

## A Note from the Editor



REBECCA JONES

*Upland Gazette* readers will see these words just as North Carolina hunting seasons are opening in September. This issue features three stories about unique or underutilized hunting opportunities

in the Tar Heel State.

The first story focuses on hunting with a wide variety of dogs for species as diverse as rabbits, ducks and woodcock. This is a fitting story for North Carolina, which has a rich tradition of hunters using dogs to pursue their game. Next comes a story about hunting squirrels—a currently abundant and underutilized quarry that was among our most hunted species for hundreds of years. However, with the increasing popularity of big game, squirrels are now pursued by few. Still, many of us cut our hunting teeth pursuing bushytails when we were young. Finally, we feature rail hunting. Rails are an almost unknown game bird for most hunters, but they are abundant and challenging and found in some truly unique habitats.

Another article in this issue takes a different approach and focuses on one of North Carolina's smallest and least known group of species—salamanders. As a kid growing up in the southern Appalachians just across the Virginia line, we called them “creek lizards.” This mistake is emblematic of the lack of public awareness and understanding that exists for salamanders, which are amphibians (not reptiles like lizards). However, North Carolina hosts some of the world's most unique and diverse salamander species, and these “Quiet Ones” serve an important role in our ecosystem.

Finally, we continue our Conservation Chronicles series with two articles describing the efforts of North Carolina landowners to manage and maintain their lands. One article focuses on the differences and similarities between “locals” and “outsiders,” while another provides important information about transitioning family lands from one generation to the next. The role of private landowners is critical for North Carolina's wildlife, given that over 85 percent of our state is privately owned. Without dedicated private landowners, the species we like to observe and hunt would not be as abundant or as diverse. Please take the time to thank a private landowner this fall and get out and enjoy the great North Carolina outdoors.

*Mark D. Jones*

SUPERVISING WILDLIFE BIOLOGIST  
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# THE Upland GAZETTE

WILDLIFE CONSERVATION AND HABITAT MANAGEMENT



BENJY STROPE/NCWRC

The author poses with his two hunting companions and their canine friends after a day of permit quail hunting on the Wildlife Commission's Corporate CURE area in Bladen County.

## A Season of Dogs

By John Henry Harrelson, Coastal Region wildlife biologist,  
North Carolina Wildlife Resources Commission

I grew up in the hardwood-covered hills of Person County hunting with my father and grandfather since I could walk. One of my earliest memories involves standing in the dark with my dad and four of his friends while three beautiful Walker hounds treed a raccoon in a massive yellow poplar tree. I was 5 at the time, in kindergarten, and had somehow been allowed to go coon hunting on a school night. I'm not sure if that is when my love of dog hunting started, but it plays a prominent role in my memory bank.

There were always five to 10 dogs at my house while I was growing up, and each was used to hunt in some form or fashion. We had curs, treeing feists, and a red-bone hound for squirrel hunting, treeing Walkers or bluetick hounds for raccoons, and a wide variety of hounds and mutts for deer hunting. I never had the opportunity to bird hunt growing up, so I was not blessed with the opportunity to hunt with retrievers or pointers until I moved to Louisiana for graduate school. I have had a love affair ever since with bird hunting and bird dogs.

As a dad to two little girls, Lily and Maggie (who have an aging Jack Russell terrier named Skip), I find myself in search for a new family pet and hunting companion. Finding the right balance of characteristics that will fit with my already existing family life and

my hunting preferences is not easy. So, I set out in the 2016–17 hunting season to take advantage of every chance I could to hunt with different breeds. This ultimately meant hunting with all my friends who liked to hunt different critters with different dogs.

### Upland Experts

My season started when I drew a coveted quail permit for the CURE (Cooperative Upland habitat Restoration and Enhancement) area at Ammon in early December. I was joined by two good friends who brought German short-haired pointers. Casey Phillips brought Grits, and Ricky Ward brought Roxy. That morning we were greeted with a beautiful sunrise and a crisp, cool morning. We turned the dogs loose and instantly began to work good-looking cover. The pair of pointers worked frantically through briar patches, native warm-season grass fields, native field borders along soybean fields, and managed longleaf pine stands.

We walked, talked, watched and stayed ready, but the episodes of birdiness by our canine companions didn't result in a single flush of the elusive bobwhite quail. We saw lots of rabbits and worked some of the best quail cover you could ever imagine. As the sun began to get low, we gathered close to the truck and took a group photo to commemorate the day with smiles on everyone's face. The lack of shooting didn't change the fact that we had a great day. Both dogs showed grit and intensity throughout the day, never giving up in their search.

### Oh Boykin!

As duck season began to intensify with the beginning of the second split, good friend Cody Fulk, his Boykin spaniel Ellie and I found ourselves standing in waist-deep water in a beaver pond encircled with bald cypress in Columbus County. Ellie is one incredible Boykin with their characteristic enchanting golden eyes, curly brown coat and stumpy tail. A few wood duck decoys were scattered in the open hole in front of us. Water dripped from Ellie while she wiggled in anticipation on the dog stand. The shrill of wood duck whistles filled the air from down the swamp as an orange glow began to fill the horizon. Ellie's eyes scanned the brightening sky as the first songbirds began to stir.

The first pair of woodies came flying down the swamp zooming past us in the predawn darkness with the whistle of their wings alerting us of their presence. Close to 10 birds had already flown past us when shooting time officially started. The next pair of ducks that came by resulted in two birds hitting the water as each of us connected on our intended target. Ellie launched from her stand at the call of her name and swam gracefully to the first downed duck. She brought each back and returned to her stand. A few moments later, more birds whistled by, but our shots weren't on target. Teal peeped past us, and mallards quacked high overhead, but unfortunately nothing else came close enough for a shot.

