



Popular New Guide about Nonnative Invasive Plants Reprinted

by Zoë Hoyle

Due to brisk and continuing public demand, the Southern Research Station (SRS) has reprinted a new guide for identifying and controlling nonnative invasive plants in Southern forests.



Jim Miller's book on nonnative and invasive plants

Written by **Jim Miller**, research ecologist at the SRS Forest Vegetation Management unit in Auburn, AL, *Nonnative Invasive Plants of Southern Forests* provides an important new resource for individuals and agencies trying to control the spread of these important "weeds." The guide was originally published in June 2003; the 7,500 copies were distributed in under three months.

Nonnative invasive plants infest millions of acres of public and private forestland in the Southeastern U.S., destroying native plant communities and limiting diversity. Largely unnoticed by the general public, these plants are steadily moving deeper into the forests along corridors formed by roads, trails, streams, and rivers. Integrated pest management programs that use safe and effective control treatments are

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Wildfire Study—a Model for Community Disaster Planning

by Paul K. Mueller

When wildfires rage through western states, tornadoes ravage the South, and hurricanes batter the Atlantic seaboard, some affected communities respond effectively, but some are overwhelmed. What makes the difference? Forestry researchers at North Carolina State University, working with communities in New Mexico threatened by wildfires, have shown that customized responses – tailored to communities' unique situations – not only alleviate risk but also speed recovery. The key factor, according to **Dr. Toddi Steelman**, assistant professor of forestry at NC State, is a keen focus on conditions the communities can control.

"The big lesson that comes out of our research," she said, "is that communities need to devise their own responses to environmental threats. While we studied areas in New Mexico, the results apply to communities here in North Carolina and anywhere people face hurricanes, wildfires, floods and other natural disasters."

The forestry team's work, funded by the Southern Research Station, began in June 2002 and should be completed by early 2004. Steelman said her team's research shows how communities can learn by studying the experiences of others.

For example, some communities are using zoning to prevent building in hazardous areas. "Regulations can be a useful tool, especially for discouraging building in the path of hurricanes or wildfires," she said. "But the citizens of some communities won't support zoning. So we show them the alternatives – what has and hasn't worked elsewhere – and let the local populace decide what will work best for them."

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From the Director's Desk. . .

The Forest Inventory and Analysis (FIA) program has been undergoing a dramatic transformation, both in process and in organization, over the past several years. SRS-FIA folks have been at the forefront of leading the change.

As with any resource in modern times, there is a great demand for current information about our forests and associated resources. For the past 70-plus years the FIA program has had the responsibility for keeping "current" inventories of the forest lands across the nation. From the very beginning of the FIA program, work was accomplished in most states across the South (this was not necessarily the case in all regions of the country).

Until only recently, inventories were done in a particular state, or sub-state area, then crews would move on to the next state or area to be inventoried. In this manner, each state would have crews collecting data on all plots, on a 10-year cycle, or whatever cycle could be maintained by the budget. These inventories were termed "periodic." While this was an effective way of operating for a long time, during the early 1990's, this method of operation was perceived by many to be ineffective as budgets were declining and the time between successive inventories became longer and longer.

A pilot study for annual inventories was initiated in the early 1990s in the North Central region, with assistance from scientists at the Rocky Mountain Research Station. Annual inventories are distinct from periodic ones in that some work is done in a state every year, on plots that are spread out across the entire state (not just a portion of it).

The idea of annual inventories being studied in the North Central region was discussed by collaborators with the FIA units in the South, beginning in 1995. Initially, a pilot study was planned for Georgia, which was somewhat different in the details than what was being done in the North Central region. However, after discussions with State Foresters, the idea of collaboration with them was formed. Then, instead of a pilot study, actual implementation of annual inventories was started in 1997.

In the absence of additional funding, the first states involved in the collaboration underwrote most of the initial costs. After funding increases began to come through the Congress, the Federal portion of the cost was increased. The idea of annual inventories was seen as such a timely issue for the FIA program that a law was passed, mandating the new way of conducting the FIA program. This was accomplished by passage of the Agricultural Research, Extension, and Education Reform Act of 1998.

As part of the requirements of this act, a strategic plan was developed, laying out the resources needed to fully implement the requirements of the act. SRS, as well as other stations throughout the nation are now implementing new states in the annual inventory process as new funds are made available by Congress. By the time this act was passed, mid-way through 1998, the final periodic inventory for the South had been underway in North Carolina for about 6 months; field work was completed in December 2002.

About the same time FIA unit personnel were dealing with implementing annual inventories, the former two units from the former two forest experiment stations were being consolidated, with an additional state (Kentucky) being added to their responsibility. While this may have been an effective time for the former two units to reorganize to reinvent their program, all of the changes added to the number of issues employees had to deal with. While collecting the field data, in collaboration with State forestry agencies, was a first priority in implementing a new way of conducting business, other needs would soon follow.

Chief among these were computer software systems that would handle the massive amounts of data that would soon be transmitted by Federal field crews and State collaborators. FIA personnel have been very busy working on delivering data to customers; their delivery systems are nearing completion. Catching up with data delivery needs and maintaining a routine delivery schedule will be of great advantage to the unit's customers and clients and (I'm sure) great relief to unit

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personnel who have been working so hard to accomplish the new reality of annual inventories for the South. In the midst of working hard to reinvent the FIA process, from data collection to data delivery, the unit opened a new headquarters in Knoxville, Tennessee in early 2002. This facility puts a major SRS presence near one of the large land-grant universities, the University of Tennessee. The unit has already established close collaboration with the institution.

