

the Upland GAZETTE



North Carolina Small Game Notes

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One More Squirrel Hunt with Dad

By Walter "Deet" James, NCWRC Hunting Heritage Biologist

All hunts are memorable, and then there are some you never forget. I remember the early morning bus rides to school along West State Street toward Shamokin Area High in Pennsylvania. The scene is as vivid as if it had just occurred yesterday; the year 1975. It was early October and the air was just beginning to take on the pungent scent of fall foliage. The small woodlot bordering the northern edge of the high school was ablaze in hues of crimson, orange, and yellow. My excitement and enthusiasm for the upcoming squirrel season increased with every passing day.

After returning home from school those fall afternoons, my first objective was to check off the day on the calendar located next to my brother John's squirrel hunting sketches. John had quite a talent for drawing. His artwork showed my father, John and me attempting to harvest a few of the season's bounty of squirrels. The ragged hunting clothes, the whiskers sketched on my dad's face, and the detail on hats, boots and guns was amazingly lifelike. Typically, the drawings showed my brother toting a single shot .410 bolt action, while Dad was never without his favorite Savage .22 Magnum over 20 gauge shotgun. Since I tended to change

guns often, my firearm was whatever I was using at the time.

For us, those hunting drawings greatly enhanced the hunting seasons. Looking back, I wish I had stashed away every pre-season piece of art. In short, my father and brother shared the passion of fall and the coming of squirrel season as did I, and we never missed an opportunity to enjoy it.

The night before the season opener was filled with anticipation as equipment was readied. Shot shells were loaded in vests, guns lightly oiled, and memories of squirrel seasons past filled our thoughts. I do not remember packing any lunches or toting water along for the hunt. The hunting itself dominated the outings, making preparations for sustenance unnecessary.

I can still remember watching Dad loading up his game vest with .22 Magnums and yellow 20 gauge shells. Dad began hunting later in life. He did not have an interest in hunting growing up despite having a brother who hunted. For the most part, I remember that Dad preferred watching TV westerns and talk shows rather than being outdoors. When my brother and I took an interest in hunting after being mentored by our uncle, Dad was encouraged by mom to take his sons hunting. If he was at all reluctant to do so, he didn't express



Top: Walter James, Sr. takes aim. Bottom: Posing with a turkey from a hunt with his sons.

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Can We Change the Landscape with Native Warm Season Grass?

By Johnny Riley, NCWRC Technical Assistance Biologist

For those that have had the pleasure of traveling in the western Piedmont Region of the state, you've probably noticed the many cattle farms throughout the landscape. While some are beautiful to look at, wildlife often see these farms differently.

Wildlife will notice that all the grass is fescue or some other type of cool season sod-forming grass. They'll also notice a definite lack of protective cover during winter. Farmers need grass for their cows and generally have to make that a priority on their land, and that often makes it less attractive for wildlife. I've never met a farmer that didn't care about wildlife, but I've rarely met any that didn't have to pay attention to the bottom line.

During the first phase of CURE (Cooperative Upland habitat Restoration and Enhancement program), we tried many traditional management techniques such as field borders, prescribed burning, wildlife habitat areas, and strip disking to enhance or create additional habitat. These are all proven techniques for managing early-successional habitats. In the Coastal Region, these same management techniques work well, given that farms are generally larger and row-crop oriented. However, in the western Piedmont, these techniques were not working on a scale large enough to impact the habitat in the manner we wanted or needed.

To impact the western Piedmont landscape, we needed to change forage types that farmers use for cattle. Fescue and other

sod-forming grasses are the forage of choice for most farmers, but this has been to the detriment of wildlife for decades in this region.

In contrast, Native Warm Season Grasses (NWSG) are not sod-forming but are bunch-type grasses, which allow for an open understory within the grass stand. This quality alone makes NWSG much more desirable as wildlife habitat. Popular forage varieties of NWSG include switchgrass, big bluestem, Indiangrass, and Eastern gamagrass. Of these varieties, switchgrass and big bluestem have been the most commonly used during our program. We were searching for a management technique that would be beneficial for the farm and its wildlife. Thankfully NWSG offers benefits both to wildlife (better cover than sod-forming grasses) and agricultural producers (drought resistance and diversification of forage-base for cattle).

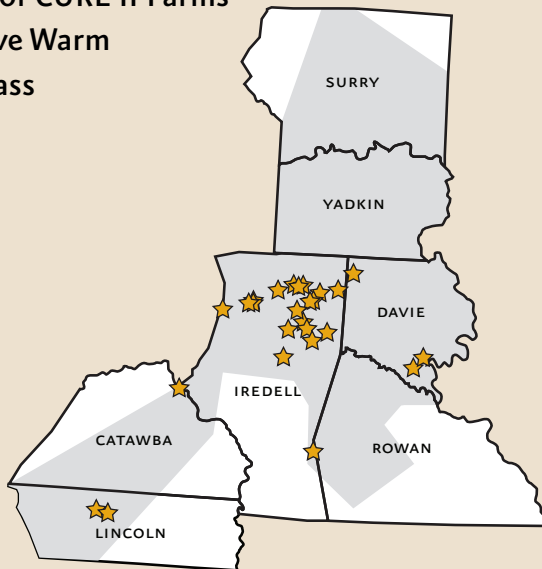
Finally, we had found a solid wildlife management technique that would work in this region. In the first years of the program, the cost of establishing NWSG was still high (\$160-\$200 per acre), and for this reason we offered farmers \$180 per acre in cost-share to aid in the cost of conversion, use of planting equipment, and technical advice. During 2007-2009, we helped establish 337 acres on 21 farms throughout the region.

