



Quail Times

Fall 2021

Midlands Quail Forever Fundraising Banquet and Palmetto Quailfest October 22-23, 2021



Image from www.midlandsquailforever.com

Encouraged by the success that the Indian Creek partners have had in restoring the quail population, several private landowners and hunters in Newberry County have formed the Midlands Quail Forever Chapter! The main goal of the chapter is to bolster the local quail population around Indian Creek by fundraising to support habitat work on both public and private lands, assisting in carefully monitoring the population, and participating in habitat improvement projects. The Quail Forever Midlands Chapter will host their first two events including a fun-filled fundraising banquet at the Newberry Firehouse on October 22nd, followed the next day (October 23rd) by the Palmetto Quailfest and Upland Challenge which will feature a live-bird shooting competition and educational Field Day at Gunrise Farms. Funds raised at the banquet will go to support habitat work on the Indian Creek Quail Focal Area.

The Fundraising Banquet on October 22nd is a great opportunity to fellowship with like-minded hunter-conservationists and support the Indian Creek Restoration Initiative. Unique among national conservation organizations, chapters of Quail Forever retain 100 percent decision-making control over their locally-raised funds. Which means that the dollars raised that night will stay right here in the Midlands to support wild quail conservation on both public and private lands.

During the fall field day on the 23rd, participants will be guided and educated by a wide variety of conservation

professionals from across South Carolina and the Southeast. Presentations and tours include the following:

- SCDNR will host an informative walk observing and discussing the native bird species that benefit from active forest management.
- Southeastern Grasslands Initiative Biologist, Brittney Viers will discuss Prairies and Savannas of the Southeast and lead an educational plant walk.
- Quail Forever Biologist Jake McClain will lead habitat tours of the Indian Creek Quail Area.
- Precision Agriculture Specialist, Charles Holt will discuss methods to improve producer profitability while also implementing conservation practices on Ag land.
- Quail Forever Farm Bill Biologist Miranda Gulsby will discuss the large variety of reptiles and amphibians living amongst pine savannas in our region.
- SCDNR's own Breck Carmichael will discuss the State of the Bobwhite here in South Carolina.
- US Forest Service Silviculturist, John Richardson will give tips and answer questions about how to manage timber for both cash and quail.
- Johnny Stowe from SCDNR will show off the burn trailer (which is available to private landowners to rent) and discuss the tools and ecology of prescribed fire.



Image from www.midlandsquailforever.com

The Midlands Quail Forever Fundraising Banquet in Newberry, SC is sure to include great fun, food, and fellowship, with lots of chances to win guns, gear, and glory! Buy your tickets now at:

<https://pfqf.myeventcenter.com/event/Palmetto-Quailfest-Upland-Challenge-Banquet-53023>

The Field Day at Gunrise Farms is a free event open to the public, but registration is required. Register at:

<https://pfqf.myeventcenter.com/event/Palmetto-Quailfest-Field-Day-54044>

Registration to participate in the Upland Challenge is \$300 and includes two tickets to the banquet and a live-bird shooting competition with a top payout of \$3,000.

Register on Oct 1 at:

<https://pfqf.myeventcenter.com/event/Palmetto-Quailfest-Upland-Challenge-53077>

Report a Bobwhite Quail Sighting **By: Breck Carmichael – SC Bobwhite Initiative Biologist, SCDNR**

Wikipedia defines “Citizen Science” (also known as community science, crowd science, crowd-sourced science, civic science, or volunteer monitoring) as scientific research conducted in whole or in part, by amateur or nonprofessional scientists. Outcomes are often advancements in scientific research by improving the scientific community’s capacity, as well as increasing the public’s understanding of science.

The South Carolina Bobwhite Initiative (SCBI) has a place on its web page (“Fill Out a Quail Observation Form” link at

www.scbobwhites.org) for citizens to report sightings and calls heard of bobwhite quail within the state.