In addition to Knoxville, the FIA unit still has a major presence in both Asheville, NC and Starkville, MS, the locations of the former, separate units before consolidation. In terms of implementing annual inventories, only two states remain in the South—Mississippi and Oklahoma. Annual inventories in these states will be implemented as soon as the funds are received from Congress.




Glenn Austin Snow passed away on August 5, 2003, after a long fight with cancer. He is survived by his wife of 49 years **Dolores**, his children **Alan Mark, Albert Lee, Carroll Wayne** and **Barbara Frances**, and seven grandchildren.

He was born in Carrizozo, New Mexico in 1930. He attended primary and secondary school in Carrizozo, and later received a Bachelor of Science degree in Agricultural Biology from New Mexico State University. He received a Master of Science degree in plant pathology from Colorado State University and a PhD degree in plant pathology from North Carolina State University. He served in Korea as a first lieutenant in the 24th Infantry Division of the United States Army.

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The purpose of New Century of Service is to engage, encourage, and acknowledge Forest Service employees, retirees and volunteers as they address the changing demands on the nation's

forests and grasslands and contribute to the vitality of the Forest Service. New Century of Service is about service, excellence, relationships, and innovation.

New Century of Service looks to the future of the Forest Service while learning from and honoring the past:

- Supporting the Agency's natural resource goals in the 21st century through public service and stewardship;
- Supporting the people who are, have been, and will be public stewards of these lands and services;
- Highlighting and sharing organizational excellence, change, and our contribution to the nation.
- Providing leadership for 100th anniversary celebrations, reflecting our history, culture, and traditions.

Reminder:

When submitting photos for the Southern Aspect, please send black-and-white print photographs, if possible. A second choice is to send in good quality 35mm slides.

If you must submit digital photos, your digital camera must have an image quality of 2.0 megapixels or better on the high quality setting. The final size of the digital photo should be 1024X768 or larger. Images of lower quality than 300dpi cannot be used. The editorial staff will contact those who submit articles with digital photos that do not meet the minimum quality level, so that you may have time to resubmit either black-and-white photos or 35mm slides.

Southern Aspect

includes events and employee news from the research laboratories and administrative staffs of the Southern Research Station, which serves Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, and Virginia. This newsletter is published by the USDA Forest Service, Southern Research Station, P.O. Box 2680, 200 WT Weaver Boulevard, Asheville, NC 28802.

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To submit newsworthy stories for future issues, please send complete articles hard copy or on diskette (MS Word or RTF) to Shane Coates at the above address, call (828) 259-0509, or email to rcoates@fs.fed.us. Photographs are encouraged, preferably black and white.

Nonnative Invasive Plants Reprinted

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photo by P. Breen



Fruit of the Russian Olive tree.

urgently needed to stem the spread and reclaim forest habitat.

"Effectively controlling nonnative invasive plants relies on the constant surveillance of the road and stream sides they spread along," said Miller. "Eradicating these plants is much easier when they

first appear, so it is important to be able to identify them in both growing and dormant seasons." Miller's book covers 33 plant groups, with over 40 species highlighted. The identification section of the guide includes a complete description of each plant, its ecology, resemblances to other plants, history, and use. Detailed photographs show how the plant looks in different seasons of the year, including flowers, fruits, stems, and overall shape.

Whether they were introduced accidentally or intentionally, these plants have been transported from an environment where they are kept in check by insects or disease. Once here, they compete unfairly with the native vegetation. "While most people are aware of kudzu, oriental bittersweet, and privet, many do not realize the problems that ornamental plants such as periwinkle, burning bush, and English ivy cause," said Miller. "Most nonnative invasive plants are perennials and form extensive roots and runners. They take over quickly and can be difficult to remove."

Miller's book offers both general and specific information about controlling the spread of nonnative invasive plants. The guide provides illustrated directions for applying herbicides to target nonnatives while avoiding damage to desirable plants, as well as suggestions for burning, hand pulling, and mechanical treatments. Specific prescriptions for the nonnative invasive plants highlighted in the guide follow the general guidelines.

Miller stresses that actual eradication is just one phase of an integrated approach

that involves continuing surveillance and rehabilitation. "It is important to realize that eradicating infestations of invasive plants usually takes several years of treatment and many more of surveillance," said Miller. "The rehabilitation phase is extremely important.

To protect and stabilize the soil, fast-growing native plants that can outcompete and outlast any surviving nonnative plants must be planted soon after eradication."

The 50,000-copy reprint of *Nonnative Invasive Plants of Southern* was financed by the Washington Office R&D staff directed by **Robert Lewis**, with additional support from Forest Health Protection in Asheville

through **Bill Carothers**, and from the office of **Mike Lelmini**, Forest Service national invasive species coordinator.

Acknowledgements also go to **Erwin Chambliss**, lead forestry technician at the Auburn unit, for his substantial technical support and collaboration;

photo by C. Bryson



Fruit of the Tropical Soda Apple.

