

CELEBRATING A LIFETIME OF CONTRIBUTION

BY ROBERT GLASS BREUNIG

“When Mrs. Johnson became interested in underlining our responsibilities [to the environment], she took an interesting direction,” said U.S. Secretary of Interior Bruce Babbitt during a recent address at the lady Bird Johnson Wildflower Center. “I would go out and start talking to people about biodiversity and conservation biology and ecosystem
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Exotic Vegetation Control through the Use of Prescribed Fire

BY ROBERT F. BRZUSZEK

The Gulf Coastal Plain is a haven for growing plants. Enriched by warm summer days, few winter freezes, and copious amounts of rainfall (66" annual average), plants grow rapidly and lushly — including many invasive exotics. The region has a long history of human disturbance through cultivation, and harbors many port towns along the Gulf of Mexico and the Mississippi River. All of these conditions



Cool grass fires do not harm woody plants.

Brzuszek - Jan 1986



Longleaf Pine after a burn on Hillside Bog.

Brzuszek - March 1994

combine to encourage the introduction and rapid spread of exotic invaders. Exotics are now as much a part of the Southern landscape as biscuits are to a meal. Kudzu vines (*Pueraria montana* var. *lobata*) paint endless roadsides in giant mounding forms, privet shrubs (*Ligustrum sinense*) shade out wildflowers and groundcovers, and water hyacinth (*Eichornia crassipes*) stretch across thousands of acres of waterways in a brilliant carpet of blue summer flowers.

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BATTLING THE INVASION: NPCI'S ALIEN PLANT WORKING GROUP

Chaired by Jil M. Swearingen, the Alien Plant Working Group is one of the Native Plant Conservation Initiative's (NPCI) original working groups. Jil is an Entomologist/Integrated Pest Management Coordinator for the National Capital Region of the National Park Service. With a background in biology, her primary areas of expertise are botany and entomology with a special interest in ants.

Previously called the Exotic Plant Working Group, the group changed its name to Alien Plant Working Group (APWG) in November 1998. Because the word “exotic” is connected with phrases such as exotic foods and exotic places, switching to the term “alien” avoids the associations with pleasant feelings of enjoyment and desirability. Alien is also appropriate as it has accepted use internationally in describing non-native species.

APWG is the only national group currently focused on invasive plants of natural areas in the United States, across agency and organization boundaries. The group also keeps in touch with other organizations involved with the invasive plant effort and strives to keep up to date with what they are doing and planning, avoiding overlap and keeping them informed of APWG activities.

APWG's public outreach and education activities are centered on its website, Weeds Gone Wild. To date, the site includes thirty-nine illustrated fact sheets that provide information on the species' native origins, life cycles and habitats, ecological impacts, U.S. distributions, methods of control, suggestions for alternative plants, references, and links to others who are knowledgeable about the species and its control. Another highly useful part of the website is a compiled list of invasive plants for the United States, based on lists generated by The Nature Conservancy, the state/regional Exotic Pest Plant Councils, universities and other reliable sources. This kind of national level information is not provided elsewhere.

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1999 NPCI ACTION AGENDA MEETING

JANUARY 11-14, 1999

For the first time since its inception, the Native Plant Conservation Initiative (NPCI) held a national meeting to bring together federal agency Members and private organization Cooperators. Each cooperating private organization was invited to have one representative attend. Meeting at the Lady Bird Johnson Wildflower Center, over seventy participants gathered to discuss the next stage for NPCI. Having grown from 7 federal agencies and 9 private organizations to 10 agencies and over 125 organizations, a new direction needed to be found in order to reach the strategic goals created in 1995, one oriented toward national actions.



Olivia Kwong

Dr. Peter S. White, Director of the North Carolina Botanical Garden in Chapel Hill, set the tone for the meeting in his keynote speech saying, “My real goal is for all of us to reaffirm our commitment to plant diversity.” He then reminded the audience that successful plant conservation also requires public awareness and support, on a political and community level. The kind of public understanding needed for the future has already been demonstrated by the lifetime work of Lady Bird Johnson. As his theme, Dr. White recounted what she said when attending a 1988 fundraising event in Chapel Hill, “I admire your North Carolina wildflowers, but I want North Carolina to remain looking like North Carolina and Texas to remain looking like Texas.” He closed his talk with *The Tuft of Flowers*, a poem by Robert Frost – “‘Men work together,’ I told him from the heart, / ‘Whether they work together or apart.’”