As the morning wore on and the ducks stopped flying, we returned to the truck to exchange waders for lace-up boots and duck calls for game vests. During our duck hunt, we had seen multiple woodcock fluttering around the swamp. The plan was to begin slowly walking along the thick, wetter areas around the swamp and allow Ellie to work back and forth in front of us. As we approached a slight bend in the cover, her demeanor instantly changed, and in a blur a woodcock burst from the cover right in front of us. Our guns came up, but a shot wasn't fired. The cover was too thick for an opportunity at a clear shot. After another hour of walking, we had hunted out the available cover but hadn't come across any more woodcock.

This hunt was an example of the adaptive abilities and amazing characteristics of this dog. I have never hunted with a dog quite like Ellie. She was the most "gamey" and "birdy" dog I have ever seen. Every songbird that flew in front of the windshield when she rode shotgun in the truck was spotted and tracked by those infamous Boykin eyes. She was an intense hunter who chased woodcock, flushed quail and retrieved ducks, making her the definition of a true gun dog in my view. Unfortunately, on that December day, she did a lot more searching than retrieving, but that fact did not diminish the satisfaction that came from hunting with such an amazing canine companion.



JOHN H. HARRELSON/NCWRC

**John H. Harrelson's daughter Lily shows that she may just follow in her dad's footsteps as a lover of hunting dogs.**

### Sweet Sounds of Beagles

Once January hits, small game season takes precedence over most other activities for me. I love to hunt behind a dog that "opens" (i.e., barks) on the track. My first opportunity last season came with a group of six friends and some incredible beagles hunting beautiful rabbit country in Anson County just days after we had received a couple of inches of snow. This was my second chance to hunt with this pack of

dogs and at this property. The property did not disappoint when we hunted it the previous time, and it didn't this year. The tri-color dogs all whined and cried with excitement. Those dogs knew what was about to happen once the door opened and their collars were adjusted.

Within minutes of dropping the tailgate on this icy morning, the pack of eight beagles jumped the first rabbit of the day in a native warm season grass field. We spread out and tracked the dogs by the constant squeal as they began to move across the property. The rabbit was finally intercepted by one of our group in a brushy creek bottom becoming one of my friend's first rabbits, and something I'm sure she will never forget.

Throughout the day, the dogs jumped rabbits in the grass and ran them down a creek bottom before coming up the other side into more native grasses and briars. One such time, I was able to be in the right place at the right time, putting my .410 pump into action as the dogs pushed the cottontail through the briar thicket.

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# Who Will Watch the Home Place?

By John Isenhour, technical assistance biologist,  
North Carolina Wildlife Resources Commission

Music is meant to invoke emotion in the listener. Some songs raise our spirits with a catchy tune, some entertain us with lyrics that make us smile and others are meant to reach into our hearts or teach a lesson. Most of us have a handful of songs that stir our interbeing or that seem to describe who we are.

For me, one of these songs is “Who Will Watch the Home Place?” written by Kate Long. I first heard Laurie Lewis sing this song in the early- or mid-1990s, likely on the “PineCone Bluegrass Show” while I was attending North Carolina State University. The words of this song have haunted me from that very moment and resonate in my heart each time I visit my family’s “Home Place.” Undoubtedly, many others related to this song as it was awarded the International Bluegrass Music Association song of the year award in 1994.

If you have ever been emotionally tied to a piece of land and have never heard this song, it is worth an internet search and possibly a download. The chorus will likely tug at your heart, give you chills or leave a tear in your eye. I can think of no better way to describe the feelings involved with loving a piece of land that has an uncertain future.

“Who will watch the home place  
Who will tend my heart’s dear space  
Who will fill my empty place  
When I am gone from here.”

In past issues of the *Upland Gazette*, I have written stories about landowners who have successfully managed their property to enhance wildlife habitat. Many have had a deep tie to the land and their family members who have worked it before them. Most of these landowners have well-developed plans for what will happen to the land “when they are gone from here,” and plans for “who will watch their home place.”

Some issues have recently arisen with my own family, which have brought questions concerning the family’s property to the front burner. The realization that caring for a piece of land is not always enough has compelled me to address something different with this article. So, I will make no mention of native grasses, prescribed burning or



ISENHOUR FAMILY ARCHIVES

**Above: The author’s grandparents, Hubert and Ruth Isenhour, pose for a family photo with the author’s father, Robert (far left), Aunt Janet and Uncle Lewis. Right: Same house, different era. Uncle Lewis poses for a photo on the porch of his childhood home with his great niece Kimarie and great nephews Hayden and Rylan. While land may still pass from one generation to the next, a smooth transition requires much more planning and communication than in the past.**



JOY R. BROWN

forest management, but instead will focus on land legacy. This legacy is critical to the wildlife resources of North Carolina and those who have private lands that are dear to them.

## Deep Roots

My family’s situation is an example of how challenging it can be to maintain family ownership of rural property, and how critical planning is for keeping rural land rural. While our story is unique to us, it is not uncommon to many families and places in North Carolina. My family has been on “the

home place” since 1919. Though I don’t have formal documents to prove it, the description my great uncle provided leads me to believe we were sharecroppers or tenant farmers for many years.

My great-grandfather raised a family on the property he “worked” with his sons. My grandfather married a young lady from a neighboring farm, and they raised a family on the property as well. My grandparents borrowed the money to buy the 60 acres at a timber company auction in 1960. In the early 2000s with the passing of my grandmother, the property transferred to

my father, aunt and uncle as tenants in common. At my dad's death, his portion of the ownership transferred to my mom.

So here we are—a retired school cafeteria worker, a retired school teacher, and a retired freight worker are now tenants in common owners of a piece of property valued at about half-a-million dollars—the truest definition of “land rich and cash poor.” Time has marched on, and the years have impacted both the health and the wealth of the aging landowners. The land is one of their primary assets; a non-liquid asset that impacts estate planning and health care assistance qualification.

This is a prime example that times have changed and no longer can you count on land simply passing to the next generation. It is imperative that proper steps be taken to protect land assets, thereby ensuring financial health and the ability to pass the land on to the next generation, if so desired.