The farmers we've worked with have been pleased with the benefits of NWSG. Benefits such as higher yields and higher quality forage over the traditional choices of fescue and orchardgrass have made NWSG a welcome addition to these farms. We have dealt with seed quality issues, drought, and general resistance to an unknown forage type, but most of these problems worked themselves out the next growing season.

While wildlife species were originally slow to respond to the change from fescue to NWSG on these farms, it has since been shown that wildlife are benefiting from the changes. Our surveys have measured increases in rabbits and a variety of songbirds. Based on field observations, we feel that habitat conditions have improved for quail and other species, though measurable population responses have not been detected.

Although no cost-share funds are currently available through CURE, interest in NWSG remains strong. We still offer technical assistance and planting equipment and have worked with farmers in 2010 to plant another 74 acres. This is a good sign for the future because landowners were willing to pay for these conversions out-of-pocket instead of relying on cost-share monies. Seed and herbicide prices have continued to decrease in price each of the past three years, and this should only help to promote the use of NWSG as livestock forage. NWSG is not the silver bullet that will fix all of the habitat deficiencies in the region, but these grasses do offer an economically viable alternative over cool season grasses for both the farmer and wildlife. ♣

Locations of CURE II Farms with Native Warm Season Grass



CURE efforts have established 411 acres of NWSG on 26 different farms within the Piedmont focal area. Fields include big bluestem, switchgrass, Indiangrass and eastern gamagrass. Total acreage enrolled in CURE II is 4,598 acres.



Based on feedback, our segment “Ask the Wildlife Biologist” has been quite popular in recent issues. We will continue to select one or more questions for each issue and ask members of the Wildlife Resources Commission staff to provide answers in the *Upland Gazette*. Questions can be about anything related to wildlife habitats or the species that use them. Readers are encouraged to send questions to:

Attention: Ask the Wildlife Biologist
The Upland Gazette
1722 Mail Service Center
Raleigh, NC 27699-1722

Please include your name, city, and state, and we will print it along with our response. Thanks for reading the *Upland Gazette*, and don't forget to send us those questions!

—Mark D. Jones,
NCWRC Supervising Wildlife Biologist

After years of frustration with the North Carolina turkey hunting season, I finally decided to write a quick e-mail to express my frustration. I really wish you would consider moving the season up by 2-3 weeks. It is, and has been for some time, coming in way too late. The gobblers are unresponsive already, which makes for a lousy hunting experience. Now, the hens have been bred for some time and the gobblers just are not responding to calls anymore, and there is still a lot of time (relatively) left in the season. Please give this some consideration.

Thank you,
Brian Hollingsworth
Raleigh, North Carolina

Every year several hunters request that turkey season open earlier. They hear turkeys gobbling prior to the season opening, and they feel that they have missed out on the best time to go turkey hunting. In reality, research suggests that assumption is not accurate.

There are typically two peaks to turkey gobbling. The first peak occurs during the peak of the breeding season, and the second peak occurs during the onset of nesting season. During the peak of the breeding season, hunters frequently hear birds and feel they

are missing out on harvest opportunities. In reality, from a management perspective, this is NOT the time you want to allow harvesting of turkeys. Female turkeys are highly susceptible to harvest at that time because they are active and often accompany gobblers. Research shows that accidental harvest of hen turkeys often accounts for a very high percentage of hen mortality when seasons are open during peak breeding. Believe it or not, some hunters do mistake hens for gobblers and unlawfully harvest them. Hens can also be accidentally killed by stray shot intended for a gobbler. Turkeys often have low productivity rates, and the harvest of just a few hens in an area can significantly affect recruitment and population growth.

Another problem with hunting turkeys during this first gobbling peak is that it can be quite frustrating for hunters. Gobblers have no problems finding hens to run around and breed with at that time. There is often little incentive for a gobbler to respond to a hunter's calls because he often is in the company of hens (i.e., henned-up, as hunters call it).

