Past landscape conditions provided quail habitat incidental to the farming practices of the time; farmers were not at all concerned about producing quail, but they produced lots of them. As the farming practices and landscape changed, quail numbers declined. The problem is that our memories from that plentiful quail era often focus on small high quality food plots and strips of exotic lespedezas that provided winter food and cover and were the places that our dogs most frequently encountered quail. What we frequently fail to remember is that we also had high quantities of native quail habitat in the form of broom straw fields, briar patches, cutovers, and weedy field borders. The small farm fields of lespedeza hay, wheat, or corn and beans definitely added to the overall amount of available habitat and provided some cover with high quality foods, but fields containing high quality food were just a few spokes on the wheel. The hub consisted of vast areas of weeds, broom straw, and briars that connected the small patches of high quality food and cover.

Although consistent effort is required to maintain habitats dominated by weeds, broom straw, and briars, that may not be the biggest obstacle to reestablishing them across the landscape. So what is it? The primary problem may be that most humans just don’t like the looks of good quail habitats. We think they’re ugly, they are sources of weeds, they harbor all types of vermin, and they cause allergies. We do our best to eradicate and keep these habitats at bay. We spray them, mow them, and “clean them up”. We buy weed eaters and bushhogs to control and remove them and we replace them with pretty green grasses that we mow every week. If we let them grow they become an “eyesore” to our neighbors and our farms are considered not “clean”. Then if we desire to do something for quail we think it’s better to buy and plant a special seed or mix in a dedicated spot and make a “food plot.” We plant magic beans and go to sleep at night dreaming of quail springing from the soil and scurrying through our newly-planted patch. Before our quail management efforts can succeed, we must clear our heads of the “food plot mentality” and convince ourselves and others of the value of establishing and maintaining extensive areas dominated by weeds, broom straw, and briars.

There are many advantages to managing weeds, broom straw, and briars. The first one is that the plants grow here naturally and are adapted to colonize new areas, so they show up fast. They only need a little bit of soil disturbance, sunlight, and some rain to establish themselves. Finally, the seed are free and they don’t need any fertilizer. If replacing habitat quantity is the answer to restoring quail, then our biggest challenge may be to overcome the social pressures which encourage us to keep the back field looking like the front yard.

—David Sawyer, District 7 Technical Guidance Biologist

**Could Restoring Quail Be as Simple as Weeds, Broomstraw, and Briars?**

**Upland Bird Habitat Buffer**

What is a CRP CP33 Upland Bird Habitat Buffer? In short it’s a great opportunity for landowners to create wildlife habitat around the perimeter of a crop field and receive competitive rental payments for improving quail habitat.

The habitat buffer must be allowed to grow up in volunteer vegetation “weedy patches.” Weedy patches were once plentiful on the North Carolina landscape, but are now missing on most North Carolina farms. When I would go and visit my...
until recently, most knowledge of Appalachian grouse was generated from research conducted in the Great Lakes states—the geographic core of grouse range. In 1996, the Appalachian Cooperative Grouse Research Project (ACGRP) was initiated to study grouse range. In 1996, the Appalachian Cooperative Grouse Research Project (ACGRP) was initiated to study grouse on many ACGRP sites were found along riparian habitats where stem density was high and along forest roads where herbaceous plants (especially clover and cinquefoil) served as an alternative food source. The key to management is inter- herbage and insects were abundant. During years of low acorn abundance, grouse on many ACGRP sites were found along riparian habitats where stem density was high and along forest roads where herbaceous plants (especially clover and cinquefoil) served as an alternative food source. The key to management is inter- herbage and insects were abundant. During years of low acorn abundance, grouse on many ACGRP sites were found along riparian habitats where stem density was high and along forest roads where herbaceous plants (especially clover and cinquefoil) served as an alternative food source. The key to management is inter-

Logging Roads and Ruffed Grouse

To make sound decisions, wildlife management requires and will pay for border markers. The program will be used on roads to control erosion and improve wildlife habitat. Dr. Harper has produced an excellent publication entitled Growing and Managing Sauces: the Wild Turkey Management Program has a limited supply of the publications available while supplies last. Contact the Division of Wildlife Management, NCWRC, 1722 Mail Service Center, Raleigh, NC 27619-1722.

—Charles Harper, University of Tennessee

Wildlife Management, N.C.