### Help Needed

This scenario prompted me to contact North Carolina Cooperative Extension Professor Dr. Mark Megalos regarding land legacy questions. He has over 30 years of experience working with landowners in North Carolina and fields questions concerning land legacy every day. Seeking guidance from professionals, such as Dr. Megalos, can reduce the stress of land ownership and transition, making it easier to answer the question: “Who will watch the home place?” Dr. Megalos provides the following information to help families with these critically important decisions:

*There are three major stumbling blocks to the transition of family property: getting to agreement, handing over or keeping control, and “the numbers” (figuring out the cost of ownership and an enterprise to sustain the property). It is vital to explore each of these topics individually to evaluate if one, or more, may be the impediment that hinders your forward planning. Once these heady topics are addressed, defining a mechanism for land transfer becomes much simpler.*

*For better understanding, let's look at these stumbling blocks more closely:*

- **1:** *Getting together to discuss financial matters is not a typical occurrence for most families. There is a right way to do it which requires planning, a neutral location, and a set of agreed-upon rules for the discussion. Proper planning and initial homework by some or most of the parties can ensure that everyone is heard, personal preferences are shared in a welcome environment and that the discussion stays on topic.*

*Several good publications can be found on how to set up a family meeting. Visit <https://content.ces.ncsu.edu/conserving-working-lands-a-land-legacy-workbook-with-tools-and-resources-to-guide-your-conservation>*

- **2:** *The passing of ownership and control of land are key discussion points that impact current owners and have definite estate tax and future valuation implications. It becomes a matter of balancing the current owner's needs and setting up the enterprise for the future owner's success. Ownership transitions can be partial beginning long before the passing of principle owners and may possibly take the form of shares in*

**“It is imperative that proper steps be taken to protect land assets, thereby ensuring financial health and the ability to pass the land on to the next generation, if so desired.”**

*an LLC. Complete transitions are also possible. Many factors may play on this decision, including the need of the current owner to “cash in” on the property value. The choices are simpler when there are periodic or annual income streams that can be shared among owners until the full land transfer is complete.*

- **3:** *Analyzing the numbers and agreeing on the distribution of the ownership pie is easiest when there are abundant pieces to share. Simply said, passing along a property is easiest when the needs of current owners can be satisfied from the land. Annual rents, or other income generated by the property, can help to defray the legal or advisory costs of planning an estate transition. When land is a cost rather than revenue source, outside funds must be found to keep it. Success in ownership*

*transition may require a life insurance policy, partial sale of property or an endowed maintenance account to ensure ownership through subsequent generations.*

*As one might imagine, there are several potential solutions to the land ownership challenge. The ones included here are oversimplified for the purposes of this article but are based on years of cooperative extension experience educating landowners and others to the subtleties of estate planning when farms and forests are involved. No option is perfect or mandated, and each option is unique to the property, family, location and situation. The key is to begin to talk and imagine what a future ownership might look like and not force the decision making to a future time where options become limited and liquidation is potentially the only viable solution.*

*A final piece of advice is to anticipate obstacles that may disrupt a perfect estate plan. While technically referred to as “unforeseen occurrences,” more simply they are the things that might “force your hand.” Beware of the three “Big D's”: divorce, death and disability. An estate plan that accounts for these potential disturbances is likely to stand the test of time.*

Dr. Megalos' advice highlights the clash between the emotions and realities of land legacy. Many factors will come into play in most land transition situations. However, as stated above, it must start with a conversation. As with any emotionally charged topic, some of these conversations will be difficult. Tough decisions and sacrifices will likely be required, and in

most instances a compromise between involved parties will be required. Whether you own 5 acres or 5,000 acres, if you bought your property or inherited it, a quote attributed to Benjamin Franklin sums up a hard truth concerning land transition. “If you fail to plan, you are planning to fail!”

It is best for landowners to address this topic head-on because none of us know when we will “be gone from here.” Discuss how to “tend your heart's dear space” to ensure it meets your present and future needs and wishes. And understand that how you plan today will have a huge impact on “who will watch the home place” in the future. 🌱

# The Squirrel Way

By Chet Clark, Eastern outreach manager, North Carolina Wildlife Resources Commission



CHET CLARK

The author's son is clearly excited with the fruits of a day's hunt with his father.

On a recent spring turkey hunt I wandered to a place that holds a level of sacredness that isn't rivaled by many other things in my life. As I worked my way through the forest, stopping to call, look, listen, and get distracted by a passing broad-winged hawk and an interesting tree, I realized I had to get to and visit a specific spot within these woods.

The memories of the place in these woods took the wheel and made decisions for me. The destination became my objective and replaced the purpose of procuring a wild turkey for my freezer. I continued to hunt for a long-bearded bird, but I was distracted, anxious and excited for a place more than a bird. Better to just go find it, I thought.

So, off I went. It took me a little while to remember where exactly it was that I searched, but I found it. As I approached, the darkness of the area was exactly as I remembered it. The ground was shaded by a cloak of light-blocking evergreen needles overhead that created an almost cave-like appearance, exactly the thing that my mind's eye sees every time nostalgia pays a visit. I entered the small hollow and sat and breathed in the past. The small ephemeral stream flowing on this day wasn't there in my memories, nor were the numerous 20-foot saplings growing on the facing ridge side. This place had not changed, but it was not the same.

As I leaned my back against one of the great hemlocks, I began to replay a crisp October morning 25 years earlier. I sat in this very spot with my dad next to me and a .410 shotgun loaded with No. 6 shotshells laid across my lap. I was anxiously awaiting my first chance at harvesting a gray squirrel. That day ended with two squirrels in my vest, a love of a special place and a direction for life.

I think of this place often but rarely visit. I suppose if I visit too often it may become common and lose its mystique. As I sat and reflected on the morning and the past and my present state, I did what I do to all hemlocks I encounter—I checked them for aliens. The aliens being the hemlock woolly adelgid—a

small aphid-like insect native to Asia that infests Eastern and Carolina hemlocks and feeds on the tree's stored starches. This feeding stresses the tree and makes otherwise normal problems (drought, poor site conditions, insect pests and disease) lead to almost certain death. Upon infestation, death will usually come within three to 10 years.