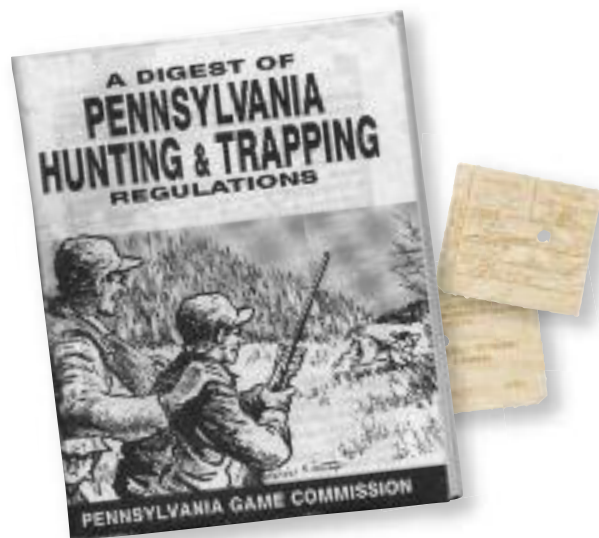
It's more advantageous to set season timing so it falls during the second gobbling peak, which coincides with nesting. At that time the majority of breeding has taken place and hens are spending much of their time on the nest. Research shows that hens are much less vulnerable to accidental harvest at this time. Also, gobblers are often “lonely” because the hens they associated with during peak breeding are spending much of their time on the nest. Gobblers during this second peak are often much easier to call in, which makes for less frustrating hunting.

In summary, the objective of a biologically-based turkey season is to time the season so it occurs (1) after the majority of breeding has taken place, (2) when hens are much less vulnerable to harvest, and (3) when hunters will have the greatest success of calling in and harvesting a gobbler.

A review of the literature actually shows that our season currently opens about two weeks too early. Our current season opens while much breeding activity still occurs, which may explain some of your frustration. Many seasoned turkey hunters in the state will tell you that the best turkey hunting in North Carolina occurs sometime during or after the second week of the season.

Evin Stanford
NCWRC Turkey Biologist

“Dad may not have started out as a hunter, but, he saw to it that his sons would have wonderful outdoor memories with their father.”



it. In fact, he seemed to embrace it much like a newfound interest. It turned out that Dad came to enjoy hunting as much as we did, and the activity definitely created an outdoor bond between us.

As always, there were no last-minute decisions on where we would hunt opening morning because “Shamrock” was our favorite squirrel hotspot. Shamrock, a small hollow between two ridges, was named for a nearby grain and feed mill and had no correlation to the symbol of Ireland. Shamrock had all the necessary requirements for good squirrel hunting. The parcel contained a small brook with abundant white, red and black oaks, along with field corn bordering the hollow’s edges. White pines and hemlocks were also plentiful enough and provided mini sanctuaries of evergreen for the squirrels that managed to elude us.

Upon arrival at Shamrock in the pre-dawn, we parked the car along the dirt road. After making sure we had the usual necessities, the short trek to our hunting spots began along a small foot path in the center of the hollow. Dad and John were the first to get on their stands, located just beyond the power line traversing the parcel. Dad always preferred a conspicuous log lying next to a hemlock or pine in the bottom of the hollow; he always had good shooting there. John was usually not very far from Dad, at the crest of the west rim where a tree line merged the adjacent hollow together with Shamrock. I was last to station, farthest away from both Dad and John.

Our unique pattern of hunter place-

ment would remain unchanged throughout our squirrel hunting ventures. As light filtered through the morning woods, Dad often took the first shot of the morning. I usually knew when Dad had an opportunity at a squirrel, especially if he missed the first shot, because I would hear the low crack of the .22 Magnum, followed by the blast of the 20 gauge. Dad was quite the shot with the .22 Magnum, rarely missing with that gun.

Those squirrel hunts were successful whether there was game in our bag or not. Stories of the day’s events eventually were immortalized in the next series of my brother’s squirrel-hunting sketches. Post-hunt evenings were spent contemplating after-school squirrel hunts, while Sunday noon-time was reserved for WGAL-TV’s “Call of the Outdoors” with Harry Alleman. “Call of the Outdoors” was a combination of hunting talk and video footage of actual nonscripted hunts. It was real “reality” TV. We enjoyed that outdoor show almost as much as hunting.

Although our squirrel-hunting endeavors continued, they would slowly fade out to more challenging forms of hunting such as deer. It took a little while until my brother and I began to score regularly on deer, but once we did, we began to harvest them repeatedly. Squirrels, at that point, began to take a back seat. Dad would always end up as the star in my brother’s deer sketches. Dad always either missed a deer when taking a shot, or lost an opportunity for a shot. Although we never did figure out why, my brother and I surmised that Dad usually spooked the deer before he had an oppor-

tunity. If he did get an opportunity, he was so nervous and excited that he missed. Afterwards, we would tease, “How can you shoot a squirrel in the head at 50 yards with a .22 but miss a deer at 50 feet?” Dad would just smile and then we would laugh about it together. My brother and I always wanted Dad to get his first deer, and we figured we would eventually make that happen.

As the old cliché goes, “the only thing constant in life is change.” Deer hunting with bow and arrow became the new challenge. And with the new challenge, my brother and I learned to drive and seek out new hunting areas on our own. Add dating and jobs, and the disconnection relative to “school-age” hunts became more pronounced. In essence, living life was in order. My brother continued to spend most times hunting with Dad, while I became a somewhat solo hunter always in search of new adventures. My full-time job and moving out on my own added to the detachment. I still hunted with Dad and John on occasion, but nothing like our early squirrel-hunting days.

