

FROM THE QUAIL LAB...

BY BILL PALMER

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500 Bobwhites Radio-tagged

We radio-tagged 500 bobwhites at six properties during March as part of our on-going and new research projects. Of these, about 200 were radio-tagged on Tall Timbers and 100 on Pebble Hill Plantation. In addition to bobwhites, we radio-tagged 43 turkeys as part of a study to investigate forest structure on turkey habitat use and have begun capturing and radio-tagging gray rat and corn snakes as part of our bobwhite/predation study.



Releasing Bobwhites

management on private and public lands is growing. Unfortunately, the demand for wild bobwhites will likely always exceed their supply. Therefore, we have begun a study to test novel release systems using wild-strain bobwhites. In this first study, we are comparing the survival and reproductive capacity of parent-reared, wild-strain, bobwhite chicks released into areas of good habitat to survival and reproduction of native wild bobwhites.

Translocated Wild Bobwhites

A successful ongoing study on translocating bobwhites in Georgia by Auburn's Alabama Quail Management Project (AQMP), in cooperation with University of Georgia (UGA) and Tall Timbers Research Station (TTRS), indicates the potential for this technique to help establish huntable bobwhite populations. Our preliminary genetics results indicate only marginal differences in bobwhites across much of the Southeastern Coastal Plain. In a continuing effort to understand the value of translocated wild bobwhites for establishing new populations we have begun a new translocation study in South Carolina. This year, we moved 50 bobwhites to this recently renovated property. We will be monitoring population growth as a result of this release and additional releases in the next couple years.

Released Pen-reared Bobwhites

Released pen-reared bobwhites have demonstrated generally poor survival and no or limited reproduction. However, most "soft-release" systems are designed to produce hunting opportunity in the fall and have not been designed to establish or bolster wild populations. Interest in wild bobwhite

Growing Interest in Bobwhite Management

There is growing interest in bobwhite management by our state wildlife and forestry agencies. Dr. Bill Palmer was invited to participate with the Florida Fish and Wildlife Conservation Commission's (FFWCC) Agriculture/Range and Forestry Committees to assist the FFWC staff and other experts in developing a comprehensive conservation plan for restoring bobwhite populations on public and private lands, where possible. An early example of this effort is our cooperative Rangeland Quail Initiative in South Florida.

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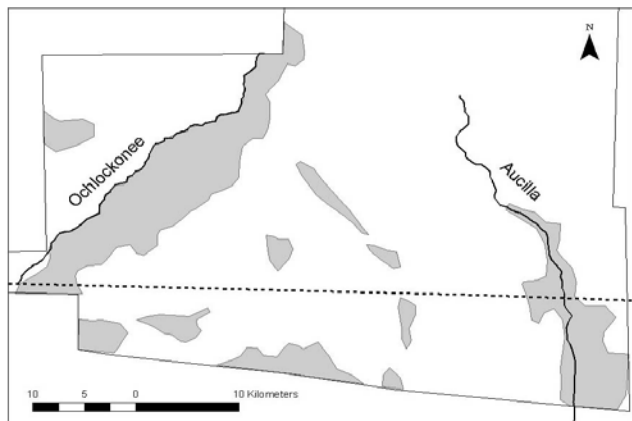


FIRE ECOLOGY

BY KEVIN ROBERTSON

Land History Project

We completed the first step of our study to estimate coverage of forest community types in the Red Hills Region prior to European settlement. Specifically, we have used the 1819 Georgia land lot surveys, which include areas now in Florida, to make a map in GIS of trees used to mark the lot lines.



Georgia side of Red Hills Region in 1819. Study area is within the thin line, hardwood dominated areas are in gray shade, and the state line is dashed. Unshaded areas are pine-dominated.

