

NC Forest Stewardship News

**NC Forest Stewardship Program Newsletter
NC Forest Service - NCDA & CS**

Boone's Cave Park-Davidson County

By Mark Bost



STEWARDSHIP FOREST

Davidson County Parks and Recreation Director Thomas Marshburn approached the N.C. Forest Service in July of 2016 about developing a Forest Stewardship Plan for Boone's Cave Park in southern Davidson County. Boone's Cave Park is a unique 105 acre tract that lies adjacent to the Yadkin River.



(Above (left to right): Boone's Cave Park Groundskeeper Kelly Ginn, Davidson County Commissioner Steve Jarvis, Davidson County Parks and Rec Director Thomas Marshburn, and Davidson County Ranger Patrick Raynor.

In 1750, Squire Boone left Pennsylvania to bring his sizable family to the fertile Yadkin Valley of North Carolina. Among the group was his son, 16-year-old Daniel Boone. Local legend has long held that the Boones spent their first year in North Carolina at or near the site of the present day Boone's Cave Park. Popular local stories tell of Daniel Boone and perhaps his family using the cave above the river for various purposes. The legend of a Boone family presence in Davidson County is supported by several local names: Boone's Cave, Boone's Bottom, Boone's Ford and Boone's Spring, along with later testimony of several local people who said they had heard from their elders that the Boones had lived east of the Yadkin.

The entire tract is a state recognized natural heritage area and is enrolled in the North Carolina Natural Heritage Program. The tract has unique forest types including upland bluffs along the river with Chestnut oak and other upland hardwood species, and swamp bottomland along the river with ash, cottonwood, hackberry, river birch, and sycamore. The tract has several important historical and cultural sites including old buildings, foundations and chimneys, as well as the famous cave.

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Stewardship Coordinator's Corner:

By Les Hunter

A Message from The Forest Stewardship Coordinator:



It finally looks and feels like spring. One of my favorite passages of the spring season in the woods is to see the Serviceberry (*Amelanchier sp.*) bloom in the mountain region of



Serviceberry
(*Amelanchier sp.*)
flowers

our state. Also called Sarvis by many local mountain residents, the white flowers appear abruptly but quickly vanish. The effect of seeing one is heartwarming, if only for a few days. The flowers provide a valuable early-spring source of nectar for native bees and butterflies. If you missed it this year, keep an eye out for it next spring when buds begin to break.

In this 2018 Spring issue of the Forest Stewardship News, we focused on some articles written by our staff and contributors, covering some aspects of forest habitat and the benefits of implementing a Forest Stewardship plan. We have new Outstanding Woodland Stewards (OWLS) to recognize who have implemented their plan since our last newsletter. Our article on [Boone's Cave State Park](#) acknowledges outstanding forest management practices on a park in Davidson County, who many visitors say is a hidden gem and worthy of repeat visits. The park also claims to have the third largest cottonwood tree in the state. Articles on wildlife habitat, forest health and water quality are here for your information. Enjoy this issue of the Forest Stewardship News. Enjoy North Carolina's woodlands. Enjoy spring!

In The News:

By District 5, Wilson County Staff

Wilson County Recognizes 2017 Tree Farmer of the Year

In 2017 Ruth Campbell was posthumously named the Wilson County Tree Farm of the year. Since 1974, after the death of her husband Roy Campbell Sr., Campbell managed her 187-acre tree farm on her own. A graduate of Flora MacDonald College (currently known as St. Andrews University) in Laurinburg, NC, Campbell was considered a driven woman, that took it upon herself to find out more information from knowledgeable sources, including her friends the Tomlinson's, the N.C. Forest Service and her consulting forester Bob Mazur, before making decisions about managing her forest. Over the years of recognizing the Wilson County Tree Farmer of the Year, there has seldom been an opportunity to award it to a woman who managed timber affairs on her own. Campbell was two weeks shy of her 98th birthday when she passed on January 14, 2015. The farms she managed, and her children now manage, have been in the Campbell Family for over 100 years and may qualify for the Century Farm designation since they . Congratulations to the 2017 Wilson County Tree Farmer of the Year Mrs. Ruth Campbell. Accepting the award in her honor were her children Bob Campbell and Betsy Eatmon.



Bob Campbell and Betsy Eatmon receive Wilson Tree Farm of the Year from Wilson County Ranger, Brandon Webb. Photo credit: Drew Wilson, Wilson Daily Times.

Places Continued:

By Mark Bost

Boone's Cave Park—Davidson County

Boone's Cave Park features several miles of hiking trails and is heavily used by the public. The park has a picnic shelter with a great view of the Yadkin River. Tables and grills are available. Steps provide access to the Yadkin River for fishing. A trail provides easy access to the river for kayaking or canoeing.