While moving away from my home town hastened the disconnection, moving out of state was the final blow. Several times, while visiting over the holidays, I would pass by Shamrock, as well as other special places that we had hunted over the years. Small saplings remembered from long ago turned into mature trees. Weedy fields that held pheasants and rabbits now held homes and clean farming practices. Shamrock, for the most part, remained relatively unchanged but had gone under new ownership.

Dad had started and given up hunting many times over the years due to lack of interest. He also minded the cold temperatures more as he aged. We often spoke of getting together for a hunt and had even contemplated a much overdue small-game hunting reunion. Although I desperately wanted to squirrel hunt with Dad and John, something always seemed to come up, and I would continue to put it off. Dad even bought a couple of guns, mostly due to pressure from my brother to “take up hunting again.”

It was November 2008 and I was anticipating going home for Christmas vacation. Living in North Carolina for just over a year at the time, I managed to visit my family in Pennsylvania at least twice per year; Christmas included. I would have liked to visit more often, but it usually didn't work out that way. I pondered—wouldn't it be great for us get together and squirrel hunt for a few days after Christmas during the extended small game season?

When the time came to head home, I discovered that the weather forecast through the period was somewhat wintry with driving conditions less than ideal. I decided to leave the hunting equipment behind in favor of spending quality family time indoors. The time goes by fast enough and I wanted to maximize it with everyone; perhaps it was also just an excuse not to carry the extra stuff along. Besides, I knew the hunting talk would be top-notch.

I discovered after arriving home that Dad had decided to sell the firearms he recently accumulated. While discussing hunting with him over dinner he stated, “I mind the cold too much and decided not to go.” I guess John showed more disappointment at Dad's decision than I did, especially since I had expected it. With all of the life changes, I had missed many outings with Dad and John, and now it seemed like those outings might be a thing of the past. I figured John would persist, though, and eventually talk Dad into considering hunting again, as he had done so many times in the past. We needed to re-live the old squirrel hunts, I thought

to myself. It had been too many years. I concluded that next year would be the year.

I was away on a project in Maryland when I received the call; it was early February 2009. Dad suffered a mild heart attack and was in an Intensive Care Unit at a local hospital. The doctors were doing every thing they could but informed us that the next 48 hours were critical. Although the heart attack was mild, Dad's brain had suffered from lack of oxygen for some time and the doctors felt there was a chance that he might not recover.

The approximately 150-mile ride from Maryland to my home town was an emotional roller coaster ride with visions of the special times we shared together. I reminisced about the many holiday seasons, the summers at R. B. Winter State Park, the TV westerns, the Merv Griffin Show, shopping for hunting equipment at Jack Rosini's Outdoorsman, and, especially, the squirrel hunts.

It turned out that Dad would not recover. We were forced to remove him from life support on February 19, and Dad died in the early morning on February 20, 2009.

As I write these words, my mind's eye has me walking down the trail in Shamrock Hollow toward Dad; John is already there with him. From a distance, I can see Dad describing how he flipped the squirrel off a limb of a tall hemlock 50 yards away. I know this because of the unique way he twirled his finger to describe how the squirrel came off the limb. The sun is up, there is a slight breeze, the weather cool, and the fall foliage is spectacular in sight and smell—it's October and it's squirrel season.

As I approach them, I watch Dad pick up the spent 20 gauge yellow shotgun shells and .22 Magnum cartridges. We begin to share our morning experiences, take a look at one another's bags of squirrels, and then head out to get our traditional bacon, egg and toast breakfast-lunch from the Minuteman Food Mart on the way home. It was the best lunch ever after a morning's squirrel hunt at Shamrock.

I believe that the older we get, the more we realize how precious and short life is. As we age, and if we are lucky enough to do so, one of the greatest privileges we are granted is to reflect on the experiences of our life; especially hunting times with family and friends. They define our character and contribute to who we are and what we become.

Dad may not have started out as a hunter, but he saw to it that his sons would have wonderful outdoor memories with their father. He willingly gave my brother and me the greatest gift a father could give, the gift of his time, and for that we will be eternally grateful.

I'm looking out the window right now and noticing that the leaves are changing as the fall air turns cooler. Although deer hunting is on my mind, I wish I had one more squirrel hunt with Dad. ♣



North Carolina's Rabbits

Three Species Abound Across the State

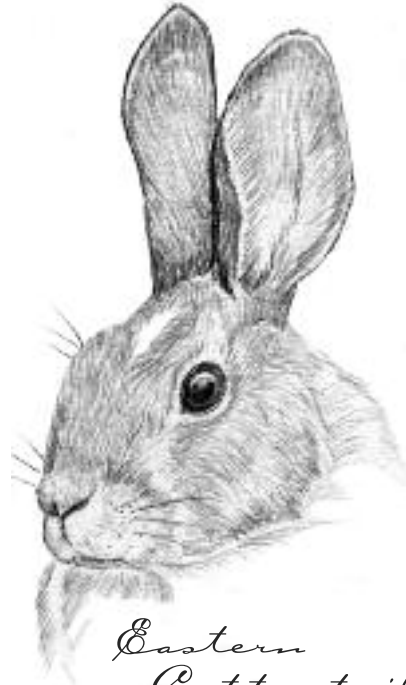
By John Wooding, NCWRC Small Game Biologist

Did you know there are three species of rabbits native to North Carolina? One lives only in the mountains (Appalachian cottontail), one lives only in the eastern wetlands (Marsh rabbit), and one lives throughout the state (Eastern cottontail).