Ultimately this information will be used to create a more detailed map of forest types in relation to topography, soils, proximity to water bodies, and other variables. However, some general patterns are already evident. A broad band of mostly hardwoods extends 3-6 miles eastward from the Ochlockonee River to the top of the first ridge. This is presumably because fires moving with the prevailing west winds were blocked by the river, allowing more hardwoods, especially beech, magnolia, and oaks, to grow within a possible "fire shadow". This area corresponds to the band of hardwood forest drawn on regional surveyor maps at the time, and it is similar to beech magnolia forests on the east banks of the Mississippi and Apalachicola Rivers. Hardwoods are also associated with the Aucilla River and Wards Creek. The rest of the landscape is dominated by pines, even in the headwaters and shallow drainages. The finished map will help provide guidance for conservation, restoration, and management efforts, helping all to determine appropriate species for management on a given site.

New Associates

The Fire Ecology Lab is happy to have two new associates.

Susan Carr will be advised as a graduate student of Dr. Robertson while completing her Ph.D. at the Department of Wildlife Ecology and Conservation, University of Florida. She transferred from Louisiana State University. She is a taxonomy expert and has already helped us tremendously with the Native Ground Cover Project.

Collin Fridley is a graduate student and a volunteer intern from the Department of Geography, Florida State University. He is doing much of the GIS work associated with our Land History Project.

VERTEBRATE ECOLOGY

BY JIM COX

Breeding Season for Brown-headed Nuthatches in Full Swing at Tall Timbers

With help of technicians Susan Roth and Andy Wraithmell, the Vertebrate Ecology lab is out in the field from "can't see" to "can't see" trying to locate new nests, identifying color-banded adults, and monitoring nests. Two nuthatch nests have already fledged young, while another dozen have nestlings. Approximately 50 territories are in earlier stages of nesting.



Nuthatches

One of the more interesting finds this field season is a three-year old male that is still helping his five-year old father raise young. Most of the helpers we find are first-year males, but this three-year old represents a very old bird by nuthatch standards (only 70% of the males survive from year-to-year) and begs the question of why he hasn't attempted to breed on his own at this late date? We've also discovered four males that have attracted mates and established territories immediately adjacent to the territories held by their parents. This type of limited dispersal leads to a localized community of closely related individuals and may lead to high levels of inbreeding over time. Accordingly, we've begun to take blood samples from some individuals to analyze the genetic structure of the population. This is a collaborative effort involving Dr. Rebecca Kimball at the University of Florida and her graduate student Sarah Haas.



Monitoring Bachman's Sparrows

Monitoring Bachman's Sparrows on the Wade Tract also has been ramping up, but the nesting season seems to be delayed for this species this year. At this point in last year's sparrow work, we'd captured approximately a dozen new individuals and re-sighted several color-banded birds that had survived from the previous year. We've only captured two adults thus far, and most birds are not responding well to our recorded songs (which is how we lure them into nets). We've also only re-sighted four individuals that were banded in previous years.

RESEARCH ADMIN

BY KAYE GAINEY

Research Project Receives National Award

The Ouachita Native Flora and Fauna (Pine-bluestem Restoration) Project received the *Wings Across the Americas Habitat Conservation Award*, at the North American Wildlife and Natural Resources Conference in Arlington, Virginia on March 17, 2005. This National award was presented by the U.S. Forest Service to a USFS employee or group of employees and their partners for outstanding bird and habitat conservation efforts. Tall Timbers' Director of Research, Dr. Ron Masters, has been a longtime partner in this project and was honored for his research efforts. This project, on the Ouachita National Forest in Arkansas, restored the pine-bluestem community on over 200,000 acres and benefited 68 bird species which included the Red-cockaded Woodpecker and the Northern Bobwhite in addition to many other nationally or regionally declining bird species. Dr. Masters has been involved in bird research on this effort from 1992 to the present and currently maintains a quail research project on the restoration area. Other partners of this project included, Quail Unlimited, The National Wild Turkey Federation, and Arkansas Game and Fish Commission.



Dr. Ron Masters, Research Director, was honored for his research efforts as a longtime partner in the Arkansas research project.

