



the Upland GAZETTE

◆ North Carolina Small Game Notes ◆

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Coyotes in North Carolina

What is happening, and what should we expect?

Coyotes are new additions to North Carolina's fauna, and the N.C. Wildlife Resources Commission fields plenty of questions about them from the public—particularly sportsmen and land-



U.S. FISH AND WILDLIFE SERVICE

owners. To answer some of the more common questions, *Upland Gazette* has called on Perry Sumner, the Wildlife Commission's furbearer biologist for the past 17 years.

Sumner, a Commission biologist since 1983, is uniquely qualified to address the topic of coyotes in North Carolina. He has tracked their expansion across the state since 1984, when sustainable populations first arrived, until they became statewide in distribution around 2003. As a graduate student in wildlife ecology at Mississippi State University, he trapped and tracked coyotes using radiotelemetry to study their movements, home range and habitat use. He has coauthored scientific papers on coyote food habits and on human influences on their range expansion.

How did coyotes get here?

Prior to 1800 coyotes were restricted in distribution to the Great Plains area of the western United States. They have since expanded their range to include most of North America and parts of Central America.

Until the late 1970s, the few coyotes that showed up in North Carolina either escaped captivity or were released. During the late 1970s into the early 1980s, coyotes showed up in eastern North Carolina counties due to releases by unknown individuals for unclear reasons (probably to provide sport by chasing with hounds). The N.C. Wildlife Resources Commission has never translocated or released coyotes anywhere for any reason.

It wasn't until the mid-to-late 1980s that coyotes began to enter western North Carolina due to a natural range expansion. Coyote populations that became established in eastern areas due to translocations have since merged with populations resulting from the natural west-to-east range expansion.

What do coyotes eat, and what impacts might they have on North Carolina wildlife?

Coyotes are opportunistic omnivores, which means they consume nearly anything they can digest. Generally, they eat a variety of food items year-round with an emphasis on small mammals, fawns, plants, assorted fruits and invertebrates during summer. In the winter months they consume larger items such as deer (prey or carrion), livestock carrion or rabbits if abundant.

Studies conducted in the southeastern United States indicate that coyotes tend to prey most heavily on what is most available and have been found to eat a much larger variety of food items than in other areas where they occur. In the Southeast, coyote feeding habits have caused the most problems when they consume watermelons, unconfined livestock and pets (small dogs and housecats).

The particular problems associated with coyote predation depend upon local

Quail Numbers Statewide Decline Further

2005 Call Counts Find Signs of Stability in the Coastal Plain, But a Bleaker Outlook in the Piedmont and Mountain Regions

Northern bobwhite quail (*Colinus virginianus*) populations have declined drastically throughout the southeastern United States during the last 40 years. North Carolina's quail population has followed this same downward trend. Quail were once an abundant byproduct of rural landscapes and a mainstay for North Carolina's small game hunters. Large-scale changes in both land use and farming practices, with the resultant loss and/or degradation of habitat, have been major contributing factors. Urban sprawl and fragmentation of remaining habitats have further exacerbated an already dire situation for quail by increasing their susceptibility to predation and other limiting factors.

To monitor quail abundance and population trends throughout the state, biologists with the N.C. Wildlife Resources Commission use call count surveys. Stopping at predetermined spots along a route, biologists listen for quail calls and record the numbers. In 2005, 25 routes were surveyed—10 in the Coastal Region, 11 in the Piedmont Region and four in the Mountain Region.

In the Coastal Region, the average number of quail heard per route (28.1) was down 3 percent from the previous year. [See Fig. 1, page 3] In the Piedmont Region, the average number of quail heard per route (6.4) was down 11 percent from the previous year. In the Mountain Region, the average number of quail heard per route (1.5) was down 57 percent from the previous year.

The number of quail heard per route in the Coastal Region has been up in two of the last four years, while the number of quail heard per route in both the Piedmont and Mountain regions has been down in three of the last four years.

Comparing apples to apples, the 17 original call count survey routes indicate the same downward trends. [Fig. 2] Quail call count surveys in North Carolina began in 1957 with 17 routes—five in the Coastal, eight in the Piedmont and four in the Mountain regions. Over the years, routes have been added and deleted to better monitor the quail populations,

Have You Kissed a Toad Lately?