There's a record from 1956 of a fourth rabbit species (Swamp rabbit, *Sylvilagus aquaticus*). This rabbit was found in Clay County, 11 miles east of Hayesville. Swamp rabbits are native from Georgia to Texas and they are big, weighing on average 4 ½ pounds. Apparently, the swamp rabbit was brought into North Carolina by rabbit hunters hoping to establish the "big one," but the swamp rabbits didn't adapt well. Today, we only have three native rabbit species.

Here is something else you may not know—and may not want to know. Rabbits have a special method for getting the most nutrition from their food. They eat it twice. The first time, they eat it the normal way: they bite the leaf, chew, and swallow. The food passes through the rabbit, and it comes out as a soft, nutrient-rich pellet, which they consume. The food then travels thorough a second time, and is finally passed out as a hard pellet, depleted of its food value. The hard pellets are the familiar rabbit pellets you see in little piles. Rabbits are great, but between you and me, I'm glad we don't have to eat our food twice.

All species of rabbits are legal game, and they offer some of the best hunting in the state. The meat is tender and delicious making it many people's favorite wild meat. ♣



Eastern Cottontail



Appalachian Cottontail



Marsh Rabbit

Rabbit Pot Pie

by Betty Arnette

1st Place Winner in the 2005 Sandhills Rod & Gun Club and Cooperative Extension Service Cooking Contest in Richmond County

Rabbits, cleaned 1 c. onions, chopped
2 T. bacon grease 1 c. flour
1 can chicken broth 2 Pie crusts
1 stick butter

Boil rabbits in enough water to cover them. Add salt and pepper to taste. Add bacon grease to water. When rabbits are tender, remove from water and de-bone. Add chicken broth to rabbit broth. In iron skillet, add butter and sauté onions until tender. Add flour to onion mixture. Cut up rabbit and place on pie crust in pie dish. Add onion mixture to boiling broth and cook until smooth. Pour liquid mixture in pie crust and add top crust. Cook in oven at 350–375 degrees until brown (approximately one hour).

North Carolina Rabbit Facts

Common Name	Eastern Cottontail	Appalachian Cottontail	Marsh Rabbit
			nickname Bluetail, Swamp rabbit (not to be confused with the real swamp rabbit from the deep South)
Scientific Name	<i>Sylvilagus floridanus</i>	<i>Sylvilagus obscurus</i>	<i>Sylvilagus palustris</i>
Weight	1.9-3.2 pounds	1.8-2.4 pounds	1.8-2.4 pounds
Total Length (with tail)	16-19 inches	16-17 inches	16-17 inches
Ear Length	2 ½ inches	2 ¼ inches	2 inches
Tail Color	White	White	Dark
Overall appearance	Medium to large sized, rabbit, white tail, may have white spot of hair on top of head. Overall appearance is lighter in color than Appalachian cottontail and marsh rabbit. And overall size is bigger, but a small Eastern cottontail is the same size as the other two types of rabbits.	Medium sized rabbit, white tail, may have black spot or stripe of hair on top of head. This is the best field mark to distinguish from Eastern cottontail, but not totally reliable. Look also at ears – front edge of ear tends to be black furred – the black edge stands out. Definitive identification requires skull examination or genetic testing.	Medium sized rabbit, darkish brown, dark tail. Tail color is unique and a reliable field mark to identify the species.
Habitat	Mix of thickets, open fields, woods. Very adaptable – lives in woods, on farms, and in towns and cities. This is the normal rabbit that can live just about anywhere. More skilled at escaping predators in open country than Appalachian cottontail —therefore more common in open habitats.	Mountain balds and thickets, such as blueberry, blackberry, clearcuts. Thought of as a thicket-liking, high mountain rabbit—not a rabbit of fields and farms—not very good at escaping predators in open ground – tends to stay in the thickets for safety.	Wetlands with thick vegetation such as found in swamps and marshes (fresh water and salt water marshes). Thought of as a rabbit of the swamps and marshes of eastern NC flatlands. Adept at eluding predators using a combination of running and swimming.
NC Range	Statewide	Mountains	Coastal Plain, eastern Piedmont
Abundance	Common statewide	Believed generally uncommon in mountains, but not well enough studied to know	Common in eastern wetlands
Foods	Grass, vines, weeds, and twigs and bark in winter. Eats more grass than the other species.	Grass, vines, weeds, twigs and bark in winter. Eats more woody vegetation than the other species.	Grass, vines, tender aquatic weeds, twigs and bark in winter. Eats more wetland plants than other species.
Breeding	Year round, but concentrated in spring-fall. Up to 7 litters/year, 2-6 young/litter.	Not well known, definitely spring and summer, probably no breeding activity in deep winter. Probably 2-3 litters/year, 2-5 young/litter.	Year round, but concentrated in spring-fall. Up to 6 litters/year, 3-5 young/litter.