LAND MANAGEMENT

BY ERIC STALLER

Local Boy Scouts Help Erect Wood Duck Boxes on Tall Timbers

In 2005 Tall Timbers erected 18 new wood duck nest boxes with the help of local Boy Scout troop from Tallahassee. The boxes will be monitored monthly to look at local recruitment. Important points of wood duck box placement are:

- face entrance holes toward water,
- place boxes 6-10 feet above water surface,
- put predator guards 3 feet above highest water level, and
- have at least 100 yards between boxes.

Placing boxes near good brood rearing habitat and where wood ducks are present will increase overall success.



One of 18 new wood duck nest boxes erected on Tall Timbers with the help of local Boy Scout troop from Tallahassee.

Highway 319 Median Prescribed Burn – An Historic Event

On March 8, 2005 the Florida Division of Forestry (FDOF) in cooperation with Tall Timbers Land Management and Fire Ecology staff completed a prescribed burn in the median of Hwy 319. This burn brought to fruition a vision of Miss Kate Ireland, Chair, Tall Timbers Board of Trustees. Her vision during the planning stages of the widening of this corridor, was to provide a demonstration to the public of our native fire dependant ecosystem and how fire is used to properly manage this system. The past couple of years have seen Department of Transportation Planners and Landscape Architects revegetate the median with native fire-dependant vegetation, including longleaf pine and wiregrass. The purpose of the burn was to manage that native vegetation. The cooperative efforts of Tall Timbers staff and Florida DOF staff demonstrated to the public that prescribed fire is safe and can be conducted without stopping traffic or causing safety hazards as opposed to a wildfire.

PRESCRIBED BURNING ... KEEPING OUR FORESTS HEALTHY AND WILDFIRE FREE



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Research Notes are posted on
our website!
www.talltimbers.org



North Florida Prescribed Fire Council's Biannual Meeting, Wednesday, April 27, 2005 — Attend and Receive Credit Toward Certification Renewal

If you are interested in learning more about prescribed fire, would like to become a certified burner, or receive credit toward the renewal of your current Prescribed Burner's Certification; you may wish to attend The North Florida Prescribed Fire Council's biannual meeting. A wide variety of speakers will discuss many topics including Estimating Fuel Loading, an update on Fire Weather, a review of the burn that was done in the median of Highway 319 north and talks given by expert burners on successes and failures that they have had. This meeting will be held at the Eyster Auditorium in the Conner Building (Forestry State Office) at 3125 Conner Boulevard in Tallahassee on Wednesday, April 27, 2005. Registration begins at 0800 and the meeting will start at 0900. The meeting is free and includes lunch but you must pre-register. To register go to The North Florida Prescribed Fire Council's web page at http://www.fl-dof.com/wildfire/rx_councils.html.

Fire Ecology's Wish List

The Fire Ecology Program would benefit tremendously from your contributions and sponsorships of the following list of needed items:

- 1) **Sponsorship of an eight-week summer internship at the cost of \$2200.** Internships are an educational opportunity for students and provide Tall Timbers with a great deal of work at a very low price. We specifically need a person to assist with tree diameter measurement for our Pineland Fuels Study, GIS work for our Red Hills Land History Project, and data entry for our Robert Godfrey Herbarium database.
- 2) **\$1000 worth of lab and field supplies:** Glass wear, mixers, chemicals, a penetrometer, and other supplies, to conduct the needed measurements and analyses of future soil work to study the effects of fire on soil, plants and visa versa.
- 3) **Contributions toward a Tall Timbers greenhouse.** Minimally, we need a structure that will cost **\$3000**, but higher priced structures provide greater longevity and capacity for future research. Projects that will require a greenhouse include: proposed studies on Pineland seed banks, soil mycorrhizae, and propagation of native plant species for pineland restoration.

If you would like to help supplement one or more of these items, please give us a call or send your generous contribution to: *Tall Timbers Research Station, Fire Ecology Program Support, 13093 Henry Beadel Drive, Tallahassee, FL 32312-0918.*

Thank you for your continued support of research!