Olivia Kwong

The meeting participants then went on to spend the next two days in working sessions on five different topics: exotic invasive plants, information and data sharing, pollinators, public outreach, and restoration. With the help of facilitators in each session, the groups came up with a list of actions designed to meet national needs in plant conservation. At the end of the meeting, each group presented its ideas to the rest of the participants.

The ideas for action generated from the meeting are being compiled and will be disseminated as the NPCI’s Action Agenda early this summer. There will be an opportunity for comments and additions by participants of the meeting and those who could not attend.

During one evening, an informal meeting was held to discuss NPCI’s infrastructure, current and future. Chris Jauhola, from the Bureau of Land Management, explained the organization of a similar national conservation oriented organization, Partners in Flight. Topics included the formation of a Non-Governmental Organization Committee, the need to define regions for Regional Groups, the need for meetings in a variety of locations, and a committee to help examine potential organizational structures. The ideas and concerns brought up at this initial meeting will be used in coming months as NPCI restructures to fit growing needs.

A draft copy of the NPCI Cooperators Directory was distributed at the meeting. An updated version of the directory will be sent out to Cooperators this summer. If you are interested in checking or updating your organization’s contact information and NPCI representative information, please contact Olivia Kwong at olivia_kwong@blm.gov or (202) 452-0392. This information is vital as it is used to send out information such as the invitations to the 1999 Action Agenda Meeting. ☺

Fighting Invasives Through Policy

The battle against invasive exotic plants is fought on numerous fronts. While land managers and natural resource staff on the ground eradicate invasive plant populations and prevent their spread by utilizing a hands-on approach, others play an equally important role by shepherding changes in policies which also influence eradication and spread. Policies need to address not only the present, but must also have a long-term view by considering their impact in the future. Just last year, one such innovative policy change was established at the North Carolina Botanical Garden. The two articles below, reprinted from their 1998 Southeastern Native Plant Seed List, outline and explain the change. ☞

Seed Distribution, Botanical Gardens, and the Exotic Species

Problem: *Our new conservation policy*

BY PETER S. WHITE

With the 1998 issue of our *Southeastern Native Plant Seed List*, we enter a new era for the North Carolina Botanical Garden. We hope to set an example for other botanical gardens, as well. Please see the sidebar for a description of our new policy.

Avoiding Exotic Species Invasions

Exotic species invasions — also called *biological pollution* — have become one of the dominant threats to wild areas and natural plant diversity. While the North Carolina Botanical Garden has historically emphasized native plants and restricted use of exotic pest plant species, we must remember that our southeastern native plants may be someone else's exotic invader. Indeed, Canada goldenrod is an invader of Japanese wetlands, as the Eurasian purple loosestrife is in eastern wetlands of the United States. Therefore, we have now chosen to restrict our distribution of seeds within an appropriate area of North America (see sidebar) — not only because some southeastern species might prove weedy elsewhere, but also because of the problem posed by *outbreeding depression*.

What is Outbreeding Depression?

Some southeastern native plants are also native to other regions of the country. However, genetic pollution may result if a mature plant from one geographical area breeds with the same species in a different geographical area. In some cases, the fertile offspring of such a cross can breed with local populations and render them less adaptive to their environment by the introduction of new genetic information. Also, it is possible that the resulting offspring may be more weedy or invasive than plants from either of the original populations. These undesirable results are examples of *outbreeding depression*, and pose potential problems for all populations of indigenous native plants.

Regarding these issue, much is unknown and unpredictable, so we have chosen to be cautious. Since our new policy supports local seed sources throughout the country and the unique local gene pools and species of each region, we emphasize the positive side to our caution. ☞

Peter S. White is the Director of the North Carolina Botanical Garden in the University of North Carolina at Chapel Hill.

North Carolina
Botanical Garden

NEW CONSERVATION POLICY

We will distribute seeds and plants within a 12-state region of the Southeast, from the Mississippi River to the Atlantic Ocean and from the Gulf of Mexico north to Kentucky, West Virginia, Maryland and Delaware.