Carol Ferguson and **Louise Wilde** and others from the SRS Communications Office in Asheville, NC, for editing and design; to **Roger Best** and the SCSEP employees in Auburn (**Marie Earnest**, **Betty Maxey** and **Henrietta Monagan**) who helped distribute the guides from Auburn; and to **Pearley Simmons** and **Claire Payne** for distributions from the Asheville office.

For more information: Jim Miller at (334-826-8700) or jmiller01@fs.fed.us *Nonnative Invasive Plants of the Southern Forests* (GTR SRS-62) is available online in pdf format at http://www.srs.fs.usda.gov/pubs/gtr/gtr_srs062/. To request a printed copy, call 828-257-4830, or email pubrequest@srs.fs.usda.gov and ask for GTR-SRS-62. Copies can also be requested by mail from: Southern Research Station Publications; 200 W.T. Weaver Blvd. P.O. Box 2680; Asheville, NC 28802.

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Wildfire Study

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Some conditions – wind, weather, humidity, temperature, rainfall or drought – obviously can't be controlled, Steelman said, but the southwestern communities now focus on conditions they can control. In the New Mexico communities of Silver City, Ruidoso, Santa Fe, and Red River, they work harder on fire prevention and suppression; rehabilitate and restore fire-adapted ecosystems; reduce use of hazardous fuels; and emphasize community cooperation.

"They're doing what their resources and circumstances allow," said Steelman, "such as thinning forests, conducting controlled burns, restoring forests where needed, creating defensible space around their homes and communities, and educating the public about wildfire prevention."

Federal and state programs contribute money and expertise to local efforts, but broad, generalized plans don't always account for the conditions a particular community might face. "In New Mexico," said Steelman, "a small town like Red River is very different from Santa Fe, a city of 70,000. You can't create a generalized plan that works in both places. The culture, geography, population and vegetation are different and ultimately affect how a plan is implemented on the ground."

In North Carolina, where much of the state faces threats other than wildfires, the NC State foresters believe their research nevertheless points the way to effective community planning for the most likely natural disasters – hurricanes, floods and drought. "We've shown there is no cookie-cutter approach," said Steelman. "Communities respond very differently to their threats and can be equally effective with different responses."

We hope our research promotes a model that allows communities to learn about diverse approaches, so others can choose from this rich palate of options." **Paige Grant**, executive director of the Santa Fe Watershed Association, a non-profit group, saw the benefits of the NC State research first-hand. "The bad news is that there's no benevolent government program or fairy godmother that can take care of everything, and let us go back to our life before we started dealing with the wildfire issue. The good news is our pride in putting

together a solution that fits the problem in our particular place on the planet."

Wildfires in the West and Southwest were very much in the news this summer, and soon cities and towns of North Carolina and the mid-Atlantic coast are bracing for the season's hurricanes. If the NC State foresters are successful in applying the lessons they learned in New Mexico to the Tar Heel state, many of those communities will be better prepared for both the onset and aftermath of Nature's inevitable surprises. This is one example of the many fire related research projects funded by the National Fire Plan that the Disturbance Economics Research Team (part of SRS-4851) is coordinating.

SRS Scientists Produce 2003 Suppression Cost Forecasts

Economics of Forest Protection and Management (SRS-4851) scientists **Jeff Prestemon** and **Karen Abt** are collaborating with Rocky Mountain Research Station (RMRS-4802) scientists **Krista Gebert** and **Greg Jones** and Scripps Institution's **Tony Westerling** to produce models for forecasting the total Forest Service suppression costs early in the year. Karen Abt and Jeff Prestemon are members of a team investigating the economics of wildfire in the United States. Krista Gebert and Greg Jones have provided monthly suppression costs for the Forest Service's Fire and Aviation Management for several years, on short-term, monthly basis. Tony Westerling, along with collaborators at Scripps, **Timothy Barnett** and **Alexander Gershunov**, and the U.S. Geological Survey's **Daniel Cayan**, have collaborated with SRS-4851 under National Fire Plan-funded agreements since 2001, producing models to forecast wildfire area at varying spatial resolutions for the western States. The collaborative model combined the suppression cost models of Gebert and Jones, area forecast models for Forest Service Regions 8-10 from Gebert and Jones, and the area forecast models for Forest Service Regions 1-6 of Westerling, Gershunov and Cayan. The forecast for FY 2003 Forest Service total (all Regions) wildfire suppression costs was pegged at \$759 million, with a 95 percent confidence band of between \$509 million and \$1,309 million.

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Article deadline for next issue: November 14, 2003

SRS Scientists meet in Mexico

by Ron Schmidting

The Forest Genetic Resources Working Group (FGRWG) and the Tropical Silviculture Working Group met in Xalapa, Vera Cruz, and Mexico 3-9 November of 2002. SRS scientists **Dana Nelson** and **Ron Schmidting** from the Southern Institute of Forest Genetics (SRS-4153) and **Margaret DeVall** from the Center for Bottomland Hardwoods Research (SRS-4155) met with Canadian, Mexican, and American colleagues.

The group presented a seminar on forest genetics to students and forest professionals at the Universidad Veracruzana. The visit included a field trip to observe plantings of

The FGRWG was established by NAFC in 1961. The mission of the group is to encourage and promote conservation of all forest genetic resources. Genetic resources are threatened by many causes, most traceable to the demands of a burgeoning human population. Without careful conservation, losses of genetic resources could occur at a time when they are most needed.