Environmentally valuable but largely unrecognized, frogs and toads are losing habitat

Even the most citified citizen recognizes toads and frogs. You can see toads in landscaping berms in almost every city; they hang out under spotlights in parking lots; and when you are driving after a good rain, you'll see a host of toads and frogs hanging out in the middle of the road, apparently oblivious to your oncoming car.

North Carolina is home to 30 species of frogs and toads. The two amphibians are closely related, both being part of the order Anura. There aren't any characteristics that definitively distinguish all frogs from all toads. But generally speaking, frogs tend to have longer, leaner legs for big leaps, whereas toads have shorter, stockier legs for smaller hops. Also, toads tend to be covered in warty, "dry" skin; frogs typically are smooth-skinned and are found in wetter environments.

Both are amphibians, having a terrestrial phase and an aquatic phase in their life cycles. Adult frogs and toads deposit their eggs in lakes, ponds, creeks or even puddles. The eggs develop into tadpoles that live in the water till they sprout legs, trade gills for lungs and hop out into the world.

There are many great chances to hear North Carolina's toads and frogs, as well as see them, especially if you are prone to spending some quality time in the outdoors. Males use their distinctive calls during the breeding season to attract females to a location that is suitable for breeding.

They typically attract other males as well into a group of calling males termed a "chorus." Choruses of males have been shown to be more effective at enticing females than single calling individuals. Calls also serve to establish territory and warn of danger.

If you have noticed deafening noises near water in the late winter and early spring, or even during the summer and fall after good rains, then you can understand how effectively a chorus gets a female's attention. These distinctive calls are simple for outdoor enthusiasts to identify, especially if you pay some attention to the habitat where you hear the call and the time of year the call is made.

If you are in our mountains, you will likely see American toads, *Bufo americanus*, since they are common around homes and on sidewalks, but they love the deep woods too. Their call is a long (up to 30 seconds) high-pitched trill that you will hear from March through July.

In the Coastal Plain you are more likely to hear a Southern toad, *Bufo terrestris*. Its call is similar but shorter and less musical. Both these species stay hidden during the day and come out to forage at twilight.

A frog species that is heard all across the state, but not commonly seen without some significant effort, is the spring peeper, *Pseudacris crucifer*. This small frog, usually less than an inch long, can make a huge noise even alone. But in chorus, peepers make up for their excellent hiding ability by creating such a din from their watery perches, typically in shrubby layers near or in water, that conversation nearby is impossible. Their name aptly describes their call, which is a piercing "peep" that can be heard from late winter into early spring.

Another pair of frogs that you have surely encountered are the bullfrog, *Rana catesbeiana*, and the green frog, *Rana clamitans*. These are two of the state's largest frogs (the bullfrog is THE largest), and they can be found around the edges of just about every type of water body in the state. The two species can be distinguished by looking at the folds of skin that run from the eye down either side of the back on the green frog. On the bullfrog these folds instead go from the eye and circle around the back side of the tympanum, its round, disk-like ear structure.

Bullfrogs make their distinctive "jug-o-rum" call from February to October. The green frog's call, like the sound of a loose banjo string being plucked, is heard from March to August. Its alarm call is one you probably also recognize, as it is the "eek!" you hear just before an unseen green frog hops into the water as you walk past.

Losing Habitat

Like frogs worldwide, the frogs and toads of North Carolina have a difficult road ahead. Scientists have recently been noting sharp declines in frog and toad populations and have observed strange body malformations in many species from many locations. These alarming situations have prompted an increased interest in the threats facing these amphibians, and many organizations have developed programs to monitor the status of frogs and toads in different parts of the world.

In North Carolina, loss of quality habitat is one of the greatest threats frogs and toads face. (Sound familiar, quail lovers?) Land development, wetland-filling and road-building cause habitat destruction and fragmentation. Wetland habitats necessary for breeding sites are eliminated. Forested areas where many species live out most of the year are removed. And barriers between those two habitats are created, preventing individuals from migrating to and from breeding areas. Impacts on entire populations are the result.

In 2003, scientists with the federal Natural Resources Conservation Service estimated

that 50 percent of North Carolina's original wetlands have been lost due to development and conversion to cropland. The same agency ranked North Carolina 6th in the nation for total acres of land developed between 1992 and 1997. And considering that the state's human population increased by more than 15 percent in the 1990s, it is apparent that in order to ensure that frogs and toads persist in North Carolina, citizens must actively work to protect the healthy habitats that remain.

