Tall Timbers eJournal

FALL/WINTER 2015-2016

TALL TIMBERS RESEARCH STATION & LAND CONSERVANCY

Stewards of Wildlife and Wildlands

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For almost 60 years, Tall Timbers' mission has been "to foster exemplary land stewardship through research, conservation, and education".

Tall Timbers' primary research focus is the ecology and management of fire-dependent ecosystems and bobwhite quail and other wildlife in the Southeastern Coastal Plain. Our conservation efforts are dedicated to helping protect the distinctive, rural landscape of the Red Hills Region of South Georgia and North Florida and its traditional land uses. Our education program transfers research and conservation information for resource management. We strive to educate our members and the public with science-based information through outreach programs, community involvement, and engaging publications.

Membership is important to Tall Timbers because it provides for the overhead costs necessary to fund our programs. By becoming a member of Tall Timbers, you will be doing your part to protect and preserve the wildlife and wildlands for future generations.

For more information, please visit **talltimbers.org**

eJournal

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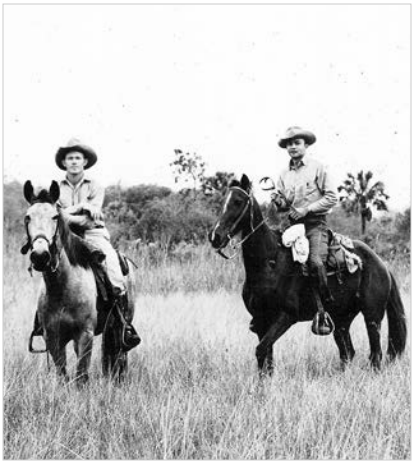

On the Cover:
Cypress pond special natural area on Leary Farm.
See p. 44 to read about Bill DuPré III, the owner of Leary Farm, who with his family donated a conservation easement to Tall Timbers.
Photo Kim Sash

FEATURES

TALL TIMBERS
Research Station & Land Conservancy

eJournal

EDITOR
Rose Rodriguez

CONTRIBUTORS
Georgia Ackerman
Doug Chapman
Jim Cox
Robert L. Crawford
William A. DuPré III
Bill Palmer
Lelia Reynolds/Bill DuPré
Kevin Robertson
Rose Rodriguez
Kim Sash
Theron Terhune
Shane Wellendorf
Juanita Whiddon

EXECUTIVE EDITOR
Bill Palmer

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EDITOR'S LETTER

IN THIS ISSUE OF THE *Tall Timbers eJournal* hunting is the theme. Whether hunting for quail, butterflies, mistletoe or ticks, there's a story here that discusses the topic.

Archivist Juanita Whiddon shares Henry Beadel's diary entries about hunting on Tall Timbers Plantation in 1923.

Flora & Fauna articles are written by staff biologists Kim Sash and Jim Cox. Sash's article is a light-hearted discourse on a "playful" parasite. Make sure you view the video! Cox departs from his usual musings about his avian friends; this time butterflies as an ecological indicator are his subject.

Guest writers contributed articles in this issue. Doug Chapman reflects on the rise and fall of hunting bobwhite in the South from his perspective as an agricultural extension agent in Alabama. And, the DuPre/Reynolds family tells their story about Leary Farm; 1329 acres of the property is under a conservation easement with Tall Timbers.

In this issue President/CEO Bill Palmer puts the spotlight on one family's approach—as one generation has succeeded the other—to manage their properties to increase bobwhite quail populations. He interviewed business manager Kerryn Seward and land manager Robbie Green to get the scoop; read what they have to say.

Bill Palmer also has **The Last Word** on page 53.

Because this is a digital publication, most articles include hyperlinks to websites that provide additional information. Click on text that is “red clay” in color, which indicates a hyperlink. You can also click on the page number in the contents pages to go directly to the article on that page.

If you frequent social media, follow our pages/feeds: Facebook, Twitter, Instagram and YouTube. Clicking on the icons below will take you to there.

I hope you enjoy this Fall/Winter issue of the *eJournal.* I know some of you prefer reading a printed version. Here is how. There is a top arrow on every page that opens features that give you a print option; click on the print icon to print the entire publication or just the article(s) you want to read.

Email me a note with your thoughts, or better yet, send me a letter to the editor; I will include it in our next issue.

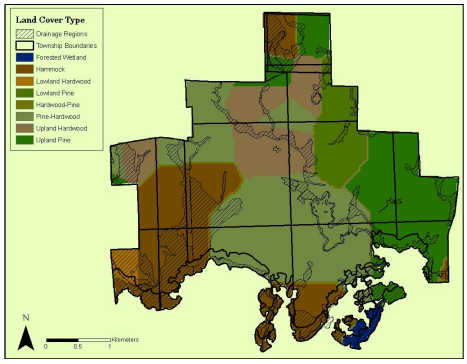
Rose Rodriguez
rose@ttrs.org

DEPARTMENTS

Flora & Fauna

Conservation

Research & Land Management



In Every Issue

The 1923 Diary of Henry L. Beadel - Winter Hunting

BY JUANITA WHIDDON

IN THE EARLY YEARS AFTER HENRY and Genevieve bought Tall Timbers Plantation from his uncle, Edward Beadel (1919), the winter hunting season followed the familiar routine established by Edward. Both Henry and Genevieve enjoyed quail and dove shooting, and occasionally took pleasure in turkey hunting. Though she was an excellent shot, Genevieve (Gen) left the cold, wet duck hunting to the men in the family.

Genevieve Beadel dressed for hunting, c. 1920s. Photo by Henry L. Beadel, Tall Timbers Archives

Browsing through the 1923 diary, the reader notes that Henry's parents, Henry and Sarah Beadel, his uncle Edward, and Gen's brother Arthur Dillon, who was also Henry's architectural partner, were all at Tall Timbers to enjoy the winter shooting. The January entries indicate duck hunting in the mornings and quail in the afternoons with occasional snipe and dove shooting. They were sometimes joined by Arthur and Gen's Tallahassee cousins, the Winthrops. In early February, Arthur returned to New York and is replaced by long-time family friend, Clara Hage of Long Island. Clara stayed for about a month, and as the weather grew warmer, they added fishing to their out-of-door activities.

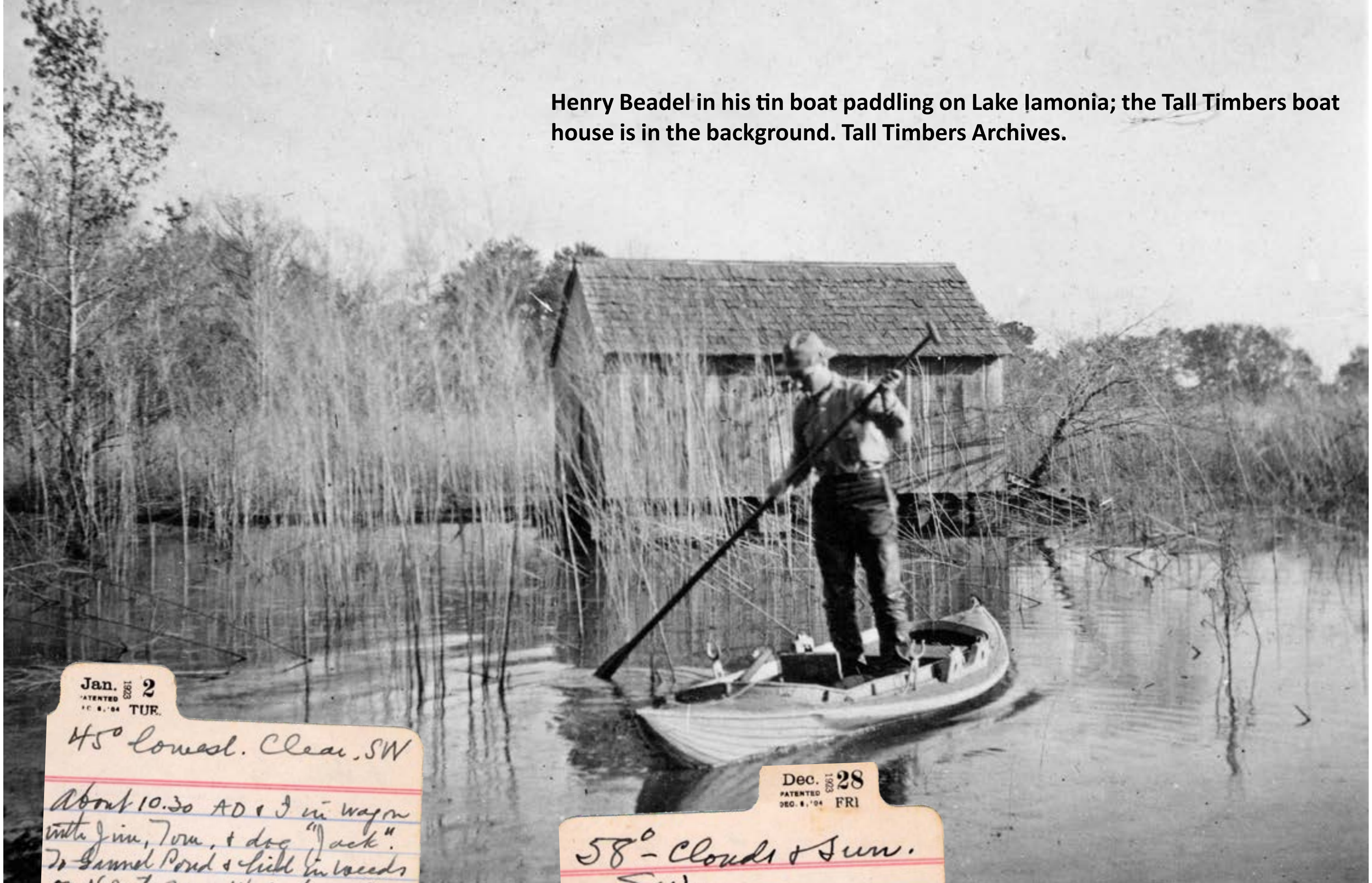
Henry's parents returned by train in mid-May to New York City; his father did not fare well on the trip. The senior Beadel developed severe respiratory complications and died May 31, before Henry and Genevieve could get there. The younger Beadels departed Tall Timbers quickly and left the closing up of the house to their manager, T. P. Strickland.

Settling his father's estate fell to Henry and his brother Gerald, so Henry and Genevieve did not return to Tall Timbers until November 12, and the following week Edward Beadel arrived to spend some time. He enjoyed his time on Lake Iamonia and in the shooting wagon. Henry, in the meantime, was invited by a group of Lake Miccosukee duck hunters to join them, and even though he enjoyed hunting on nearby Lake Iamonia, he also enjoyed the camaraderie of neighboring sportsmen on Lake Miccosukee.

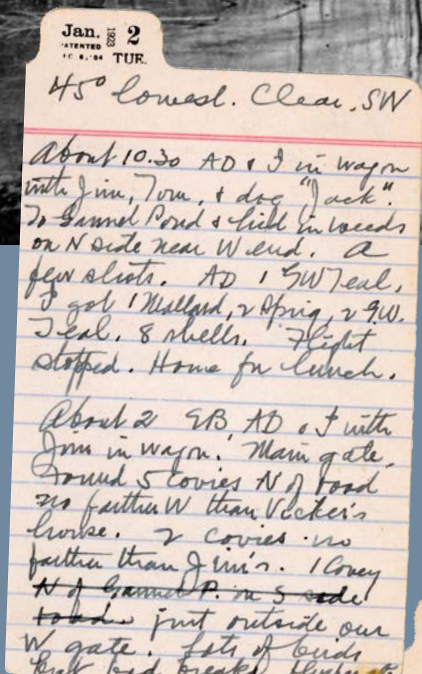
Edward left for New York City on December 18, and Henry and Genevieve had a few restful days of quail hunting together. Additionally, Genevieve busies herself with making toys and goodies for the tenants' and neighbors' children. After the gifts have been distributed on Christmas morning, Henry and Genevieve drive to Tallahassee to have Christmas dinner with the Winthrops. Later that week, the Winthrop men enjoy quail shooting and duck hunting at Tall Timbers to close out 1923.

Note: This is an abridgement of the 1923 diary of Henry L. Beadel. His diary cards, seen at right, illustrate his detailed hunting notes. There is a wealth of historical information to be found in these 1919–1962 diaries that chronicle Henry Beadel's life at Tall Timbers Plantation.

Juanita Whiddon is the archivist and historical resources coordinator for Tall Timbers.



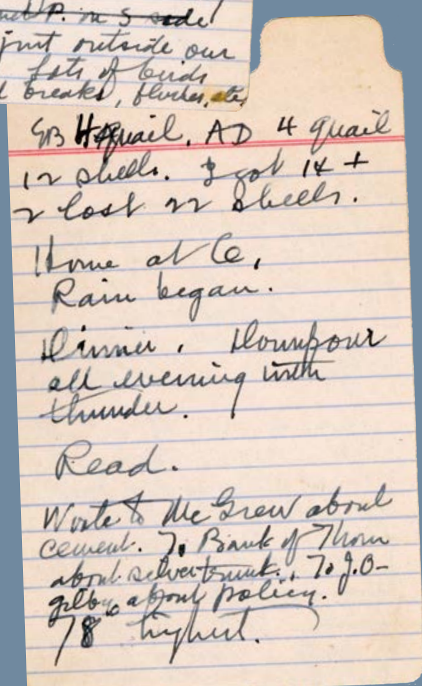
Henry Beadel in his tin boat paddling on Lake Iamonia; the Tall Timbers boat house is in the background. Tall Timbers Archives.


Jan. 1923 2 TUE.

45° Lowest. Clear. SW

About 10.30 AD & I in wagon with Jim, Tom, & dog "Jack". To Gannet Pond & hid in weeds on N side near W end. A few shots. AD 1 GW Teal, I got 1 Mallard, 2 Pintail, 2 G.W. Teal. 8 shells. Flight stopped. Home for lunch.

About 2 GB, AD & I with Jim in wagon. Main gate. Found 5 covies N of road no farther W than Vicker's house. 2 covies no farther than Jim's. 1 Covey ~~N of Gannet P. on S side road~~ just outside our W gate. Lots of birds but bad breaks, flushes, etc.


GB 4 quail, AD 4 quail 12 shells. I got 14 + 2 lost 22 shells.

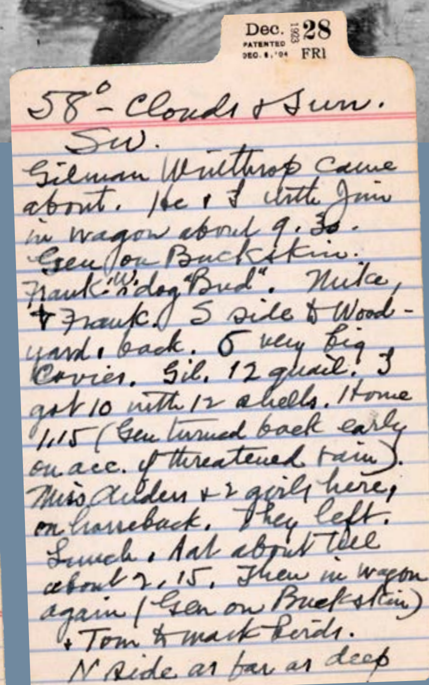
Home at 6. Rain began.

Dinner. Downpour all evening with thunder.

Read.

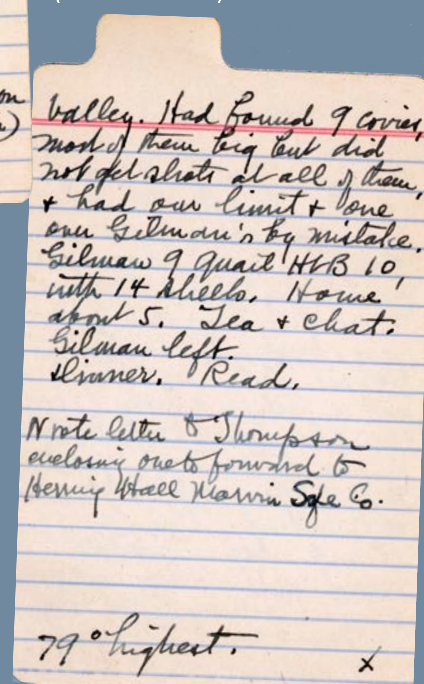
Wrote to McGrew about cement. To Bank of Thom. about advertisement. To J.O. Gilbey about policy.

78° highest.


Dec. 1923 28 FRI

58° - Clouds & Sun. SW.

Gilman Winthrop came about. He & I with Jim in wagon about 9.30. Gen on Buckskin. Frank's "W" dog "Bud". Mike, & Frank. S side to Woodyard & back. 6 very big Covies. Gil. 12 quail. I got 10 with 12 shells. Home 1.15 (Gen turned back early on acc. of threatened rain). Miss Alden & 2 girls here, on horseback. They left. Lunch & Nap till about 2.15. Then in wagon again (Gen on Buckskin) & Tom & mark birds. N side as far as deep


valley. Had found 9 covies, most of them big but did not get shots at all of them, & had our limit & one over Gilman's by mistake. Gilman 9 quail HLB 10, with 14 shells. Home about 5. Tea & chat. Gilman left. Dinner. Read.

