



# THE UPLAND GAZETTE

North Carolina Small Game Notes

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## Why is Grouse Habitat on Public Lands Shrinking?

There is no question that forested wildlife habitat on privately owned land is decreasing due to urban development and conversion of forested lands to pastures and agricultural crops. Because wildlife managers have limited influence over the development of private land, the greatest potential for grouse management remains on public lands.

Approximately 1.1 million acres of federal- and state-owned game lands exist in the range of the ruffed grouse in western North Carolina. The Pisgah and Nantahala National Forests are managed by the U. S. Forest Service and constitute the majority of this acreage. However, only a small portion of this land is providing optimum grouse habitat.

Forest management on these public lands has more impact on grouse habitat than any other land management practice. Specifically, clear-cutting does more to create optimum grouse habitat than any other forest management practice. Six- to 15-year-old clear-cuts provide good grouse habitat, with the 9- to 13-year-old range generally being optimum. This will vary with other factors such as elevation, aspect, site quality, and forest type. Generally, the minimum elevation for good grouse habitat is around 1,400 feet, with the best areas usually located at or above 2,500 feet. The direction the site faces is also important. Grouse habitat develops quicker on north-facing slopes because these slopes are more moist, often higher in site quality and encour-

age the vegetation to grow quicker. Hardwood forest types tend to produce more favorable stem densities for grouse than other forest types.

Prior to the 1987 Land and Resource Management Plan (LRMP) for Pisgah and Nantahala National Forests, timber harvests were employed across these forests, with an extensive use of clear-cutting as the primary harvest technique. As concern regarding environmental impacts was voiced by the public government agencies, the LRMP was revised, setting the limit on overall timber harvests to about 7,540 acres per year, with clear-cutting restricted to 4,500 acres per year. Concerns related to forest interior birds (especially neotropical migrants), regeneration of oaks, old growth, and other issues caused the pendulum to swing even further in 1994. The 1994 LRMP amendment further reduced the overall timber harvests to 3,270 acres per year, with clear-cutting limited to only 240 acres per year.

While laurel and rhododendron thickets, overgrown fields, abandoned logging roads, and spruce ridges are considered places that grouse will also utilize, heavy use of clear-cuts in the 9- to 13-year-old-stage of growth has been

*(continued on back page)*



## Grouse - Turkey Interactions

Since beginning our duties as small game project leaders almost 15 years ago, we have maintained files on grouse and turkey interactions. As we flip through the files, we find numerous references speculating on the interaction but, unfortunately, no hard facts concerning turkey/grouse interactions.

As a way of introduction we will share the most colorful story in our files, a story relayed by way of Vic Venters, a former writer for *Wildlife in North Carolina*. Paul Long, a noted dog trainer, passed the story along to Vic;

*A fellow was in here last week saying he was hunting up in the mountains, I think Alleghany County, when he met an interesting old man who lived like a hermit, was more or less a recluse. He told the following story:*

"Last summer he was sitting out in the woods and he seen a brood of grouse biddies scratching on the ground when a Tom turkey appeared from nowhere starting to chase the little biddies until he killed most of them. The old recluse said where there is a turkey he will kill every little bird. The fellow telling this, he can remember on his grandfather's farm somewhere up there in the mountains. In the spring when a hen would hatch a litter of baby chicks, they would have to confine the tom turkey or he would chase down every chick and kill it."

Though this is by far the most colorful story in our file, the more common ones are experiences of

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## Alphabet Soup: Understanding the Language of the Farm Bill

Working more closely with the agriculture and forestry community to encourage better wildlife management on private lands, the Division of Wildlife Management has discovered a whole new set of jargon that can best be described as "alphabet soup." When listening to the agencies that administer those programs, it may seem as though they are speaking in a secret code.

Landowners wishing to promote wildlife conservation must have at least a basic understanding of the various programs, which can be overwhelming. For example, a typical property owner could enter the office of FSA or NRCS and be given the choice of CRP, WRP, EQIP, FIP, SIP, or WHIP. The alphabet soup experience can be intimidating, but persistence with the process can help a landowner obtain technical and financial assistance to accomplish their goals.

Here is a quick review of the various agencies and programs under which a landowner can receive assistance in accomplishing wildlife objectives.