Pollution from chemicals is another major cause of declines in numbers and in health of amphibian populations. Frogs and toads, like most other amphibians, use their skin as a second breathing surface and therefore can absorb water, air and other chemicals across their skin. This ability makes these species particularly vulnerable to toxins in the water, air and soil. When acid rain, pesticides, herbicides, fertilizers and other toxic chemicals enter the soil and water—through storm drains, agricultural runoff, chemical lawn treatments, etc.—they usually end up in wetlands, where frogs and toads live and breed. These chemicals can kill the animals outright or secondarily harm the populations by impacting reproduction, development and disease resistance in the individuals.

Fortunately, you can take action to help ensure that frogs and toads—as well as other wildlife species—remain healthy members of our state's natural environment. Learn more about the frogs and toads that occur in your area, and share that knowledge with those you know. Start noticing the calls you hear when you are out in the field. You'd be surprised how much pleasure you'll get from hearing cool night sounds and actually knowing the species that are making them. And you can wow your buddies with your Grizzly Adams skills!

The N.C. Wildlife Resources Commission will make this even easier when, in a few months, we release a new publication through our Wild Store titled "The Frogs and Toads of North Carolina." This book has photos and descriptions of the frogs and toads and their habitats, and is accompanied by a CD of the calls of all our state's species. Soon you'll find yourself singing along with these calling, hopping creatures and participating in wetland restoration projects and volunteer clean-up efforts in your area of the state.

If you also do your part to recycle, reduce pollution and encourage smart development, then soon we'll all be kissing toads galore!

Come on, I'll bet you've kissed worse. ♦

—Sarah Cross, NCWRC Herpetologist

Coyotes in North Carolina (cont.)

conditions. The tendency of coyotes to consume such a wide variety of prey/food items is the most likely reason that coyotes do not generally cause measurable declines in game populations.

The impact of coyote predation on populations of small game animals and wild rodents is generally unknown and appears to be variable. Coyotes are likely to have the greatest impact on rodent and rabbit populations when those populations are already declining for other reasons and when the relative number of coyotes to prey is high.

Coyote predation on white-tailed deer in the southeastern U.S. has been studied and does not appear to impact deer population levels. Coyotes tend to consume more deer where deer populations are high and fewer deer where deer are not abundant. In some cases, coyote predation on white-tailed deer appears to be beneficial in regulating deer numbers and maintaining a healthier deer herd overall.

Established wild turkey populations do not appear to be affected by coyote predation, although the effect of coyotes on recently established wild turkey populations is unknown. During West Virginia's five-year wild turkey survival study, only one incidence of coyote predation was documented.

In every instance where the relationship between coyotes and red foxes has been studied, red fox populations decline as coyote populations increase. This occurs due to coyotes killing, but not necessarily consuming, red foxes. Most likely, coyotes exhibit this territorial response to a species in close competition to themselves. A similar relationship exists where wolves kill coyotes that enter their territories. The impact of coyotes on gray foxes appears to be minimal and may simply be the result of the gray fox's ability to climb trees and avoid predation by coyotes.

The consumption of small dogs and housecats is usually associated with coyotes in urban areas where they are neither hunted nor trapped and have acclimated to humans because of food items (pet food, garbage) available to them in close proximity to human dwellings. Healthy coyotes have attacked people and killed a few young children in urban areas where they were tolerated and became acclimated to humans due to food provided by local residents, both intentionally and unintentionally, through garbage and pet feeders.

What good are they?

Predation by coyotes on species that prey on small game and bird nests—such as feral housecats, raccoons, skunks and cotton rats—is likely to offset any direct predation by coyotes on these small game species and may actually benefit those species. Coyotes have been used as a management tool for white-tailed deer in situations where hunters were unable or unwilling to harvest sufficient numbers of does to maintain herds at carrying capacity.

Coyote hunting by calling and shooting has become a very popular sport in areas where populations have become established and are relatively high. Calling and shooting coyotes could be compared to spring gobbler hunting except that coyotes have an extremely advanced sense of smell, which presents a more challenging hunt.