If you live outside that area, we will help you to locate sources of native seeds within your geographic area. Just mail us a request (accompanied by self-addressed, stamped, business-size envelope) or call us during our regular Public Service Hour, Monday-Friday from 12 noon to 1 p.m., 919-962-0522.

Our Goal, Our Hope

Our goal is to reduce the risk of new exotic plant invasions that impact our natural areas and to encourage the use and appreciation of native plant seeds from local sources.

Our hope is that our revised seed distribution policy will result in an increased appreciation of your region's unique local flora and nurture the growth of all regional botanical and horticultural institutions throughout the country.

Land Rehabilitation & Maintenance Project Report – Camp Adair

BY GREGORY MITCHELL

As most ecologists and natural resource managers know all too well, it is not unusual for non-native plants and animals to overrun a landscape once they become established there. Much of this is due to the lack of natural biological controls, absent because the non-native species did not evolve in the area. Unfortunately, domination by non-native species is usually detrimental to the native species that are present. In western Oregon, one such undesirable non-native species is Scotch broom. Imported from Europe as a ornamental plant and for erosion control, it has taken over vast areas in the Pacific Northwest, crowding out native plants that provide resources for wildlife (Scotch broom has little wildlife value).

Scotch broom has already established itself over much of one National Guard training area in Oregon, Camp Rilea. Originally planted in the 1930s to stabilize sand dunes, the plant dominates the overstory or understory on approximately 800 acres of the camps total acreage of 1,740 (46%). Since the 1970s camp managers have spent a considerable amount of time and money removing this plant, which creates virtually impenetrable areas, thus restricting training opportunities. Research and experience has shown that manual removal is the only real effective way to control the plant.



The Oregon Army National Guard was determined not to let this situation develop at Camp Adair, another training area of 527 acres. Scotch broom was still a recent invader, occupying only about one acre. So it was a rather simple matter to get some people out there to remove all the plants before they could spread further. A local youth conservation corps crew was hired to do the job. The crew spent about a week sawing and chopping down Scotch broom and stacking the plants in piles for burning (see photo). The camp caretaker will burn the piles and monitor the project area to control any regrowth. The total project cost was about \$3,000.

It is likely that only very minimal expenditures of funds will be needed for future control of Scotch broom at Camp Adair. Next, the Oregon Army National Guard wants to attack a non-native knapweed species that dominates the grassland community at the camp. ♪

Gregory Mitchell is the Natural Resources Specialist for the Oregon Military Department. A large part of his job is to help manage the natural resources of all their military training areas, balancing training and environmental stewardship. He was educated as an ecologist and geographer. For more information about his projects, contact Gregory at (503) 945-3851 or gregory.a.mitchell@state.or.us.

N P C I W E B C O R N E R

Current stats for the NPCI Website (as of 4/29/99):

Main NPCI Website – 24,420 visits

APWG Website – 7,210 visits

Celebrating Wildflowers Main Page – 1,960 visits

Celebrating Wildflowers Events – 4,320 visits

Celebrating Wildflowers Coloring Book – 48,800 visits

The URL for the NPCI website has changed to a permanent location and is easy to remember, please update your bookmarks and links to:

<http://www.nps.gov/plants/>

Along with its change in name, the Alien Plant Working Group's URL has changed to:

<http://www.nps.gov/plants/alien/>

The 1999 Native Plant Events Directory is now on-line on the NPCI website. Check the website for information on submitting additional events. Printed directories can be requested by e-mailing olivia_kwong@blm.gov or calling 202-452-0392 and leaving your name and address. Weekly recordings listing some events and bloom times can also be found on the Wildflower Hotline from April to August at 1-800-354-4595.

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management and watch my audiences slowly go to sleep.” Secretary Babbitt plucked a flower from the head table arrangement and continued, “When Mrs. Johnson came to speak to America, she held a flower and said to the American people ‘we should appreciate the God-given beauty of our country,’ and captured her audience. She understood that in order to bring people through a window of understanding, it was important to start with things as familiar and simple as a flower. Her work has brought a lot of Americans through that window of understanding to see a larger landscape, and a larger set of issues. The first place we start is by looking at our own presence on the land looking inward to where we live in the built landscape of this country.”