The sight of a hollow full of dead hemlocks sends me into a state of melancholy. I'm not quite sure if it's the death of trees or something else, but it hurts. Nonetheless, the trees in my place are clear of any such aliens. I breathe a sigh of relief but lower my eyes in recognition of what's likely to come. As I gather myself and look for my next direction, I think about how this place, these trees, and a small gray rodent have guided me.

## Lessons in the Woods

The days of my youth seemed as though I had the woods to myself, and I probably did for the most part. I was easily able to get permission to hunt a seemingly endless stretch of properties of prime squirrel haunts. I'd go at it with Dad, a cousin, an uncle, a friend—or all the above. We'd walk and talk and sit and watch. We'd follow the sound of barking bushytails until we got close enough to start the stalk. I learned a lot from hunting squirrels, and not just about squirrels. I'd find buck rubs and scrapes, a woodpecker nest hole or a box turtle. This past spring, in my hemlock hideaway, I encountered a red spotted newt.

As a kid, if goings were slow, we'd set up a target of some sort and get some shooting practice or take a nap in the sunshine. Wherever the hunt led, we'd mostly come home with something for the pot and a head full of experiences that became memories. Those hunts helped me become connected with my surroundings, understand what was happening and what to look for.

I was becoming a hunter, and I was becoming conservation-minded. I was constantly learning about zone-of-fire, muzzle control, good shots and ethical behavior. I was getting a lesson in biology, ecology, zoology and wildlife management. I had no idea at the time, but it was guiding me toward a career—interesting how things shape you.

The world of small game hunting, squirrel hunting in particular, was and still is one of my favorite places to be. A squirrel hunt was my first hunt as well as my first hunt on my own. Dad took me on my first one, and Dad provided the words that set me free on the latter. He said, "Go ahead, you don't need me." Off I went.

I found three squirrels and brought two home. But I also found a connection that calls to me every time I enter the woods. Whether it be with my dad, a friend or family member, or now, my son, the connection is always there, as is the awareness of being part of the woods and part of something much larger than me.

## Past and Future

Much like my colleague Deet James does in his recollections of squirrel hunting as a youth (see page 50), when I reminisce about how squirrel hunting shaped me as a hunter and person, I wonder why it has taken a back seat to so many other forms of hunting in our

society. I suppose it has to do with the small payoff of meat. Or, maybe it is the thought of eating a rodent as opposed to venison or fowl. Maybe it has to do with lack of exposure regarding squirrels as a game animal and excellent table fare. Not having the squirrel equivalent of the National Wild Turkey Federation or Quality Deer Management Association may save many squirrels from entering the human food chain.

I don't have any of those notions. The payoff may be in small packages, but the slightly sweet meat of chicken thigh density is something I look forward to braising in white wine with fresh herbs and vegetables every fall. The pursuit of sustenance and lessons in the squirrel woods will always be one that I cherish.

My son is of age to come along and learn now, and I have no doubt that his experiences within the forest will include life-shaping and guiding principles that will carry him toward an existence of appreciation for the natural world. He's already more conservation minded than I was at his age. I don't know what he'll do with his life, but I know he'll be an advocate for conservation of natural resources. Squirrels have a way like that. 🐿



CHET CLARK

The author and his son pose for the camera on a squirrel hunt where they share memories and lessons that will last a lifetime.

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By the time 3 p.m. rolled around, the dogs were tired with their tails bleeding, but they were still reluctant to be caught and see the hunt end. Each short-legged, determined beagle received plenty of love and admiration for a full day of work.

We stood around the tailgate laughing and retelling the day's events that had unfolded for each of us during the hunt. The seven rabbits we had harvested were cleaned and divvied up between those who wanted them. There wasn't more than a five-minute stretch throughout the day that the dogs were not running a rabbit in some of the best rabbit habitat you can find in North Carolina.

### Red the Squirrel Dog

Maybe the fondest hunt from this past year was with a redbone hound named Red. She was once my father's dog, but since his passing his best friend Eddie Joe has taken her. Red is not your stereotypical squirrel dog, but she sure does get the job done. My brother Earl and I joined Eddie, his son, and a family friend on a mid-January squirrel hunt in some mixed pine hardwoods on one of the local Piedmont game lands.

As we walked down the path away from the parking area, Red was eagerly pulling her lean frame against her lead, and my old dog Skip sauntered along for exercise. Once she was unsnapped, Red bolted into the hardwood-lined creek drain that was in front of us. Within moments, her initial bawl filled the bottom. We began to hastily walk toward her as she let out her tree bark. Her quickened chop informed us the track was hot. The old maple her feet were placed upon as we approached was riddled with holes, an obvious den tree.

A similar scenario played out three more times before we approached a red oak that looked promising for holding a squirrel. Red barked excitedly as we spread out around the tree, and we spotted the squirrel in the top. A shot from a .22 later resulted in the first squirrel of the afternoon. A few moments later, Skip began to dig frantically at a nearby snag. Red approached and instantly began to dig at the visible holes. Seconds later, a squirrel leaped from the 30-foot snag toward the ground. Dogs and hunters alike gave chase. Thirty yards later, and the squirrel was treed in another oak tree. My brother just missed him as he made his way into a hole.

After three hours, we were back at the truck, having made a 6-mile loop around the block of game lands and toting nine squirrels between us. It had been almost two full seasons since I had last hunted with Red. She is a special dog because of her relationship with my father but also because she is an amazing squirrel hunter. She hunts with her head up or nose down depending on the situation, checks back regularly, and hunts within 100 to 200 yards, making her a pleasure in the field.