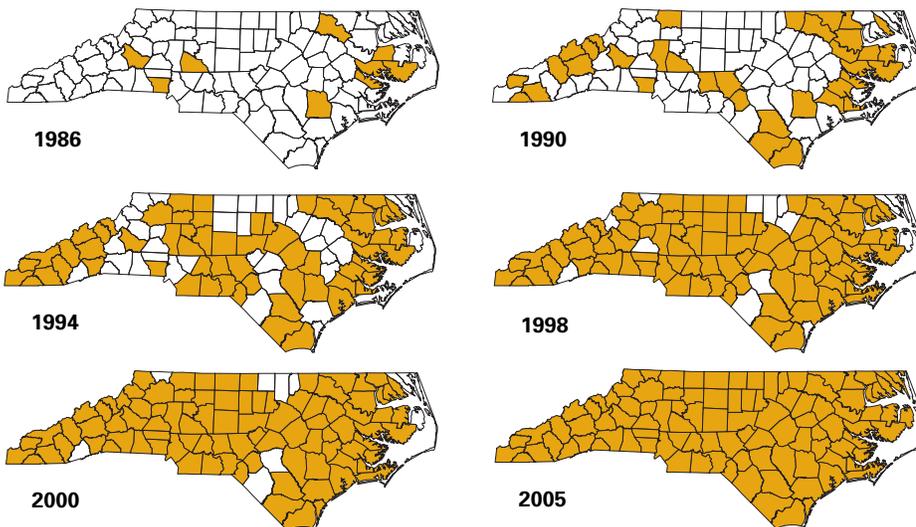
What can or should be done about coyotes?

Coyotes are here to stay. Even extreme measures to eradicate them have been unsuccessful in the past. Whenever coyote populations have been significantly lowered, the remaining coyotes respond by producing larger litter sizes (12–14 pups rather than 5–7), which results in even higher populations.

Trapping the individual coyotes that are causing livestock losses has proven to be much more effective in lowering livestock predation than targeting the coyote population. This type of trapping requires high levels of skill in identifying the offending coyotes as well as trapping those animals. Find out who are the best coyote trappers in your area and encourage them to trap coyotes on your property.

Take up the sport of coyote calling and shooting and encourage all hunters to shoot any coyote whenever the opportunity presents itself. Just be aware that if you intend to shoot a coyote, do not miss. Coyotes are extremely intelligent and will learn from their mistakes, so you may not get another opportunity to shoot that coyote again. ♦

North Carolina Coyote Distribution



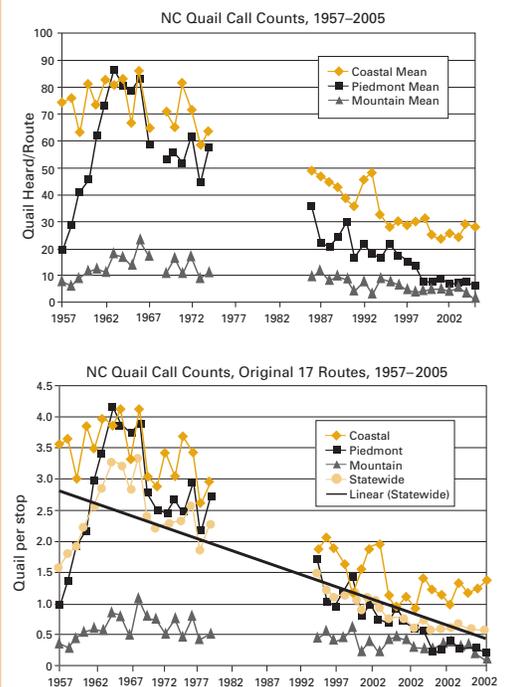
Quail Numbers (cont.)

but the Wildlife Commission still tracks the original 17 routes as a separate group.

Original route surveys in the Coastal Region reveal that the number of quail heard per stop increased by 13 percent over last year and has been up in three of the last four years. In the Piedmont Region the number of quail heard per stop declined 26 percent and has been down in three of the last four years. In the Mountain Region, the number of quail heard per stop declined 47 percent and has been down in three of the last four years.

The long-term trend in quail numbers in North Carolina is obviously downward. Although there have been minor annual fluctuations, survey results over the last six to eight years seem to indicate that quail abundance in the Coastal Region may be stabilizing at a relatively low level consistent with the limited amount of available habitat. The downward trend in quail abundance in the Piedmont and Mountain Regions appears to be continuing. ♦

—Michael H. Seamster,
NCWRC Upland Game Bird Biologist



Grouse, Chestnuts and Turkeys

I enjoyed the article in the *Upland Gazette* titled "Findings from the Appalachian Cooperative Grouse Research Project" [Spring 2005]. I would be curious to know if anybody has ever speculated on what impact the precipitous loss of chestnuts in the early part of the last century might have had on grouse. If chestnuts had been an important part of their diet for thousands of years, one would assume that there would have been an impact.