FSA – The Farm Services Agency is the same office that was formerly called the Agricultural Stabilization and Conservation

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## Attention Upland Game Bird Hunters

If you are like me, when you go to the Midwest to hunt birds you are operating at a frantic pace to get in as many hours of upland game bird hunting as you can. The next time you are in Iowa, South Dakota, Nebraska, Kansas, Oklahoma, Texas or wherever it is that you go "to really get into some great upland bird hunting," relax a little bit, open your eyes, and take a good look at the habitat around you. Perhaps then you will be able to compare the terrain you see there to what you see in North Carolina. Having done those things, you should then be in a better position to understand why we have to travel so far to find great upland bird hunting.

I had been thinking about writing an article for quite some time, but I recently got a copy of some correspondence from Terry Sharpe, our Small Game project leader, that prompted me to go ahead and prepare this article sooner. One of the Avid Quail Hunter Surveys returned to us had information on several North Carolina quail hunts, and with it was another Avid Quail Hunter Survey card containing information from quail hunts in one of the Midwestern states. Though no surprise, it was interesting to compare the number of coveys flushed and the number of quail bagged in the Midwestern state to North Carolina's statistics. The data supplied by hunters indicated that approximately six times as many coveys were located, and six times as many birds were bagged per hour in the Midwestern state. For those of you that annually take upland bird hunting trips out west or know someone that does, you will not be surprised at the results of this comparison. Let's face facts: bird hunters know that upland game bird populations are thriving in many other areas of

the country, while quail populations continue to decline in the Southeast – the historical stronghold of bobwhite quail hunting in the U.S. Bird hunters go where the birds are. I, too, make as many upland bird hunting trips to the Midwest and prairie region each year as my boss and my wife (not one in the same) will permit.

To me, the most interesting thing about the Avid Quail Hunter Survey card from the Midwestern state was the note one hunter had written at the bottom of the card: "See what good game management does!" Whether this was a light-hearted jab or not, it deserves a response. The implication that wildlife biologists, managers and administrators are to blame for the decline of quail and other small game in the Southeast is what prompted me to put the writing of this article on the front burner. Recent articles in the *Wildlife in North Carolina* magazine, *The Upland Gazette*, *Virginia Wildlife*, *Quail Unlimited* magazine and numerous popular sporting magazines have done an excellent job of explaining the how's and why's of habitat changes that have resulted in declining populations of quail in the Southeast. And yet, many still blame the quail decline on the Wildlife Commission, Mexican bobwhite quail, insufficient winter food, predators, sun spots, El Nino and a host of other factors; none of which deserve all the credit for the decline.

When I quail hunt out West, I see mile after mile of unmowed native grasses along the highway right-of-ways. I see miles of ditch, stream, and creek banks vegetated with native grasses. I see hundreds of Conservation Reserve Program (CRP) fields vegetated with native grasses. Do you see any of these things in North Carolina?

I also see millions of acres of

agricultural fields that are plowed as soon as the crops are harvested in the fall. Winter food is not a critical factor out there either, although wildlife species benefit greatly when fields are not plowed until spring.

I see many dead raccoons, opossums, skunks, foxes, and coyotes along all the highways. I see an abundance of hawks and owls along the highways, sitting in trees along the creeks and in the shelterbelts. When I'm hunting, I see predators and predator-sign everywhere. Hawk, owl, coyote, fox, raccoon, opossum, skunk, rats, and other predator populations are thriving there. In fact, many believe there are now as many or more predators in those areas as there ever has been.

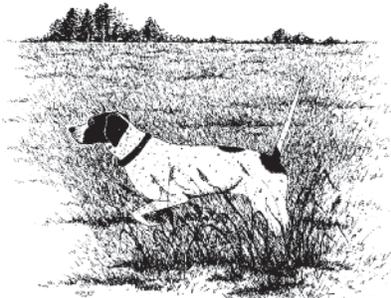
Michigan recently adopted legislation that prohibits mowing of certain highway right-of-ways during the nesting season. They believe this will give them at least 1 million additional acres of prime nesting and brood-rearing habitat for upland birds and small mammals.

Upland game bird populations in those areas have not always been as high as they are at present. Prior to the 1985 Farm Bill, many of the upland bird populations were significantly depressed. One of the programs of the 1985 Farm Bill was the Conservation Reserve Program, which was designed to retire highly erodible agricultural acreage for periods of five to 10 years. A requirement of CRP was that retired acreage had to be planted with vegetation to provide soil and water conservation benefits. The predominant vegetation planted were native warm- and cool-season grasses. These grasses just happen to also provide excellent nesting and brood-rearing habitat for upland birds and small game animals. We have CRP acreage in the Southeast too, but the majority of

our CRP acreage was planted in loblolly pines or tall fescue. We did not reap the wildlife benefits in the Southeast like the other regions of the country because pines and fescue do not constitute good wildlife habitat.