I was blessed this past season to hunt behind some amazing dogs and with great friends. Some days we came home with full game bags, and some days we didn't. However, each hunt was full of memories that made this past season one of the best I have ever had. For most hunters who chase their prey with dogs, the true success is seeing their dog do what they love to do—chase game. The numbers of ducks shot, quail pointed, and squirrels found pale in comparison to the laughs and memories made last year. The search for a new dog continues, but any of these breeds I have hunted with this past season would be a great fit at my home and by my side in the woods. 🐿



Hellbender

KEN TAYLOR/NCWRC

## The Quiet Ones: Salamanders in our State

By Maria Palamar, wildlife veterinarian, North Carolina Wildlife Resources Commission

There are many critters that call North Carolina home, from coastal shore birds to the majestic elk in the Smoky Mountains. Amongst our state’s lesser-known inhabitants, we find salamanders. Salamanders are amphibians, which means that they need water for at least one part of their life cycle. Some salamanders live their whole life in water, but most spend their larval stages in water and the rest of their lives around it. North Carolina is a great host for salamanders and is considered one of the main hotspots for salamander diversity in the world.

You may have never seen a salamander, but they are here, and you can find them in the humid leaf litter around creeks, under downed trees, beneath large rocks on a slow bend of a river, or in ephemeral ponds after rainy days. They come in many different colors and sizes, some small and colorful like the tiger salamander, and some large and strange, like the misunderstood hellbender.

Like all amphibians, salamanders have very permeable skin, so pollution and other toxicants in the water, such as salt brine runoff, can have very negative impacts on salamanders and lead to localized die-offs. Their skin is very important for osmoregulation, and it produces a slimy substance that can protect the animal from predators and pathogens alike. Such a delicate organ is vulnerable to infection.

Salamanders are sensitive species; small changes in their environment can increase their stress level and suppress their immune system and their ability to fight off disease. One example is the largest salamander we

have in North Carolina, the hellbender (better known as “snot otter.”) They need slow-moving rivers with little floating sediment. Hellbenders are very territorial and will live under the same rock for most of their lives. We can generally find them nesting in the same place year after year, but if the rock is moved, or the river is disturbed and sediment loads increase, they lose their home. They are vulnerable to many predators, including larger hellbenders. There have been many efforts to have hellbenders reproduce in captivity with little success, and their numbers in the wild keep dwindling.

A recently emerging and very serious threat to salamander populations is disease. In the last 10 years, salamanders have faced ranavirus, chytrid fungus (*Batrachochytrium dendrobatidis*), and the threat of Bsal (*Batrachochytrium salamandrivorans*), which is a new chytrid-like fungus that is decimating European salamanders and could easily destroy ours if we can’t prevent its entry to the country. We are not sure if these are new diseases to salamanders or if the diseases are now having devastating effects due to increased stress levels in salamander populations. We do know that some species are more impacted than others, and that in some cases localized extinctions occur when these pathogens reach isolated populations.

Some species of salamanders do not move much, they have a small home range, and they use the same body of water to reproduce year after year. If a pathogen enters that population, numbers can rapidly decline, and because they do not have anywhere else to go, that small and possibly unique population may go extinct. Sadly, its genes will be lost forever.

### Preventative Research

The North Carolina Wildlife Resources Commission is trying to better understand salamander populations and is focusing on the ones that seem to be declining more rapidly. We regularly look for new populations, and we map their presence in the state to protect areas that are of most importance for salamander survival. We also monitor known populations and assess their health, genetics, persistence on the landscape, reproductive activity and habitat quality.

We do not do this work alone; salamanders are a priority to many including N.C. and National Parks, the North Carolina Zoo, the North Carolina Museum of Natural Sciences, universities, and non-governmental organizations. Every year we find and swab salamanders



Tiger salamander

MELISSA MCGAW/NCWRC

around the state to test for disease—especially those previously mentioned. We are also working with a group of institutions that are testing native species of captive salamanders with Bsal to better understand which species are most susceptible and what could happen if the pathogen enters the United States.

There are many aspects to preventing and controlling pathogen introduction to the United States. There is a team of individuals looking at regulations that could better manage the salamander pet trade. Yes, many people think salamanders are cool, and although we may have some of the most beautiful ones here in North Carolina, most of the salamanders that make it into the pet trade come from Asia. These salamanders may be less susceptible to Bsal and act as carriers of the disease.

People buy salamanders because they are so beautiful, and in some cases, decide that it would be best to let them go. Salamander owners often find a beautiful location and release the exotic salamander into the wild. The salamander would find itself in an unfamiliar place, and most likely would not survive long. However, before a predator or the elements remove the threat, that salamander can shed pathogens into the habitat—habitat that is most likely home to native salamanders that are unprepared to deal with this new disease. In many cases, people who release exotic salamanders do it with the salamander's best interest at heart, but they are risking the health and viability of the local salamanders and are fating their exotic salamander to a swift death.

Researchers are finding new chemicals and biological substances on amphibians every year and looking at ways to use these to improve human health. Products made from these can cause faster wound healing and better pain management for people. Salamander diversity makes this state unique, and maintaining a healthy and diverse amphibian population is as beneficial to humans as it is to wildlife. You can help keep salamander populations healthy by keeping their habitat healthy, maintaining buffers around bodies of water, and saying “no” to exotic salamander introductions.

So, next time you are in the creek and want to check under a rock, you may find one of North Carolina's salamanders swimming away. Remember, place the rock back where you found it, it may be the only home to that very remarkable critter. 🐸



# Have a wildlife problem or concern?

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Raccoon by Keith Robinson; Squirrel by David Phillips; Rat Snake by Paul Sableman



## Locals and Outsiders: Two Paths, One Destination

By John Isenhour, technical assistance biologist, North Carolina Wildlife Resources Commission

**E**conomic growth in North Carolina is leading to more development and more people coming to live in the state. The conservation community is constantly adapting to this change. With rapid land use changes in the state, it is becoming evident that concerning habitat—*Every Acre Counts*.

As a technical assistance biologist in the Private Lands Program, my efforts to enhance habitat are tied to one thing—willing landowners. While I forget the names of many landowners I have worked with over the past 12 years, one thing I can tell you with certainty is each one has a unique conservation ethic. History, finances, politics, religious beliefs, and abilities can all shape a private landowner's desires and objectives for their property. While stereotypes are usually frowned upon, looking at the two ends of any spectrum can show what those in the middle have in common. We could compare rich with poor, young with old, or large acreage with small acreage to describe most of the landowners in North Carolina.