There is some anecdotal evidence that turkeys and grouse do not coexist well together. If that is indeed the case, could the loss of chestnuts be a contributing factor? I would appreciate any thoughts you might have about grouse and chestnuts.

—Joe McDonald, Hoffman, N.C.

Article coauthor Craig Harper replies:

While I can only speculate, I certainly feel the loss of American chestnuts was detrimental for many wildlife species, including ruffed grouse. The American chestnut was a reliable mast producer, not as variable as oaks. This would represent a dependable source of energy each fall and winter, which would be most important for grouse, as we now realize their nutritional constraints during this time in the southern Appalachians.

Unfortunately, only speculations can be made about the impact of losing the chestnut. Wildlife populations were only beginning to be monitored when it was evident many species were in severe decline because of the widespread habitat destruction that was taking place in the late 1800s and early 1900s. Therefore, the impact of the loss of American chestnuts could not be well-documented because many forest wildlife species were at all-time lows or just beginning to recover when the chestnut was lost.

You mention there is anecdotal evidence that wild turkeys and ruffed grouse do not coexist well together. I don't agree. I was involved in an intensive project dealing with wild turkeys in the southern Appalachians from 1993 to 1998. I also worked with the N.C. Wildlife Resources Commission from 1988 to 1991, and part of my work with them was restoration of wild turkeys in western North Carolina counties. Through my work with turkeys, I saw the opportunity and need to work with ruffed grouse. That is why I began the grouse project in 1998–99.

In all the field work I have conducted in western North Carolina, I have never seen evidence that turkeys pose any threat to grouse. The major difference is in the habitats they use. Grouse, in large part, prefer

young stands six to 20 years old for many of life's requirements. Turkeys are rarely found in those habitats. In fact, of the thousands of radio telemetry locations I collected for turkeys, less than 15 were in habitats favored by grouse. Turkeys preferred the older, more open woods.

Yes, both eat acorns, but so do bears, deer, squirrels, chipmunks, blue jays and a host of other animals. Each of these species, however, has its own niche in the natural world, while they share some resources with other animals.

Without question, turkeys are not the cause of any decline in grouse numbers. The answer is habitat availability. The woods are simply maturing out of grouse habitat because the forests aren't being managed anymore (at least not as I believe they should be). And even if someone has ideal grouse habitat on his property, that doesn't ensure a population increase when the surrounding area is not quality habitat as well.

Local populations must experience regular immigration and emigration in order to ensure genetic viability. Without considerable and continued movement (primarily through dispersal) over time, local populations can become stagnant and can decline. This has been quite evident with many restocked wild turkey populations.

There are exceptions. A friend of mine in upper east Tennessee has a couple hundred acres of mixed hardwoods he manages intensively for grouse by cutting (both harvests and heavy thinnings) and burning regularly (three-year rotation). He also plants his woods roads in clovers and wheat. You may not believe me, but trust me: he regularly moves 10–15 birds during a 2½-hour hunt. Some days he flushes in excess of 20 birds. His best day a couple of years ago was 33! He hunts smart, only at certain times, and doesn't kill too many.

On the same property, he and other hunters kill seven or eight gobblers each year. He regularly hears 10–11 gobblers per morning. My point is the place is crawling with turkeys—and grouse. Habitat management is the key.

I wish you good luck in your habitat management efforts. I am going to send you a copy of the "Final Project Report of the Appalachian Cooperative Grouse Research Project." You should find some interesting information within. ♦

—Craig A. Harper, Associate Professor/Extension Wildlife Specialist, University of Tennessee



Quail and Fragmented Habitat

Does habitat fragmentation influence quail populations? You bet!

If you are a reasonably successful quail hunter, you use the principle of fragmentation when you plan your hunts. When you have a choice, you put down your dog in a young cutover located in a landscape surrounded by fallow fields, other cutovers and cropland—not in an identical clear-cut located in a landscape composed of mature closed-canopy forest, suburbs or fescue pastures. Experienced hunters know that the probability of finding a covey of quail increases as the proportion of the landscape in suitable habitat increases (or as the habitat becomes less fragmented).