References consulted for this article are listed below.

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Addicted to Grass

By John Wooding,
NCWRC Small Game Biologist

Maybe one day we'll tire of mowing grass and let the weeds grow. When we do, it will be a great day for small game wildlife. In place of grass, we'll have wildflowers, and blackberry vines, and plum trees. And quail, and song birds, and butterflies, and grasshoppers flying away with every step. And how about those rabbits—have you ever seen so many rabbits?

But for now we have grass. Grass fields are sterile, almost lifeless places. Boring. Grass and grass and grass and grass. Fescue and orchard and bahia and Bermuda. When the grass grows tall enough to hide a rabbit, we mow it.

The countryside is covered with mowed grass. Not just in yards, but in neighboring fields, along roads, just about everywhere. Drive around and look and see—grass everywhere. Just think of all the spare time created if we stopped mowing. Not to mention the gasoline saved, and the life span added to our mowers for the little bit of mowing that is really needed.

Last July I drove to a job in Stokes County. Among the grass fields, I passed three meadows—full of waist high wildflowers and ripe blackberries with patches of grass here and there. You know what those meadows looked like?

Perfect habitat for a quail to nest and raise her chicks, or for a rabbit to raise her young, or for a family to pick berries for a cobbler. July is when you would expect the animals to use the meadow for raising young. When hunting season rolls around, it's where you would go to find the game.

In each meadow, a tractor pulled a bush hog mowing the wildflowers, blackberries and tall grass. The cutting destroyed the field's value for small game wildlife. Maybe a neighbor commented that the field looked unkempt, maybe someone saw a snake, maybe the man was bored and mowed the field

to pass the time. For whatever reason, the mowing “did-in” the wildlife, not just for the summer, but for the remainder of the year since the lush growth of summer would have become cover for winter.

One of the biggest problems faced by quail and rabbits is the loss of meadow habitat. If we quit all this mowing, and got rid of most of this unneeded grass, small game wildlife would reap the rewards.

For people who might suffer mower-withdrawal symptoms, don't worry. Fields need mowing or other disturbance to persist

as fields. Without disturbances, such as mowing, fire, or disking, fields will slowly revert into forests. Trees will take over unless they are stopped. Mowing stops the trees and keeps a field a field. So we're not talking about going cold turkey with the mowing addiction. Instead of mowing a field three times a year, mow it once every three years. But if that doesn't quench the craving, mow 1/3 of the field each year, and let the other 2/3 go native. The best time to mow is early spring—this way the animals will have had the heavy cover for the winter, and, by summer,

the field will be grown up enough for raising little ones.

We have let grass take over. It's time to fight back and give nature the opportunity she needs to reclaim her fields with wildflowers and brambles. All it will take is to stop mowing so often. In some cases, with extra tenacious grass, it might be necessary to disk the field to give nature a foothold. For extra, extra stubborn grass (like Bermuda), you may need to douse it with herbicide. Can we do it? Are we going to let that grass whip us? I'm not sure—we may be too addicted to grass—but if we break the mowing habit, wildlife will be the winner. ♣

In each meadow, a tractor pulled a bush hog mowing the wildflowers, blackberries and tall grass. The cutting destroyed the field's value for small game wildlife.

The Quest for More Successful Nests

A Cooperative Effort with Bobwhites and Songbirds

By Jessica Piispanen (Graduate Research Assistant) and Jason Riddle (Assistant Professor),
Wildlife Ecology Discipline, College of Natural Resources, University of Wisconsin-Stevens Point

Cooperative Upland-habitat Restoration and Enhancement (CURE) field borders generally are composed of some combination of volunteer vegetation or native warm season grasses, forbs and shrubs. Field border vegetation provides important nesting habitat for early-succession songbirds and northern bobwhite quail. However, the effectiveness of field border nesting habitats can depend on the landscape surrounding a field or farm. For example, previous work by North Carolina State University (NCSU) researchers showed that indigo bunting and blue grosbeak nests were more than twice as likely to fail on farms surrounded by forests than on farms surrounded by row crop agriculture. These researchers suspected that nest success might be lower on farms surrounded by forests because some nest predators prefer a mix of fields and forests instead of large open areas. In particular, the researchers suspected that black rat snakes were the main nest predators on farms surrounded by forests because most depredated nests were relatively undisturbed. (See “Are Focal Areas Suitable for Early Succession Breeding Songbirds?” *Fall 2008 Upland Gazette*.) However, the researchers could not confirm that black rat snakes were the primary predators without direct observation.

The University of Wisconsin-Stevens Point (UWSP) has teamed up with the North Carolina Wildlife Resources Commission (NCWRC) as well as the U.S. Geological Survey (USGS) Cooperative Fish and Wildlife Research Unit, and the Fisheries, Wildlife, and Conservation Biology Program at NCSU to try and get a better handle on nest depredation patterns at the level of individual nests and positively identify nest predators. Specifically, our primary objective is to determine if indigo bunting, blue grosbeak, and northern bobwhite nests in field borders are more likely to fail if they are closer to woody edges. The second objective is to identify nest predators to confirm if black rat snakes are the main nest predator of these focal species.