While it may be a

stretch to consider this research, it is interesting the number of places where bobwhites are showing up these days. We are getting calls and emails quite frequently from folks reporting seeing or hearing quail where they have never seen them, or at least have not seen or heard them in many years. So, if you spot a quail, or hear the



Image from www.scbobwhites.org

iconic “bobwhite” call and want to participate in citizen science, especially if it is somewhere where they have been rare or non-existent, visit the SCBI website and follow the instructions on the sightings link. You can get lat-long coordinates for your location on most cell phones using the Maps or Compass functions. Thanks for helping us track our beloved bobwhite’s renaissance!

Invasive Species Spotlight **Chinaberry** **By: Jeff Fellers – Clemson Extension**



Large picture shows Chinaberry in June and the smaller picture shows Chinaberry in November

Chinaberry was introduced to the United States in the mid-1800’s from Asia. Like most of our invasive species it was planted as an ornamental around homesites. It can be commonly found along roadsides, forest edges, and around old home

sites. Chinaberry can propagate from root sprouts and by seeds dispersed by birds. It has been documented throughout South Carolina.

Chinaberry is a deciduous tree that can grow up to 50 feet tall and 2 feet in diameter. It flowers from March to May and produces pinkish-lavender to whitish petals.

Fruits are set in late summer around July and will often remain on the tree to January. Fruit will start as light green and then turn yellowish tan. The fruits are poisonous to humans and livestock.



Chinaberry flowering in May

The leaves of Chinaberry are alternately whorled and bipinnately compound. The leaves can be 1-2 feet long and 9 to 16 inches wide. Leaf margins can vary from entire to coarsely serrated. During the fall the leaves will become a bright yellow and often times can be seen from a distance.



Chinaberry leaves in July

Control Methods:

Control methods for Chinaberry are listed below.

- Trees –Stem injections or Hack-N-Squirt anytime except March and April.
 - Arsenal AC, Pathway, Pathfinder II or Garlon 3A – Dilute according to label
- Stump Treatment – treat stumps immediately after felling trees.
 - Glyphosate undiluted. (53.8% active ingredient is preferable)
 - Arsenal AC, Pathway, Pathfinder II or Garlon 3A – Dilute according to label
- Sapling – for saplings too tall to spray entire foliage use basal bark spray.
 - Garlon 4 as a 20 percent solution in commercially available basal oil, diesel fuel, or kerosene with a penetrant.
- Sprouts and seedlings – thoroughly wet all leaves during the months of July through October.
 - Garlon 3A or Garlon 4 as a 2 percent solution (8 ounces per 3 gallon mix)
 - Arsenal AC as a 1 percent solution. (4 ounces per 3 gallon mix)

References:

Nonnative invasive plants of southern forests: a field guide for identification and control.

https://www.srs.fs.usda.gov/pubs/gtr/gtr_srs062/

Native Species Spotlight Wild Muscadine By: Gary Peters – NRCS



The original native grape of the South, muscadine grapes can be found from Delaware to central Florida, to Texas, to Missouri. While most

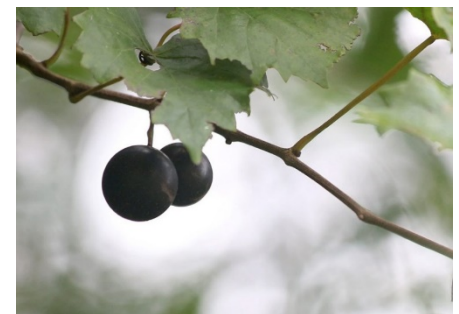
scientists recognize three species of muscadines (*Vitis munsoniana*, *Vitis popenoei* and *Vitis rotundifolia*), all are commonly known interchangeably it seems, by one or more names; Bird Grape, Bullace Grape, Bullit Grape, Currant Grape, Muscadine Grape, Roanoke, and Southern Fox Grape, while the glossy bronze ones are known as ‘scuppernongs’.

From July through September, this vining plant produces what is arguably the most delicious fruit found in nature. The list of wild animals that seek out muscadines is long.