Bobwhites are less mobile than most bird species and are particularly ineffective in moving between separated patches of suitable habitat. Compare the effectiveness of a bobwhite with that of a mourning dove in obtaining food from an isolated field surrounded by an inhospitable landscape. The dove can nest in suitable habitat a half-mile away and fly across an overgrazed pasture to exploit the food resource. In contrast, a quail is not likely to survive the first trip across the barren pasture separating the nest and the food source.

The mourning dove can even raise young on energy derived from food in a distant field delivered by the parent. Young quail must have brood habitat containing high insect populations and suitable overhead cover within a short hike of the nest site.

Habitat fragmentation also works against quail at the population scale. Imagine a covey of quail located in a small cutover. If the cutover is surrounded by unsuitable habitat, mortality will be high as the covey breaks up at the beginning of breeding season and ventures out of the cutover in search of mates and nest sites.

However, if a large portion of the landscape consists of suitable habitat, the birds will be able to move about in relative safety to locate mates and nest. Also, if for some reason the covey experiences high mortality, the probability of birds moving in from adjacent coveys is higher in landscapes with abundant suitable habitat.

Avoiding the influences of habitat fragmentation is the most important reason that the N.C. Wildlife Resources Commission has taken a landscape approach in implementing the Cooperative Upland habitat Restoration and Enhancement (CURE) program. Our first step when designing the CURE program was to locate "focal areas," or landscapes in which a large portion of the landscape was either currently suitable for quail or could be devel-



oped into quail habitat in ways that would complement prevailing land uses.

Focal areas in the northern and southern Coastal Plain contain a large portion of row crop land interspersed with woodlots. The landscape in the Piedmont focal area has an abundance of pasture and hay lands interspersed with woodlots.

Within the three focal areas, we continued to consider the effects of fragmentation when we decided to work with cooperatives of landowners. When establishing our three pilot cooperatives, we departed from our past practice of working with individual small landowners and sought out groups of landowners who collectively owned landscapes large enough to support viable bobwhite populations. Our approach in CURE is to establish a minimum of several hundred acres of high-quality habitat on a 5,000-acre landscape.

Unfortunately, the principle of fragmentation makes it tough for small landowners with an interest in quail to be successful in many parts of the state. Without the help of neighbors, the probability of establishing and maintaining high quail populations on small land ownerships is low in many parts of the state. We must remember that the nationwide

quail decline occurred over 30 years as landscapes became unsuitable for bobwhites.

Our plan to restore bobwhites is beginning to gain some momentum, but we would be foolish to cast aside what we know about the way habitat fragmentation impacts bobwhite populations. To be successful, the CURE initiative must continue to work on a firm biological foundation and address the problem based on restoring habitat and populations on the most suitable landscapes. And we must resist the temptation to spread our resources thinly to produce fragments of habitat in otherwise unsuitable landscapes. ♦

—Terry Sharpe,
NCWRC Agricultural Liaison Biologist



Established 1996

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Caswell Game Land Reshaped

Caswell Game Land isn't being managed so much as resculpted. Its final form could be a masterpiece to quail hunters.

The game land renovations are part of a Wildlife Commission program known as CURE, or Cooperative Upland habitat Restoration and Enhancement. The aim of CURE is to restore the open, brushy habitats that once were common but in recent decades have diminished. These weedy, scrubby spaces are known as "early succession" because they typically follow a disturbance such as timber or crop harvest. Bobwhite quail, songbirds and small mammals depend on early-successional habitat for food and cover, but urban development and increasingly efficient farming have reduced these spaces.

Building on previous habitat-restoration programs, CURE focuses less on individual plots than on broad landscapes. On privately held lands, the Wildlife Commission has recruited owners of contiguous properties at three sites around the state to provide field borders and other features friendly to early-

successional species. On public lands such as Commission-owned game lands, biologists and land managers have freer rein to remodel the landscape.

Located in Caswell County, just 15 miles from the Virginia border, Caswell Game Land is a 16,632-acre patchwork of pine stands, hardwood forest and fields spread over rolling hills and steep ravines. Since buying the land in 1959 from the U.S. Forest Service, the Commission has operated Caswell as a public game land. It has been a popular draw for hunters, owing partly to its proximity to the Triad and Triangle urban centers, and partly to the spectacular rebound of white-tailed deer and wild turkey.