Wrote letter to Thompson enclosing one to forward to Herring Hall Marvin Safe Co.

79° highest. x

On December 28, Genevieve's cousin Gilman Winthrop joined HLB and Gen for a day of quail hunting. HLB and Gilman rode in the wagon and Gen was on horseback. They hunted in the morning on the south side near Woodyard [Hammock](found 6 big covies), and after lunch on the north side (found 9 covies).

Archivist Juanita Whiddon pulled two of Henry Beadel's diary cards from 1923 that include detailed hunting notes. Shown here are the front and back of cards from January 2, 1923 and December 28, 1923. On January 2, Henry (HLB) and guests went duck hunting on Gannet Pond in the morning and quail hunting in the afternoon near Tall Timbers main gate.

Kim Sash

Harvesting a Holiday Freeloader

BY KIM SASH

THIS PAST NOVEMBER I DID SOMETHING I've always wanted to do, but never have; I collected a freeloader — the Eastern mistletoe native to North America, *Phoradendron leucarpum*. With over 1,300 species worldwide there is a word for mistletoe in nearly every language. And now that fall had finally arrived it was time to collect some. This ancient parasitic plant is one my favorites, not because of its usefulness as a canoodle inducer but because of its food value to many bird species. As the leaves drop from the hardwoods mistletoe is truly revealed in the upper reaches of the trees, nature's ornaments.

I went over to the Staller household on a warmer than normal November day. While Tall Timbers land manager, Eric Staller, loaded and sighted in the .22 rifle, I passionately lectured his wife, Cyndi, and their three kids about the wonders of mistletoe.

It is a freeloader, lazily hanging with its roots penetrating the hardwood branches. Since it is a green plant it can complete photosynthesis, but with its roots sunk deep into the hardwood stems it can choose not to. All the water and nutrients it requires are provided at no charge courtesy of the lovely hardwood tree that the mistletoe parasitizes. With its nutrient demands met, mistletoe will produce its seed-filled fruit — sticky berries which are just one of the many unique adaptations the mistletoe has developed. The berries, while toxic to humans, are consumed by birds. The flocking cedar waxwing, robins, and flycatchers are among some of the birds that will eat these berries. Sticking to birds, the seed-containing berries are easily transported to another favorable sunny branch high in the canopy and the process begins again.

Hardwood trees are minimally damaged by the mistletoe clinging to its branches. Another species of mistletoe, the dwarf mistletoe, commonly found out west prefers pine species and is considered a pest species be-

cause it can cause considerable harm to the tree. Here in the southeast, our American mistletoe is the species that commonly comes to mind during the holiday season.

This leads us back to my first mistletoe harvesting experience. Mistletoe can be shot out of the high branches it calls home to serve its holiday function. A piece of the mistletoe can be severed from the rest of the plant without killing what remains in the tree, leaving you with the ability to harvest your mistletoe for successive holiday seasons to come. The harvested piece can be hung and will dry nicely for use as a doorway decoration. While mistletoe may be a green beacon of hope for single people, for others of us, it is a doorway best avoided. But if you do find yourself in the threshold and pucker up for a smooch under the mistletoe, you can remind yourself, "I'm being kissed under a toxic freeloader."

I wish you hugs and of course kisses this holiday season. Click this link if you'd like to see a short video of my first mistletoe harvest. Cameo by Eric and Tori Staller.

Kim Sash is the Conservation Biologist with the Tall Timbers Land Conservancy.

DEAN/SALLY JUE

Counting Butterflies

Birds are beautiful, but they're not the only animals capable of holding the human eye hostage

BY JIM COX

THE GORGEOUS BLACK-AND-WHITE PATTERN OF A Zebra Swallowtail flitting over wiregrass and forbs has diverted the attention of many a hunter pursuing other wildlife. Zebra Swallowtails and their colorful butterfly kin have also become an important focus for thousands of outdoor enthusiasts as well as millions of elementary students. There's probably not an elementary school left in the lower 48 where the transformation of a dull, squirming caterpillar into a beautiful butterfly has not been showcased.

The use of butterflies as ecological indicators is also becoming more important for biologists studying southern pinelands. Butterflies are easy to observe but also have traits not found among the birds, reptiles, and other animals often studied more regularly. A tight link between butterflies and their host plants is one example. We typically see butterflies sipping nectar from a number of different flowering plants. These nectar plants keep adult butterflies aloft, but the larval food plant (host plant) is the key to sustaining a butterfly's population.

The host plant is the plant upon which female butterflies lay their eggs. The young caterpillars that emerge feed on the plant until pupating and emerging as adults. Most butterflies use only one or two host plant species, usually within the same plant family. For example, the Monarch butterfly's host plants are all in the milkweed family. Without the host plant, a butterfly cannot produce the next generation of butterflies, and this dependency makes butterflies great indicators of plant diversity in pineland forests.

In addition, butterflies generally are more sensitive to pesticides and other contaminants than larger animals, which makes them good bio-indicators. Although not as important as bees for plant pollination, butterflies also provide pollination service for many plants, especially those with brightly colored flowers.

Dean and Sally Jue with the Florida Natural Areas Inventory in Tallahassee have conducted butterfly counts in the Red Hills region for nearly a decade. One day each month (except for December and January), the couple ventures north, usually joined by colleagues Wilson Baker, Virginia Craig, David Harder, and Dave McElveen, to survey a restricted private research area near Thomasville. The group walks the same 2.5 mile route on each visit, starting around 10 AM and taking up to six hours to complete the survey. In addition to counting the numbers of each butterfly species they see, they also record information on plants in flower and take photographs of any rare or unusual species.

"This tract has an impressive diversity of butterflies," Dean says. "We have conducted similar surveys on more than 25 public lands throughout north Florida, including the Apalachicola National Forest and the St. Marks National Wildlife Refuge. Rarely do we find numbers on these properties comparable to the high counts we have found when we venture into the Red Hills."

"We've counted over 1,000 butterflies on about 15% of the surveys at this Red Hills tract," Dean adds. "We get 1000+ individuals on only about 1% of the surveys conducted at other sites in the region. Our southern Georgia study area also holds the record for the highest number of species we've seen in a single day at an inland site — 46 species in September 2008."

Southern Georgia study area where Dean and Sally Jue have counted over 1,000 butterflies. Photo Dean/Sally Jue

The abundance of these silent-winged — very mobile pieces of art — reflects both the amazing diversity of plants found on the research site coupled with the benefits provided by the regular use of prescribed fire. The current tally of plants known for the tract being surveyed exceeds 600 species, and the researchers have observed butterflies using about 130 of these plant species as sources of nectar. The diversity of plants here can get crowded, with as many as 25 different plant species packed into a square yard of space.

A Couple of Rare Art Pieces

Butterfly surveys in the Red Hills have turned up 71 different species (approximately half the species found in south Georgia and north Florida). The seven most common species seen are the Common Buckeye (90± adults per survey), Little Yellow (120±), Barred Yellow (70±), Cloudless Sulphur (50±), and Southern Dogface (40±). These seven common butterflies make up about 60-75% of all the individuals counted, but the surveys have also located two especially rare butterflies that may have once been much more common in southeastern pinelands.

"The Mottled Duskywing and the Dusky Roadside-Skipper rank as two of the most vulnerable species we've found," Dean says. "Both are considered to be threatened throughout their respective ranges in North America. The population of Mottled Duskywing is especially interesting here in the Red Hills because it occurs about 100 miles away from the other nearest documented location. We don't know much about the status of this species elsewhere in the Red Hills region, but we suspect the total population is very small and isolated to a few key areas where high quality native groundcover remains."

The basic ecology of both rare species of butterflies is poorly known, so that makes the surveys by the Jues and their associates all the more important. The host plant for Mottled Duskywing is New Jersey tea, while the Dusky Roadside-Skipper uses bearded skeleton grass for its larval food plant. The duskywing is described by several authors as occurring in hilly pine-oak woodlands, pine barrens and longleaf sandhills, while the roadside-skipper prefers open pine woods. In 1963, Lucien Harris described the Mottled Duskywing as common throughout Georgia in his book Butterflies of Georgia, but butterfly

DEAN/SALLY JUE

Dusky Roadside-Skipper

enthusiasts today can only wonder "what has happened to this species"?

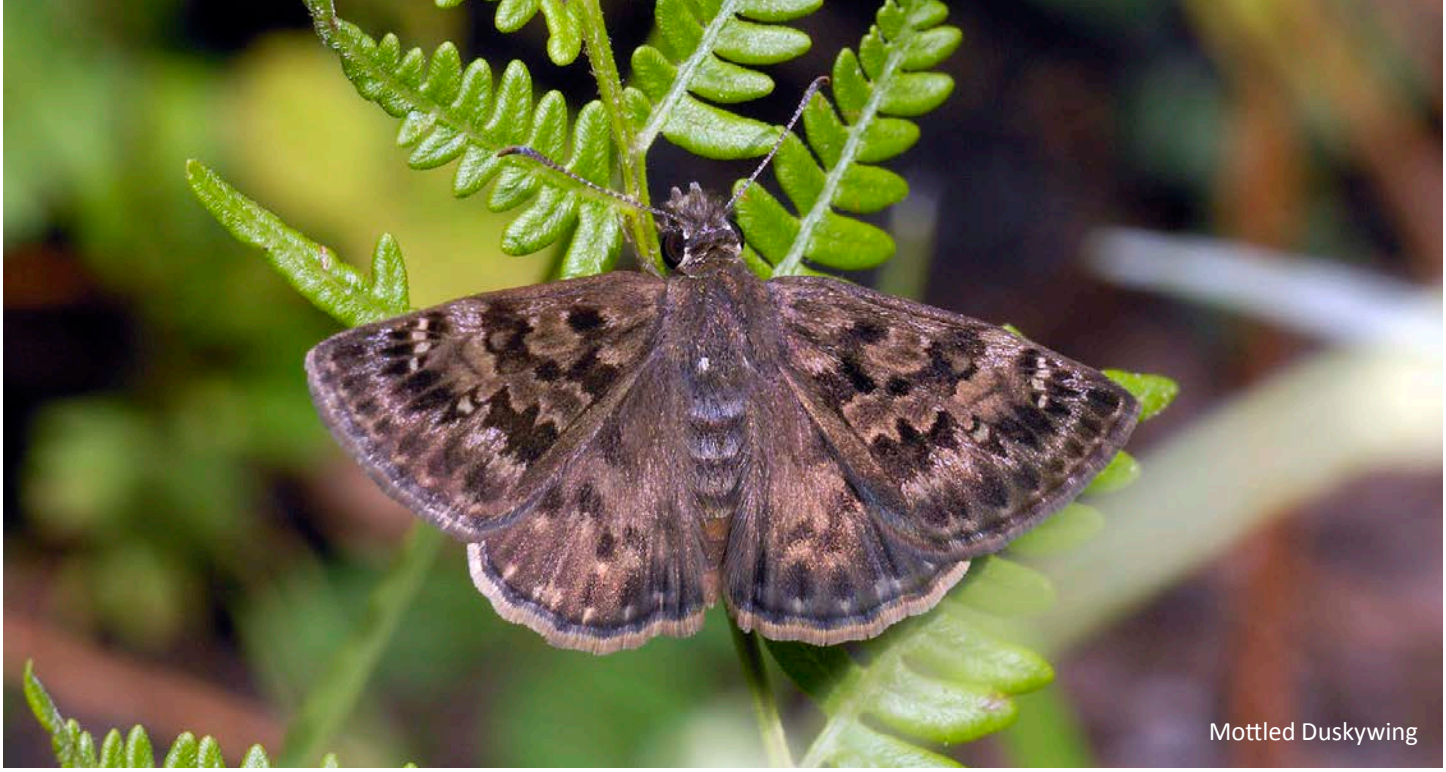
"We suspect the Mottled Duskywing preferred open woodlands where the butterfly found an abundance of its host plant, New Jersey tea," Dean speculates. "This plant responds well to prescribed fire, but, as fire has been removed from the landscape and mature, open pine forests closed in or were converted to residential areas and parking lots, the host plant and the butterfly disappeared."

Are Butterflies also Fireflies?

The relationship between prescribed fire and the rare butterflies found in southern pinewoods is an area ripe for study. Available information is often anecdotal and incomplete, and many of the adverse effects thought to affect butterfly populations are based on studies conducted outside the range of southern pine forests. Some authors suggest that very frequent fires are harmful because of the vulnerability of the many caterpillars that reside in the groundcover. Clinging to the leaf of a host plant is not a good strategy for avoiding a ground fire. A large portion of the population could be wiped out when an extensive burn is conducted, unless there are unburned patches ("refugia") left within the burn area.

Biologists use the term "metapopulation" to describe the complex interplay thought to take place in situations when butter¬flies and fire occupy the same space. A metapopulation is simply a group of disjointed and individual populations distributed over a large area and separated by unoccupied (and usually unsuitable) space. The disjointed populations interact with one another as individuals move from one population to another. If fire wipes out an individual population in one spot and the nearest neighboring population is close by, it would be relatively easy for new individuals to recolonize the site once the area recovers. The distances separating populations is a critical factor affecting the suitability and viability of the metapopulation. However, if neighboring populations become too far away for individuals to easily recolonize temporarily unsuitable sites, the entire metapopulation can unravel over time, with the local extinctions of the individual populations ultimately leading to the extinction of the metapopulation itself. This is probably occurring more frequently as expanding human population leads to increasing fragmentation of undeveloped natural areas.

The lifespans of adult Mottled Duskywings and Dusky Roadside-Skippers are short, approximately a month. Both species have two broods each year that peak in April and then again in August. Prescribed fires conducted in April and May can lead to a dazzling diversity of butter¬flies in late summer and fall. Such fires increase late-sum¬mer flowering responses of many plant species, and some of the highest counts of butterflies recorded in the Red Hills study area come months after a late-April burn. On the other hand, extensive burning could pose a threat to the more specialized and rarer butterflies, particularly when the burns are especially clean and few unburned patches are left.



DEAN/SALLY JUE

Mottled Duskywing

"From 2007-2010, the fires applied to our study area typically were 18-24 months apart," Dean notes. "Once a unit was burned, it wouldn't see fire again for almost two years, allowing butterflies to move between the two burn units we studied. Beginning in 2011, both units were treated more regularly and usually burned in the spring within a month of each other. The interval shortened from 18-24 months down to 10-14 months, and these changes may have eliminated refugia for the two rare species in our study area.

"Both the Mottled Duskywing and Dusky Roadside-Skipper became less common once the more frequent burn policies were established," he notes. The Mottled Duskywing was not seen during surveys conducted in 2013, the first time we missed seeing that species at some point during a calendar year."

"The Dusky Roadside-Skipper was encountered but also in lower numbers," Dean adds. "In general, the butterfly species with the most specialized lifestyles declined during the period where more frequent burns were conducted. In contrast, numbers for species characterized by more generalist lifestyle improved."

Beauty and Questions Abound

Fire has been a driving force in the longleaf ecosystem for thousands of years, but the behavior of fires set by Mother Nature may deviate from the prescribed fires now used to manage longleaf forests. For example, Mother Nature burned throughout the day, including nighttime periods, when high humidity and calm winds prevailed and likely created a more variable array of burned and unburned vegetation. Prescribed burns are normally set in the afternoon when the humidity is low and the goal is to consume as much of the groundcover vegetation as possible.

A key goal for future research is understand¬ing how metapopulations of these colorful animals per¬sist in an environment where fire is so essential yet also potentially so lethal. The question will require working at a larger geographic scale because we don't yet know how many caterpillars or adult butterflies survive in the patches of unburned vegetation that remain after a burn or how far butterflies may fly to re-colonize burned sites from unburned blocks. In addition to extending the study to a larger scale, information on productivity, dispersal and survival will be needed to complement the counts of free-flying adults.

There are also gaps in basic biology that need to be filled. One perplexing butterfly found on the red Hills surveys is the Phaon Crescent. It's one of the most abundant butterflies on the property, but the host plant described in the literature (fog fruit) is not known to occur on the study site nor on adjacent areas. The butterfly may occur as a result of regular immigration from adjacent lands, but it is more likely that the butterfly uses an undocumented host plant. As with most biological inquiries, time spent in the field leads to new questions leading to additional time in the field leading to yet still additional questions. Nowhere are such pursuits more enjoyable than the Red Hills region.

Ecology field trip series connects people to the Red Hills landscape

BY GEORGIA ACKERMAN

YEARS AGO WHILE STANDING AT THE elementary school bus stop with my kids, a neighbor boy shrieked "tarantula," and kicked wildly at the base of an oak tree. The startled children jumped back. Undaunted, my second grader son told the shrieking boy, "it's a green anole and it won't hurt you," as he carefully plucked the tiny lizard from the tree. Similarly, a few years later during her school safety patrol duties, my daughter scooped up a juvenile soft-shell turtle demonstrating to a friend how to hold it safely. She marched the turtle over to the drainage pond area where the turtle was headed to before it got ensnared in the morning pedestrian traffic.