Whitetails will eat the fruit until they are gone almost to the point of indigestion. They don’t just wait for the fruit; however, white-tailed deer browse the vines all summer long. Other mammals that seek out ripe muscadines include black bears, raccoons, coyotes, red and gray foxes, opossums, cottontails, striped skunks and both gray and fox squirrels.

More than three dozen species of songbirds eat muscadine berries. This list includes red-headed and red-bellied woodpeckers, great crested flycatcher, tufted

titmouse, northern mockingbird, brown thrasher, gray catbird, eastern bluebird, Baltimore and orchard orioles, wood, hermit and gray-cheeked thrushes, yellow-breasted chat, summer and scarlet tanagers, eastern towhees and many more. Muscadines also serve as an important food source for songbirds making their way south every fall.



As for gamebirds, wild turkeys, mourning dove, quail, and wood ducks all eat muscadines. It’s not uncommon

to spot a wood duck plucking muscadines from beneath the clear, gently flowing water.

As you can see in a natural setting, muscadine is quite versatile and provides several components of [wildlife habitat](#); shelter, browse, and food. Muscadine vines provide birds with unique nesting sites and nesting material, as well as escape cover from predators and severe weather. Also, muscadine is a [larval](#) host plant for the Nessus Sphinx Moth ([Amphion floridensis](#)) and the Mournful Sphinx Moth ([Enyo lugubris](#)).^[7]

Muscadine grapes are adapted to a wide range of soil conditions. Vines do best in deep, fertile soils, and they can often be found in adjacent riverbeds, although do poorly in calcareous soils or in soils with very poor drainage.

Ideal soils are loamy sands and sandy loams; although clay soils and sandy soils are also satisfactory with proper irrigation and drainage inputs in sandy soils, muscadine grapes will require more frequent irrigation because of the reduced water-holding capacity of the soil. Low-lying areas should be avoided because they are associated with poor air circulation and water drainage that contribute to increased probability of frost injury and waterlogging, respectively.

Bare-root vines should be planted in the 'dormant' season, December through February. It's important to remember when you plant muscadines, to plant two or more. Wild muscadine grapes are functionally dioecious which means there are male, and female plants.

Muscadine grapes are hardy plants, resilient to climatic conditions, and tolerant of insect and disease pests. Land managers can successfully grow muscadine grapes without the need to spray any pesticides.

It's doesn't have to be all about wildlife either. A report from the Institute of Food and Agricultural Sciences at the University of Florida found that muscadines "have been shown to be rich in total phenolic compounds, ellagic acid, and catechins," which may help ward off cancer. The



tough skin of the muscadine is chocked full of antioxidants as well. On a final note, if you have ever had grape hull pie made from muscadines, chances are you'll be motivated to find places to plant more of them.

Opportunity to Volunteer: Covey Counts **By: Jake McClain, Quail Forever Biologist**

Most everyone is familiar with the iconic whistle that individual male bobwhites make in the spring/summer to attract mates, but far fewer can recognize the sound of a covey waking up on a crisp fall morning. If you are unfamiliar (or familiar) with this special moment in the quail woods, we are looking for volunteers to help us with our fall covey counts on Indian Creek and Delta South WMA. Fall covey counts are really the best way to estimate the size of the quail population prior to the hunting season. In October, quail populations are at their highest. Recording the number and location of coveys detected help us better understand the distribution, density, and trajectory of the quail population. If more coveys are detected this year than last year, it indicates that the population has grown and vice versa. If no coveys are detected at certain survey areas, it indicates that the habitat needs more work. All of this information helps guide our efforts to conserve the birds more efficiently on both public and private lands.

After coveys are detected and the survey period (45 mins before sunrise-sunrise) is over, volunteers with bird dogs will be given the opportunity to flush the coveys to get an estimate of covey size. This is a great way to get some good wild bird contact for your dog prior to the opener.

Prior to helping with covey counts, volunteers will be trained on either October 2nd or October 9th in the early morning (~1 hour before sunrise). Official covey counts will be conducted on October 20th and 26th as well as Nov 2nd. Volunteers must attend a training session prior to helping with a covey count. Please contact Jake McClain at 803-321-2995 or by email at jmccclain@quailforever.org if you are interested in volunteering. Those that sign up will get more information via email. Thanks!