If more of us could see the same thing, we could work together to try to increase populations of bobwhite quail and cottontail rabbits in North Carolina and throughout the Southeast. Southeastern wildlife biologists that specialize in quail and small game management believe these populations are declining due to lack of good, quality nesting and brood-rearing habitats. Until we can provide hundreds of thousands of acres of nesting and brood-rearing habitat on a landscape scale, our small game populations cannot rebound.

Sure, predation is a factor; predators are opportunistic and they will eat whatever is available to them. However, hundreds of thousands of acres of high quality nesting and brood-rearing habitat will produce small game populations that can satisfy hunters and



ILLUSTRATED BY KIMBERLY K.C. SCHOTT

predators alike. If you doubt this, just look to the Midwest, Southwest and Prairie Region.

Small game populations will not rebound to the levels we enjoyed during the period of the 1950's to 1970's unless we work together. When we spend time, energy, and money on things like pen-raised birds, winter food plots, artificial feeders and predators, we effectively dilute our pool

of resources and ensure that we will not succeed in increasing small game populations. To bring quail populations back, we must work together to provide quality nesting and brood-rearing habitat on hundreds of thousands of acres in North Carolina.

You might be asking yourself how we can do this. Though it may not be possible to return to the "good old days" of quail hunting in the Southeast, we could have better bird hunting by working together to bring about the needed habitat changes. We need to all "THINK HABITAT" and spend our collective energies creating better habitat for quail. We need to be proactive and encourage farmers, cattlemen, and other landowners to reduce mowing as much as possible during the prime nesting season. We need to ask the N.C. Department of Transportation to stop mowing highway right-of-ways during the quail-nesting season. We need to contact our local Natural Resource Conservation Service and Farm Services Agency personnel and express our concern about the loss of small game habitat on modern farms and ask them to use the Farm Bill Programs to reverse the trend. We need to explain the importance of nesting and brood-rearing habitat to farmers and landowners and ask them to reduce mowing and herbicide use as much as possible. Our tax dollars are being spent on farms to address animal waste issues and soil and water conservation practices. Why not ask our legislators to spend more of our tax dollars to create quail-nesting and brood-rearing habitat on these same farms? These are but a few of the many things that we could accomplish if we would all "THINK HABITAT" and work together.<sup>u</sup>

—Denny Baumberger  
*Small Game and Migratory Bird  
Program Coordinator*

**Grouse - Turkey** *(continued)*

hunters who return to a favored covert only to find no grouse, but lots of turkeys or turkey sign. Leafing through the file I find much speculation published in various newsletters from across the nation. Unfortunately, most of the references do not contain data on flush rates, turkey sightings, or covert condition.

When we initiated our avid grouse hunter survey in 1984, turkeys were scarce over much of western North Carolina. But in the years since, turkey populations have exploded. Turkey harvests have increased six fold since the mid 1980s. Our records (actually your records, since our information is obtained from hunter surveys) fail to show any long-term declines in grouse hunting success in western North Carolina during the same period (see figures 1 and 2). The low point in our grouse flush rates occurred in 1992 and can be traced to a cold, wet spring that impacted not only grouse production, but turkey production also.