Relaying the story later, two important points dismayed my daughter. First, an aquatic turtle was wedged precariously near a sidewalk and secondly, a respected teacher mistakenly scolded her for picking up a "poisonous animal." Speculating that the teacher was perhaps confused about some general salmonella misinformation, my daughter shrugged it off, emphatically maintaining, "I knew it wasn't poisonous."

These two homespun wildlife stories reveal that people are sometimes disinterested, confused or even frightened by unfamiliar wildlife and its natural habitat. Inversely, it has been continually demonstrated that people will protect what they appreciate, understand or love. The youngster that identifies the snorkel nose of a soft-shell turtle is not panicked by its presence; rather, she wonders what waterway it deviated from. Even basic knowledge of plant and animal life can prove powerful. Consider the hiker that recognizes a venomous snake and cautiously bypasses it, or the homeowner with a backyard bat box that promotes natural mosquito control. Understanding the natural world cultivates appreciation and stewardship of it. As such, connecting people to their local landscape is also vital to long-term conservation efforts.

To promote conservation learning experiences for residents, Tall Timbers Research Station & Land Conservancy offers seasonal, nature-based field trips along with their collaborative regional partners of the Red Hills Awareness Initiative. Conservation education is furthered by providing opportunities for people to explore their local landscape via hiking, paddling, birding, wildlife bio-blitzing and more. In essence, *wandering* in the woods (or rivers, lakes and sandbars) creates *wondering* more about the plant and animal life found there. Ecology field trips around the Red Hills sponsored by Tall Timbers and partners in recent months include an Ochlockonee River bio-blitz, Wacissa River twilight kayaking adventure and a Wintering Birds morning hike. Some trip highlights follow.

Ochlockonee Bio-blitz

Equipped with dip nets and slathered in sunblock, both parents and youth eagerly explored sprawling sandbars and the wooded riverbank along Florida's lower Ochlockonee River on a warm Saturday morning offering ideal river wading conditions. The Bradwell Unit, public land adjacent to the river, is located in the Apalachicola National Forest, Florida's largest national forest. Apalachicola National Forest encompasses more than 550,000 acres. Nearby Talquin State Forest borders the northern tip of the Apalachicola National Forest in Leon County, Florida.

Pierson Hill with yellow-bellied slider. Photo Georgia Ackerman

The families discovered a diversity of amphibians and fish species during the field trip on public land. Biologists Kim Sash, Pierson Hill and Todd Engstrom, along with interns and outreach volunteers provided numerous inter-

"Youth document species identified during Ochlockonee bio-blitz field trip." Photo Georgia Ackerman

active opportunities for parents and children during the learning-based trek. Gathered in a circle at the water's edge, Hill lifted a hefty yellow-bellied slider from a net for all to see while describing a few life cycle facts. After Hill and Sash answered questions, the turtle was returned to the sand. It proficiently scurried back to the water followed by curious children and parents with cameras.

A "learning station" with handbooks, field guides, viewing tanks and other tools was assembled in the shade and Sash instructed the youth to write down the various species identified that morning. Parents and children netted small fish, butterflies and frogs. They watched for birds and insects while hopping over submerged trees in shallow water. They used dip nets and seines to gather fish and amphibians. A collective list of identified species was created with over 35 animals that included killdeer, red-bellied woodpecker, tiger beetle and bluegill.

Russ Franklin who joined the field trip with his son, Matthew, age 12, commented, "We enjoyed making a list of species observed because it made us pay attention to ordinary creatures in our area. You don't realize how much you take for granted until you start making that list." Leaders guided the participants through plant and animal identification steps while simultaneously engaging them with questions like, "what do you think might eat this frog?" and "why didn't we find any fish in this area?"

The September field trip coincided with international Coastal Clean Up Day, as such, the morning adventure concluded with a litter sweep of the bank and parking area. The group hauled off several bags of trash that was kept from decomposing in the river, which flows to Ochlockonee Bay.

Sunset on Wacissa River

Response to September's Wacissa River kayak paddling adventure was tremendous after an August trip was rained out. Over 30 people, ranging in ages 8-70 years, meet up at Jefferson County's Wacissa Park to explore Big Blue, a first magnitude spring. The group was reminded that Florida has more freshwater springs than anywhere on the planet when outreach volunteers Doug Alderson and Michael Hill provided both ecological and historical frameworks of Jefferson County's spring system and adjacent public land. Hill, retired from Florida Fish and Wildlife Conservation Commission shared photos of an eroding dam located five miles below the county park. He discussed the negative ecological impact of the defunct dam and support for its full removal.

Wacissa River at twilight during a conservation field trip. Photo Georgia Ackerman

Alderson, an author and naturalist, described the busier river of an earlier epoch when active Native American villages dotted the shores for thousands of years. He continued by explaining that some of the earliest human artifacts were found along the Aucilla and Wacissa Rivers. More recently, after the arrival of early settlers, logging activity was prominent for a period along with the hunting of species now protected. A tributary of the Aucilla River which flows to Apalachee Bay, Wacissa River travels over ten miles through the Aucilla Wildlife Management Area and eventually joins the Aucilla in a braided swamp below an area dubbed Hells Half Acre.

Tommy Thompson of Florida Kayak School gave a few safety pointers and the group embarked at sunset sliding their canoes and kayaks into the cool water. An unhurried journey allowed the field trip partakers to admire various aquatic plants, wading birds, fish, turtles, and alligators. The moon was high before the sun grad-

ually disappeared below the cypress trees. The river was illuminated with moonlight for the paddlers' return trip to the launch area.

Wintering Birds of the Red Hills

Despite unseasonably warm weather for November, Jim Cox and participants on a morning hike at Tall Timbers were successful in identifying numerous migratory birds of the Red Hills. Nearly 30 people joined the field trip that Cox led, and 35 bird species were identified during the course of the walk.

Watching Golden-crown Kinglets during Wintering Birds Field Trip at Tall Timbers. Photo Georgia Ackerman

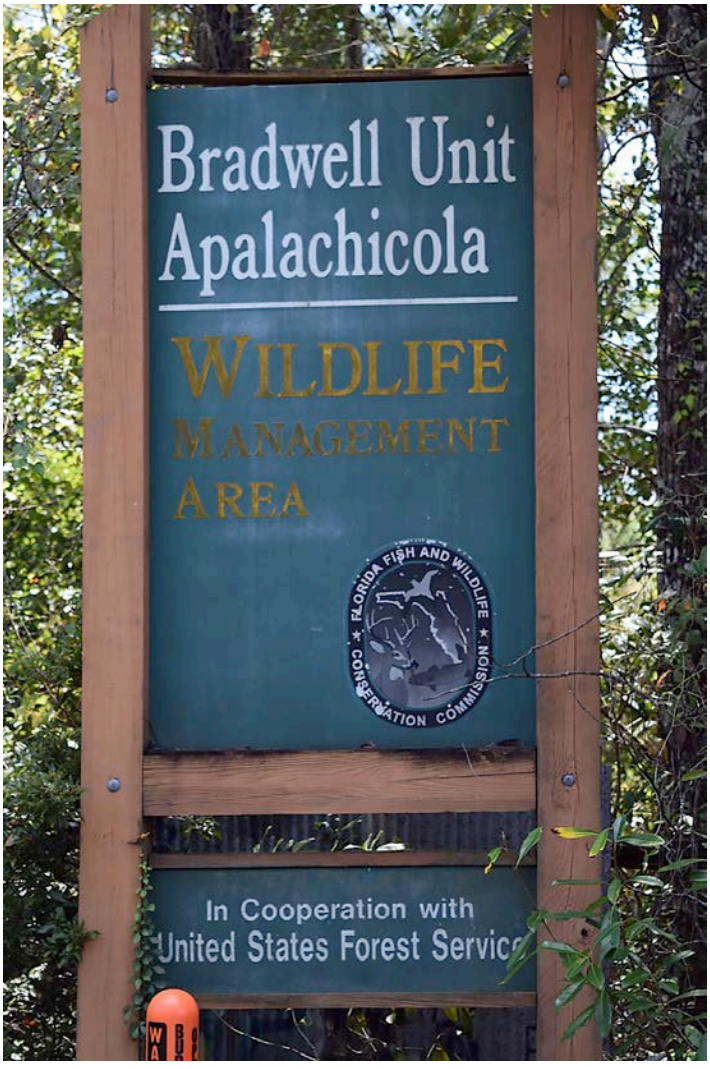
The group explored the Henry Stevenson Memorial Bird Trail continuing onto the bird observation window on Gannet Pond. After several encounters along the trail, the group recognized the "chimp" notes of Song Sparrows. At Gannet Pond, Golden-crowned Kinglets put on a show for the birders. Two females seemed to be battling over supremacy of a live oak tree. Cox quipped, "Small birds can have big battles over small spaces."

Cox also pointed out "one of the most garish birds in North America — the Red-headed Woodpecker." He explained that this woodpecker exhibits some interesting winter movements that may be linked to the prevalence of oaks in pine-dominated woodlands. Brown-headed nuthatches were prevalent on the hike and Cox explained research techniques that include leg-banding. The bands are similar to wearing the same pair of socks each and every day, but it's the only way to track these small birds over years." Dale Wellendorf, a field trip participant, commented he enjoyed that Cox "talked about a variety of subjects, like prescribed fire and plants and was able to tie it all together for us."

While these three distinct field trips through the Red Hills region varied greatly in locations and people in attendance, the common features included participants eager to learn while exploring, knowledgeable leaders and plentiful Red Hills' scenery. Residents learned about plants, animals and their natural world while simultaneously moving through it.

To learn more about field trips exploring the history, ecology and culture of the Red Hills Region visit www.redhillsregion.org.

Author's note: Jim Cox and Kim Sash also contributed to this story.



Georgia Ackerman is Project Manager for the Greater Red Hills Awareness Initiative at Tall Timbers. She can be reached at gackerman@ttrs.org or 850-893-4153 ext 345.

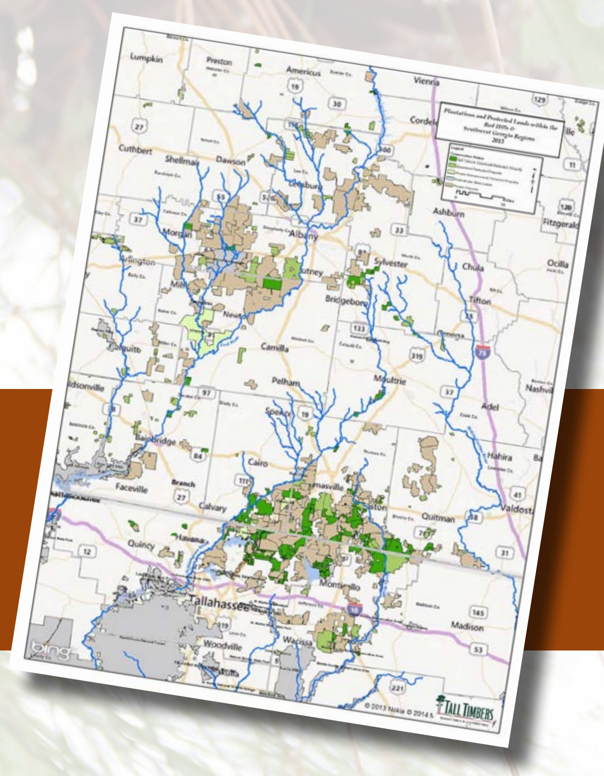
Tall Timbers Land Conservancy

LAND CONSERVATION

Established in 1990, the nationally accredited Tall Timbers Land Conservancy has become one of the largest regional land trusts in the country, conserving over 130,000 acres of land from Tallahassee, Florida to Albany, Georgia. Our conservation easements protect working lands that provide critical upland wildlife habitat and intact wetland ecosystems, vital to the health and well-being of the region. The public benefits from these easements as they serve to protect the region's water quality, clean air, wildlife and distinctive canopy roads.

REGIONAL PLANNING, ADVOCACY, & EDUCATIONAL OUTREACH

The Land Conservancy also works closely with communities on "smart growth" planning and advocacy, and is engaged in coordinating a Greater Red Hills Awareness Initiative to enhance local awareness and understanding of the importance of the Red Hills region and increase support for its long-term conservation.



To learn more about the Tall Timbers Land Conservancy or to make a contribution to its programs: the Land Conservancy, Advocacy and Planning or the Greater Red Hills Awareness Initiative, please visit, talltimbers.org/landconservancy.html

Old growth . . . grasslands?

BY KEVIN ROBERTSON, PHD

ANYONE WHO HAS BEEN TO THE Wade Tract on Arcadia Plantation or the Big Woods at Greenwood Plantation in southern Georgia has an appreciation for "old growth." Trees exceeding a meter in diameter, often with growth rates of less than a millimeter per year, were clearly here before Europeans set foot on North America. If the amazing age of these trees is hard to take in, it may be even harder to believe that the oldest plants in a old-growth longleaf pine community might be underfoot.

Earlier this year Joseph Veldman at Iowa State University and his colleagues published a landmark paper in *Frontiers in Ecology and the Environment* titled, "Toward an old-growth concept for grasslands, savannas, and woodlands." In their survey of herb-covered communities in Australia, Africa, Asia, and the Americas, including native pine communities in the southeastern U.S., they found that these far flung cousins have a lot in common. Notable among the similarities is the longevity of most plant species which compose the diverse herbaceous

Native upland longleaf pine-grassland, Pebble Hill Plantation, Georgia. Photos by Kevin Robertson

understory. Millennia of frequent removal of plant tissue above the soil surface, primarily by fire and herbivory, led to evolution and assemblage of species that always keep a store of resources below the ground so they can rapidly re-sprout. The ebb and flow of vegetation visible above ground from one fire to the next belies the persistence of the perennial portion of the plant — the roots, bulbs, and tubers below — which grow only slightly from year to year, just like the ancient pines. Although the age of most of these perennial herbs is unknown, Veldman and colleagues suggest that some of these plants may live for decades, perhaps centuries, even millennia.

Other commonalities of "old growth grasslands" identified around the world resemble a list of characteristics of a local longleaf pine-wiregrass community. They include high species diversity in the understory at small spatial scales, high endemism (species limited to the local region), short-lived seed banks, low success at reproducing from seed, fire-stimulated flowering, poor ability to recolonize new locations, high root-to-shoot ratios, sparse tree canopies, frequent fire, nutrient-poor soils, and strong wet and dry seasons. As a result of these traits, threats to old-growth grasslands are also globally similar: human soil disturbance, fire exclusion, woody plant encroachment, plantation forestry, exotic or introduced species, and over-grazing. As often observed in the southeastern U.S., native longleaf pine herbaceous communities converted to fields through soil disturbance or to pastures through replacement by different species do not recover to their original state — even after a century. While an old-growth forest might be regrown in another few hundred years, the native plant community will likely never completely return.

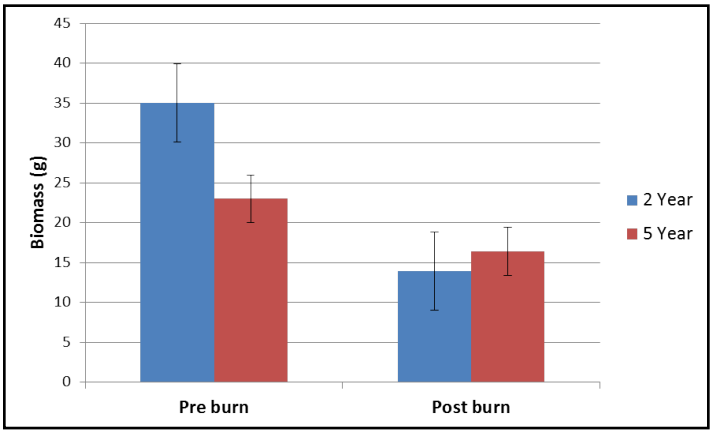
The concept of old growth grasslands challenges tradition notions of "succession" that are often applied to southeastern pine savannas. This year, Jennifer Fill at the University of South Carolina and her colleagues published a "vegetation-fire feedback" model for such savannas. This model supplants the succession concept, in which it was thought that most plants were killed by fire and replaced with re-colonizers, which in turn would be replaced by longer-lived species in the progression towards a closed-canopy hardwood forest. Instead, the authors describe these communities as stable, even self-sustaining. Although the pinelands cannot start fires, they are adept at trapping fire from the sky, with plant characteristics seemingly adapted to be readily flammable. Abundant pine needles full of terpenes, bunch grasses bristling with thatch from last year's growth, and broadleaf hardwoods with leaves that can burst into flames, while still green, all contribute to a frequent fire regime that maintains the stable community of long-lived re-sprouters. Yale's Herman Haupt Chapman in the 1930s had an early understanding of these ecosystems when he used a modification of the traditional succession model to describe longleaf pine communities as a "climax" community — mature, stable, long-lived, and species-rich — not "early successional".