However, with current and expected population growth in the state, comparing “outsiders” with “locals” seems to capture most of the landowners with whom I have worked. You're either “from here” or you're “not from around here.” As you read the following stories, keep in mind the following fact—when it comes to habitat management, it is less about where you are from and more about what you desire from your land. Even with completely different histories, the Pattersons and the Hardens are actively pursuing their conservation objectives in their own and equally important ways.

### The Locals

In today's rapidly globalizing world there is a certain stigma associated with being a “local.” While the characters from 1972 movie “Deliverance” are a bit extreme, words such as stubborn, unrefined, and backward may first come to mind when an “outsider” thinks of a “local.” However, as you get to know and appreciate folks who live in the same community, and possibly on the same land as their ancestors, you will find more positive characteristics describe most of them. Randall and Karen Patterson would likely accept the label of “local,” but terms such as determined, content, and sentimental better describe this pair of siblings who recently became the latest generation to own the family's farm just outside of King.

The Pattersons can easily trace their roots on this Stokes County property back to the late 1890s and their great-grandfather, Joseph Watt Robertson. The land transferred to their grandfather Joseph Samuel Robertson then on to Randall and Karen's parents Harley Jack and Annie Lou Robertson Patterson. In fact, the road the farm is located on, Robertson Ridge Road, is named for the family.

While Randall and Karen have long discussed and planned the future of the property, most of the active management has been taken on by Randall. This seems to be a natural role for Randall who was introduced to the natural features of the property by his maternal grandmother, Husie Pauline Ferguson Robertson. He recalls, “after Sunday dinner, she would pack the two of us a couple of fried fatback biscuits for a snack, then off to the woods and fields we'd go.” These outings taught identification of trees, plants and wildlife but also conveyed lessons about land management and conservation. “There were two things she did not care for; one was a bush hog and the other was turning land in the Fall of the year.” These early lessons have shaped Randall's life and motivated him to share many of his grandma's lessons with family members and as a Scoutmaster in Troop 415 based at the Capella Church of Christ.

The conservation principles Randall learned on Sunday afternoon walks with his grandma and his love for hunting are impacting the current management of the Patterson's property. Randall was a member of Quail Unlimited before the organization disbanded in 2013 and has since been involved with the Yadkin Valley Quail and Upland Wildlife Federation. From his involvement with these groups, as well as his experience as a longtime quail hunter, Randall has seen the loss of early successional habitat in the northwestern Piedmont and the decline of the critters that rely on this habitat type. With agreement from Karen, the Pattersons decided they would harken back to the knowledge of their grandmother by limiting mowing and excluding fall plowing on the farm. Simply put, they are doing what they can on their property to improve habitat.

With a rough objective in mind, Randall began seeking assistance from natural resource professionals. His years in the community and basic knowledge of conservation programs

helped him know where to start looking. Randall contacted the North Carolina Forest Service's County Ranger Jonathan Young who he knew through involvement with Scouting and the Sauratown Volunteer Fire Department. Young enlisted assistance from Service Forester Nancy Blackwood to develop a forest management plan. This plan was needed to maintain the property tax reduction under the Present Use Value Program and to document opportunities to generate income from the forested portions of the property. For guidance to address wildlife habitat objectives and information on funding opportunities, Randall reached out to U.S. Department of Agriculture Natural Resources Conservation Service District Conservationist Dede Debruhl and to me as a NCWRC technical assistance biologist.

With a team of folks assembled, more detailed plans were fleshed out and sources for cost assistance were identified. Two programs seemed to best fit the Patterson's objective to convert open land to perennial native grasses and wildflowers, the Environmental



**Siblings Randall and Karen Patterson are the latest generation to manage their family's property in Stokes County.**



Randall Patterson (right) and Commission biologist John Isenhour discuss management needs for a Farm Bill-funded habitat area. Careful planning and implementation can result in projects which benefit a wide range of species from quail and songbirds to pollinators.

MELISSA MCGAW/NCWRC

Quality Incentive Program (EQIP) and the Conservation Reserve Program (CRP). EQIP assisted with site preparation and planting required to convert fescue hay fields to a mixture of native grass and wildflowers. CRP assisted with establishment of similar vegetation on the cropland but also offered an annual rental payment to offset income lost by taking this highly erodible land out of production. Each program also offered funding for the management of the early successional habitat using prescribed fire and spot herbicide applications.

The conservation practices that the Pattersons are implementing on their ancestral home would have pleased their grandmother. Turning the soil will be a thing of the past, and prescribed burning will replace the bush hog as the primary method of vegetation management. While Randall and his son Isaac get to enjoy better hunting and dog training, the benefits from their work do not stop at their property boundary.

Insects that use this habitat will pollinate nearby crops, and many songbird species will use this habitat as a sanctuary on their migrations north and south. Even though the objectives are a little different, the land conservation tradition of the Robertson family continues with Randall and Karen Patterson. Today, as it has for many generations, maintaining the rural charms and wildlife diversity of North Carolina has long fallen on the shoulders of conservation-minded families such as this.

### The Outsiders

Some folks, like myself, are set in their ways and simply do not deal well with change. Others are more comfortable with new

situations and seem to thrive on the opportunities that change brings along. These folks make the best of where their lives take them, settle down when they can, but are often drawn to one place to set their roots. One couple who have found their place in northwestern Stokes County is Kendall and Ruth Ann Harden.

Ruth Ann likely became comfortable adapting to new surroundings as a youngster. Her father's work with the transportation industry in Mississippi required the family to move as new shipping ports he set up were complete and operational. Kendall was more stationary in his youth with much of his immediate and extended family living within a few miles of his childhood home. However, big changes came in 1975 when he left Mississippi for a postdoctoral fellowship at the University of Colorado and then joined the Pharmacology Department at the University of North Carolina at Chapel Hill in 1977. The Hardens were settled in Chapel Hill for nearly three decades, but as retirement approached, thoughts of nature, tranquility, and solitude began to draw them away from the Triangle region. In 2006, they figuratively and literally began putting down roots on a 31-acre tract in the Francisco community.