Work began in May 2010 on four Murphy-Brown, LLC farms, which are part of the NCWRC Corporate CURE program. Collectively, these farms have more than 200 acres of field border habitat. We selected approximately 190 acres of this habitat to use for our study. Specifically, we searched each acre at least twice for nests between mid-May and late July. We focused on northern bobwhites, indigo buntings, and blue grosbeaks because these were the birds of interest in previous research by NCSU and because northern bobwhites are a popular game bird whose numbers have been declining rapidly over the past few decades. Once we found a nest, we monitored it every three to four days until it either failed (due to a depredation event or abandonment) or chicks successfully fledged. We carefully approached

each nest and used small mirrors to check inside the nest so as not to disturb the young or attract more attention to the nest. We also measured the distance from each nest to the closest woody edge to determine if a relationship exists between nest failure and proximity to woody edges. We placed digital video cameras at half of all nests. These special cameras recorded bird and predator activity around the clock so that we could make direct observations of predators caught in the act. We will return next year to complete final data collection.



PHOTO BY THE AUTHORS.

Our theory is that nests close to woody edges are more likely to fail. We also expect that the data gathered by the cameras will confirm that black rat snakes are the main predators of these focal species' nests. However, the identity of the predators ultimately will be less important than determining if a positive relationship exists between nest failure and proximity to woody edges. If the latter is true, simple recommendations to landowners and agencies regarding field border placement could help make this conservation tool even more effective for conserving songbirds and game birds on farms in North Carolina and other parts of the United States.

We plan to hold a landowner workshop to describe our findings and management recommendations in eastern North Carolina in February 2012. Our work is funded by a grant from the North Carolina Department of Justice's Environmental Enhancement Grant Program to NCSU and the UWSP. The NCWRC, UWSP, and the USGS Cooperative Fish and Wildlife Research Units at NCSU and UWSP also have provided invaluable logistical support. ♣



NRCS

Farm Bill Programs Improve Natural Resources on the Eastern Band of the Cherokee Indian Reservation

By Patrick Farrell, NCWRC Technical Assistance Biologist

For many years, the Natural Resources Conservation Service (NRCS) has been working with the Eastern Band of the Cherokee Indians (EBCI) to improve and maintain natural resources on the Cherokee Reservation. Throughout this period, both NRCS and the EBCI have partnered with other federal and state agencies, such as the North Carolina Wildlife Resources Commission, and worked to use available cost-share programs, including those developed under Federal Farm Bill legislation. Much of the work accomplished on the reservation has been planned and implemented under the Wildlife Habitat Incentive Program (WHIP) or the Environmental Quality Incentive Program (EQIP).

WHIP is a Farm Bill Program earmarked for improving wildlife habitat on private and tribal lands. The program has cost-shared the creation of wildlife openings on over 20 acres on the reservation using 1–10 year agreements.

The acreage does not seem like much, until you consider the mountainous terrain and the steep slopes and limitations that this puts on tribal employees who do the work and find suitable sites. The wildlife openings were created to improve habitat for declining wildlife species like the Appalachian cottontail rabbit (*Sylvilagus obscurus*), ruffed grouse (*Bonasa umbellus*), and golden-winged warbler (*Vermivora chrysoptera*). These openings have improved habitat for wild turkeys (*Meleagris gallopavo*), black bear (*Ursus americanus*), and white-tailed deer (*Odocoileus virginianus*).

The Eastern Band of the Cherokee uses EQIP to improve their less-traveled, unpaved roads by reducing soil erosion and creating wildlife habitat. John McCoy, NRCS liaison with the EBCI, has been working with the tribe to improve or develop wildlife habitat on over 20 acres of these old roads through gating to control access, grading and adding water breaks to limit traffic and erosion, and/or reseeding areas with a beneficial mix of wildlife-preferred plants. As a result, we have seen increasing use of these roads by white-tailed deer, ruffed grouse, wild turkeys, and black bear.

The program has reduced soil loss by an estimated 9,479 tons on the reservation, which lies at the headwaters of many streams and rivers. This reduced sediment load in the streams has improved the fisheries in tribal waters, including benefits for native brook trout (*Salvelinus fontinalis*) and other native fish and mussels.

The partnership between the NRCS and other government agencies has helped the tribe with many aspects of natural resources management. Since the tribe signed up for the Farm Bill Programs, much has been accomplished to improve and create wildlife openings and stabilize roads to reduce erosion. Both the NRCS and NCWRC look forward to a continued relationship with the Eastern Band of the Cherokee Indians and continuing natural resources improvements for the future. ♣

Wildlife Conservation Land Program

Frequently Asked Questions

Land Managers' **TOOLBOX**

What is the Wildlife Conservation Land Program?

The Wildlife Conservation Land Program (WCLP) is a new program that allows landowners who have owned their property for at least five years—and want to manage for protected wildlife species or priority wildlife habitats—to apply for a reduced property tax assessment.

Is WCLP the same thing as Wildlife PUV?