Quail, however, continue to languish—not that quail were ever plentiful on Caswell Game Land, said Harlan Hall, regional supervising biologist for the N.C. Wildlife Resources Commission.

"Historically, there hasn't been a high number of bobwhite quail here," Hall said. "But in the early '70s, when I first started, I could hunt on a Saturday morning and find four or five coveys."

The culprit was a lack of early-successional habitat, which comprises only about 10 percent of Caswell's land area. Hardwood forests dominate the game land; their thick canopies block sunlight from reaching the forest floor and generating the understory growth that quail, rabbits and other early-successional species require. Even Caswell's pine stands are primarily Virginia pine, which grow more prolifically than understory-friendly loblolly and shortleaf pine.

The plan, drawn up in 2000, isn't to convert the entire game land to early succession. The central third, around 5,800 acres, has been designated the Caswell CURE area. By 2007, if all goes as planned, just over half that acreage will consist of open, brushy habitat.

"Bringing it to an early-succession stage is easy to do just by cutting timber," said Wildlife Commission forester Chris Kreh. "The trick is keeping it there."

More than 1,500 acres of timber will be harvested on the Caswell CURE site. Game land crews replant the cutovers with loblolly and shortleaf pine seedlings. Regular burns and targeted herbicide sprays keep sprouting poplar, oak, maple and Virginia pine at bay, allowing desirable weeds and grasses to flourish.

"That's what we want to see," said Kreh, pointing to a stand of tall pines spaced about 15 feet apart, a sea of grass swaying amid the trunks. "You've got an open canopy with grass cover. If you stand out there, you see a whole lot of sky. Quail are going to find brood cover and plenty of forage."

As on most other Commission game lands, Caswell is dotted with cultivated fields of corn, wheat, millet and chufa—a nutgrass favored by turkeys—that attract hunters and wildlife alike. But even these regular game land attractions have CURE twists. Milo is prevalent beside the more traditional crops, producing a good food seed as well as fallen stalks that provide structure and cover for both wildlife and native grasses. Between the crop rows and the woodline, unmowed tall grasses and shrubs form a tangle of matted vegetation that quail would find perfect for nesting, cover and forage.

Hall said it's too soon to tell how effective the reshaping has been, although the written plan calls for annual quail call monitoring, which initially recorded no coveys, to turn up 10 each year.

"Our goal here is to bring quail back into the landscape," he said. ♦

—Brad Deen,

NCWRC Public Information Officer



Caswell Game Land renovations on behalf of quail and other small game include timber harvesting (top), burning to encourage native grasses and weeds (bottom right) and planting food plots, as demonstrated by game land technician Jason Allen (bottom left).

Pass It Along...

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
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1722 Mail Service Center
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(Note: Hunters who participated in last season's Avid Quail and Grouse Hunter Survey will automatically be included in further mailings and need not reply.)

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Wildlife Commission Presents Small Game Awards

A family farm and a county conservation office are the 2005 winners of the Lawrence G. Diedrick Small Game Awards, presented by the N.C. Wildlife Resources Commission.

The Mary V. McFadyen farm in Hoke County won the award in the individual category for management of the property in a manner friendly to wildlife species, including bobwhite quail.

The Nash County Soil and Water Conservation District won in the organization or business category for working with local landowners to provide habitat for small game species, especially quail and rabbits.

The awards, decided by the Wildlife Commission's Small Game Committee, are named for former Wildlife Commissioner Larry Diedrick. A lawyer from Rocky Mount, Diedrick was a passionate hunter of doves, quail and other small game as well as a staunch advocate of sound wildlife conservation practices. He died in 2002.

"Larry being a personal friend of mine, I'm sure he'd be pleased" with the Nash Soil and Water District's win, said Bobby Joe Fisher, chairman of the district's Board of Supervisors.

Nash Soil and Water was cited for its leadership in advancing early-succession habitat—the grasses, shrubs and weeds that sprout after land has been disturbed. Many wildlife species, from songbirds to small game, rely on early-succession habitat.

Besides providing technical advice and expertise, the Nash district has made low-cost seeds available to farmers and other landowners who wish to plant wildlife-friendly plots of native grasses and wildflowers. The district has also bought and made available specialized agricultural equipment for sowing wildlife-friendly plants. The award citation hailed the Nash district for providing an "excellent example . . . for Soil and Water Conservation Districts across North Carolina."