Dixie whitetop aster *(Sericocarpus tortifolius*) resprouting four weeks after being burned.

Recent work in the Fire Ecology Program at Tall Timbers Research Station & Land Conservancy supports the concepts of "old-growth grasslands" and the "vegetation-fire feedback" in longleaf pine-wiregrass communities. Research on both woody and perennial herbaceous plant species has supported the general pattern of plants being top-killed by fire, surviving and resprouting at rates higher than 95 %, and rapidly re-growing above-

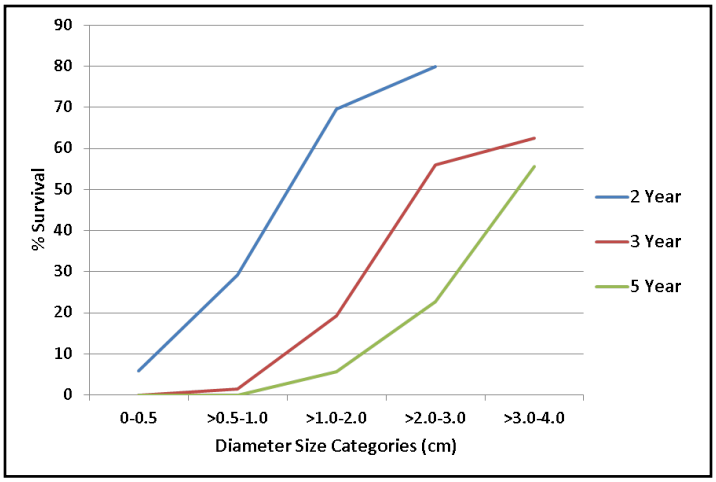
Five-year-old tree resprouts and young pines topkilled by fire after five years without fire.

ground vegetation to about the same size and biomass as before the fire. The amount of above-ground vegetation of individual plants from one fire to the next reflects the size and storage capacity of the below-ground root system, which grows only very slowly over the course of many fires. An experiment conducted this past summer compared resprouting of herbaceous plants burned two years following fire versus those burned five years following fire. Most plants re-sprouted with more biomass after five years without fire than after two years without fire. This suggests that plants increasingly store below-ground reserves at the expense of above-ground growth as the fire-free interval lengthens. This may be part of the reason that herbaceous biomass decreases with time since fire. The ability for plants to "hunker down" and be ready to sprout when the next fire comes appears to contribute to their longevity and the long-term stability of the community. Wiregrass (*Aristida stricta*, one of the species studied) has been known to disappear entirely in the long absence of fire, then suddenly reappear when fire is re-introduced, even after decades of fire exclusion. However, the fire must come, or else such plant species are eventually lost in that location, probably for good.



Wiregrass (*Aristida stricta*) above-ground biomass before and one month after burning 2 and 5 years without fire. This pattern suggests that after a long period without burning, wiregrass is sacrificing above-ground growth for below-ground storage until a fire occurs.

Another experiment at Tall Timbers this past summer suggested that the stability of the community is promoted by the ability for fires to topkill larger woody plants at the end of longer fire-free intervals. Greater fuel accumulation during longer periods without fire results in more intense fires that burn longer, killing larger stems and maintaining herb dominance. A comparison of longleaf pine-wiregrass plots burned after two years without fire versus three and five years without fire revealed similar



Percent survival of broadleaf woody plants in different size categories through fires applied two, three, and five years since previous fire. This pattern suggests that, although woody plants grow larger during longer fire-free periods, the higher fuel loads and higher fire severity more than compensate in topkilling plants.

levels of woody plant topkill around 90%, even though woody stems in the latter were more than twice the size of the former. Continued research in this fascinating ecosystem promises to reveal more secrets about how it survived from pre-history to the present through fluctuating frequencies and random combinations of fire, hurricanes, droughts, herbivore abundance, and human habitation.

If you have the chance to stroll through an old-growth longleaf pine community, consider that not only that the trees were there when Native Americans inhabited the land, but the very same grasses and herbs may have been there, too. It is an ancient ecosystem, able to long suffer the numerous rigors of nature, yet capable of being eliminated by a tractor and disc. Only a growing appreciation for the old-growth grasslands in our midst will allow them to persist for yet more centuries to come.

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Dr. Kevin Robertson is the director of the Fire Ecology program at Tall Timbers. He is shown at right with the tools and gear of the modern fire practioner.

Need Fire?

Fire Ecology Research Scientist Kevin Roberston, above, directs the Fire Ecology Program at Tall Timbers. Photo Rose Rodriguez

The Fire Ecology Program needs your support to help you keep fire on your land.

Prescribed fire faces many challenges that can only be met with sound science. The Fire Ecology Program conducts research to provide the public with applicable, science-based information on the appropriate use of fire for maintaining natural plant communities while protecting the health and safety of the public. Research focuses on both plant ecology and fire science, including fire behavior, emissions, remote sensing, and fire effects on soil.

Contributions made directly to the Fire Ecology Program at Tall Timbers will be used to help supplement the program with internships, supplies and capital needs.

To learn more about the work of the Fire Ecology Program and make a donation to the program, visit: http://talltimbers.org/fireecology.html

TALL TIMBERS
Research Station & Land Conservancy

Landscape History of Tall Timbers

SOUTHEASTERN FORESTS, WOODLANDS AND SAVANNAS HAVE changed dramatically in structure and function over time, both in response to land use by native American populations and the the arrival of colonists in the 18th century. People of European descent using the land for livestock grazing burned even more frequently than the natives before them, followed by fire exclusion policies primarily during the 20th century.

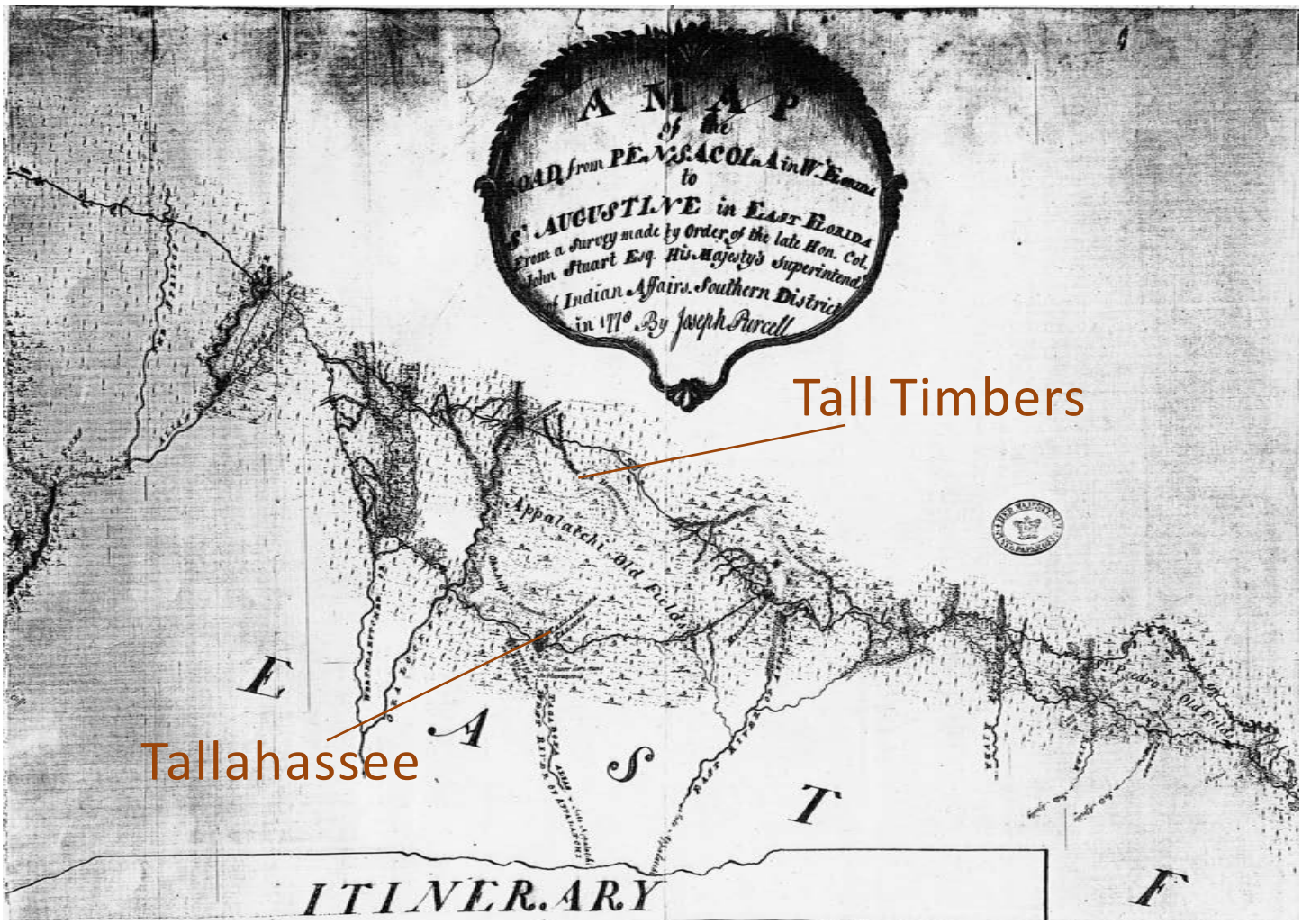


Figure 1. A map by Joseph Purcell in 1778, depicting central north Florida including the Tallahassee and Tall Timbers Research Station vicinity. Much of the land south of Lake Iamonia was described as "Appalatchi Old Fields" at that time. Old fields are former crop lands that have been allowed to go fallow for a long period of time. These were the same fields that Panfilo de Navaez in 1528, and Hernando de Soto in 1539, traversed and described as extensive agricultural fields, with one account describing a maize field stretching for more than six miles. Courtesy of the Florida State Archives

Where the goal for land management is ecological restoration, land managers should be aware of historical landscape changes prior to and after settlement. One source of such baseline information is the surveys conducted by the General Land Office (GLO) after the Land Ordinance of 1785. The surveyors recorded tree species, landforms, soil and timber quality, vegetation cover, and other observations about the country that they encountered along their designated route. In this study, we utilized 1819-1824 survey notes describing current Tall Timbers Research Station and periphery within 0.8 km, located north of Tallahassee, Florida, on the Georgia border. The data included were from the 1824 Florida survey and an earlier 1819 Georgia survey that erroneously extended into part of North Florida.

Note: This article was presented as a poster paper by Tall Timbers graduate student Brandy J. Saffell in 2011, with co-authors Ronald E. Masters, and Kevin M. Robertson.

Methods

1. We combined the GLO locations and cover type assessment of surveyors with the following information to create land classifications for each observation point: a digital elevation model (DEM), USDA soil maps, and existing knowledge of tree species ecology, southeastern fire ecology, community structure, and vegetation limits.
2. We defined the cover type classes for 1824, 1931 and present (2010).
3. We created an exploratory map with the GLO data using the Spatial Analysis tool Euclidean Allocation in ArcMap. This tool predicts the cover type for each unknown cell (or point) on the map based on the closest observation point.
4. To visualize the transformation the landscape has experienced since the GLO survey, we compared our map with the land cover of Tall Timbers in 1931 and present day. Both were digitized from aerial photography.

Upland pine on Tall Timbers dominate the Kate Ireland Model Quail & Conservation Area, 2007. Photo by Rose Rodriguez

Preliminary Results

1819-1824 Cover Type	Description	Dominant Species
Forested Wetland	Regularly flooded areas	Cypress (*Taxodium distichum L.*)
Hammock	Closed canopy forests in drainage areas; roughly 30-45 m. a. s. l.; mixed pine and hardwood species	Beech (*Fagus grandifolia Ehrh.*), magnolia (*Magnolia grandiflora L.*), and bay (*Gordonia lasianthus L.*)
Lowland Hammock	Hardwood dominated stands; 45-48 m. a. s. l.	Southern live oak (*Quercus viginiana Mill.*)
Lowland Pine	Pine dominated stands; 45-48 m. a. s. l.	Spruce pine (Pinus glabra Walter)
Hardwood-Pine	Mixed stands; majority of hardwood species; above 48 m. a. s. l.	Mixed
Pine-Hardwood	Mixed stands; majority of pine species; above 48 m. a. s. l.	Mixed
Upland Hardwood	Hardwood dominated stands; above 48 m. a. s. l.	Post oak (*Quercus stellata Wangenh.*), blackjack oak (*Q. marilandica Muenchh.*), and hickory (*Carya spp.*)
Upland Pine	Pine dominated stands; above 48 m. a. s. l.	Longleaf (*Pinus palustris Mill.*), shortleaf (*P. echinata Mill.*), and loblolly pine (*P taeda L.*)

Table 1. Eight cover types were defined based on surveyor notes for the 1819-1824 land cover map.

1931-Present Day Cover Type	Description	Species Present
Forested Wetland	Regularly flooded areas	Cypress (*Taxodium distichum L.*)
Hammock-Lowland Hammock	Closed canopy forests in drainage areas; roughly 30-45 m. a. s. l.; mixed pine and hardwood species	Beech (*Fagus grandifolia Ehrh.*), magnolia (*Magnolia grandiflora L.*), and bay (*Gordonia lasianthus L.*), southern live oak *(Quercus viginiana Mill.*)
Mixed Pine and Hardwood	Hardwood dominated stands; 45-48 m. a. s. l.; Mixed stands; majority of hardwood species; above 48 m. a. s. l.; Mixed stands; majority of pine species; above 48 m. a. s. l.; Hardwood dominated stands; above 48 m. a. s. l.	Longleaf (*Pinus palustris Mill.*), shortleaf (*P. echinata Mill.*), and loblolly pine (*P taeda L.*); post oak (*Quercus stellata Wangenh.*), blackjack oak (*Q. marilandica Muenchh.*), and hickory (*Carya spp.*)
Grassland	Abandoned, cleared areas or old field	N/A
Cultivated	Agricultural areas	N/A
Developed	Buildings and surrounding grounds	N/A

Table 2. The land cover classes were adjusted to create the 1931 and present day land cover maps due to the limited information regarding species composition provided by aerial photographs. Forested wetland, lowland pine, and upland pine remained the same. Also, included were new cover types related to the impact of colonization on the landscape.

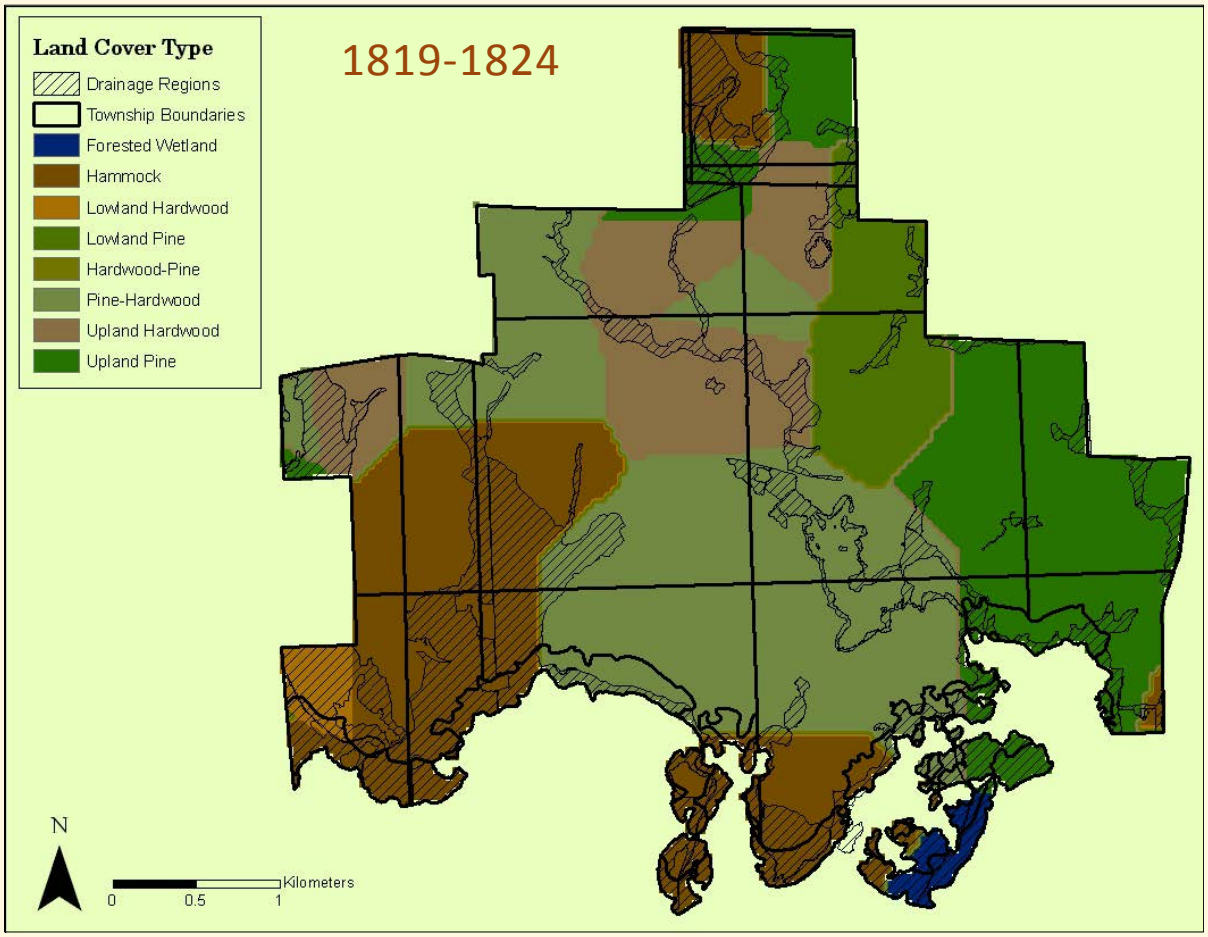


Figure 2 (a) Pre-settlement Land Cover (1819-1824). Eight cover types were derived from survey notes. Spatial Analyst in ArcMap was used to predict the dominant landscape pattern based on distance between observation points. The bold grid lines represent the township boundaries along which surveyors traveled. The cross hatched areas cover drainage regions where hammock and hardwood cover types are largely found.