Protected areas are important, but transfer of forest genetic resources also may be necessary to counter environmental change and achieve sustainable development. However, support to conserve and manage these resources has been limited, except for a few important species.

Forest genetic resources can be used in traditional breeding programs or in the new biotechnologies. The advent of molecular technology makes even non-commercial species valuable for their genetic resources (e.g., Pacific yew).

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Genetic Resources and Tropical Silviculture Working Groups with Olmec statue at the Museo de Anthropologia in Xalapa, Vera Cruz, Mexico, 8 November 2002.

tropical hardwoods such as mahogany, teak, and cedrela.

These species were growing in mixtures on abandoned coffee plantations as well as being used for over story in active plantations of shade-grown coffee. The group also visited the Museo de Anthropologia in Xalapa (see picture). The Forest Genetic Resources and Tropical Silviculture Working Groups are two of seven working groups established by the North American Forest Commission (NAFC), and NAFC is one of six Forest Commissions established by the Food and Agriculture Organization (FAO).

Glenn Snow

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His professional career began with the New Mexico State Department of health working as a District Sanitarian. In 1957, he joined the Southern Forest Experiment Station of the United States Forest Service in Gulfport, Mississippi. There he worked as Research Plant Pathologist and Project Leader until his retirement in 1990.

At the Southern Station, he did research on the diseases of southern pines, mainly *Cronartium* and *Scirrhia*. One of his most important contributions "Daily and seasonal dispersal of basidiospores of *Cronartium fusiforme*." (*Phytopathology* 58: 1532-1536) was very important in explaining the epidemiology of the disease. During his career, he published over 70 research papers. In 1983, he received the Southern Forest Pathologists award. In addition to being a long-time member of the American Phytopathological Society, he was active in civic and church affairs. In retirement, he served as a consultant to a task-force seeking to determine the cause of the decline of the live oaks on the Mississippi Gulf Coast. He will long be remembered for his dedication to science, his mentorship, and his dry wit.

Forest Science Major assist with Field Research

"Everything".....what a great response received from a student asked what he liked most about working in forest research this summer. **Marcus Bradley**, an Alabama A&M University Forest Science major, spent 7 weeks this summer assisting **Callie Schweitzer** with field work in northeastern Alabama. Callie met Marcus while she was conducting a field tour of her research sites for the AAMU forestry summer field class. Marcus was intrigued by the research and asked if any opportunities existed to get involved.

A native of Aliceville, AL, he had grown up exploring the woods and had friends and relatives who worked in forest industry, leading him to pursue a degree in forest science. This summer's field work consisted of a range of activities, from re-measuring established experimental plots (including plots in a 2-year old clearcut that was re-measured in July, in Alabama), establishing new plots, planting seedlings and installing sediment barriers.



Marcus Bradley assisting Callie Schweitzer with logging research results.

Marcus was a quick learner and asked many questions, and his positive attitude made for some enjoyable days. Marcus would like to get a position on a National Forest 'somewhere out West' upon completion of his degree in 2004.

Billy Harris McDonnieal (1948-2003)

A Tribute to a Friend

by Steve Meadows



Billy McDonnieal, who served as a Forestry Technician at the Southern Hardwoods Laboratory in Stoneville, Mississippi from 1973 to 2002, died August 13, 2003 at his home in Leland, Mississippi after a long illness. He was 54 years old. A native of Taylorsville, Mississippi, Billy began his long service to his country in 1967 when he enlisted in the U.S. Army. He served in Vietnam from June 1967 to June 1968.

After his discharge from the Army in 1970, Billy enrolled in Jones County Junior College, where he earned his Associate of Technology in Forestry degree in 1973. Billy began his career as a Forestry Technician at the Southern Hardwoods Laboratory in August 1973. He worked with **Harvey Kennedy** from 1973 to 1990 and with **Steve Meadows** from 1990 until his illness forced him to retire in June 2002.

These are the cold and impersonal facts of Billy's professional career. But the story of Billy Mac's professional life is so much more meaningful and significant. During the nearly 30 years that Billy Mac served as a technician at Stoneville, he was instrumental in establishing and maintaining a countless number of field studies in hardwood regeneration and silviculture.

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How Many Ramps Do You Need for a Festival?

by Zoë Hoyle

For the past three years, **Jim Chamberlain**, research forest products technologist for the USDA Forest Service Southern Research Station unit in Blacksburg, VA, has spent most of April and May in the mountains of western North Carolina digging ramps with the people who organize annual festivals to celebrate the coming of spring.

"We really don't know that much about the social and economic dynamics that affect the collection of ramps," said Chamberlain, in an interview at the Forest Products Conservation unit in Blacksburg, VA. "By working directly

with collectors, we hope to learn how to manage our national forests so that people can continue to dig ramps while sustaining plant populations."

Ramps (*Allium tricocum*), also known as wild leeks, have been described as having a flavor that falls between garlic and scallions. While the taste is sweet, the smell of ramps—or of those who eat them—has been known to clear a room. Native to the forests of eastern North America, ramps emerge in moist, shady areas of Southern Appalachian forests in late March and early April. The plants send up a circle of smooth, broad leaves that die back as spring progresses. People collect both the leaves and the spicy bulb as a spring tonic.