Babbitt’s self-deprecating humor – and his recognition of Lady Bird Johnson’s contributions – were much appreciated by those in the audience for his keynote address at the Native Plant Conservation Initiative (NPCI) Action Agenda Meeting, during which he awarded Mrs. Johnson the NPCI’s first Lifetime Achievement Award for her work on behalf of the conservation of native plants. The ceremony highlighted a four-day meeting of the NPCI at the Wildflower Center, January 11-14. I would like to share more of his message with you.



Secretary Babbitt asked the audience to look at the European-derived urban and suburban landscape traditions that, until recently, dominated America’s residential landscapes. “The first thing I think you will see is that we have not done a good, patriotic job of taking care of our surroundings. We are still hung up in an English model of American landscapes; these lawns are not *native* [to the] American landscape. They are a misplaced imitation from English castles. We came to this country looking backward at our past rather than forward to our future. We are stuck today tending 25 million acres of lawn with pesticides, chemicals, and water. That is an area the size of Pennsylvania!”

Babbitt went on to observe: “We brought our view of the American landscape from Europe as well. For nearly two centuries we thought of our landscapes as being about game only, about animals. Somewhere along the way, we forgot that the animal in all of us ultimately depends on a process called photosynthesis. The plants nourish and maintain this entire system.”

Babbitt outlined the fundamental role that native plants play in supporting our ecosystems. He then noted some of the threats to native plant such as development, invasive species, and loss of pollinators – all topics of the working sessions of the NPCI meetings. In calling the audience to action, Babbitt returned again to Mrs. Johnson’s influence. “I think that Mrs. Johnson is saying to us that a wildflower is a window through which we can look at the condition of America’s native plants. We are going to see some problems, we are going to see habitat being fragmented, and we are going to see species increasingly drifting to the edge of extinction. Somehow we have to put all these pieces together and we have to take the message out, both inward into our cities and outward across the land, to take a flower – Lady Bird’s flower and see it as a pathway of education, of advocacy, and ultimately of a new understanding of what it means to be an American.”

Inspired by Secretary Babbitt’s call to action and Mrs. Johnson’s very presence, the NPCI delegated dedicated themselves to work together more effectively to preserve the native flora of America and all forms of life, including our own, that depend upon these plants. ♪

Robert Glass Breunig is the Executive Director of the Lady Bird Johnson Wildflower Center. He has recently taken on leadership of the NPCI’s Non-Governmental Organization Committee. This article was excerpted, with permission, from *Native Plants*, a publication of the Lady Bird Johnson Wildflower Center, for more information contact them at (512) 292-4200.

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At The Crosby Arboretum, Mississippi State University, our mission is to display, preserve, and interpret the native plant communities of the Gulf Coastal Region. Over 1,000 acres of natural lands are being protected and researched, and this information is made available to the public through the Arboretum's 104-acre Interpretive Center site in Picayune, Mississippi. Here, native plant communities and their accompanying fauna are being regenerated and interpreted to help educate landowners on proper management and land restoration techniques.



Brzuszek - April 1992

Prescribed burn at Pinecote Savannah, The Crosby Arboretum.

Periodic fire has played an integral role in the Piney Woods ecosystem for thousands of years. Giving birth to our tall, cathedral canopies of longleaf pine and species-rich herbaceous groundcovers, fire occurs naturally from lightning strikes as well as historical utilization by Native Americans, timber owners, cattlemen, and farmers. According to Dr. William Platt, fire ecologist at Louisiana State University, the natural occurrence of fire in the Gulf Coastal states averages about 5 out of every 10 years.



Brzuszek - April 1994

Hillside Bog three weeks after burning.

In the management of our natural lands, we have long observed how fire kills or hinders the encroachment of many exotic plant species. Particularly effective against thin-barked shrubs and trees, fire destroys the cambium layer above the ground. Often these stems will resprout from the roots and in those cases, persistence is the key. For heavily infested sites, annual burning over a period of several years may be necessary until the plants cannot regenerate any longer.