How Can New Technologies Help Us Monitor Northern Bobwhite

By: Emma DeLeon -- SCDNR

As many of us know, South Carolina DNR monitors bobwhites to track trends in their numbers, and uses this information to adjust hunting limits and manage land to actively support them. Traditionally, quail numbers are monitored using point counts along specific survey routes. An observer travels to a survey point, counts all the bobwhites they hear calling over several minutes, then moves to the next point on their route.

Coordinating surveys can be difficult since they must be finished by the time bobwhites stop calling in mid-morning and all routes must be completed during the time of year that bobwhites are most active. To further complicate matters, personnel may be limited during the critical time of year, different people will do their surveys slightly differently, and weather may determine if birds are calling their hearts out or staying quiet. All of this can make scientific interpretation of the data especially challenging!

Recently, scientists and property managers have started looking towards automated recordings to help with survey efforts. Automated recording units (ARUs) consisting of an encased, water-proof microphone and recording device are becoming increasingly effective and affordable. Much like a trail camera, these field-ready microphone set-ups can be programmed to record at scheduled dates and times then left to collect data for days or even months. This ensures that monitoring points are always surveyed within the appropriate time and drastically cuts back on the personnel needed to conduct surveys. One person moving a set of ARUs throughout the season can cover the same area that might otherwise require several people. Recordings also create a permanent record that can be listened to repeatedly. This can help ensure that no calls are missed and can reduce variation in survey results due to different observers.

To test of use of ARU technology for monitoring bobwhite, the South Carolina DNR deployed 14 recording units, 11 of which were located at Indian Creek.

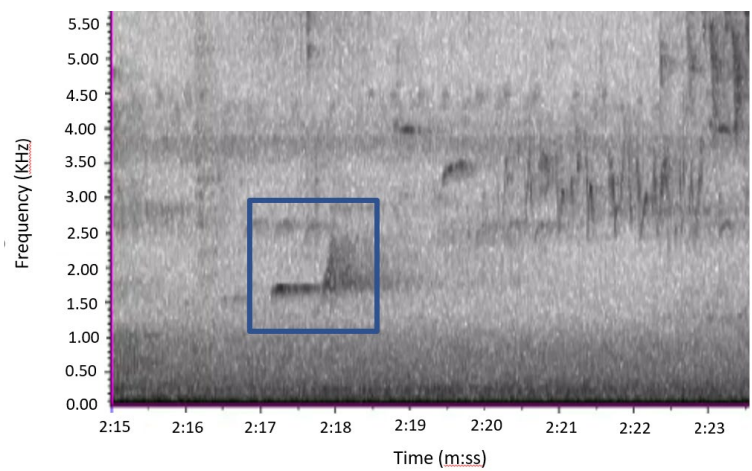


Figure 1. Sample of RAVEN spectrogram showing a Northern Bobwhite call. A spectrogram shows the variation in frequency of a sound over time. The flat part is the “bob” portion of the call with the higher frequency “white” at the end.

We analyzed recordings from April–Aug 2017 taken from 16–30 minutes after sunrise. We used RAVEN, a program available from Cornell Lab of Ornithology, to listen to sound files and count calls (Figure 1). ARUs proved to be very reliable with 96% of recordings ranking as good or fair quality. We detected 5,887 bobwhite calls and determined that 13 of 14 sites were occupied. Average daily probability of detecting birds was 0.35 overall with variation between sites ranging from 0.07 to 0.66 (Figure 2).