Shortly after the real estate closing, the Hardens diligently began the process of discovering and researching possibilities for their new property. Initially, Kendall and Ruth Ann had a broad objective for the property—"to make it better." They began reaching out to natural resources professionals to get guidance to meet their objective.

Two of their first contacts were North Carolina Forest Service Stokes County Ranger Jonathan Young and North Carolina Wildlife Resources Commission Stewardship Biologist Kelly Hughes. Young and Hughes worked with the Hardens to fine tune their objectives

and develop a Forest Stewardship Plan for the property. The goals of this original plan were to promote a healthy forest, enhance wildlife habitat, and qualify for reduced property tax liability through the Present Use Value Program.

With a plan in hand, the Hardens quickly began learning how they could move forward to implement selected conservation practices. They reached out to USDA Natural Resources Conservation Service District Conservationist Dede Debruhl and to me. Debruhl and I assisted with an application for funds through EQIP. Funds were awarded to assist with converting the fescue pastures on

of the Agriculture Present Use Program. In addition, EQIP funds assisted with prescribed burning and the control of invasive privet on the property.

Ruth Ann's vision as a multiple medium artist and Kendall's attention to detail as a research scientist have truly complemented each other in the management of this property. However, the unique management of the property did not occur in a vacuum. As in any small community, word of the Hardens spread as they began management of the property and spent more time there as Kendall's retirement drew near. Kendall said, "Our lack of knowledge has often been a source of humor to the locals. Our neighbors, Alcury Nunn and Tom Shelton, were great advisors and checked on us almost daily. They were often left shaking their heads at our follies as novice land managers."

As the community learned about the Hardens, the Hardens not only learned about the community but also started getting involved. They actively promoted conservation to neighbors and new "outsiders" moving into the area and have become involved in civic groups such as Our Communities of Northwest Stokes and the Stokes County Beekeepers Association. In fact, their dedication to conservation and the community were instrumental in the Hardens being named Stokes County 2012 Forest Landowners of the Year and being selected for a stop during the 2016 Stokes County Cooperative Extension Small Farms Tour.

While Kendall and Ruth Ann are more than willing to share the story of managing their property with neighbors and conservation groups, their passion is sharing it with family members, especially their grandchildren. Whether walking the trails, catching tadpoles, identifying plants, or adding another bird to their observation list, they have designed this property to educate and instill values for the natural world.

Being labeled a "local" or an "outsider" can both have challenges. Generally, time and actions fade most stigmas and stereotypes. Those who withdraw and keep to themselves will likely hold on to their labels for a much longer time than those who take every opportunity to meet their neighbors and be involved with the community. In our

rapidly growing state, where every acre of habitat counts, the same can be said for the conservation community.

If enhanced wildlife habitat is one of your objectives—local or outsider, rich or poor, young or old, owner of a neighborhood lot or rural farm—there are opportunities to improve wildlife habitat on your property. Learn from neighbors, seek professional advice, join groups with similar objectives and research what options are available to you. Over time, others will begin to care less about where you are from, what you have, or how old you are and begin to focus on how you care for the place where you are now. 🌿



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**Above: With Hanging Rock in the background, Ruth Ann and Kendall Harden take a moment to show off their conservation efforts. Left: Dede Debruhl, with the Natural Resources Conservation Service, checks in with the Hardens concerning a Farm Bill contract to improve the health of their forest.**



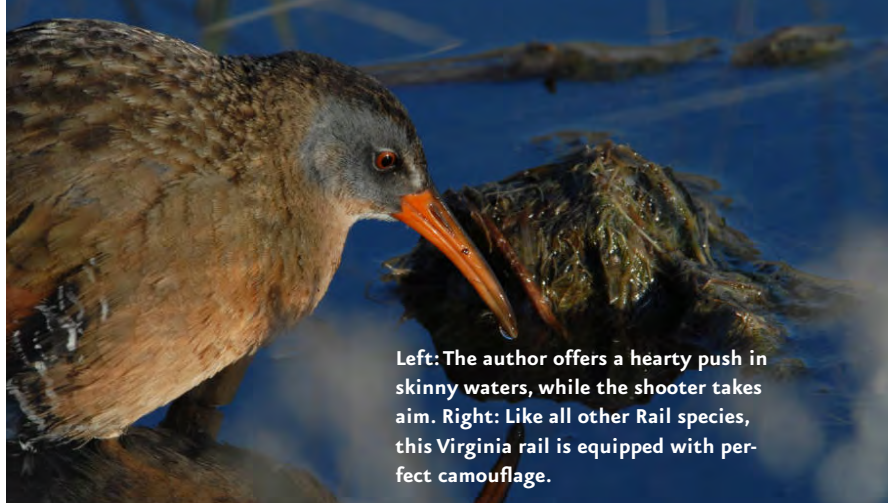
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the property to native grasses and forbs. The pastures were designated primarily for forage production or primarily for habitat. Fields designated for forage were planted in a mixture of big bluestem and yellow indiagrass and two bunch grasses which have excellent forage quality.

The habitat pastures were planted with big bluestem, little bluestem, yellow indiagrass, black-eyed Susan, coreopsis, partridge pea, purple coneflower, and narrow-leaf sunflower. This more diverse mixture benefited wildlife and pollinators while still being available for hay production to meet the income requirement



JERRY TALTON



Left: The author offers a hearty push in skinny waters, while the shooter takes aim. Right: Like all other Rail species, this Virginia rail is equipped with perfect camouflage.

DAVE MENKE/USFWS

## North Carolina's Forgotten Game Bird

By Chase Luker, hunter education coordinator, North Carolina Wildlife Resources Commission

Every year most hunters thumb through a *Regulations Digest* and skip right through the “Webless Migratory” bird section. Webless Migratory birds range from mourning dove to purple gallinules—and an old-time, if not forgotten, North Carolina favorite, rails. Few Tar Heelers pursue rails... our state’s lack of rail hunting participation can likely be attributed to difficult access and a forgotten tradition.