The time of year that a burn is conducted and the amount of heat that a fire produces affects the efficiency through which exotic plants are controlled. Growing season burns (typically April through October in our region) are far more effective than fires set during the winter months. Also, prescribed burns that produce more heat with woody vegetation can cause increased stem mortality over a "cool" grass fire. These management techniques do not harm native plants that are adapted to fire-climax ecosystems, but rather enhance their growth and reproduction.

One cause of the alarming spread of exotic plants in our region has been the reduction of lands that utilized prescribed fire. As land uses change from forestry and agriculture to commercial and residential development, fire management has not continued as a common practice. As a result, many fire-adapted plant species, animals, and plant communities are rapidly disappearing. It is our hope that through education and example, the critical role of fire in the management of our natural fire-ecosystems will continue. ♪

Robert F. Brzuszek is Senior Curator of The Crosby Arboretum, Mississippi State University in Picayune, MS. Mr. Brzuszek has served as president of the Mississippi Native Plant Society and the Mississippi Chapter of the American Society of Landscape Architects.



Blake - July 1990

Hillside Bog vegetation patterns ten weeks after burning.

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Jil sees the group's overall goal as the continual compilation of information on invasive species of natural areas in the United States and the presentation of information in an interesting manner which will be accessible to the general public, land managers and policy makers. Her goals for APWG in the near future are:

- to complete fact sheets for at least 2/3 of the species currently on the scientific list of about 400 invasive plants by the end of the year 2000
- to build a strong national network of other agencies, organizations, and individuals who can share information on this issue
- to develop educational programs for schools, nursery industry and others

In order to complete its goals, APWG relies upon volunteer members. Jil is always looking for variety of volunteers with different skills. APWG needs people who can write fact sheets, provide photos of invasive plants for the website, do website maintenance, assist with other website projects, help with development of the national invasive plant referenced database (USA Weeds) and the National Park Service invasive plants database (NPS Weeds), or start an invasive plant management group in their state, agency or organization. Fact sheet authors are especially needed for southern, western, and central U.S.

While many of the interactions between the members of the APWG take place from a distance, there are opportunities for face-to-face meetings. APWG meetings are normally coordinated with the NPCI's bimonthly meeting in the Washington, DC area, usually following them in afternoons. Announcements on APWG meeting times are sent out by Jil, put on the NPCI website (<http://www.nps.gov/plants/>), and posted on the NPCI's automated e-mail list (directions on signing up are on the website as well).

With recent developments such as the 1999 NPCI Action Agenda Meeting in Austin, TX and the President's signing of an Executive Order on Invasive Species, the APWG is constantly changing and refining its role in the battle against invasive alien plants. With an eye to the future, Jil says that, "Many ideas were generated at the Austin meeting of the NPCI and the exact future roles of the APWG will be evaluated and further worked out during 1999 and 2000 as the roles of the Presidential Invasive Species Council, and other federal and non-governmental organizations are better identified." ☞

If you are interested in finding out more or volunteering, you can contact Jil for more information: Jil M. Swearingen, U.S. National Park Service, National Capital Region, 4598 MacArthur Blvd., NW, Washington, DC 20007, 202-342-1443, ext. 218 (tel), 202-282-1031 (fax), jil_swearingen@nps.gov (e-mail).

Fort Pickett Plans to Lay Assault on Alien Vine Threatening to Overtake Compound

Land managers in the southeastern United States have been dealing with kudzu and its tendency to dominate landscapes for decades. This prolific, noxious weed was introduced in the late 1800 for stabilizing soil, feeding livestock, and as an ornamental vine. Kudzu (*Pueraria lobata*) is a native of Japan and is flourishing in the United States without the disease controls or predacious insects from its native origins to keep the plant in check. This opportunistic plant continues to spread and out-compete native species and alter ecosystems both regionally as well as locally. Kudzu is now established, not only in the Southeast, but also as far north as Connecticut and as far west as Oklahoma. Locally, at Fort Pickett, kudzu has a firm hold on nearly 200 acres of military training land.