Native Americans probably taught the early settlers to hunt for ramps for medicinal purposes, and as the first fresh vegetable to emerge in the spring. The best way to eat ramps is freshly picked, then fried with potatoes or eggs, or cooked up as a "mess" with freshly caught trout. Gatherings with cooking and music naturally formed around the spring collection of ramps. Over the last few decades, these festivals have evolved into a major funding source for rural fire departments, rescue squads, 4H clubs, and other community organizations.

SRS and National Forest Employees Outreach to Hundreds at Goombay Festival

by Linda LeBlanc



Enjoying an ambiance of non-stop music, the aroma of African-Caribbean cuisine, and a very enthusiastic crowd, SRS and National Forest employees staffed the Forest Service exhibit booth at the Twenty First annual Asheville Goombay Festival held in downtown Asheville August 22-24, 2003. "We outreached to a lot of people," said **Bettie McGuire**, Administrative Director for Administration, who took time out to join exhibit workers.

"Our focus was outreaching recreational opportunities, and it was gratifying to see kids proudly pinning Smokey Bear buttons on their backpacks and adults walking around with their copy of "Carolina Connections." **Judy Allen**, FS Goombay Coordinator, did an excellent job working with volunteers **Ted Green, Barry Miller, Michael Walker, Linda Hardaway, Bertha Baker, Bernie Parresol, Ollie Todd, Ava Moore** and **Linda LeBlanc** to ensure a very visible FS presence at the Festival. Goombay, a three-day celebration of African and Caribbean culture, food, music and art is sponsored annually by the city's Young Men's Institute (YMI) Cultural Center. Goombay officials say that the lively festival attracted more than 40,000 people.

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Ron Schmidting receives Emeritus Scientist Award

Ron Schmidting, retired research geneticist, has been recognized with the Emeritus Scientist Award in recognition of his significant research contributions during his 35.5-year (40 years including military service) career with the Southern Institute of Forest Genetics in Gulfport and Saucier, MS. Ron made many significant contributions to forest genetics and tree improvement research during his career. Among the most significant were his pioneering work on seed orchard management to enhance tree vigor and seed production and his systematic analysis of the Southwide Southern Pine Seed Source Studies leading to a manual on the performance of southern pine seed sources. Ron received his PhD from the University of Florida's School of Forest Resources and Conservation in 1980. He is a member of the Society of American Foresters.

SRS Scientists meet in Mexico

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The membership of the FGRWG consists of three representatives from each of the member nations of the NAFC— Mexico, Canada and the United States. Some of the accomplishments of the group:

- Initiated the World Directory of Forest Geneticists and Tree Breeders (1965, revised in 1977 and 1998).
- Supported the establishment of the first forest genetics research facility in Mexico (Chapingo, 1985).
- Launched and coordinated surveys of several Mexican *Picea* and *Pinus* species.
- Provided training opportunities for nine Mexican scientists and students.
- Conducted training courses in genetics in 1980, 1984, 1990, 1993, and 1995.
- Organized an international workshop on North American Temperate Forest Genetics Resources, Berkeley, CA, June 1995.
- Organized the first North American Forest Biology Workshop to be held in Mexico, in Merida, Yucatan, July 2000.

Suppression Cost Forecasts

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Preliminary data through July, 2003, show that this estimate is likely to be close to the actual expenditure total. Individual Region suppression cost estimates are also available. In contrast, the allocation that the Forest Service had approved by Congress for fire suppression was \$418 million. According to the simulations of the new model, the probability that \$418 million was going to be sufficient to cover actual expenditures was less than 1 percent.

Currently, the scientists are collaborating to develop a more accurate model and to produce estimates of current fiscal year suppression costs earlier in the year. Improved and timely suppression cost forecasts will enhance our agency's preparedness in advance of expensive wildfire seasons.

Goombay

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Goombay crowd enjoying music.

Ramps

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Three years ago, Chamberlain contacted members of the 10 major festivals in the region and arranged to go out collecting with them the next year. Chamberlain tracks the total weight and numbers of ramps collected for each festival. He has found that the major groups use 500 to 600 pounds of ramps for an annual festival, with between 40 and 80 bulbs



making up a pound.

"After weighing and counting the harvest, I examine some of the ramps to determine whether there is a relationship between the width of the

leaves and the diameter of the bulb," said Chamberlain. "Old timers think there is a relationship—big leaf, big bulb—I'm trying to determine if that is true.

"Since the data he collects is tied to specific collection areas, Chamberlain can compare ramp populations in different watersheds, or determine if the collecting methods of a group affect the size of plants harvested. Chamberlain is also interested in whether the size of the plants harvested is changing due to pressure on ramp populations from collecting. Ramps flower in June or July, with the seeds taking a year or longer to germinate. Three to five years of growth are needed to produce a large bulb. Fortunately, ramps can also reproduce from rhizomes, rootlike stems that run underground.

