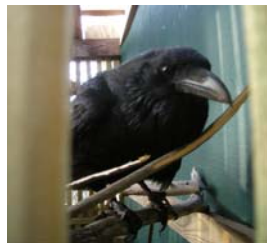
Conservation Internship at BMP by Emily Willard

This semester I've had the opportunity to do a Conservation Internship at the Balsam Mountain Preserve Nature Center. I mainly work with the captive birds but also do whatever other odd jobs come up, such as cage cleaning or feeding the aquarium trout.

Michael Skinner (Executive Director of the Balsam Mountain Trust) taught me about avian taxidermy using a barred owl, and I occasionally feed the snakes, and glue and organize herbarium specimens. I've been feeding the raptors and the raven (my personal favorite!) for a few weeks now, and hope to eventually handle them. I will start with smaller birds such as the kestrel, and work my way up.

It will be my responsibility to care for them when the staff is out of town on

weekends. I am thoroughly enjoying the low-key atmosphere, and learning all I can from the staff.



Personal favorite Poe, the raven

'spending time with animals is the highlight of my week'

Spending time with the animals is the highlight of my week!

Emily is a NRCM Senior (Forest Resources) from Charlotte, NC.



Feeding Jaime (red-tailed hawk)