Fort Pickett, located in south central Virginia, continues to lose valuable training land as kudzu continues to expand its coverage. About 20% of the kudzu on Fort Pickett is covering what was once valuable timber and is now no longer accessible to logging. The other 160 acres of kudzu have rendered mobile training areas as non-functional. These latter areas are ideal habitat for kudzu. They are open areas with no feasible barriers (such as hard surface roads or major creeks) to stop or even slow the spread. One of these sites is in a frequently used drop zone. This zone, including an assault airstrip, is used for personnel drops heavy drops and has tank company maneuver corridors to handle up to an armored company. As of the summer of 1998, the kudzu in the drop zone had grown to approximately 50 acres and for the first time, the kudzu established itself across a road and is anticipated to actually be growing on the assault airstrip by next summer.

The rate of spread of kudzu is not a simple doubling, but rather exponential when left to grow unchecked. Not only will kudzu's stems grow to 95 feet and its roots down to 9 feet, but kudzu will also grow a foot a day during the

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Trying to Outcompete Spotted Knapweed

BY CHRISTIE BLECK

“We are in an unprecedented era of species introduction,” Beverly J. Rathcke, U-M associate professor of biology, remarked. That’s easy to see with Queen Anne’s lace, various thistle species, and purple loosestrife choking out native species almost everywhere. In the case of spotted knapweed, it’s invading prairies and sand dunes.

Spotted knapweed (*Centaurea maculosa*) is a pretty, innocent-looking wildflower that more than deserves the “weed” in its common name. Introduced to North America from across the Atlantic Ocean around the turn of the century, it invaded the country as roads and railroads were built and seeds were scattered. The weed devastates important range land in the western U.S. because cattle won’t eat it due to presence of a bitter chemical compound called cnicin. Lack of consumption leaves the plant to grow unchecked, allowing it to infest millions of acres in the U.S. and Canada.

Rathcke does research on population and community ecology. Some of her experiments are on knapweed, conducted at Edwin S. George Reserve. The reserve, owned and maintained by the University of Michigan, is located 25 miles northwest of Ann Arbor with approximately 1,500 acres of mostly undeveloped fenced-in wildlife habitat devoted to research.

Rathcke’s experiments deal with removing the influence of herbivory in one part of the reserve. The largest herbivores there are white-tailed deer which are kept at an overwintering population of about 40-60. Smaller herbivores such as rabbits and insects also roam the reserve. These herbivores do not eat knapweed, but they do eat native plants.

With the lack of herbivory and invasive growth giving it competitive superiority, spotted knapweed outcompetes native species. However, other species of *Centaurea* have been shown to be replaced in a population through the seeding of another competitor. This prompted Rathcke to formulate a hypothesis that spotted knapweed would disappear if native plants were given the chance to proliferate through the advantage of reduced herbivory.

Herbivory was decreased through physical and chemical means at the experimental sites located within close proximity of each other in a field. Cloth cages with knapweed and native plants inside exclude large mammals like white-tailed deer, but not small animals such as rabbits. Half-cages create a microclimate to protect

plants from the wind. Locally used pesticides and vacuuming of insects remove smaller herbivores. No actions were taken to manipulate the environment of the control sites.

Native blazingstar located outside a cage is much shorter than within one, indicating that the deer herd is having an effect on the field. According to Rathcke’s theory, spotted knapweed should be outcompeted, but it’s still growing well within the cages. Rathcke still believes that knapweed and other non-native seeds cannot become established in dense, native vegetation. Experiments continue at the reserve. ☞

Christie Bleck is the editor of Tracks, the Michigan United Conservation Clubs’ newsletter.

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summer months. Consequently, the speed of which training land is taken-over on Fort Pickett is alarming. Attempting to eradicate or even just to control the rate of spread of Fort Pickett’s kudzu at current population levels will be costly. However, this cost will continue to increase as fast as kudzu continues to spread. With recommendations from Virginia Polytechnic Institute and State University’s Pesticide Programs and Auburn University’s Southern Research Station, Fort Pickett is confident that its training lands and forests can be brought back to native ecosystems able to support troop training, the military mission, and wildlife.