Bulbs will grow from rhizomes; a bulb can also split into two new bulbs. Ramp collectors typically dig clumps out of large patches of plants, leaving individuals in the resulting gaps to form new patches for the next year. "Old timers say that if you cut the rhizomes off and put them back in the ground, they will reproduce," said Chamberlain. "After this year's harvest, we took the roots and rhizomes back to some patches to see if they would produce bulbs

next year. If this doesn't work, we will try leaving different amounts of the bulb next year. If one of these methods results in new plants, we can start working with the groups to regenerate the patches as they harvest." Chamberlain's data shows that the major ramp festivals are using a total about 3200 pounds of ramps each spring.

This figure does not include the plants collected for roadside stands, restaurants and personal use. In spring 2002, the Great Smoky Mountains National Park banned the collection of ramps after a five-year study indicated a decline in ramp populations in the Park, which shifted more demand onto national forest lands. As much of the ramp collection takes place on national forest land, Chamberlain works closely with **Gary Kauffman**, forest botanical specialist for the National Forests in North Carolina, and is also collaborating with forest ecologist **David White**, who is looking at the ecological impacts of collecting on ramp populations. Since 1999, White and other researchers at the SRS Endangered, Threatened, and Sensitive Wildlife and Plants unit in Clemson, SC, have been monitoring 21 plots in the Nantahala National Forest to track changes in ramp density and cover due to collecting activities.

"We just don't know if the current levels of ramp harvesting are sustainable or not," said Chamberlain. "We have heard that some of the ramp populations are in decline, but we cannot know this without monitoring populations and harvests over several years. Since most of these groups are collecting from national forest lands, we need to start looking at how to include traditional collectors in developing guidance on ramps for forest management plans.

Many of the groups I dig with are very interested in working with the Forest Service on sustainable management."

For more information on Chamberlain's ramps project, see <http://www.srs4702.forprod.vt.edu/unit/ramps.htm>

For more on the Clemson project: http://www.srs.fs.usda.gov/4201/David_files/ramps.htm

Billy McDonnieal

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In addition to being in charge of the field research for Harvey Kennedy and later for me, Billy was called upon time after time to help other scientists in the unit to establish and coordinate their field research. Billy's knowledge of hardwood forests and his practical expertise in field research techniques was an indispensable asset to our unit for many years. Billy Mac and I truly worked as a team for the last 13 years of his career. During that time, Billy taught me many lessons about forestry, about friendship, about life, and about death.

As a new but not-so-young scientist, I learned more about how to do hardwood research from Billy Mac than I ever did in graduate school. Billy and I spent a great deal of time together during those 13 years – from long hours riding in the truck to get to remote field locations all across the South, to “short” breaks sitting on a log somewhere smoking cigarettes, to lazy afternoons on the back porch “talking about life.” We talked about everything under the sun – we solved the world's problems thousands of times, we praised the New Orleans Saints when they did well and cussed them when they did poorly, we told jokes and stories until we laughed so hard it brought tears to our eyes. But, there were two topics of conversation that always made Billy Mac's eyes light up and sparkle – his family and his work.

Billy was hopelessly devoted to his wife and children. You could see it in the way that he just melted whenever he talked about them. As he approached death, this devotion to his family became the only thing that mattered in his life. He worked hard throughout his life to provide and care for his family and did everything he could at the end to continue to provide and care for them after his death. This devotion to family as a husband and father is the most important quality that any man can ever hope to achieve.

Billy Mac put his heart and soul into his work and was very proud of his role in the research process. He knew that he would never get much official recognition for the part he played, but he always conducted himself with dedication, honesty, integrity,

and professionalism. He and I worked very well together as a research team.

His input into all aspects of the research program was invaluable. I quickly learned to respect his opinions, advice, and judgment. Together we made decisions on how best to conduct our research program – from such details as the best way to install some particular study to the more broad task of creating and designing the next logical study in our overall program. Of the many lessons that Billy Mac taught me, there are two very important ones that I would like to share with you. First, love your work and enjoy doing it.

Billy loved being in the woods and he shared that joy with those around him. He was always quick with a smile, quick with a joke, and quick with a wink when he told some not-quite-believable story. His enthusiasm for his work was contagious and his one-liners were legendary. Billy Mac and I worked together in the woods through all types of weather and environmental conditions, from perfect to horrible. But, we always did a good job, we always did the job the right way, and we always enjoyed the hell out of ourselves.

Perhaps the most significant lesson that I learned from Billy is that the relationship between scientist and technician is a special one. It must be built on mutual trust and respect. It must be an equal partnership between two people dedicated to a common goal. Nurture this relationship; make it strong. The quality and significance of the research product will always be greater when this special relationship is vigorous and energetic. Whatever success that I have enjoyed over the years as a hardwood researcher, I owe a good deal of it to Billy Mac.

I will be forever in Billy's debt as a professional and I will never forget him as a friend.

**got
stories?**

(Send them to Shane Coates
rcoates@fs.fed.us by November 14, 2003)

Beginning and Development of the Alexandria Research Center

by Fred A. Peevy

The first action toward establishing a forestry research center at Alexandria, LA was hiring **Fred A. Peevy**, an Assistant Agronomist at the Louisiana Agricultural Experiment Station at Baton Rouge, LA, as an assistant range conservationist. His duty was to do research on the cutover pinelands of the South. At that time cattle, hogs, and sheep roamed freely over large areas of unfenced forest land, and scrub trees grew on land that had been clear-cut by the sawmill industry in the mid-1920's

and into the 1930's. Fred began work with the Southern Forest Experiment Station in August 1945 with headquarters at Louisiana State University. In March 1946, he was moved to Alexandria.