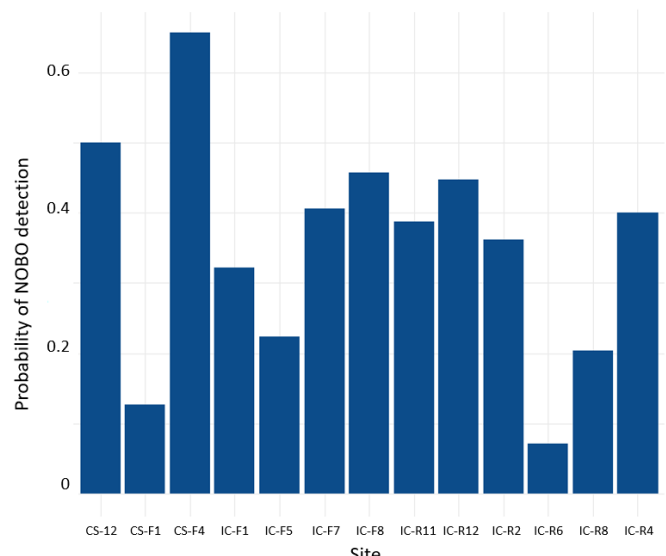


Figure 2. Probability of detecting at least one Northern Bobwhite during the calling season at each of 13 occupied sites. Calling season = days between first and last detected call at each site

We were also able to confirm that early morning surveys are efficient at detecting calls and that peak calling season in South Carolina is from late May to late July (Figure 3). This is consistent with other studies in our area and with patterns seen in other regions.

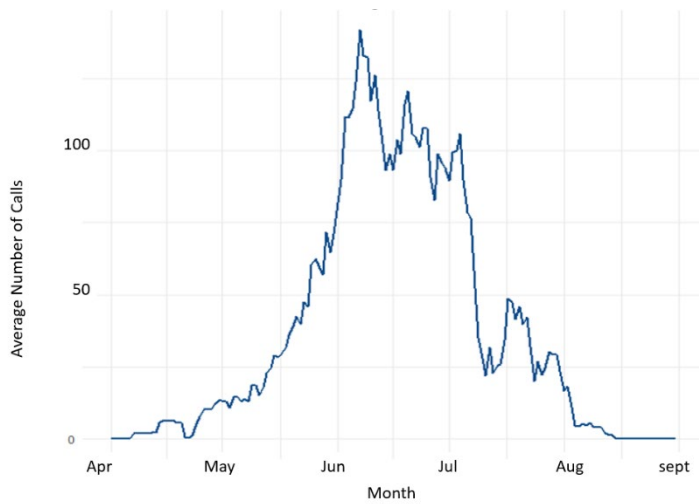


Figure 3. Average Number of Northern Bobwhite calls (7- day rolling average April – Aug 2017).

Based on recordings, it is easy to determine if sites are occupied by at least one bobwhite, but because a recording doesn't allow the ability to determine the direction a call is coming from, it is nearly impossible to estimate how many individual birds are present. As a result, ARU data is instead ideal for occupancy modeling. Occupancy modeling accounts for imperfect detection (for example our 0.35 probability of detecting a bird) and uses the fraction of survey points in an area occupied by at least one bird to determine population trends. These models are also especially useful because they can incorporate habitat variables. For example, we could model bobwhite occupancy in an area based on different ground cover types, or years since a controlled burn.

Using information from our pilot study, we will be able to refine survey timing and make recommendations for using ARU technology to conduct occupancy surveys. Occupancy data can then be used to determine important habitat variables and consistently occupied sites. These sites could be targeted for in-person surveys to determine bird abundance, monitored for changes in population, and used as references for habitat restoration at other sites. Overall, ARU technology shows great promise as a supplement to traditional surveys and as a valuable tool for monitoring bobwhite populations.

Prescribed Fire Manager Course Update

If you are not experienced at burning, attend a 'Learn to Burn' workshop, or any of the Certified Prescribed Fire Managers (CPFM) courses offered by the South Carolina Forestry Commission. Although CPFM courses have already been completed for 2021, those interested in attending will be able to sign-up in 2022. The biggest change for these courses in 2022 is that they will likely be virtual. Details and dates of availability are still being worked out. Please check the South Carolina Forestry Commission website at the first of the year or contact Stephen Patterson at (803)896-8810 for further information.

<https://www.state.sc.us/forest/cpfm.htm>

Due to Funding we do not know how long we will be able to continue to mail this newsletter out by paper mail.

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