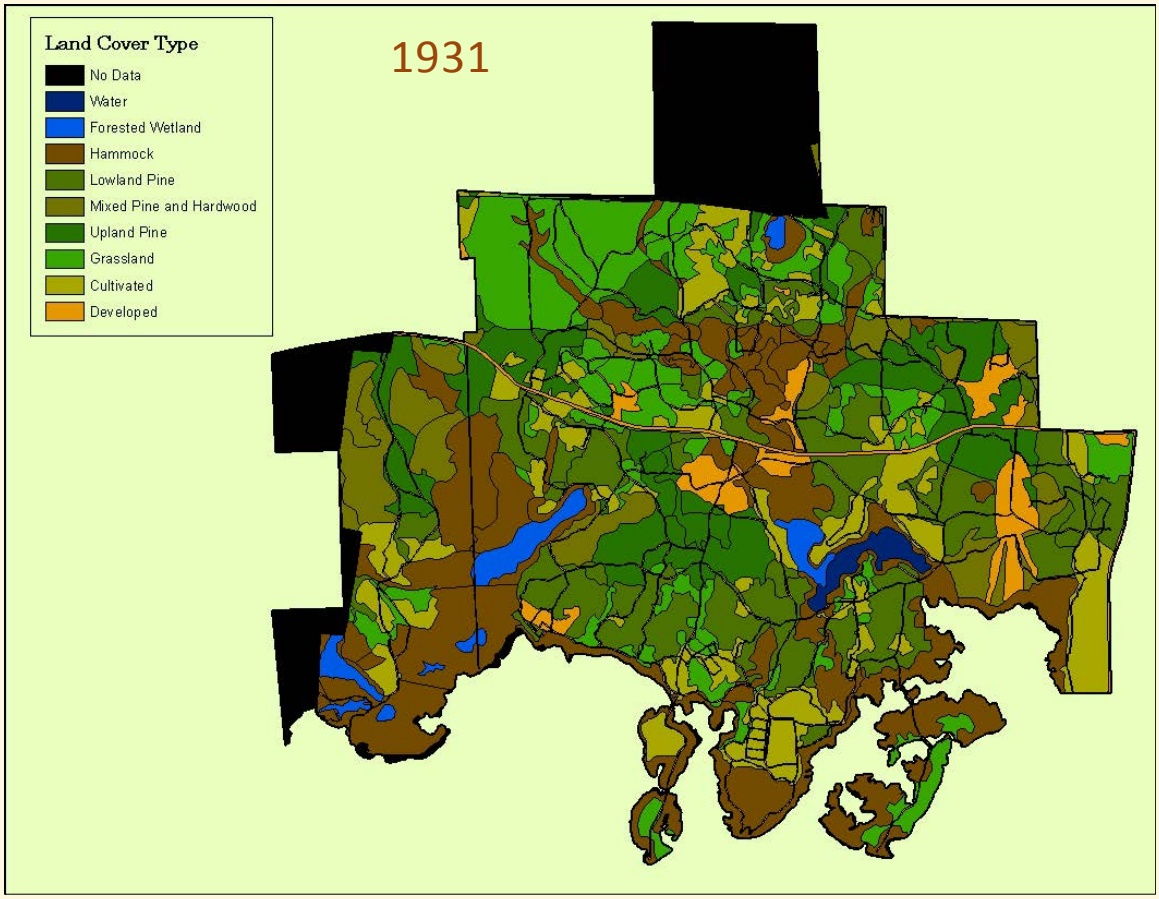
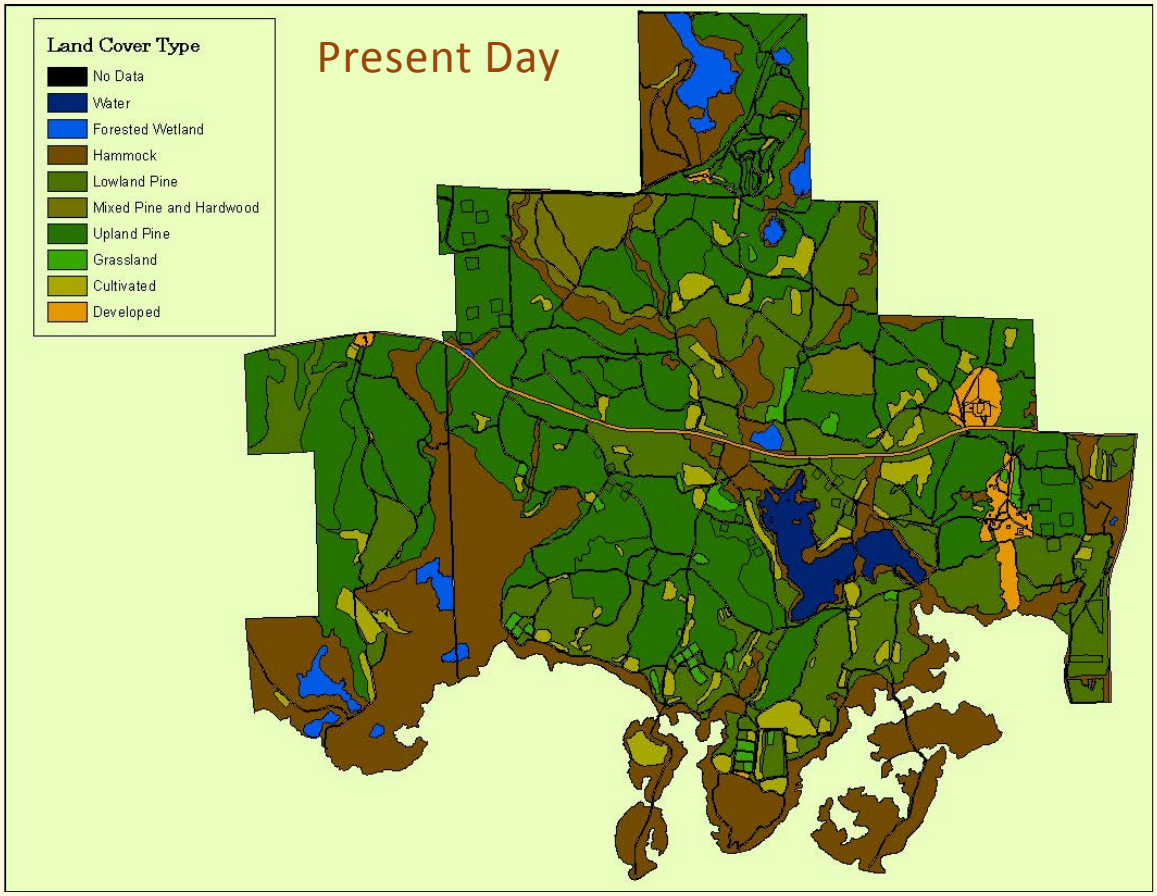
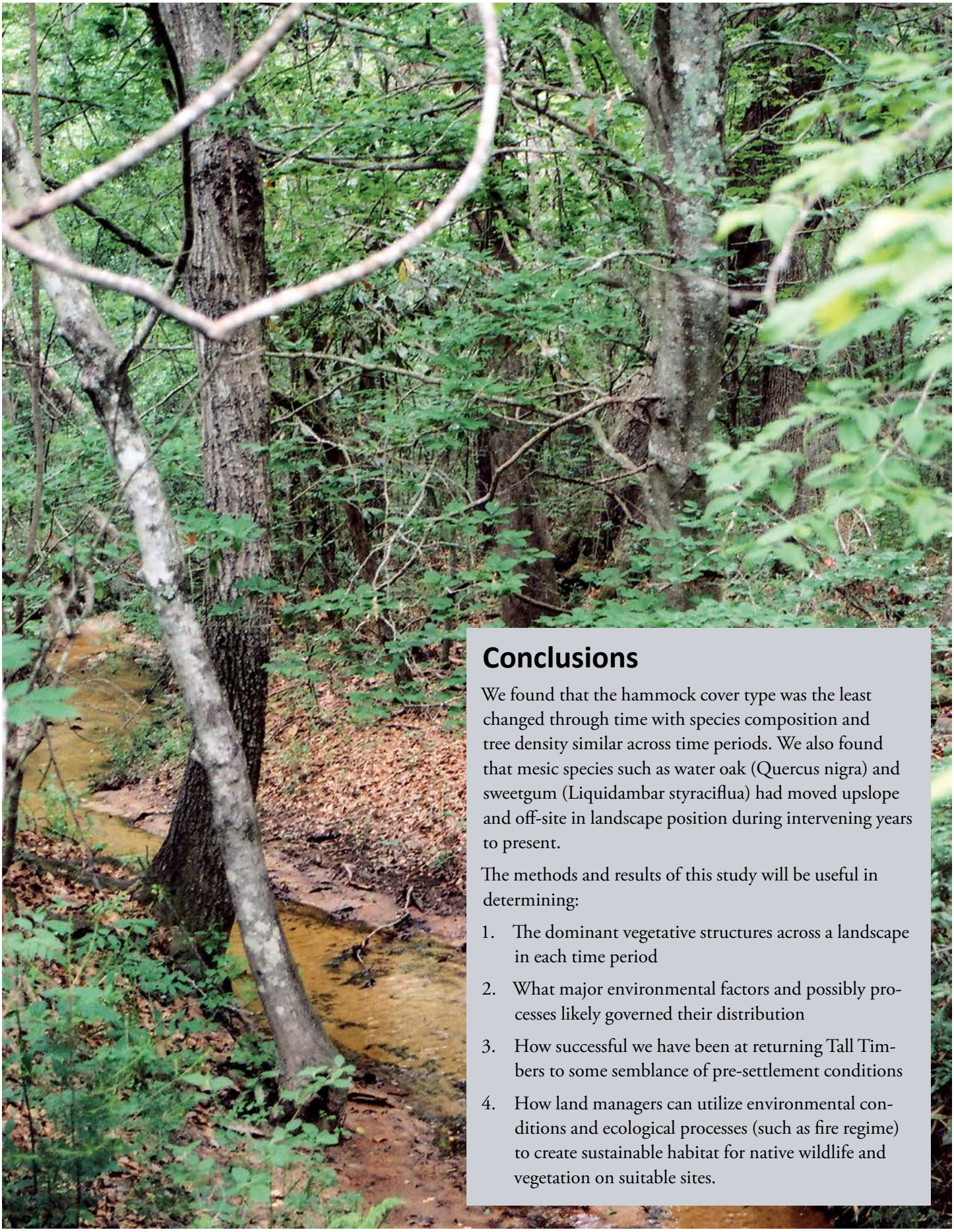


Figure 2 (b) 1931 Land Cover and (c) Present Day Land Cover. The cover type classes were adjusted from the 1819-1824 map and new classes were added to illustrate the changes to the landscape.





Conclusions

We found that the hammock cover type was the least changed through time with species composition and tree density similar across time periods. We also found that mesic species such as water oak (Quercus nigra) and sweetgum (Liquidambar styraciflua) had moved upslope and off-site in landscape position during intervening years to present.

The methods and results of this study will be useful in determining:

1. The dominant vegetative structures across a landscape in each time period
2. What major environmental factors and possibly processes likely governed their distribution
3. How successful we have been at returning Tall Timbers to some semblance of pre-settlement conditions
4. How land managers can utilize environmental conditions and ecological processes (such as fire regime) to create sustainable habitat for native wildlife and vegetation on suitable sites.

Hanna Hammock on Tall Timbers is an example of a closed canopy forest in a drainage area. Photo Rose Rodriguez

Shane Wellendorf

Quail hunting is always good, but sometimes it's just better!

BY SHANE WELLENDORF

I SPENT MUCH OF MY EARLY career at Tall Timbers thinking about many aspects of quail, like their ecology, behavior, and management. Of course, I've also thought a lot about hunting them, but expertise in quail hunting doesn't come from thinking; it comes from time afield, quality bird dogs, wild quail, and paying attention to the details. My limited hunting time, along with my mini kennel filled with assorted bird dog breeds of varying talent, would probably rank me in the amateur class at best. But like many, I strive for greatness through the knowledge and experience of others.

One of the great things about our region is that we are surrounded by some of the best quail hunting professionals in the world. For years, the Game Bird Lab has attempted to tap into their knowledge. We have observed them at work, participated in hunts, tracked radio-tagged quail during hunts, analyzed hunt records, sent questionnaires and conducted personal interviews (evening interviews around a tailgate are my personal favorite). Taking everyone's hunting experiences and layering that on top of our intensive quail research program has allowed us to start to quantify factors that influence hunting success on plantations.

Much of our hunting research has come from plantations with a bona fide wild quail management program as the top objective. These plantations focus their staff time and money toward making every quail hunt enjoyable and memorable. To optimize hunting, staff will cross-hatch hunt lanes, harrow fields, groom the woods

for access, and have a regular hunting routine. Beyond the hunt season, a full spectrum of quail management is implemented with frequent prescribed fire, open timber management, upland hardwood removal, biweekly supplemental feeding, and a predation management program. While these properties have other great conservation features and management objectives, wild quail management reigns supreme.

For a long-time I have strived for a better understanding of the above average quail hunt. Every quail hunter has a quail hunt, sometimes two, each year when it all comes together for a memorable experience. The dogs perform flawlessly, pointing every covey with style. The coveys behave by holding tight and allowing for the approach of the hunting party. When it works it's like a fine symphony orchestra — ending with gun shots! Some folks remember music concerts or great college football games, but bird hunters have memorable hunts.

Understanding the factors that influence hunting success is a difficult and complex endeavor. Think about all of the moving parts associated with a dog pointing a covey and two hunters shooting the rise. The covey needs to emit enough scent to be detectable by a dog, the dogs need to get close enough to smell the covey without forcing them to flush, the covey need to hold and the hunters need to get close enough for a legitimate shot. All the creatures involved have their own influences in behavior trying to survive, perform, or impress.

In the 1990s, the Albany Quail Project, managed by Clay Sisson, conducted some of the seminal research on hunting success (http://talltimbers.org/publications-for-sale/#misc). Clay and crew helped us to understand that, on average, a little over half (54%) of the coveys were seen by the hunt party during a typical plantation hunt. Only half! Interestingly, Game Bird Lab graduate student, Diana McGrath, has also documented similar covey detection rates during quail hunts (http://talltimbers.org/wp-content/uploads/2014/02/Quail-Call_Spr15_Interactive.pdf). If half is the norm, then just imagine those exceptional days when you see all or almost all of the coveys in the hunt course. There is plenty of potential for the occasional upside on a quail hunt. But what factors make for a great quail hunt? And why?

Investigating conditions with above average hunting success is a great starting point for understanding exceptional hunts. The Game Bird Lab took two different approaches for the study; 1) we analyzed the hunting records for two south Georgia plantations over a four-year period, and 2) we mailed a survey to 30 hunt managers/dog handlers in the region.

The properties selected for the hunting records analysis were strictly wild bird places that hunted with regularity throughout the season, had designated hunt courses, and fairly regimented hunts. Both plantations had at least 40 hunts each year, with some years having many more. These consistencies are a blessing and a bit of a curse. They allowed for further investigation of other possible factors of hunt success, including time of year, time of day, and potential weather. However, these consistencies mean that hunt success is relative similar among hunts, so any real deviations in hunt success, high or low, should deserve our attention. The measure we used for hunt success was coveys pointed per hour. This metric was chosen because it is relatively standardized among many hunt managers, whereas other recorded observations, such as coveys seen per hour, can vary somewhat by person. The use of the coveys pointed per hour statistic has been extensively debated, and some would prefer the more inclusive coveys seen per hour. Our take was that pointed coveys are a better measure of hunting success and dog performance, whereas coveys seen may be a better index of quail population.