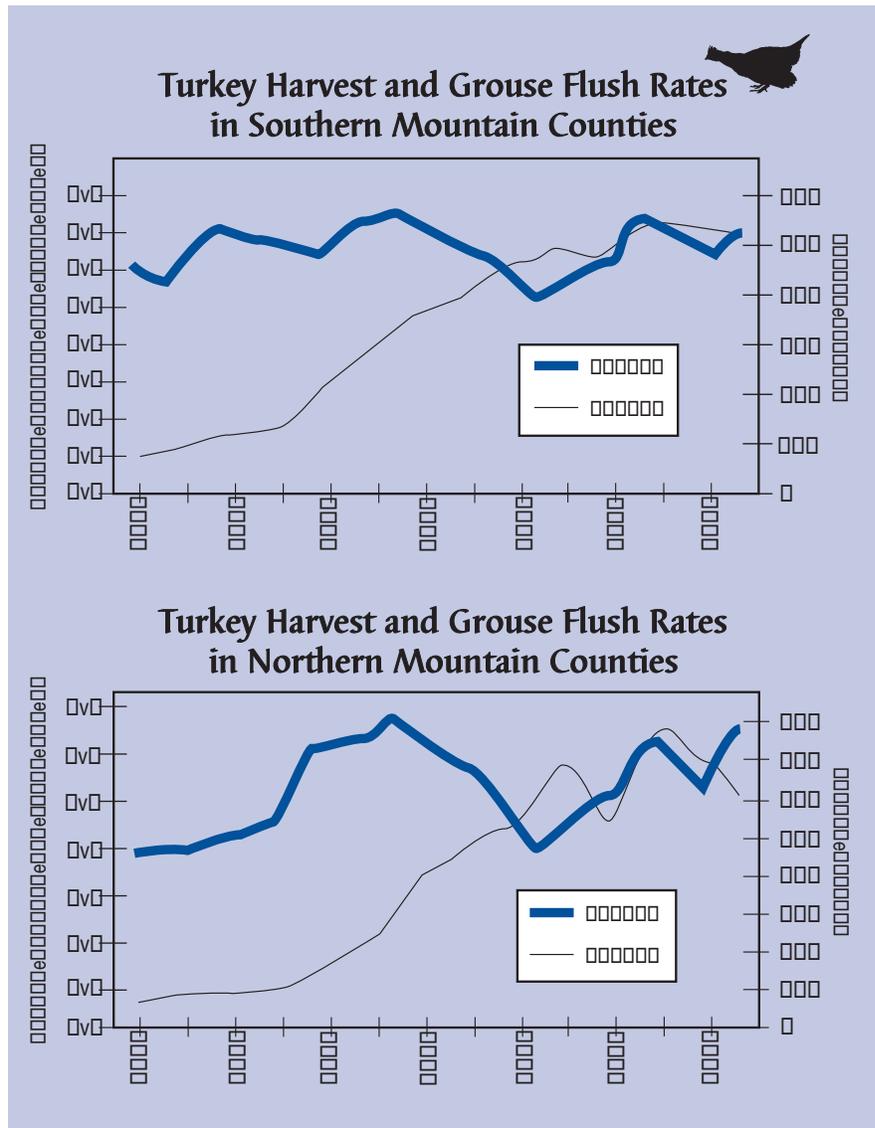
Since grouse and turkeys are closely related, we cannot rule out the possibility that a disease or parasite may pass from one to the other. This may impact populations, though this has never been documented. Turkeys and a host of other critters certainly compete with grouse for food, and heavy use by turkeys may exclude grouse from sites offering preferred foods. But most importantly, the two flourish in substantially different habitat types, turkey preferring older, more open forest stands and being capable of exploiting large openings and pastures. Grouse, while often sighted in many different habitat types, reach highest densities in younger forests with high stem densities. Numerous researchers have documented that grouse densities peak

in dense, young forests five to 20 years after disturbance. As for turkeys eating young grouse, it only happens during chance encounters. Since young grouse are only small enough to be captured and consumed by turkeys for a very brief period of time each year, common sense tells us that it probably happens very infrequently.

Your hunting records show no evidence of a long-term decline in grouse hunting success as turkey populations have increased in western North Carolina. In our opinion, a more serious concern for the future of grouse hunting is

the growing number of homes being constructed throughout the mountains, a trend toward older forests in the region and the reduction of clear-cutting on National Forest lands as a forest management tool.<sup>u</sup>

—Terry Sharpe, *Small Game Project Leader*  
—Mike Seamster, *Wild Turkey Project Leader*



We are working to expand our mailing list to include other interested landowners and sportsmen. Please pass along your copy to friends who may be interested. Send names of others who may find the information useful to: *The Upland Gazette*, Division of Wildlife Management, N.C. Wildlife Resources Commission, 512 N. Salisbury Street, Raleigh, N.C. 27604-1188.

*(Note: Hunters who participated in last season's Avid Quail and Grouse Hunter Survey will automatically be included in future mailings and do not need to reply.)*

Name \_\_\_\_\_

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Address \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

## Alphabet Soup *(continued)*

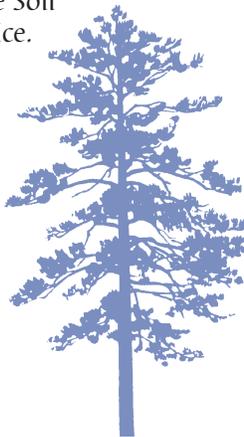
Service. They administer the paperwork and handle the finances for most federal conservation programs. These offices are located in most North Carolina counties.