Pictured Left and Right are photos of Boone's Cave, photo by Mark Bost



PRESCRIBED BURNING ON THE PARK



NCFS prescribed burn, photo by Mark Bost

The tract has a unique population of eastern cottonwood, and has a borderline state record tree that can be viewed from one of the many trails that cut through the park.

Davidson County has actively been making recreational improvements to the park. A new outdoor playground is being constructed along one of the trails leading to the river and new canoe/kayak access is also planned. The county has begun a program to fight invasive species on the property as well. A small infestation of kudzu has been eliminated and efforts are underway to begin a program to fight a severe infestation of Chinese privet along the river bottomland.

The N.C. Forest Service recognizes Davidson County and Boone's Cave Park for their commitment to providing a great recreational experience to the public and for outstanding accomplishments towards the sustainable management of their property. Forest management assistance in Davidson County is available through the N.C. Forest Service by calling the County Ranger's office at 336-859-9171.

Director Marshburn had an interest in beginning a prescribed burning program to help reduce wildfire hazard and to improve wildlife habitat by encouraging the growth of beneficial herbaceous plants that can be established when the leaf litter layer is removed by burning. The N.C. Forest Service has conducted prescribed burning during the winter months for the past two years in areas that are heavily used by the public that were suitable for burning.



Davidson County Ranger Patrick Raynor and Service Forester Dakota Paris with the cottonwood.

Boone's Cave Park, www.co.davidson.nc.us/395/Boones-Cave-Park

Wildlife:

By Deanna J. Noble

Give your Property the “Edge” for Wildlife

Traditionally landowners are more likely to focus on improving wildlife habitat in forest stands and fields or openings. While these areas are important to wildlife, areas where they meet are often underutilized. Along the edge, where two or more habitat types meet such as a field and forest, is the transition from one type of vegetation to another. The key to making this habitat productive for wildlife is to make that transition gradual. Instead of abruptly going from field to forest, the goal is to slowly transition from open areas to short grass, weeds and briars, shrubs, and then to forest. The more diverse the plant community, the higher the habitat quality for wildlife regarding food and cover. By focusing on these edge areas on your property, a significant amount of wildlife habitat can be created on relatively small acreages.



Corn planted beside plum hedgerow in a dove field, photo by Deanna J. Noble

Edge habitats are important in providing that early successional plant community that is lacking on the modern day agricultural landscape. Many species of songbirds are dependent on these habitats and they are critical for those of us interested in having Bobwhite Quail on our property. Edge habitats also provide important food (insects) and cover for young turkey poults. Improving edge habitat on your property can be accomplished by using a few traditional management practices: thinning overstory trees, natural regeneration and by plantings. On a forest boundary thinning overstory trees several yards into the forest can be used to soften or “feather” the edge. This practice involves cutting selected trees in order to allow more sunlight to reach the forest floor and promote early successional habitat. The trees to focus on removing should be trees that are diseased/deformed and trees of limited value to wildlife, such as red maple and sweet gum. The cut trees can be used for brush piles as an added benefit to wildlife for cover. Another method to creating edge habitat can be to allow for natural regeneration of plants along a field and forest edge. This can be accomplished by disking this area and allowing the native vegetation to grow. The disked area should be a minimum of 30 feet in width, but the wider the better. Wider areas are more beneficial to wildlife as they allow for more plant diversity and make wildlife less susceptible to predation. Avoid using straight lines and use the lay of the land to create edge along field and forested boundaries and thus increase the amount of edge per acre. Disking will need to occur every two to three years depending upon the growth response. More fertile areas will need to be disked more often to continue to set back succession. At times an herbicide treatment may need to be used to control hardwood saplings and maintain the area in grasses and forbs.

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German (foxtail millet) planted beside natural vegetation field board with persimmon trees, photo by Deanna J. Noble

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Wildlife Continued:

A third management practice to create edge habitat is to use plantings of trees, shrubs and grasses. Trees to be planted on the forest edge should be mast producing trees such as crabapples, persimmon, or flowering dogwoods. In the next area shrubs such as wild plum should be planted. Finally, plant native warm season grasses next to the area of shrubs. This area will also need to be maintained with a combination of treatments such as burning and disking.

The key points to remember in creating edge habitat for wildlife are:

- Increasing plant diversity by establishing edge habitats will increase wildlife diversity,
- Periodic maintenance such as disking, thinning, or burning are required to maintain these habitats,
- Edge habitats provide important nesting and foraging areas for many species of wildlife; thus, it is critical to avoid doing any maintenance from mid-April to mid-September,
- Edge habitats can be constructed to act as important wildlife corridors that will enhance your entire property by increasing connectivity of various habitat types. A marsh, swamp, field or timber stand can all be connected by creating edge.