For the mail survey, we sent a short questionnaire to a sample of hunt managers throughout the Albany plantation belt and the Red Hills, and inquired about what conditions they perceived make for a great quail hunt based on their experiences. Overall, we had a great response rate with 83% (25 people) completing the survey. They also were a highly qualified group; the average number of years training bird dogs and working on quail hunts was 26 years! Clearly, these guys have well-earned insights on what conditions make for a highly productive quail hunt.

Hunting Success and Time of Day

One of the most consistent conclusions was that afternoon hunting, on average, had higher numbers of pointed coveys. This was evident in the hunting records analysis, with both properties for all years having above average hunt success in the afternoons. Typically, 1 or more coveys were pointed per hour in the afternoon as compared to morning hunts, which is a 25 – 30%


Shane Wellendorf

increase or 3 to 4 more coveys pointed during the afternoon hunt. When we surveyed the hunt managers, 83% of them concluded that afternoons tended to have more pointed coveys and was the preferred time to hunt.

Interestingly, the difference between morning and afternoon hunt success may be linked to primary covey activity periods. The Game Bird Lab has done a variety studies looking at daily activity periods for radio-tagged coveys. Typically, the highest morning activity is between 7:30 and 8:30 a.m. However, most traditional quail hunts do not start until 9 a.m. or after. By the time the dogs are on the ground, the covey movements have waned, and the opportunity for bird dogs to find scent is diminished. Conversely, covey activity periods in the afternoon tend to be between 4:45 p.m. and dark, when coveys go to roost. This activity period is more closely aligned with when afternoon hunts are conducted, —between 3 and 6 p.m.

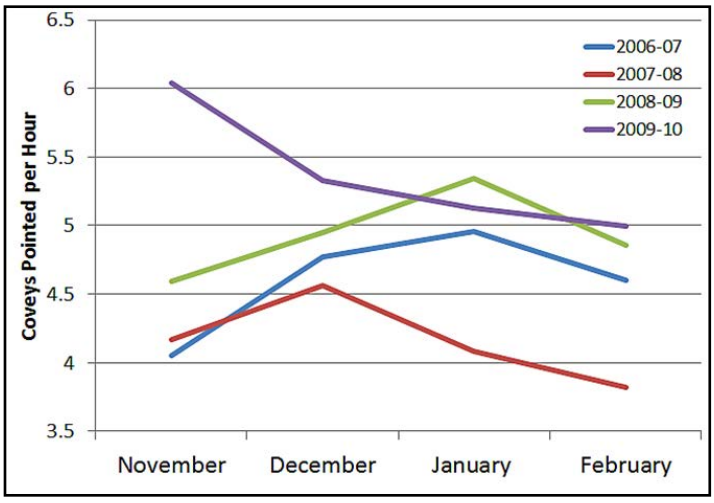
I think most would agree that corresponding hunt times with high covey activity periods associated with feeding are critical for a good hunt. Also, everyone knows that covey feeding periods can vary tremendously due to temperature and other factors. When it's hot, activity periods are less predictable. The need to feed is much less, fewer calories are required to stay alive, and the typical twice-daily feeding periods can be collapsed into one extended period. When that single feeding event occurs could be anytime; we have all seen coveys feeding in the middle of the day when it's not expected. But, the odds are in your favor that the feeding period and your hunt will overlap more often in the afternoon with more coveys pointed.

Not many other wildlife hunting seasons last four months, but the quail hunt season is long enough to capture the full spectrum of autumn, winter, and the beginnings of spring. Given that length of time and the obvious suite of habitat, weather, and predation changes a quail population experiences, you would expect to observe noticeable differences in hunt success over time. Remarkably, the hunting records did not show a dramatic difference in monthly hunting success, using coveys pointed per hour (Figure 1). In most years for both plantations, December and January had slightly higher hunting success with typically one to two more coveys pointed per hunt. However, this outcome was not consistent among the years, and the 2009-10 hunting year was a bit of an anomaly, on both plantations, hunting success in November was well above average.

Hunting Success by Month

When we inquired with the hunt managers, most were in agreement that the best hunting is in December and January. When asked to rank the months, hunt managers selected December as first, 48% of the time, and January as a close second, with 35% ranking it as the top month. A few ranked November as tops, but February received no first rankings, and in fact was the least preferred hunting month of the year. Most of us at some point have cussed about poor February hunting. We all still hunt in February, but it's far from being a premium month.

The data as well as common wisdom agree that December and January are when hunting should be at its best. For most years, by December there has already been a frost with little remaining green vegetation, but the cover is still standing relatively well and not beat down yet by winter rains. December brings more consistent cooler days and the start of wetter conditions. Interestingly, in November 2009, when average coveys pointed



per hour was unusually high, it corresponded with a much cooler, wetter November, with more than one frost for the month. In most years, concentrations of migratory hawks have not increased enough in December and early January to greatly impact covey sizes or covey behavior. Increased migratory hawk pressure can result in reduced hunting success in the late hunting season. On Tall Timbers, we typically do not observe our avian predation rates increase until the last six weeks of the hunting season, and then throughout much of March. There potentially could be a variety of reasons for the slightly higher hunting success in December and January, but odds are that the weather conditions during the period are the driving factor.

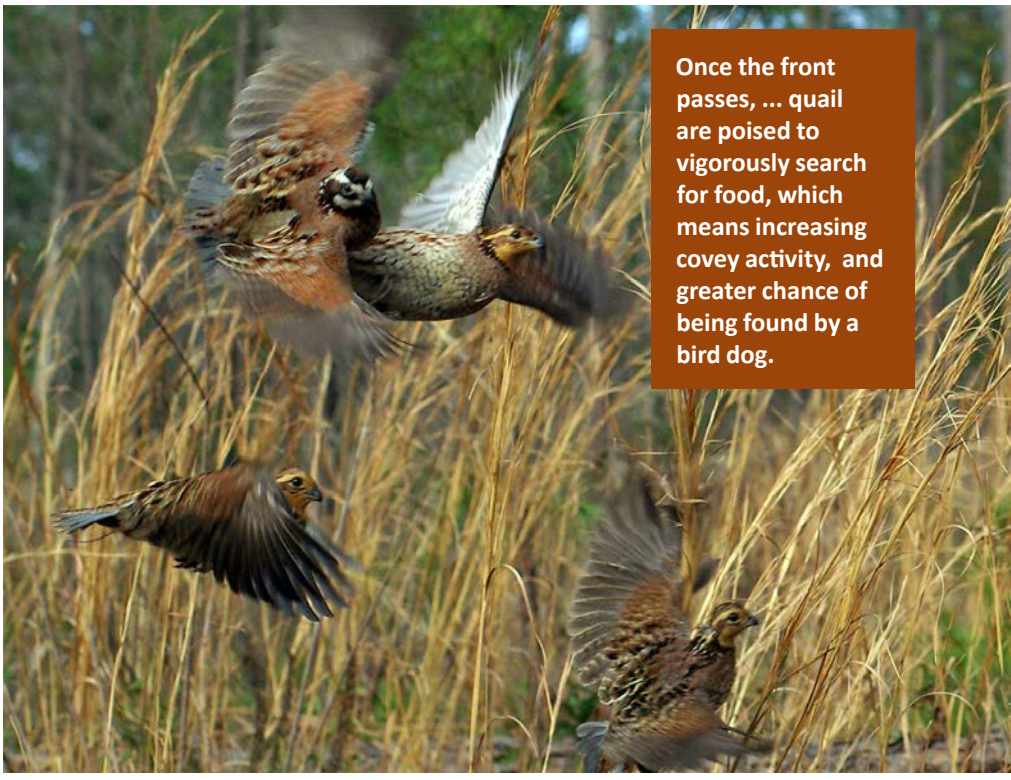
Hunting Success and Weather

Most attribute the best hunts to the weather, including short-term conditions at the time of the hunt and general seasonal trends, such as moisture levels. Weather can influence so many things, such as covey movements and scenting conditions for bird dogs. My interest has been to narrow down those weather parameters that optimize when coveys are actively feeding and bird dogs are performing at their best. Given the complexity of it all, it is not an easy task.

As part of the hunt manager survey, we asked participants to describe the weather parameters associated with exceptional hunts. The common theme was that great hunts were associated with strong weather system frontal boundaries, and high rates of change in barometric pressure. Where opinions deviated was which side of the frontal boundary was best. Over half (58%) of hunt managers thought the period before the arrival of the front, or "the storm is looming" scenario, when barometric pressure was rapidly decreasing created the best conditions for an exceptional hunt. However, 38% of hunt managers preferred when the front is positioned on the region, or very soon after the storm has passed and the barometer is on the rise, or "it's cloudy but a sunny day is on its way" scenario.

We also drilled down deeper into the hunt managers' thoughts on specific weather parameters, such as wind, moisture levels, etc. The majority of them preferred a slight wind of 1–5 miles/hour with moderate to high relative humidity. Opinions deviated on wind direction; 62% preferred a north wind; a few liked a west wind; and the remaining stated no preference for wind direction.

For the hunting records data analysis, we also collected hourly weather data from nearby stations and calculated average values during the hunt for wind direction, wind speed, air temp, barometric pressure, rate of barometric pressure change, and average precipitation in the one to three days prior to the hunt. The only weather parameter in our analysis of significance was a high rate of increasing barometric pressure, conditions typically observed immediately after a frontal system has moved through the area. A key point was that for the effect to be significant on hunting success, the change in barometric pressure had to be rapidly increasing, conditions that may only happen three to five times in a hunt season. We all have seen those winter cold fronts that can roll through the region. When the cold front is here, the low pressure is stable with colder air and high relative humidity. As the cold front moves eastward, the wind shifts to the west and north and the air pressure rapidly begins to increase, but the moist, cold air is still here. Those conditions are fleeting however, because the incoming



Once the front passes, ... quail are poised to vigorously search for food, which means increasing covey activity, and greater chance of being found by a bird dog.

Photo Shane Wellendorf

high pressure often brings dryer and more stable weather, typically associated with a "bluebird" day. Based on these data, it's the window of time between the passing of the cold front, but before the high pressure arrives that can produce the "sweet spot" in weather conditions for hunt success.

For the most part, the conclusions from the hunt managers' survey and our hunting records analysis are aligned. Overall, changing weather systems could potentially maximize conditions associated with high hunting success. We all know that covey activity is directly linked to air temperature — the colder it is the more they need to eat. Winter cold fronts mean cold temperatures, but also can mean inclement weather, which often forces coveys to hunker down rather than actively feed. Once the front passes, however, quail are poised to vigorously search for food, which means increasing covey activity, and greater chance of being found by a bird dog.

...it's the window of time between the passing of the cold front, but before the high pressure arrives that can produce the "sweet spot" in weather conditions for hunt success.

Bird Dog Performance and Hunting Success

Weather changes associated with cold fronts could also improve bird dog performance for a variety of reasons. The right amount of moisture and air flow is critical to maximize a bird dogs sense of smell. Half of the hunt managers surveyed selected air humidity as the most important weather parameter for a dog scenting ability. Without moisture there is no substrate for the scent molecules to adhere to and be carried through the air to a dog's nose. Air flow is also needed to move the scent around and stable air pressure systems typically have poor air flow. Unstable air can make for much better air conditions, such as before or after a frontal systems move through a region. The hunt managers supported this conclusion by choosing air pressure change as the second most important weather parameter for a dogs scenting ability. Finally, cool weather also improves a bird dogs' stamina and breathing, and cool temps were frequently cited by hunt managers as a critical overall factor. Most good bird dogs are amazing in their ability to find and point coveys under a broad spectrum of weather conditions, but occasionally there are those infrequent opportunities when weather parameters and other conditions align— then good bird dogs perform like champions.

It's always good to see what others have concluded on the topic of optimal hunt weather conditions. In his collection of publications, The Albany Quail Project, March 1992 – December 2007, Clay Sisson, summarizes his perspective from years of radio-tagged covey work that the best weather for hunt success is colder weather, high humidity and light winds. His take is that these are the parameters when coveys are most active and are the best conditions for bird dogs. His knowledgeable perspective is much aligned with our conclusions; our information adds another layer of understanding to the topic.

Our future is bright for an even better understanding of the factors that are associated with a great quail hunt. The key is collecting real-time hunting data with associated weather information. As with most things in our modern life, there's an APP for that. Actually, there are two apps from which to choose for collecting plantation style quail hunting data. Dr. Theron Terhune, the director of the Game Bird Program at Tall Timbers, has developed an iPhone app to allow for real-time harvest data collection and covey rise position information. The other option is the Covey IQ system developed by Nat Ruth and Lane Faison, which also incorporates data collection for each dog and a hunt scheduling system (www.coveyiq.com). Our mobile world has made real-time and real-world data collection so easy; we have more information than ever before to assess hunting factors.

Many may be thinking— will the hunting mystic be lost by all of this data analysis? The craving and appetite for a pointed wild covey rise will always be there and no amount of analysis can take that away. As our knowledge of the subject increases it will not change necessarily how we hunt or how often, but it will allow for a better interpretation of the hunt outcome. Our passion for quail hunting will not go away, but our understanding of why it's so great will only improve.

Shane Wellendorf is the Conservation Coordinator for the Tall Timbers Land Conservancy.

Reflections on Bobwhite in the South

BY DOUG CHAPMAN

IMAGINE THAT AN ARCHEOLOGIST A THOUSAND years from now starts a dig somewhere in the Southeast. Would the scientist puzzle over the remains of side-by-side double shotguns, the brass tag off a long-rotted leather dog collar or spent shotgun shells? What conclusions would be reached? Would anyone, short of written records, remember the reason for any of these artifacts? Would they happen upon the bones of a stylish pointer a few feet from the bones of an unknown, extinct bird?

Bobwhite's Rise and Fall

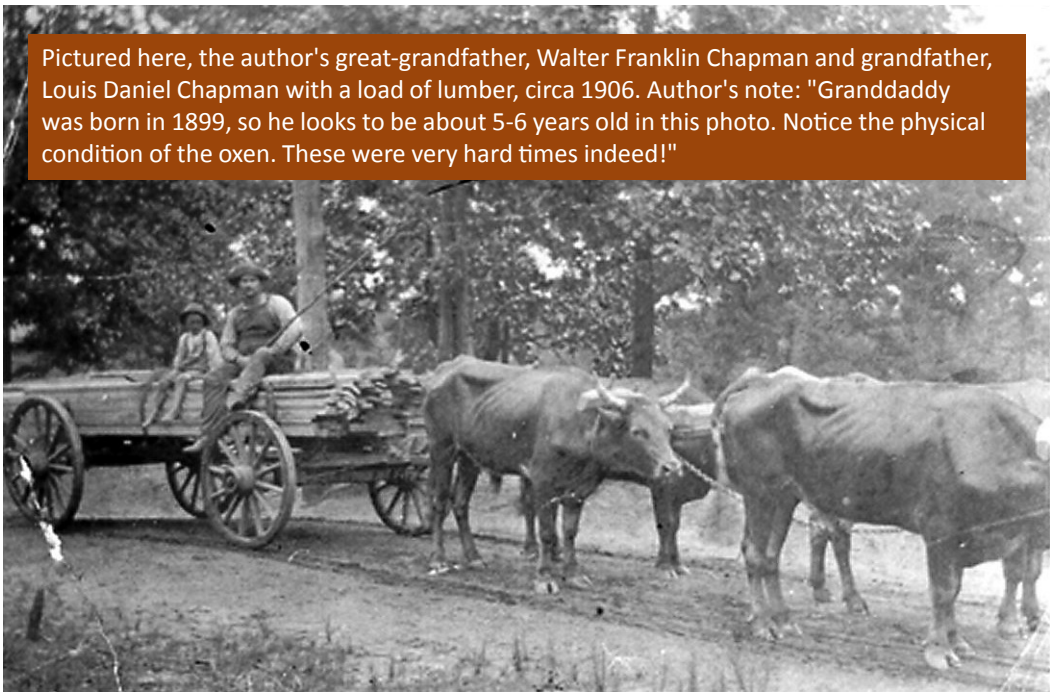
It is doubtful that we will ever see the bobwhite quail become a common bird again, but there are those who are committed to restoring the bobwhite quail and the unique ecosystem it once inhabited. That ecosystem also supported an array of unique plants and animals that began to disappear in the early 1970s.

The actual decline started much earlier. The Southern United States established itself as a rural, agriculture-based economy a couple of centuries ago with cotton cultivation as the linchpin that Southern families staked their futures on. In a time before refrigeration, good roads or reliable infrastructure, Southerners, rich and poor, white and black, grew cotton, corn, turnip greens and peas to feed themselves, their livestock and perhaps make a little cash money. Some made more money than others. Some made no money at all and lived by subsistence farming alone and the sweat of their brow.

Southern soils tend to be poor. They are typically very old, very weathered and low in nutrients. Under cultivation, these soils produced acceptable yields for a relatively short period so farmers would abandon old fields for new ones. The abandoned fields would then begin to become overgrown and weedy and over time, would revert back to succession-based ecosystems.