On a smaller scale, the McFadyen farm near Raeford was cited for providing and maintaining critical wildlife habitat in the face of "immense" pressure to subdivide the 345-acre tract for residential development. Its woodlands clear-cut in 2001, and its croplands taken out of production, the property now consists of clear-cuts, longleaf pine plantings and wildlife food plots—all of which provide valuable habitat for quail and other early-succession species.

Even more remarkable is the fact that none of the owners live within 50 miles of the old homeplace. Despite federal compensatory payments, the family "has spent thousands of dollars to install and maintain this ecosystem," said Pete Liles, a Laurinburg forester who has worked with the McFadyens to manage the property. "They should be an example to other farm families who are perhaps not as attached to the land as past generations have been, but still want to do what they can to benefit our wildlife heritage."

Family spokesman John McFadyen of Raleigh said he was happy to receive the honor and even happier to help reverse the decline of quail populations.

"I may have contributed to that in my youth," McFadyen said. "Now I have a chance to give something back, to maintain wildlife populations." ♦



John Pechmann, left, N.C. Wildlife Commissioners Chairman, presents the 2005 Larry Diedrick Small Game Award, Individual category, to landowner John McFadyen, middle, and forester Pete Liles.



The Nash County Soil & Water Conservation District won the 2005 Larry Diedrick Small Game Award, Organization/Business category. Pictured are, front row from left, Wildlife Commissioners Chairman John Pechmann; Bobby Joe Fisher, chairman of the district Board of Supervisors; Matthew Richardson, solid waste conservationist; and Terry Best, district conservationist; back row, Edward Long, resource conservation specialist; Bill Edwards and Matt Flint, Natural Resource Conservation Service biologists.

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N.C. Farmers Can Help Quail, Help Themselves

North Carolina farmers can still sign up for a federal program that pays for bobwhite quail habitat on field borders.

The Upland Bird Habitat Buffers initiative is part of the U.S. Department of Agriculture's Conservation Reserve Program, which compensates farmers who set aside sensitive areas to protect water quality and other environmental assets. Bobwhite quail, once prolific throughout the Southeast, have declined precipitously over the past several decades, mostly due to loss of habitat.

Field borders provide the weedy, grassy habitat that bobwhite quail require for food, cover and nesting. Although landowners are not required to plant the buffers, they must agree to manage the enrolled acres periodically to keep out trees. In return, farmers receive payments for up to 10 years on less-productive field edges.

"The Upland Bird Habitat Buffers initiative provides landowners a strong incentive to improve habitat through a signup bonus, annual rental payments and cost share for maintenance," said Terry Sharpe, agricultural liaison biologist with the N.C. Wildlife

Resources Commission. "These incentives are much greater than the Wildlife Commission could have provided on our own."

USDA administers the program through local Farm Service Agency offices. The Natural Resources Conservation Service and the state Wildlife Commission provide technical expertise to participants. As part of the Northern Bobwhite Quail Habitat Initiative, the program will enroll up to 250,000 acres nationwide. North Carolina has been designated for 11,300 acres—more than any other state in the Southeast. Tar Heel farmers thus far have enrolled 5,900 acres.

"I think our high acre allocation in this new federal program is an affirmation that we are on the right track with our quail restoration efforts," Sharpe said.

Just in the last 25 years, quail populations have dropped 60 percent nationwide, according to federal data. A major factor in their decline is the prevalence of clean farming techniques. Once common, fallow areas of weeds, grasses and shrubs all but disappeared as agricultural practices became more efficient. As those plant communities declined, so did

quail and other species—from songbirds to small mammals.

Enrollment will remain open through December 2007 or until the state allotment is used. "We anticipate that the signup will accelerate as the cropping season winds down this fall," Sharpe said.

To be eligible, the buffers must be on row crop land with active cropping history for four of the six years from 1996 to 2001 and between 30 and 120 feet wide. Annual rental payments are based upon soil fertility and local established rental rates. Compensation includes a one-time signing bonus of about \$100 per acre enrolled, an annual maintenance payment of \$5 per acre and a management payment of up to \$100 per acre over the 10-year lifetime of the agreement.

The Wildlife Commission is reaching out in particular to landowners in the Coastal Plain, where the initiative has the most potential to benefit bobwhites on cropland fringes. Interested landowners should contact a Farm Service Agency office and ask for enrollment applications for practice CP33, Upland Bird Habitat Buffers. ♦