For more information on creating and improving wildlife habitat on your property you can contact Deanna Noble at 252-526-1081 or deanna.noble@ncwildlife.org.

NC Stewardship Key Wildlife Contacts:

Coastal Plain

Deanna Noble
Technical Assistance Biologist
N.C. Wildlife Resources Commission
4247 Daughety White Rd.
Kinston, NC 28501
252-526-1081

Piedmont Region

Kelly Douglass
Technical Assistance Biologist
N.C. Wildlife Resources Commission
1722 Mail Service Center
Raleigh, NC 27699
919-621-3317

Mountains

Mike Carraway
Mountain Region Supervisor Private
Lands Program
N.C. Wildlife Resources Commission
659 Glade Mountain Drive
Canton, NC 28716
828-646-9913



For Full List of Resources Available:

http://www.ncforestservice.gov/Managing_your_forest/pdf/NCWRCPrivateLandsBrochure.pdf

Did You Know?

Sugar maple sap turns sweet near the end of winter. It contains 2-4 percent of sugar, on average, but sometimes more. Sap can be harvested for a few weeks in spring. The days must be warm and the nights must be cold (below freezing), with no buds on the branches. Red maple and silver maple trees have sweet sap.



Forest Health:

By Rob Trickel

What Are *Ips* Engraver Beetles Telling Us About Our Pines

A landowner looks across his or her property and notices the pines that just last week seemed to be green and full of life are now brown and lifeless. All signs point to an infestation of pine bark beetles. Fears mount that these trees have fallen victim to the dreaded southern pine beetle (SPB). A closer look finds that SPB are not present, but another bark beetle, *Ips* engraver beetle, has invaded the tree. The focus now turns to *Ips* as the accused killer of the once stately pine trees. But, is *Ips* really the cold-blooded killer?

Ips are indicted for killing lots of trees, but in reality, they are opportunists that feed on very stressed, weak, dying and dead trees. They can also be found in fallen trees, branches and even logs. It is important to get a sound diagnosis since management or control of bark beetles depends on the species present (there are three main bark beetles that affect pines in North Carolina: SPB, *Ips* (three different species), and black turpentine beetles).

Once *Ips* is diagnosed in a tree, only half of the puzzle is solved. Remember, *Ips* are opportunists so something else caused the tree to be damaged or stressed in the first place. Lightning, prolonged drought or flooding, as well as damaging ice and wind storms are natural tree stressors that often precede *Ips* attacks. Trees can also be stressed by human activities and other forest pests. *Ips* often tell us we are not treating our trees right. In essence, when we have positively diagnosed *Ips* but cannot pin the cause of the infestation on a natural event or cause, it's time to pull out an unlikely investigatory tool, a hand-held mirror. Looking at the image in the mirror, one should ask, "did I do something that stressed my trees, or did I give my trees the best chance to grow healthy and strong?"

Some ways we stress our trees, often without knowing it, are:



Photo by Jamie Dunbar, NCFS

Forgetting about the roots. Usually we only think about the parts of the tree we see; the part above the ground. However, it is estimated that 20 percent of a tree is underground in the root system. Roots can be stressed or killed by lack of drainage, compacted soil, grade changes, or mechanical damage. Root loss creates an imbalance that causes the tree tops to suffer as well.

Not thinking like a pine. Ask any pine and it will tell you it is happy when you give it plenty of sun, leave its roots alone and let the organic forest floor provide it with life giving nutrients. They won't talk about it often, but pines despise being forced to coexist with turf grasses, which are fierce competitors for water and nutrients in the soil. Most pines like a little bit of competition but will complain that turf grasses do not play fairly (turf grasses feel the same way about pines). If given a choice, pines prefer a natural forest floor or a mulched landscape understory over manicured lawns.

Lack of room to grow. Thinning is important to pines. Historically, fires and insects killed weaker trees and opened forest canopies for healthy pine crowns to spread out. If you don't thin your pine stand, *Ips* will thin it for you, and you might not like the way they do it.

Now put down your magnifying glass and mirror, and take a walk in the forest. Be sure to ask your trees what they need. And don't let *Ips* finish the sentence for the pines. If you need help, or have trouble understanding tree language, call your county ranger and ask them to translate for you. They can get you started with a plan to grow healthy, happy trees. Contact information for local N.C. Forest Service offices can be found at: http://www.ncforestservice.gov/contacts/contacts_main.htm

Rob Trickel, Forest Health Program Head, (919) 857-4858, rob.trickel@ncagr.gov



Photo by J.R. Baker and S.B. Bambara, NC State University, Bugwood.org (both pictures above)

Water Quality:

Considerations for Planting Trees, Shrubs, and Grasses in the Spring

By A.J. Lang

Establishing plants in the early spring can be challenging, but possible under the right conditions. At the most fundamental level, we know that all plants need water, nutrients, sunlight and space. Plants begin responding to increasingly longer light and warming temperatures in the spring. New roots begin to extend in search for water and nutrients to support new above ground growth. In environments with limited water, the availability of water and nutrients to plants depends on environmental conditions, sizes and shapes of their root systems and root competition. Previously established plants have an advantage compared to newly introduced plants, as their root systems have been set in place for some time and are acclimated to the site conditions.