NRCS – The Natural Resources Conservation Service was formerly called the Soil Conservation Service.

The new name reflects the broader interests (including wildlife) that this agency has assumed in recent years.

These offices are also located in most North Carolina counties.

CRP – The Conservation Reserve Program is a water quality and wildlife habitat improvement program designed to retire erodible crop or pastureland for a 10- to 15-year period. Land is placed under contract and the landowner is paid annual rent and can receive financial assistance for establishing conservation practices. North Carolina currently has about 83,000 acres signed up in CRP. The next registration period is scheduled for September.



EQIP – The Environmental Quality Incentives Program is a water quality program that targets watersheds, but also can cost-share wildlife practices. Landowners participate by developing multi-year conservation plans for land signed into the program. North Carolina's 1998 allocation is about \$4,500,000. Most of the money will be spent in 19 priority areas comprising about 45% of the state.

FIP – The Forestry Incentives Program is a program designed to cost-share forestry practices to increase the future supply of timber and promote sustained yield, multipurpose management of private forest land. North Carolina has about \$340,000 in the program this year.

SIP – The Stewardship Incentives Program is a cost-share portion of the Forest Stewardship Program, a forest management program designed to enhance wildlife, recreation as well as timber and soil quality. Participants receive technical assistance in the form of a management plan and cost-share to implement selected practices. North Carolina has about \$87,000 available to landowners for cost-sharing practices during 1998.

WHIP – The Wildlife Habitat Incentives Program is a cost-share

program designed to assist landowners with wildlife habitat improvements. North Carolina's program directs management toward species inhabiting grassland and brush-land plant communities. North Carolina has \$460,000 available to landowners for cost-sharing wildlife improvement projects.

WRP – The Wetlands Reserve Program is a program that offers landowners a chance to receive payments for restoring and protecting wetlands on their property through establishment of permanent or 30-year easements or restoration agreements. North Carolina has about 15,000 signed up in the program. Most land currently under the program is formerly drained wetlands in eastern North Carolina, though some bog restoration work has been undertaken in western counties.

County employees of FSA and NRCS are more than willing to help landowners negotiate the alphabet soup of acronyms and find the right programs to accomplish wildlife goals. The Wildlife Commission also has an employee assigned to assist NRCS and landowners with Farm Bill-wildlife issues in each county of the state. <sup>u</sup>

—Terry Sharpe  
Small Game Project Leader

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### **Grouse Habitat** *(continued)*

found to occur, especially after the leaves have fallen. Additionally, seeded logging roads, skid trails, log landings, and developed wildlife fields provide important areas that grouse will also use at certain times of the year. Abandoned home sites that are improved for wildlife and forested areas that are thinned heavily can also enhance habitat for grouse. However, these types of areas tend to be limited in the mountain region.

Controlled burning is an important habitat management tool that also results in improving grouse habitat. While the steep topography of the mountains somewhat restricts the use of prescribed burning as compared to the coastal plain, it remains a valuable method for creating early successional wildlife habitat conditions. This is especially impor-

tant if timber harvests are not employed at a level sufficient to meet the needs of early successional species. Where prescribed burning has been used in the mountains, it has shown great promise for creating favorable habitat. Results most often include a more open canopy with the reduction in the dominance of laurel and rhododendron, increased abundance of grasses, plant material, increased understory berry production and an increase in the populations of many game and non-game animal species. The use of prescribed burning has been greatly expanded over the last 10 years across the mountain region. This year alone, prescribed burning has been successfully applied to hundreds of acres throughout the mountain region on both state and federal lands specifically to improve wildlife habitat conditions.

While the decreasing use of

clear-cutting on National Forests presents a somewhat bleak picture for the future of grouse habitat on public lands in western North Carolina, there may be hope through an expanded use of other management tools such as prescribed burning. It is also important to remember that many areas previously clear-cut are now reaching their prime for providing optimum grouse habitat. Wildlife managers are compelled to continue to seek new solutions and work toward balanced management programs for our forests. However, significant acreages of early successional habitat is a must if grouse are to continue to thrive in our mountains.<sup>u</sup>

—Dean M. Simon  
Western Region Wildlife Forester  
with the N.C. Wildlife Resources  
Commission

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