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—Bill Edwards, Wildlife Biologist, USDA National Resources Conservation Service

Continued from page 1

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Along...
CURE Management on the Sandhills Game Lands

It is early January and the familiar smell of diesel fuel, gasoline and wood smoke will soon permeate my truck, clothes, and according to my wife my hair and skin. All my friends say I remind them of their youthful camping trips. It is early January and the beginning of another prescribed burning season that will extend into June. It is a long season briefly interrupted by rainy days and weekends. We already have a block prepared and ready to burn, but before we head out I need to check on a logger who just moved onto a sale. As I cross over U.S. Highway 1 and head east on the Old Laurel Hill Road, I enter Scotland County and one of the four CURE sites on state-owned game lands. As I drive slowly down the road I begin to recall all the work that has gone into this program.

The implementation of the CURE program on the Sandhills Game Land is now in its fourth year. The technicians, biologists and foresters assigned to design and implement the plan have been very busy. What began as an idea shared among managers who recognized the need for a change in land management is beginning to take form. The landscape, once dominated by thick stands of pines and midstory hardwoods, is giving way to an open pine forest with grasses and forbs carpeting the ground. The evergreen shrub drains that had become choked with poplar, gum and maple are being converted back to prized pine canopies and a diverse ground cover of switch cane, grasses and flowering shrubs and herbs. The many small openings, totaling over 200 acres, have also seen a change in management. They are being planted into thick stands of warm season bunch grasses such as Atlantic coastal panic grass or food plantings. Over 30 acres of new open land have been created by removing poor growing stands of loblolly pines. The goal is to create over 5000 acres of open pine/grassland forest habitat and to restore species like the bobwhite quail in the Sandhills of North Carolina.

Some of the most intensive management has taken place in converting over 450 acres of longleaf pine plantation into open pine/grassland habitat. Most of these stands were established over 70 years ago and have been managed to produce pine straw for the landscape industry for the past 30 years. They were stocked with as many as 70–100 trees per acre. An absence of ground cover made these stands less than desirable habitat for most species of wildlife. To date we have thinned six pine plantations, removing over two million board feet of timber to create an open pine canopy. Such conditions are necessary for creating ground cover. Instead of waiting for nature to seed in these areas on her own, we devised several strategies to speed up the process. Where logging debris was heaviest dozers were used to windrow and pile limbs and tops from the trees that were harvested. An innovative method of applying seed and fertilizer was devised and used by wildlife management technicians. Leaf blowers designed to apply granular herbicides were modified to make quick work of the job. Types of seed applied included Atlantic coastal panic grass, ragweed, partridge pea, wiregrass and native flowering herbs found in the Sandhills. The results are looking very promising. Thick clumps of panic grass and broom snare are creating a dazzling array of vertical structure. Exactly what the prescription called for: if I had the money I would buy a bird dog.

Stands of natural longleaf have been thinned where needed. Many of the more open pine stands where choked with thick stands of midstory hardwoods while not wanting to eliminate all the oaks from the CURE area we realized we had to regain control of our uplands if we were to create the type and amount of habitat needed to make the CURE program a success. Last year we prescribed burned over 1200 acres on the CURE area. Where fire has proven ineffective we have resorted to herbicides to remove dense hardwood midstories. To date we have treated between 240–250 acres. These upland sites though low in productivity do cover a large area and will connect the more productive sites with moderate to good habitat.

Most of our timber sales include both upland and wetlands. As mentioned earlier one of our major goals is the restoration of our drains to a pond pine/switch cane/grass type habitat. Most of our drains currently have a mixed pine/hardwood canopy. Removing the larger merchantable hardwoods has proven to be very effective in producing high quality habitat for ground nesters. The remaining pine-dominated, evergreen/switch cane plant community can be managed with prescribed fire. Past experience and research tells us these wetlands will play a major role in determining how many birds can be produced in the sandhills. This canopy conversion of over 750 acres of wetlands within the CURE area will help assure an abundance of nesting and escape cover.

Spotlight on CURE

Midstory hardwoods are removed from a stand of pines.

—Bill Parsons, Wildlife Forester
Thanks to a new agreement between the Natural Resources Conservation Service (NRCS) and the North Carolina Wildlife Resources Commission, private landowners will receive additional wildlife conservation assistance.

A full-time wildlife biologist is joining NRCS Area Offices in Goldsboro, Salisbury, and Waynesville. They will dedicate their time to enhancing the capabilities of NRCS and Soil and Water Conservation Districts to provide landowners with technical assistance in wildlife management.

Wildlife Biologists Don Barker, Patrick Farrell, and John Isenhour have reported to NRCS Area Offices in Goldsboro, Waynesville, and Salisbury. Don and Patrick each have gained years of wildlife management experience working as Wildlife Technicians on North Carolina Game Lands. John comes to WRC having experience with the N.C. Forest Service and a degree in Wildlife Management from N.C. State University.

Both the Commission and NRCS look forward to the increased capability to provide technical assistance to landowners.

—Matt Flint, NRCS State Biologist