Extensive research has been conducted on kudzu and its control. Accordingly, herbicides appear to be the best answer for Fort Pickett’s situation. The chemical imazapyr (Arsenal) is recommended at a rate of 3 pints per 150 gallons of water with 1½ quarts of Armix surfactant and applied with high volume sprayers, preferably late in the summer when the plant is actively transporting nutrients from the leaves and stems to the roots. This can be accomplished by contractor with a cost of \$400 to \$450 per acre. There are situations where Arsenal would not be used due to proximity to water or where sensitive species are not to be harmed. In these cases, kudzu will be cut at ground level and glyphosate (Roundup) will be directly applied to the severed stem. This method of cutting and applying is limited in acres and could possibly be done in-house with minimal cost.

Fort Pickett can no longer allow kudzu to remain unhindered and unchecked. To do so would mean to lose more and more valuable training land every year. Currently, kudzu has rendered these areas unusable for troop training and unusable for wildlife. Fort Pickett is determined to reclaim this land, bring it back into use for the military, and back into its native habitat. ☞

ARKANSAS USE OF THE USDA FARM BILL PROGRAMS

BY BOB GLENNON

The USDA programs created or reauthorized by the 1996 Farm Bill (see sidebar) offer extensive opportunities to replace exotic species with native communities. The state technical committee of the Arkansas Natural Resources Conservation Service has capitalized on those opportunities. It has done this by rewriting standards, specifications, and technical notes to allow diverse, native plant community establishment. It has also revised program cost lists to include practices to control exotic species and establish native species to replace the exotics, and the extensive variety of seeds and plants required to make up the mixtures.

The Wetland Reserve Program replaces cropland on hydric soil with bottomland hardwood forests. The Arkansas wetland restoration standard was revised to include the entire suite of bottomland species and remove the focus on oaks with commercial timber value.

The Conservation Reserve Program replaces cropland on highly erodible soil with permanent vegetation. On a national scale, the program ranking system was revised to give lower rank to restoration with exotics or monocultures of native species. In Arkansas, standards, specifications, technical notes, and cost lists were revised to allow a diverse mixture of native trees, shrubs, grasses, and forbs.

The Wildlife Habitat Incentives Program in Arkansas puts a high priority on replacing pastures of exotic species with mixtures of native plants that meet the needs of the targeted wildlife species. It also puts a high priority on riparian restoration with streambank stabilization bioengineering techniques using native plant species. An important component of these initiatives was making provision for the use of different techniques by adding each technique to the standards, specifications, technical notes, and cost lists with realistic size and spacing recommendations and costs. 

Bob Glennon is an Ecologist with the USDA-NRCS in Little Rock, AK. Bob is responsible for the ranking factors in the Wetland Reserve Program and Wildlife Habitat Incentives Program in Arkansas. He also revises the technical support documents for the programs. He has spent the majority of his career with the NRCS plant materials program developing and testing species and techniques for restoring native plant communities.

THE 1996 FARM BILL'S COMMITMENT TO CONSERVATION

The conservation provisions in the 1996 Farm Bill will affect farmers well into the next century. The newer provisions included in the Bill build on the conservation gains made by landowners over the past decade. They simplify existing programs to improve flexibility and efficiency. Several new programs were created to address high priority environmental protection goals. The key provisions include the following:

- The new Environmental Quality Incentives Program consolidates the functions of four existing conservation programs into one and focuses assistance to locally-identified conservation priority areas or areas where agricultural improvements will help meet water quality goals. Funds will pay for technical assistance and cost-sharing on conservation practices. Fifty percent of the funds are dedicated to conservation associated with livestock operations.
- The popular Wetlands Reserve Program and Conservation Reserve Program were extended through 2002. Changes provide landowners more options for protecting wetlands and highly erodible lands. In the Wetlands Reserve Program, landowners are able to choose either permanent or 30-year easements, or restoration only cost-share agreements.
- Swampbuster and wetlands provisions from the 1985 and 1990 Farm Bills were modified to provide farmers with more flexibility to meet wetland conservation compliance requirements. Changes include expanding areas where mitigation can be used, allowing mitigation by restoration, enhancement or creation, and changing the abandonment clause.
- The new Wildlife Habitat Incentives Program provides \$50 million over the next seven years to help landowners improve wildlife habitat on private lands.
- Conservation Compliance was changed to direct USDA employees who are providing on-site technical assistance to notify landowners if they observe potential compliance problems. Landowners will have up to one year to take corrective action. County Committees are authorized to provide relief in cases of economic hardship.
- The Emergency Watershed Protection Program was amended to allow the purchase of Floodplain Easements.
- The new Conservation of Private Grazing Land initiative offers landowners technical, educational and related assistance on the Nation's 642 million acres of private grazing lands.
- The National Natural Resources Conservation Foundation was created as a charitable nonprofit corporation to fund research, education and demonstration projects related to conservation.
- Membership in the State Technical Committees, the group which provides guidance on technical standards for conservation programs, was broadened to include agricultural producers and others knowledgeable about conservation.
- Under the interagency Wetlands Memorandum of Agreement, the definition of agricultural land was expanded to include not only cropland and pastureland, but also rangeland, native pastureland, other land used to support livestock production, and tree farms.