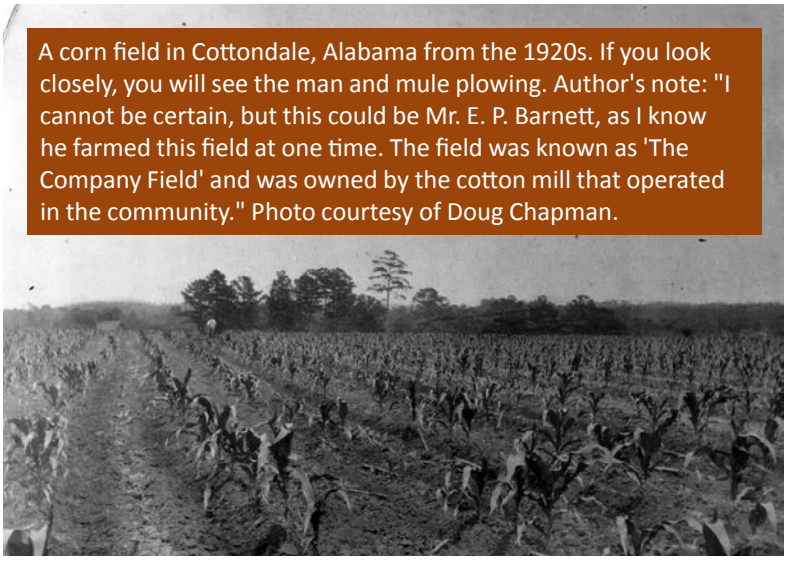
Occasionally, fire would burn off these old fields. Whether the fire was started by man or by lightening, it benefitted a number of plants and animals including the native longleaf pine. In fact, numerous natural fires resulted in the most diverse plant and animal ecosystem in North America long before the footfall of man.

This was bobwhite quail heaven. By the late 1800s, the entire landscape of the Southeast was a succession of cultivated fields, fallow fields and fire dependent sub-climax longleaf pine forests. This lasted well into the 1900s, when modern farming techniques came into general use. Small farms started to disappear and were replaced by larger ones. Tractors, synthetic fertilizers and pesticides replaced mules, gooseneck-hoes and the callused hands of millions of rural Southerners. A mass migration of people who formerly had made their living off the land left the farm for larger communities and big cities where the jobs were.



Pictured here, the author's great-grandfather, Walter Franklin Chapman and grandfather, Louis Daniel Chapman with a load of lumber, circa 1906. Author's note: "Granddaddy was born in 1899, so he looks to be about 5-6 years old in this photo. Notice the physical condition of the oxen. These were very hard times indeed!"

Photo courtesy of Doug Chapman



A corn field in Cottondale, Alabama from the 1920s. If you look closely, you will see the man and mule plowing. Author's note: "I cannot be certain, but this could be Mr. E. P. Barnett, as I know he farmed this field at one time. The field was known as 'The Company Field' and was owned by the cotton mill that operated in the community." Photo courtesy of Doug Chapman.

Fence rows were plowed out. Fertilizers made it possible to farm the same field for longer periods of time so fallow fields became less common. Abandoned farms were soon planted with loblolly pines and fire was suppressed.

A good model for protecting wild quail from predators is the home chicken flock. Rural households persecuted hawks, foxes, coons and bobcats to protect their chickens. When the chickens disappeared from the landscape, these predators increased in number. The chances for a covey of quail to get attacked during their daily foraging increased as well.

Remnants remain. Large plantations in the Deep South were sold off to wealthy individuals who had the means and foresight to preserve the native habitat that favored bobwhite quail. These sanctuaries are still home to the bobwhite and some are models of research-based landscape ecology.

Some men too, who are now approaching old age, remember bobwhites and a time when the word "hunting" meant only one thing.

Back then, there were rumors of an occasional deer track and perhaps somebody might actually kill a deer on a drive with buckshot and deep-mouthed hounds. Among the various, dedicated deer hunters there might be a few who had never killed a deer. Some of these old fashioned deer drives might find sixty or seventy people in a river-bottom swamp. The dog owners would be the "drivers" and there would be a morning and an afternoon hunt. The next two or three days would be spent hunting the dogs that had gotten the scent of a long-legged old buck. The drivers always made a bone-chilling whoop and hollering sound that only young men can make as they walked through the thickets to jump the deer.

Turkeys were not uncommon, but hunting these birds was a completely different undertaking and remains so today. Everyone knew who the turkey hunters were and among this group which Colonel Tom Kelly refers to as the "Tenth Legion," there would be very old men who lived and breathed for the five or six short weeks of spring. Some of them might actually open the season a couple of days early if a particularly loud-mouthed gobbler had drawn the attention of another turkey hunter.

Rabbits and squirrels rounded out the game bag in those days and the simple Southern supper table was frequently the final resting place for them.

Dog Musings

Everybody had a bird dog of some description. It might be an English pointer or setter. The Gordon setter was seen afield on sporadic occasions. Irish setters were around but were more common at dog shows than in blackberry thickets. Folks were just coming around to the Brittany spaniel when the birds started disappearing and it was very rare indeed to see a German shorthair, a Weimaraner or a Vizsla.

The legendary Llewellyn setter Count Noble sired many litters before his death in 1891. This dog was so famous that his demise was reported in the New York Times. By all accounts, he was not well proportioned and was a large dog for his breed, but he had an amazing ability to pass on his good qualities to his offspring.

The English pointer perhaps outnumbered the setters by 4-1. Training a pointer was sometimes a frustrating endeavor. Trainers frequently resorted to the lash, a tree limb or any other instrument of instruction that was close at hand. The harsh hand required of some pointers could ruin a setter. Some considered a setter more intelligent and therefore more responsive to gentle admonitions. There were of course numerous exceptions and different training methods. When a man lives with a dog, both eventually come to understand one another. This understanding does not diminish a strong will in either however. The greatest sin a man can commit against a dog is to deprive him of the job he was born to do.

Into this land, often eroded and neglected, came people with a love for the outdoors. They brought their dogs and shotguns and their stories of home. It was a home with a difficult and troubled history, but the bobwhite was a part of it.

Bringing Bobwhite Back

Since the decline in bobwhite numbers began, wildlife researchers, scientists and concerned hunters and sporting dog enthusiasts have been trying to figure out why. The answers are sometimes complex but several organizations are dedicated to bringing the bobwhite back.

Tall Timbers Research Station & Land Conservancy in Tallahassee, Florida and the Kleberg Institute in Kingsville, Texas are two examples of intense research into the dynamics of total ecosystem restoration and preservation.

Tall Timbers started out as the hunting plantation of Mr. Henry L. Beadle. Mr. Beadle had no heirs so he left his land and resources to establish a "fire type nature preserve." Later a conservation land trust became part of the organization. Tall Timbers has expanded its research from the Florida Red Hills region into greater Southwest Georgia, and is now the largest regional land trust in Florida and Georgia.

Texas has a long history as an outdoor destination and in 1981, the Caesar Kleberg Foundation for Wildlife Conservation granted land for Texas A&M University to conduct wildlife research in South Texas. It has become one of the leaders in wildlife conservation research in the United States.

The Longleaf Alliance was established in 1995, when interest in restoration of the longleaf pine forest began to become apparent. This unique Southern pine, which once occupied an estimated 90 million acres, is fire-dependent. When longleaf forests are replanted and fire is once again introduced into the landscape, bobwhite quail habitat is also enhanced.

Countless smaller plantations, universities and state-sponsored conservation agencies are also conducting research on bobwhite quail. As a matter of fact, the National Bobwhite Conservation Initiative (NBCI) brought 25 state conservation agencies and several private conservation groups together in 2002, with the express purpose of bringing back the bobwhite quail.

A couple of sportsman-driven organizations have been on the front lines as well. Using the Ducks Unlimited model, there was Quail Unlimited, which had a brief run as the go-to organization for the rank-and-file outdoorsman.

Since then, Quail Forever, a logical offshoot of Pheasants Forever, has taken on the national effort to promote habitat improvement, public awareness and education through its 140,000 members and 700 local chapters.

There is hope. Success in learning about fire and other disturbance dependent ecosystems has helped private landowners develop management plans that favor bobwhite quail. Since most of the land in the Southeast is in private hands, it will be these individuals who bring the bobwhite back. State and Federal lands, which are managed for wildlife will also be important. A recent Georgia Public Television production, *Secrets of the Longleaf Pine*, featured scenes in which the call, "Bob-White," could be clearly heard.

One promising aspect of bobwhite quail management has been that given the chance, the bobwhite has the ability to quickly reproduce and fill suitable habitat. Let's give it that chance.

The author's father, Harold Lloyd Chapman, with an Elhew pointer named "Sis" after winning a local field trial. Photo courtesy of Doug Chapman.

About the Author

Doug Chapman, a regional extension agent for the Alabama Cooperative Extension System, is a horticulturist and wrote this from an agricultural perspective, as well as from his memories of quality time he spent with family and friends in the woods and fields of west Alabama. He grew up in a small community just east of Tuscaloosa called Cottondale.

This book is the first in a new Heritage Series to be published occasionally by Tall Timbers Press. Books published in the Heritage Series will reflect the natural history and cultural heritage of Tall Timbers. Click below to purchase.

Ticks and Politics in South Florida:
The Fourth Seminole War and the Photographs of Roy Komarek

BY ROBERT L. CRAWFORD

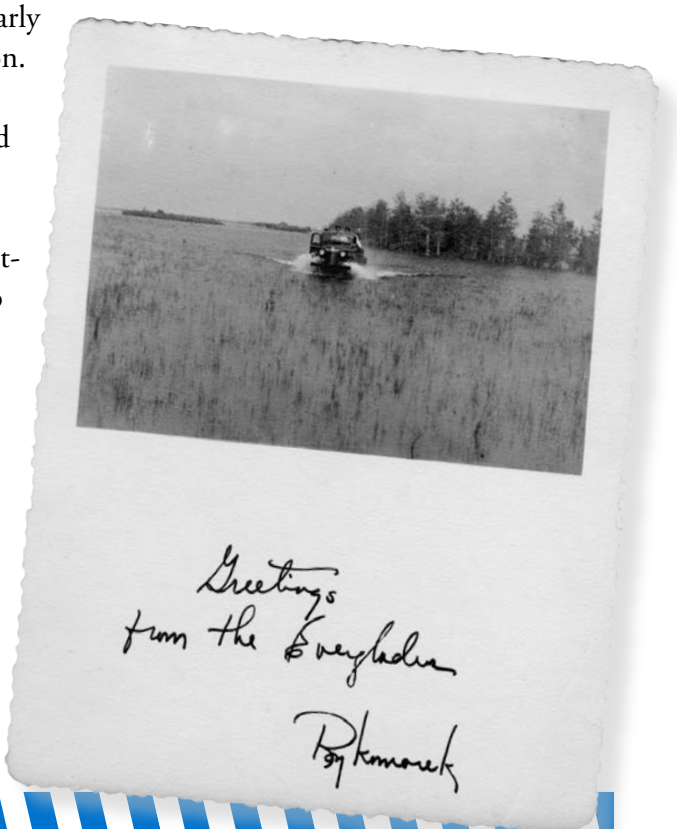
Introduction

In the first half of the twentieth century, the United States Department of Agriculture went to war against the Cattle Fever Tick, a disease carrier causing great economic loss to the southeastern cattle industry. Led by its Bureau of Animal Industry, and various state agricultural agencies, the Department of Agriculture created a tick-killing tsunami that swept across the states of the Old Confederacy and laid waste to the tick. The tactics were heavy-handed and very expensive but ultimately successful.

The last section to be treated, peninsular Florida, was also the most troublesome. The ticks in south Florida proved to be more resilient, resisting the techniques that had rid the other Southern states of the pest. Another host besides cattle was found. Also, one group of people in one area of south Florida refused to cooperate with the campaign: the Seminole Indians on the Big Cypress Indian Reservation.

This caused a bitter inter-agency fight in Washington between the Bureau of Animal Industry, promoting the eradication, and the Bureau of Indian Affairs, part of the Department of the Interior, which backed the Indians. This infighting resulted in what might be called the Fourth Seminole War.

Caught in the middle was biologist Roy Komarek, who in the early 1940s tried to conduct a fair test of the tick's status on the reservation. Roy happened to be an accomplished photographer, and with some fine equipment, he caught rare images of a vanished era's culture and activities. Roy's black-and-white negatives were forgotten and misplaced for decades; the photographs have never been published and are virtually unseen by living eyes. They are presented here, augmented with other images, and with a narrative of the tick controversy to put them into context.



About the author: Robert L. Crawford, a former staff ornithologist at Tall Timbers Research Station, has published two other titles dealing with aspects of Tall Timbers' history: *The Great Effort: Herbert L. Stoddard and the WCTV Tower Study,* and *The Legacy of a Red Hills Hunting Plantation: Tall Timbers Research Station & Land Conservancy.*

Tall Timbers Press – Heritage Series No. 1

Details: 82 pages; 8.5 x 11; Paperback: $19.95

Purchase online from the Tall Timbers website.

Graphic band here represents rain and is based on a traditional Seminole Indian design.

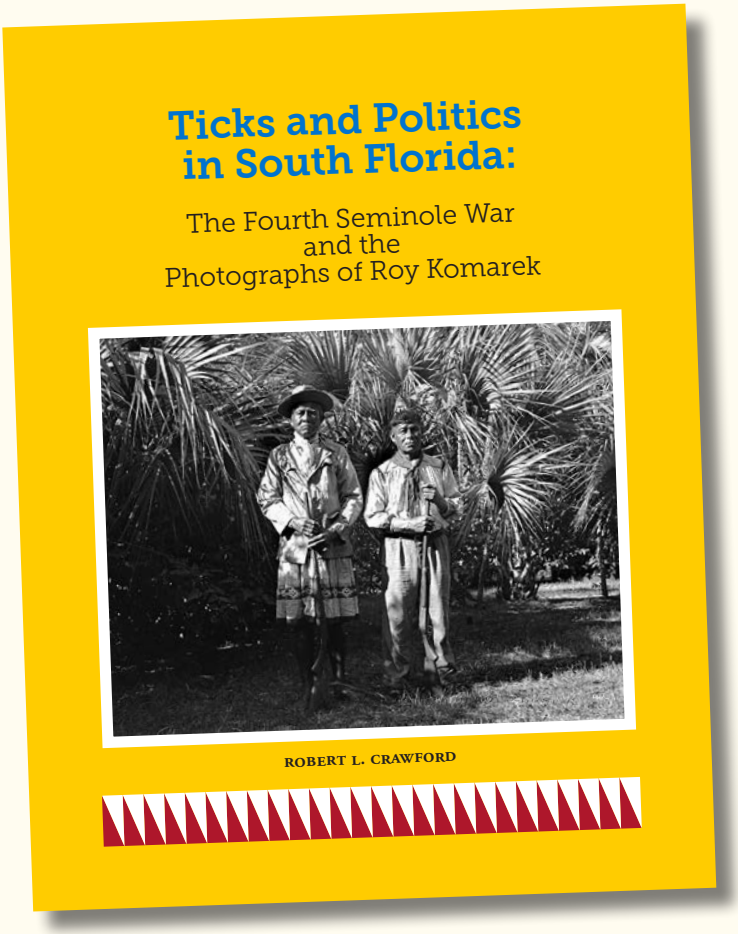
Serendipity

BY ROBERT L. CRAWFORD

Serendipity: the occurrence of events by chance in a satisfactory or beneficial way, or, luck that takes the form of finding valuable things that are not looked for.

IT WAS CERTAINLY SERENDIPITY WHEN CLAY Townsend of Jacksonville, Florida, decided to look up the name of an old family friend, Roy Komarek, on the internet. In October 2015, Clay was doing some genealogy research on his family and on a whim looked up Komarek's name. Born in 1944, Clay had not actually known Roy Komarek, but his father J. B. "Pete" Townsend (b. 1913) spoke of Roy up to his death in 1971. In the early 1940s, Komarek had been a good friend of Pete's, who was a former Indian Agent on the Seminole Big Cypress Reservation in southwest Florida, and a local cattleman.

Clay's search for Komarek's name turned up references to a Roy Komarek associated with Tall Timbers Research Station & Land Conservancy. Clay had not heard of Tall Timbers before, but when he visited Tall Timbers' website (www.talltimbers.org) he saw the announcement of a new Tall Timbers' publication, *Ticks and Politics in South Florida: the fourth Seminole War and the photographs of Roy Komarek*. Clay was intrigued because the Roy Komarek he knew of had met Pete on the Seminole reservation while conducting a scientific survey of ticks for the National Audubon Society. Clay also remembered that Roy was an avid photographer, so he thought: this has to be the guy — my father's friend.



Clay ordered a copy of the book from the Tall Timbers' website and when he was able to see the photographs, he was brought back in time to his childhood, and was pleased to find that his father, Pete Townsend, was in two of them. Clay discovered that Roy worked for the Audubon Society through his employer, Herbert L. Stoddard's Cooperative Quail Study Association, headquartered at Stoddard's Sherwood Plantation in the Red Hills of southern Grady County, Georgia. The quail investigation, also staffed by Roy's brother, Ed Komarek, and with Henry L. Beadel as Secretary-Treasurer, was a direct precursor of Tall Timbers Research Station.