His initial assignments were to do research in developing better forage for livestock grazing in the cutover land and to do work in finding better methods of killing undesirable trees and shrubs. Fred did pioneering research in the use of chemicals to control woody plant vegetation. He was primarily responsible for the development tree injection and basal spray technology. Starting in early 1946, other scientists were hired and began working at the Alexandria Research Center.

About March 1946, **John T. Cassidy** moved to Alexandria and served as Center Leader until mid-

1956 when he was transferred to Florida as a Center Leader. Following Cassidy's arrival as the local leader in research, several personnel were hired to conduct forestry research. **Herbert Muntz** and **Harold Derr** joined the Center in 1946. They began their program at the Johnson Tract of the Palustris Experimental Forest, where **Philip Wakeley** had done extensive seedling establishment research in the 1930s. **Gordon Langdon** was soon recruited and joined John Cassidy in tests of grazing cattle on native vegetation supplemented by winter-feeding.

By 1948, **Walter Hopkins** transferred to the Research Center to study wild hog

damage. Hogs were a problem in reforestation because they rooted pine seedlings and ate the roots and bark of larger saplings. **Eugene Shoulders** joined the staff in 1953 to conduct nursery and seedling establishment research. **William F. (Bill) Mann, Jr.** was transferred to the Center in 1954 and was named Center Leader when Cassidy left in 1956. He remained leader of the program until his death in 1980. **James Barnett**, who joined the Center in 1961, was then named Project Leader [the title was changed due to a reorganization of Forest Service Research in 1963].

The vast acreages of cutover land required new technology to quickly return the land back into productive forests. Derr and Mann were responsible for the development of aerial direct seeding. Chemical repellents were developed to protect seeds from bird and rodent predation. This resulted in large areas being reforested in a relatively short period. Other early scientists in the Center were **Vince Duvall** and **Harold Grelan** who conducted range research. **Bob Blair** was hired to work on wildlife problems and focused on turkey and deer habitat. **Glen Hatchell** was hired in the mid-1950s to conduct additional seedling establishment research.

Tucker Campbell replaced Hatchell in 1962. **Bob McLemore** joined the unit in 1957 to work on seed related problems and Jim Barnett was transferred to support this effort in 1961. **John Moser** joined the research staff in about 1956 as an entomologist to study damage from the town ants to pine seedlings and develop control methods. **Edward Robinson**, a plant physiology, was employed in the early 1960s to do research in the control of undesirable woody plants by foliar application of chemicals. **Homer Brady** replaced him in 1965.

Up until Forest Service research was reorganized in 1963, local units were called Research Centers and all research at a location was under a Center Leader. Centers were large multidisciplinary units. The reorganization broke the Centers in to smaller Research Projects with more specialized programs that were led by a Project Leader.

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Fred Peevy uses chemicals to control woody plant vegetation.

A Summer as a Conservation Education Intern

by Samantha Luck



The USDA Forest Service gets rave reviews for its Conservation Education Program. Three HBCU students, **Brittanian Medina** (Tuskegee University), **Carla Jones** and **Samantha Luck** (both attending Florida A&M University) made up the Tallahassee team. This team was one of the four teams within the program organized to teach students the importance of conserving natural resources. The team traveled from Durham, N.C. to Naples, FL and areas in between, challenging youth to look at their world in a different way.

Most of the students had no idea what the word conservation meant. However, after a fun filled lesson from the Tallahassee team, five year olds and up



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Headquarters Employees Remember 911

by Linda LeBlanc

Headquarters employees **Nancy Herbert, Jim Hasbrouck, Wilford Abernathy, Linda LeBlanc, Pete Roussopoulos, and Sue Roussopoulos** were among the more than 1200 volunteers who participated in United Way's annual Day of Caring held in Asheville on September 11, the second anniversary of the terrorist attacks. Day of Caring is sponsored by United Way of Asheville and Buncombe County and The Volunteer Center. The annual event allows area employees the opportunity to spend



Pete and Sue Roussopoulos participating in the Day of Caring while working with Habitat for Humanity to build a home.

one day offering their services to agencies and other organizations serving high priority needs in the community.

"Volunteers worked with 79 non profit agencies, served 5,292 hours, and saved agencies \$87,529," said Kim Porter, Director of Volunteer Services for United Way, who was interviewed by telephone. "They really made a difference," she said. Grateful by the opportunity to serve, SRS employees selected projects of particular interest to them and worked on a variety of projects, including landscaping, river clean-up, home construction, painting and library organization.

Driver Scoots 1,000 feet for Help After Crash—SRS Employees Call for Medical Assistance

(excerpted from Arkansas Democrat-Gazette)

After her car went airborne for 200 feet and nose-dived into the ground off the edge of a Newton County highway and crashed Tuesday, Deniece Honeycutt, 44, couldn't walk. With a crushed heel and a shattered right leg, she couldn't crawl either. So, she turned onto her back and began scooting, gradually inching herself 1,000 feet up a steep, brush-covered slope. After seven hours, she reached the top and flagged down a USDA Forest Service pickup. In the pickup were **Richard Chaney** and **Jim Whiteside** SRS Forestry Technicians with SRS-4106 in Jasper, Arkansas. Richard and Jim used their radios to call for emergency assistance and gave Mrs. Honeycutt water and comfort until the ambulance arrived.