Currently, land enrolled in the N.C. Present-Use-Valuation (PUV) program and classified as agricultural, horticultural, or forest land is assessed by counties at a reduced value. The WCLP is similar to PUV because landowners must still apply to their county tax office for a property tax deferment; however, the WCLP is a completely separate program and is not part of PUV.

Technically there is no such thing as “Wildlife PUV.” However, wildlife conservation land must be appraised and assessed as if it were classified under PUV as agricultural land. This may account for the name confusion.

Can anyone who wants to manage for wildlife apply for the WCLP?

Only land that contains protected wildlife species or priority habitats will qualify.

Explain protected wildlife species and priority habitats.

Protected wildlife species are those designated by the state wildlife agency (NCWRC) as endangered (E), threatened (T), or special concern (SC). Six priority habitats have been identified: longleaf pine forest, early-successional habitat, small wetland community, stream and riparian zone, rock outcrop, and bat cave.

What if a landowner has forestland they want to enroll in the WCLP?

Longleaf pine forests qualify. Other forest types may qualify as wildlife conservation land if the forestland contains a

protected wildlife species or a priority habitat such as rock outcrop, stream and riparian zones, or bat caves. Forestland that does not contain a protected wildlife species or a priority habitat type will not qualify.

What if a landowner has T & E plants on their property?

Having listed plant species will not qualify under the WCLP. Only land with protected animal species or priority habitats will qualify.

Is there an acreage requirement under the WCLP?

A landowner must have at least 20 contiguous qualifying acres. Qualifying means 20 acres of wildlife habitat designated as priority habitat or as habitat to conserve a protected wildlife species, not just 20 acres of land. Contiguous means the qualifying habitat must be connected in a block of at least 20 acres, not just add up to 20 acres.

There is also a maximum acreage limit. No more than 100 acres of an owner's land in a county may be classified as wildlife conservation land.

Is there some kind of contract a landowner has to sign?

Wildlife conservation land must be managed under a written Wildlife Habitat Conservation Agreement (WHCA) with NCWRC. The management agreement must document the presence of a protected wildlife species or the existence of one or more of the priority habitats. It must also describe the management strategies in place or planned with appropriate timelines to ensure the continued existence of the protected species, the priority habitat, or both.

What happens once a landowner has an approved Wildlife Habitat Conservation Agreement?

To request that their property be assessed as wildlife conservation land, landowners

must submit an application to the county assessor's office during the regular listing period, which is typically the month of January for the year the landowner wants an assessment. The county assessor will determine if the land qualifies for an assessment at a reduced value.

How soon can a landowner apply?

The WCLP takes effect for taxable years on or after July 1, 2010. Landowners may apply to their county for a reduced assessment of their land as wildlife conservation land during the regular listing period beginning Jan. 1, 2010.

What if a landowner wants to change over from PUV to the WCLP?

Landowners may enroll land currently receiving a reduced tax rate as agricultural, horticultural or forest land as wildlife conservation land without penalty, provided the landowner meets all other requirements related to wildlife conservation land.

For land not currently enrolled in the PUV program, landowners must demonstrate to the county assessor and the NCWRC that the land has been used for the purpose outlined in the Wildlife Habitat Conservation Agreement for three years preceding Jan. 1 of the year for which the benefit is claimed.

Where can landowners obtain more information on the WCLP?

The NCWRC has prepared a document, 'Introduction to the Wildlife Conservation Land Program.' To request a copy, obtain an 'Application for Wildlife Resources Commission Assistance' or for additional questions regarding the program, see http://www.ncwildlife.org/Wildlife_Species_Con/WSC_Land_Program.htm or contact the NCWRC headquarters in Raleigh at (919) 707-0050. Interested applicants will be directed to the appropriate field representative for their area. ♣



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Executive Director	Gordon Myers
Wildlife Management Chief	David Cobb, Ph.D.
Conservation Education Chief	Will Sutton
Communications Director	Penny Miller
Editor	Jill S. Braden
Assistant Editor	Cay Cross
Graphic Designer	Carla Osborne
Supervising Wildlife Biologist, Private Lands Program	Mark D. Jones

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Contact	jill.braden@ncwildlife.org

Upland Gazette to Offer Paid Hardcopy Subscriptions Last Free Issue to be Mailed in Spring 2011

In two prior issues of the *Upland Gazette*, we announced a plan to stop printing and mailing the publication due to budget issues. We were planning to offer the *Upland Gazette* as strictly an online publication beginning with the current issue (Fall 2010). However, feedback from constituents made us reconsider. We received several calls and letters from concerned readers who did not have Internet access and/or preferred to read a paper version of the publication.

To compromise and meet our budget limits, we will mail the Fall 2010 issue for free as usual. In Spring 2011, readers will receive the last free issue of the newsletter along with instructions on how to subscribe to the *Gazette* for a \$5 annual fee. This modest fee will cover printing and mailing costs. Readers who choose this option will receive two printed issues of the *Upland Gazette* by U.S. Mail.

Remember, you can always read or print out the *Upland Gazette* for free by going to our website: www.ncwildlife.org.

Thank you for reading the *Upland Gazette*!

Mark D. Jones, NCWRC
 Supervising Wildlife Biologist

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