Other states, especially some in the Northeast like New Jersey, have a rich history of rail hunting camps and outfitters. The Maurice River alone had over 50 camps along its shores during its heyday. Historically, North Carolina’s hunters only pursued rails as an afterthought. Still, our coastal marshes are home to a few intrepid outfitters and old pros who have become masters of the marsh.

Rails offer a great reward for the determined few who pursue them. Sure, there’s a host of September sporting attractions—but it’s “rail birding” that was once known as the sport of royalty. Once for the affluent, it’s a hunting opportunity that affords itself to anyone with a keen eye, a sense of the marsh and its tides, and a trusty shotgun. A dog and a poling skiff increase opportunity and access, but they’re not necessary for a fun day walking the sultry September salt marsh. North Carolina has four species of rails: king rail, clapper rail, Virginia rail, and sora rail. They’re all slightly chicken-shaped but vary in size. Kings are the largest. Virginia rails are quail-sized with sora rails being even smaller. Clapper rails are almost as large as the king and usually measure about a foot long from beak to tail feathers. Depending

on whom is asked, rails also have several colloquial names. “Marsh hens,” “rails,” and “rail birds” are used interchangeably, and hunting for rails may also be called “marsh-henning” or “rail-birding” depending on who is consulted. Buffed and speckled feathering is found on all species and tends to be a perfect camouflage. Any of the four can be found in both salt and freshwater marshes, and some can occur well inland from our coastline.

There’s not a lot to comprehend if one is interested in testing their aim and mettle with rails. Like other game species, all members of the Rail family generally prefer the marsh where food is present. Rice and other grass seeds, along with the occasional insect, are all on the menu, and neither are particularly hard to locate. Marshes, especially those found in Brunswick and New Hanover counties along North Carolina’s southeastern coast, offer the best habitat and food. Wild rice, which isn’t rice at all, and cordgrass are preferred habitat and food for rails, so look for areas where these plants thrive. All four species of rails can be found there. Some hunters use the birds’ vocalizations to determine which species is present in a particular marsh. Clapper rails have a loud chuckle that many would recognize while sora rails make what can only be described as a “beeping” vocalization. King and Virginia rails both produce a “clacking” sound. Experienced hunters would assert that birds produce these vocalizations without provocation at sunrise but might call out at any time when feeding with others or when startled. Odds are high that anyone who has spent time in



JERRY TALTON

A handful of tiny sora rails are a delightful reward.

a marsh has heard these birds but attributed it to something other than a rail.

Uninitiated hunters soon learn about a rail’s most confounding feature. Rails prefer to run, and they can do so rather well as long as the tide isn’t in the grass. The tall grass and mucky terrain makes perfect shadows, nooks and holes for these birds to use to scamper and hide almost without any detection. Flying birds offer the best sport, so most hunters chase rails at high tide from a shallow-drafting boat. Complement that high tide with a cocktail that includes preceding rainfall, a full moon, and a following wind, and rail birds will find themselves with little ground to run. Under these conditions, they’ll take flight when flushed by hunters or their boat and usually at less than 10 yards. Hunting from a boat is a two-person endeavor, though. It requires a “pusher”

who uses a push-pole to maneuver the boat through the marsh while the gunner generally stays on the ready from the bow of the boat. Steadiness and balance aren't required but benefit and favor both the gunner and the pusher. Most experienced hunters insist rail hunting with a double-barreled shotgun is safest because the action can remain open throughout the boating process. It's also a bit more stylish to close the action, swing, and shoot with a double gun, but others could argue against it.

Still, experienced and lucky hunters can walk tidal pools and shorelines to jumpshoot rail birds. Hunting on foot requires an innate interest in becoming soaked from the waist down, but it's still big fun! Low tide, obviously, is the best time to hunt on foot. A good, close-working pointing dog can help locate birds best. The gunner, or the dog, can then walk in on the bird for the flush followed by what is guaranteed to be the most exciting snap-shooting in all of bird hunting. A load of steel No. 9's will fell smaller sora rails while king rails and clapper rails might succumb quicker to No. 7's.

It's important to remember that when hunting, the game will hold steady until it becomes startled. "Driving" rails is a common tactic where multiple hunters are present. While it works best with several boats, it's a great option for hunters hoofing it through the marsh and works a lot like old-fashioned deer drives. Hunters just need to corral the birds toward water and not deeper into the marsh. Even a solo hunter and a dog can nudge rails toward open water shorelines and tidal pools. Successful drives with multiple hunters can produce what some describe as a "covey rise"—a flushing of a dozen or more rails. Successful shooting brings about another problem: finding downed game. The simple solution is to employ a rail "marker." Usually, it's a bright red wooden stick with a piece of trailing string or ribbon. Whatever it is, it should be throwable—and with accuracy. Once a bird falls, the hunter tosses the marker in the general direction of the downed game. The bright color and the long ribbon make it easy to recover the marker and provide a good idea of where to find the bird. Again,

a dog with a good nose can enhance and speed up the process.

Rail bird limits seem liberal when compared to other game birds from the marsh. Blaze orange is a necessity, though steel shot isn't unless it's required in a specific area. While lead shot is allowable, many hunters opt for steel because of the other wetland inhabitants that may encounter spent shot. Dove loads work fine for rails, and most hunters use smaller-bored shotguns. Still, any shotgun will do. Rail hunting, like any hunting, is intended to be fun and productive. All rail species are delectable on the table and can be prepared and served just like any other small game bird, but this author insists on open flame preparation. While it takes several birds to make a meal and a mess, it's all worth the effort.

Rail hunting offers the remote adventure and dramatic beauty that few other North Carolina outdoor opportunities can rival. Hunters will find most rail marshes devoid of other hunters and filled with opportunity—and for many, it's the best place to spend a September Saturday. 🍗

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