Whether establishing grasses, shrubs or trees, selecting the appropriate native species for the existing conditions is paramount. Prior to planting, educate yourself on the biology of the species and select accordingly. That is, where does it commonly grow, what level of shade tolerance, drought tolerance and pest or disease resistance does it have? Another useful tip for planting grasses and shrubs around trees is to avoid planting in areas that will receive competition through fall from the tree above. This may damage the structure of the planting. A tree's root system often precludes other vegetative growth and digging under the tree's canopy may damage the tree's root system. Read the information found on tags at the time of purchase. This often includes much of the information discussed above. If not, a quick website search can prove helpful. One useful resource for urban settings is: <https://projects.ncsu.edu/goingnative/>.

The [Forestry Best Management Practices Manual](#) provides seasonal seeding options for stabilization following forestry operations (see page 137). The suggested mixes for site stabilization were based on the following factors: relatively inexpensive, readily available, easy to apply and adaptable to a wide range of soil conditions. For forest and shrub establishment, see the N.C. Forest Service's [Tree Planting Pocket Guide](#) and [Riparian & Wetland Tree Planting Pocket Guide](#).

For further planting questions, contact your local county ranger's office; a list of county ranger contacts can be found [here](#) or in your local phone-book.

A.J. Lang, Watershed & Conservation Forester, Water Resources Branch
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Advice from a Tree

By Ilan Shamir

Dear Friend,

Stand Tall and Proud

Sink your roots deeply into the Earth

Reflect the light of your true nature

Think long term

Go out on a limb

Remember your place among all living beings

Embrace with joy the changing seasons

For each yields its own abundance

The Energy and Birth of Spring

The Growth and Contentment of Summer

The Wisdom to let go of leaves in the Fall

The Rest and Quiet Renewal of Winter

Feel the wind and the sun

And delight in their presence

Look up at the Moon that shines down upon you

And the mystery of the stars at night

Seek nourishment from the good things in life

Simple Pleasures

Earth, Fresh Air, Light

Be content with your natural beauty

Drink plenty of water

Let your limbs sway and dance in the breezes

Be flexible

Remember your roots

Enjoy the view!

Outstanding Woodland Stewards (OWLS):

Outstanding Woodland Stewards

January 1, 2018 – April 30, 2018

Elmore Campbell Heirs

Columbus County

Coastal Plain Region

Boone's Cave Park

Davidson County

Piedmont Region

Things to Do:

- Forest fire season is here! Be careful when burning!
- Spray fields for grasses and herbaceous plants.
- Avoid management activities in nesting cover for the next 2 1/2 months.
- Begin site preparation for winter planting season.
- Growing season burn for hardwood/understory control.
- Plant warm season grasses and other summer annuals: milo, millet, buck wheat, etc.
- Draw down beaver ponds for planting/vegetation establishment for waterfowl. Mow dams to prevent trees from becoming established. Inspect dam and shoreline for muskrat or beaver damage.
- Plant dove fields of sunflowers and millet in Coastal and Piedmont regions.
- Stock fish ponds with bass.
- Mechanical site preparation, prescribed burns.

Upcoming Events:

<u>Longleaf Academy, Longleaf Alliance</u>	May 8-10, 2018	Lufkin, TX
<u>Forest Technology Workshop, Society of American Foresters</u>	May 8-9, 2018	Columbia, SC
<u>Project Learning Tree K-8 Workshop, NCSU Forestry Extension</u>	May 12, 2018	Monroe, NC
<u>Forest Stewardship Program Annual Landowner Meeting, N.C. Forest Service</u>	May 19, 2018	Greensboro, NC
<u>Longleaf Festival, Wake County Parks & Recreation</u>	May 19, 2018	New Hill, NC
<u>2018 Wood Energy Workshop, NCSU Forestry Extension</u>	May 22, 2018	Asheville, NC
<u>Forestry Day in the Legislature, N.C. Forestry Association</u>	June 5, 2018	Raleigh, NC
<u>Consulting Foresters National Conference, Association of Consulting Foresters</u>	June 9-12, 2018	Asheville, NC
<u>2018 National Conference of Private Landowners, Forest Landowners Association</u>	June 26-29, 2018	Greensboro, GA