- excerpted from the NRCS website (www.nrcs.usda.gov)

KARL A. URBAN (1943-1999)

Karl A. Urban passed away on January 15, 1999. A strong proponent of native plants, his presence in the botanical community will be greatly missed.

Karl was born June 6, 1943, in Kimberly, Idaho where he grew up and attended high school. He earned his bachelor's and master's degrees in botany from the University of Idaho. He moved to Pendleton, Oregon, in 1968 and accepted a position as instructor of Botany at Blue Mountain Community College where he taught for 23 years.

His spring wildflower identification classes became an anticipated event by many Pendleton residents. Each summer for many years, he also taught an intensive two-week vascular plant identification course on Steens Mountain. He was instrumental in obtaining a National Science Foundation grant for a solar-heated greenhouse for the college.

In 1991, he became the botanist for the Umatilla National Forest. Karl completed a natural vegetation map and associated database for the forest. He cared a great deal about the forest resources and environment and had "botanized" virtually the whole of the Umatilla National Forest.

In his free time over the years, Karl drew many of the wildflowers of the area and put them on coloring pages so children could learn of their natural heritage. He put the drawings into the public domain so anyone could use them and learn to share his appreciation and love of wildflowers. These beautiful wildflower drawings and associated coloring guides have been viewed and enjoyed by over 48,000 visitors on the Native Plant Conservation Initiative's website. Countless other children have delighted in and learned from the drawings through other publications such as North Cascade Institute's Celebrating Wildflowers Teacher's Guide.

Just recently at the 64th North American Wildlife and Natural Resources Conference in March 1999, the USDA Forest Service and the Bureau of Land Management posthumously awarded Karl a joint Celebrating Wildflowers Award for his outstanding contribution of wildflower drawings and other materials. At the same meeting, Tom Fry (Acting Director, Bureau of Land Management) and Michael Dombeck (Director, USDA Forest Service) announced plans for a new interagency Karl A. Urban Celebrating Wildflowers Award.

Memorial contributions may be made to the Karl Urban Scholarship Fund at Blue Mountain Community College, Attn: Karen Hill/BMCC Foundation, 2411 NW Carden Ave., Pendleton, OR 97801. ☞

PLANTING FOUNDATIONS VOLUME III, ISSUE I CREDITS

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Planting Foundations is a bi-monthly publication of the Native Plant Conservation Initiative. The goal of this newsletter is to help promote the information sharing and national communication which is needed to create the basis, or foundation, for further effective native plant conservation efforts. Reproduction of the information contained in this newsletter is authorized without prior written permission for educational and other non-commercial purposes. Electronic copies of *Planting Foundations* may be requested by e-mail or postal mail or may be found on the NPCI website at <http://www.nps.gov/plants/> both in PDF and HTML format.

Planting Foundations is looking for news items, announcements, articles, short editorials, letters, and black & white art. Contributions, comments, and suggestions may be sent via postal mail, fax or electronic mail to:

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W A N T E D !

The next issue of the newsletter will cover public outreach efforts with native plants, centering on programs using wildflowers.

Other news items, announcements, editorials, and contributions are welcome as well. Submissions may include either photographs or other graphics. Please include a short two or three sentence biography with your article. If you have any questions about article style, length, coverage or anything else, feel free to contact us.

Submissions for the May/June newsletter are due by *June 22, 1999* at the postal address, fax number or e-mail address given above.

We are always looking for suggestions for future newsletter themes, so please share your ideas with us!