Emergency technicians decided to fly her to Washington Regional Medical Center in Fayetteville, AR. Honeycutt was in good condition in the intensive-care unit Friday afternoon, after two blood transfusions and an operation to insert steel rods into her leg. If Mrs. Honeycutt had not had the ability to maneuver her self to the road with the canopy of trees so thick a search would have only been able to see her car from the air and only during fall or winter months.

Good work Richard and Jim.

More Photos from Nonnative Invasive Plants of Southern Forests

(continued from page 4)



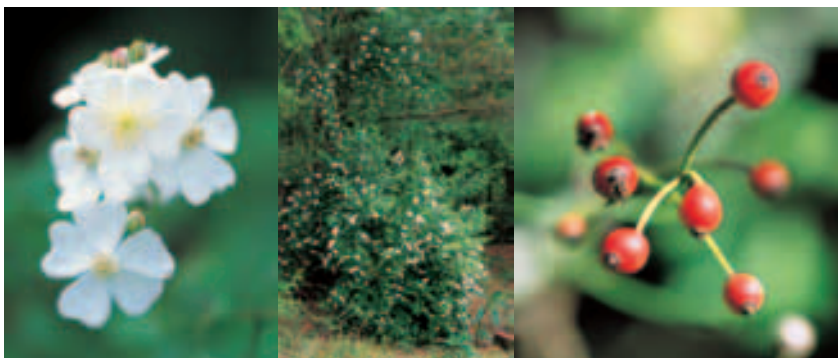
Spring flowering (left) and spring foliage (below) on sacred bamboo, *Nandina domestica*.



photo by F. Nation



Climbing air yam growth habit in summer (left) and fruit in winter (below).



Multiflora rose flowers and foliage in late spring (left and center) and fruit in winter (right).



Oriental bittersweet

Fred Peevy

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In the mid-1960s, a number of utility companies funded an effort to research methods for reducing or preventing woodpecker damage to wood utility poles. **Bob Rumsey** joined the unit to conduct this research.

Office space for the Research Center was in different locations over the years. During 1946 and early 1947, the office was one large room at the west side entrance of the old courthouse which was near the Town Talk on main street. The second office was in the Crooks Building across from the old Post Office in Pineville. This office was upstairs over a dry cleaners, with no air-conditioning or central heat. The third location consisted of an old family home near Bolton Avenue and Murray Street, across from the old Turpin Pontiac Garage.

The next move, in the early 1950s, was into the USDA Federal Building. It was a large building on 6th Street located between Washington and Winn Streets in Alexandria. The building housed all USDA agencies. During 1958, this building burned and the research personnel were relocated to the Bellino Building on MacArthur Drive. The research unit moved into the present Alexandria Forestry Center in 1964 in an effort to place all of the Forest Service groups into a single location.

Fred Peevy retired from the Southern Forest Experiment Station in 1976. He and his wife, Lillian, live in Pineville. The early research program to develop the knowledge and technology to restore the cutover forestlands in the mid-South to a productive state was very successful. The Alexandria Research Center was recognized with the U.S. Department of Agriculture Award for Superior Service in 1961 "for developing successful techniques for direct seeding of southern pines, for controlling noxious hardwoods, and for utilizing and improving southern forest ranges."

Conservation Education Interns

(continued from page 13)

could not only define the word conservation but give examples as well.

"It was exciting teaching the students about conservation. It's important that children know about their environment and how to utilize their resources. The students learned so much," said Carla Jones. By traveling throughout the states, interns were exposed to children of all races and classes. Some of the camp counselors as well as the campers were surprised to see three Black young women working for the Forest Service; showing the children that the Forest Service is more diverse than they thought. "It's good for Black children to see Black females doing something positive. These children are used to seeing us (African Americans) as teachers, or basketball/football players. Now they can say, 'I might want to do this when I grow up'," Allison J. Hale, fifth grade teacher at W.G. Pearson in Durham, N.C.

Counselors and teachers responded well to the presentations. "Conservation is an interesting topic and I think the children should be educated. You (the conservation educators) were entertaining and you made it fun. It was a different way of teaching," said Roxanne Chuck, Recreation Aide at David Park in Miami, FL. One student, Marie Murray, a second grader from David Park enjoyed the program so much that she had quite a bit to tell me. "I liked how you guys (conservation educators) help the forest. And now I'm not going to waste paper and I won't leave the water running again."

Working for the Forest Service was an incredible experience. The fulfillment from teaching was priceless. Students came in with little knowledge about the Forest Service and left with a prideful responsibility to save the world and its resources. Brittanian, Carla and Samantha will always remember the best summer they ever had working for the USDA Forest Service.

*Stony Fork entrance
Pisgah Motor Road,
Pisgah National Forest,
North Carolina.
(date photo taken:
unknown;
photographer:
unknown)*

*The Southern Research
Station has many
historical photos with
minimal captioning. We
need your help to
identify these photos. If
you have information
about this or other
historical Forest Service
photos, please contact
Rodney Kindlund at
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United States
Department of Agriculture
Forest Service
Southern Research Station
P.O. Box 2680
200 Weaver Boulevard
Asheville, NC 28802