Clay notified his older brother Dallas (b. 1939), still living in southwest Florida near Immokalee, who also ordered a copy of the book from Tall Timbers, and was able to confirm his father's images there.

Pete Townsend, Figure 24, in *Ticks and Politics*.

This wonderful coincidence of the book being published just before Clay's internet search for Roy's name has delighted those of us who worked on the book, and it has apparently been a pleasure for the Townsend family as well, as it brought back childhood memories of living near the Reservation. We are grateful to Clay and Dallas Townsend for sharing their memories with us.

Townsend is also in the book's Figure 33, above.

Dallas Townsend generously let us use this 1941 photograph from his family's collection showing Roy and Pete together.

About the author: Robert L. Crawford, a former staff ornithologist at Tall Timbers Research Station, has published two other titles dealing with aspects of Tall Timbers' history: *The Great Effort: Herbert L. Stoddard and the WCTV Tower Study,* and *The Legacy of a Red Hills Hunting Plantation: Tall Timbers Research Station & Land Conservancy*.

Cattle Fever Tick Eradication – The Tall Timbers Connection

BY ROBERT L. CRAWFORD AND ROSE RODRIGUEZ

IN THE FIRST HALF OF THE Twentieth Century the United States Department of Agriculture went to war against the Cattle Fever Tick, a disease carrier causing great economic loss to the southeastern cattle industry. Led by its Bureau of Animal Industry, and various state agricultural agencies, the Department of Agriculture created a tick-killing tsunami that swept across the states of the Old Confederacy and laid waste to the tick. The tactics were heavy-handed and very expensive but ultimately successful.

Florida was the last state to participate in this regional eradication effort. In 1923, the Florida Legislature enacted a compulsory program, overseen by the state Livestock Sanitation Board, to rid the state of the cattle tick in collaboration with the Federal agencies. The law divided the state into sixteen quarantine zones. Concrete dipping vats were constructed at seemingly convenient locations within each zone and all cattle had to be dipped (submerged) in a 0.19% arsenical solution every two weeks until the zone was deemed free of the cattle tick. The work started in western Florida and moved eastward to the Atlantic Coast, then turned south and rolled down the peninsula.

One of the Florida dipping vats was on Thomas P. Strickland's place across the road from Henry L. Beadel's Tall Timbers Plantation in Leon County, which eventually became Tall Timbers Research Station. Strickland was the plantation land manager. In his diary on March 12, 1924, Beadel wrote, "Talked to Jim & Bill about dipping tomorrow….drove what cows there were on Sheep Is. [Island] up here." The next day, March 13, he wrote, "Started Maggie greasing milk cows' udders [to protect them from dipping solution]….drove all cows to Strickland vat. Some other cows ahead of us. Dipping over about 12.40. Home 1.15. Lunch…." Through the spring and summer of 1924, Beadel continued taking his cows to Strickland's vat for dipping while making plans for constructing his own vat.

Here are some entries from his 1924 diary that describe its construction.

June 20 – I saw Miller about [constructing] dipping vat. He referred me to clerk of Board of Commissioners. He referred me to A. J. McNath on the Boston Road [Georgia]. Went out & chatted with him.

July 6 – … did accounts & figured on dipping vat….

July 8 – … set Jim to clearing space for sand near vat….

July 21 – … Strickland & Louise [his wife] came. We worked on vat. Built form. S. [Strickland] left. Lunch. Finished form & put it partly in place.

July 29 – … To vat with Jim. Built mortar mixing board, put extra braces in vat & measured for side bolts. Lunch. Cut blocks & bored holed in them for bolts. Put handles on sawed measuring box. Took everything to vat.

July 30 – … To vat. Williams the only hand present. A big gang came later. I hung the wire bottom reinforcement, then we began pouring concrete. About 10 [hands] working. Strickland came as cement supply appeared to be going too fast, he went to Beachton [Georgia] & got Whitfield to go to Thom [Thomasville, Georgia] & bring 25 bags more – 85 in all. Worked hard all day – (*did not* sit down & ate standing.) We finished the drip pen at 8 p.m. – no cement left. Awfully sore & tired….

July 31 – … Started about 9 & helped drive cows to Strickland vat. …Home about 11:30. Changed & Gen & I started in car at 12. Stopped at Whitfield's a minute, Thom [Thomasville]. Got 2 bags of cement…. Home about 3. (Saw Whitfield at Beachton [Georgia]. Told him to bring cement tomorrow & ice.) Lunch. Gen not well & lying down rest of afternoon. I read. Than inspected vat. Cement already hard. Hayes, range rider came & found ticks on one cow not dipped this AM. He went & got some dip & washed her. …

August 1 – Up at 4.45 – a bite to eat. To vat. Took out forms – Vickers & Williams helped. Back to breakfast at 9:30. Strickland & Blackman (carpenter from Whitney's) came & plastered the vat. Jim helped. I built up rim of drip pen higher. …

August 2 – Up at 8.30. Breakfast. Waited for mail. To vat. Took levels – top edge not more than ½" out anywhere. Measured inside. Scraped entrance chute & plastered it with pure cement. Jim helped. (Vickers & Williams hauling fence posts & wood from Maxwell's.) Lunch. To vat. Calculated capacity. Exactly 1470 gallons. Removed outside top forms, rubbed down inside with wire brush & emery stone. Bored holes in sills & bolted them to vat. Put some water in it. …

August 3 – … Made sketches for vat roof, etc.

August 4 – … Up at 8. Breakfast. To vat. Bob helped me a little, then went for mail. Strickland came & helped. Sawed studs for roof. … Lunch. Started work again about 2.30, with Lewis & Strickland. Braced the frame – sawed & put rafters in place. …

August 6 – … Up at 7. Breakfast. Told Lewis to put braces across rafters of vat. …

August 7 – … Up about 7.30. Breakfast. To vat. Lewis had finished shingle lath. We shingled E [east] side. Lunch. Read till 3.10 (shower over). Lewis & I shingled W [west] side of vat roof. Strickland there for awhile. We put in two 6 x 6 fence posts. …

August 9 – … Worked with Lews, Jim, Vickers & Williams on the vat all day. Fenced the chute & dip pen & started on the other pens.

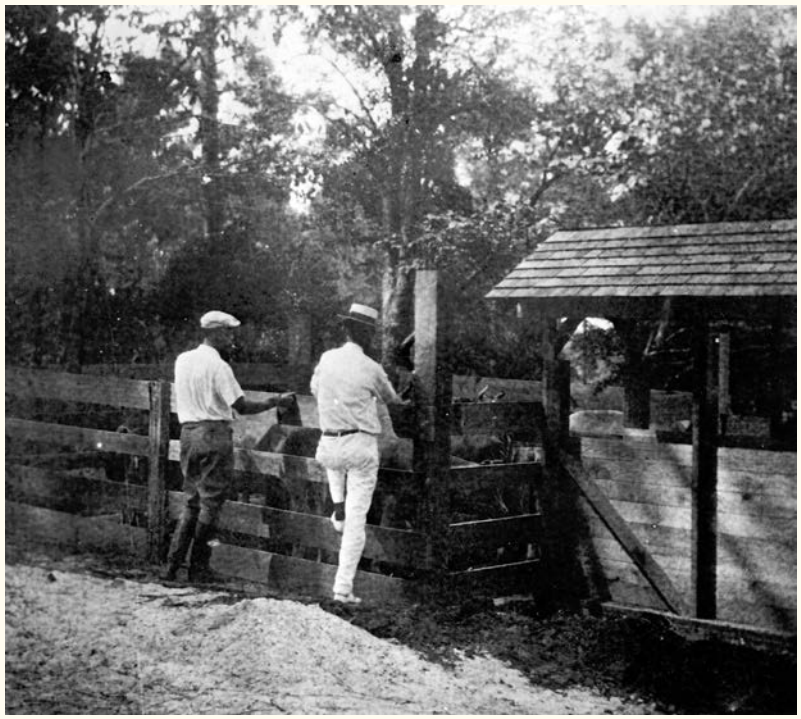
August 10 – … Inspected dipping vat. …

August 12 – … Up at 8. Strickland here. Breakfast. Just starting for the vat when Bill told me arm of magneto on pump engine broke. Dismantled the whole ignition… To vat. Started Strickland, Lewis, Vickers, Williams & Jim to work on pen fences. / *Flushed a quail from nest with 13 eggs,* …. Strickland had finished exit pen. We finished receiving pen. Rain began. Sat under roof of vat. …

August 13 – … Home at 6. To vat. Strickland, Vickers, Williams, & Jim had finished wire fence down to pasture. We opened a gap there, also wired from exit pen to Bill's fence. Strickland said cock quail sitting on nest this AM. Supper. …

August 14 – … Up about 9 – Breakfast. To vat. Jim came and we began making gate to drip pen. Strickland & G. Whitehead came. Filled vat full. Then W. put in about 1½ - 1¾ cans of dip (about 6 gals). Tested it, & added dip to vat till it tested 17½ . Finished gate. S. & W. [Strickland & Whitehead] left. Lunch. … About 3.45 I took Bob to help me. Made bars at gate of exit pen. Jim came. Made bars at entrance of receiving pen. *Cock quail sitting on nest*. Strickland came for a few minutes. Ben came to vat.

August 16 – … Gen & I up at 6.30. A bite to eat. On ponies & rode to Sheep Is. Cattle already being driven to our vat. Followed. Had vat stirred. To house. No line-rider appeared. Strickland came about 9.40. Tested vat (17) & dipped cows. … Strickland left. Vickers, Jim, Harvin, & rode to Sheep Is., roped one of TPS Jr's cows that escaped & dipped her. 75 in all. Lunch. …



The photograph here shows Henry Beadel, at left, and his neighbor and land manager, Thomas Strickland, inspecting the Tall Timbers vat sometime in the mid-1920s. Notice shingled vat roof mentioned in the August 7 and 12 diary cards. Tall Timbers Archives

A surviving dip vat in southern Grady County, Georgia, along the Meridian Road. Photo by Robert L. Crawford

Note: Henry Beadel's daily diary cards reproduced here are only partial entries for that day. He also noted the low and high temperature, who visited Tall Timbers, who he and Gen visited, where they went on errands in Tallahassee or Thomasville, what mail he received, and even how many quail eggs were found in a nest. I think you'll agree, Beadel's methodical personality and attention to detail as a trained architect are reflected in his diaries.

Succession in the Red Hills – One Family's Approach

BY BILL PALMER

GENERATIONAL CHANGE IS INEVITABLE. IT HAS OR will come to many of the properties in the Red Hills region; it's simply a matter of time. Fortunately for the Red Hills, the Williams and Parker families have successfully implemented a unique strategy to manage generational transition that has proven to be enormously beneficial to the family plantations. They have adopted a unique philosophy that escapes both the rule bound traditions of corporate decision-making and the ad hoc methods of the more spontaneous families. The family has decided to make all decisions by consensus. Seeking consensus among a family is no easy task, and one that requires a lot of thoughtful and iterative dialogue. As we all know, and in my opinion, finding it is as rare as winning the lottery.

This family has made some gutsy decisions, including bold changes to the farming, forestry, and quail programs in order to increase bobwhite quail populations. These changes have all taken place with an eye to reducing costs in order to increase economic and ecological sustainability. These decisions have required courage, engagement, and trust by the family, as well as partnership with professional talent to implement. It turns out working on governance was key towards a successful quail management program. It is not often that covey finds more than double for two properties. This happened to the family properties under the watchful, dare I say anxious, eye of manager Robbie Green with strategic nudges by Kerryn Seward, and direction from an engaged family with a common goal. I sat down with Robbie and Kerryn at The Chop House in Thomasville to learn their secret.

Bill: So, how did you guys decide where to begin?

Kerryn: Like so many plantations, the properties are essentially a family business, with more elements of "family" than "business;" and so governance tends to gravitate away from the more professional aspects of running a company. A key phase of implementing such a transformation is gaining understanding of goals and objectives. This requires frequent communication and regular well-facilitated meetings that address a variety of complex issues. An early outcome was that we would be managing or setting the stage for the next generation. In some cases, that means managing for family members who aren't even born yet. These are complex issues that cross multiple domains from family traditions, to value differences, to the cost of milo. Gaining consensus on the goals (improving sustainability, increasing quail hunting quality, etc.) was critical, because it provided a context of certainty for managers to make decisions and move forward. Managers cannot manage well when there is indecision.

Robbie: Kerryn hired me and we had a broad set of goals and objectives. Armed with a "wish list," we let the land dictate the implementation; we followed the ecology of the land and executed what made good common sense. With guidance from the ecology, one practical solution was to isolate and cordon off areas of the plantation best suited to farming or growing timber. It was obvious really. Why have farm fields scattered in the best quail woods full of biodiversity, versus moving the farming to areas that had an agricultural background where quail management was a struggle? Why try to grow quail in areas where it makes more sense to grow trees?

Robbie: Another common sense reason we compartmentalized management was to make sure every acre is as productive as it can be; it adds to the whole. Be it quail land, turkey woods, pine plantation, or agriculture, we don't want to waste an acre. Early on, Kerryn said we needed to go "Dutch" on the properties. At first, I thought he

wanted me to pay half the costs of the properties. Turns out he meant we needed to be as efficient as the Dutch are in Holland, and that we needed to maximize the utility of every square inch of the property.

Bill: Your quail hunting went from average to over 8 coveys an hour for your season average. Did costs skyrocket?

Robbie: No. They went down.

Kerryn: Thoughtful deployment of resources can go a long way in cutting costs. Wise stewardship has an even greater significance to a family that is thinking generationally. There's a lot to working with a multigenerational family, and it's important to have a partnership process. Owners' engagement, and professional talent to get the job done, is critical.

Robbie Green

Bill: How did this translate to what you are doing on the ground?

Robbie: The governance and goals gave us context. Direction. We knew what we were working towards. Other than that, careful burning, feeding and predation management [are imperative]. Making sure timber was at the right density. On predation management, I would point out that it does not exclusively mean trapping of nest predators. I am more of the school of thought that we can do more predator control through sound habitat management. The normal stuff done the right way.

Bill: What is the most important thing it takes to be a manager of a major quail plantation?

Robbie: You have to have passion for some part of the job; a real passion. For me, it is managing the woods and watching my actions and decisions play out. I love it! You always learn something. For others, it's the dogs, the hunting, or maybe the farming. Whatever it is, you have to have passion. Not long after I moved to Thomasville, at my first job here in the Red Hills, I was shoveling out the dog kennels; it was my weekend to work. Standing there thinking about what I was making at the time, with a 4-year college degree and a pregnant wife, shoveling you know what; I had that revelation. To get through all of the less than appealing parts of the job, you've got to have a passion for a core part of it, or else you won't last. I tell my employees that as well. Find your passion in the job. Find the one or two things that make it rewarding. I have had some that found it, and they are outstanding employees, and I have had some that didn't find the passion; and you know what, they don't work here anymore.

Bill: What other advice would you offer to someone considering a manager position?

Robbie: First, get a 4-year degree in Wildlife and Forestry. It will serve you well. A forestry background is essential, because that is such an important component of what we do out here. We don't hunt in quail fields, we hunt in quail woods. Twenty-five years ago, I had a forester with the US Fish and Wildlife Service tell me he could do more wildlife management (for good or bad) with one timber harvest than I could do with all of my wildlife techniques and tools. I have discovered over the years that he was right. And of course, timber is important economically. Second, take some business and accounting classes. In some of my past experiences, I found myself developing annual budgets and working with the property owner's accountants and lawyers. Trust me, accountants 500 miles away don't understand quail management; and at some point, you will need to justify in their terms what you need to do your job. Finally, get proficient in computers, mapping, and GIS. These skills will improve your ability to communicate, and that is a big part of the job.

Bill: What do you look for in an employee?

Robbie: That passion. Commitment, and someone with character. We can teach what it takes to manage the land; experience helps, don't get me wrong. But in the long-term, an employee or perhaps even later a manager, is someone that has work ethic, character, and a love for the job.

Interview continued on next page -

Bill: What do you consider a great quail hunt?

Robbie: Ha! You may laugh, but I think a great quail hunt is enough covey finds so that the conversation never gets dull. Your guests have just about finished telling a story, when all of a sudden you hear, "point," and then, "I'll finish that in a minute," as they ride up to the dogs on point. That is a good quail hunt. I also like it when guests enjoy the dogs, the land and the tradition of the hunt. They don't have to kill birds. If they are excited about the majesty of the hunt and the woods, and if they really enjoy the dogs, horses and people — that's fun to me.

Bill: What worries you most about the future of the Red Hills?

Robbie: Development, fragmentation. Becoming more difficult to burn. I know it is something that concerns all the managers, because once developed, it's gone.

Kerryn: The traditions and culture that are protected by the plantations are so important. There is nothing like the Red Hills in the U.S., let alone the world. There is no other city like Thomasville, and the reason it is so unique is due in large part to the plantation community. That is why I am thankful to see the family work so hard to sustainably manage their properties.

Bill: Robbie, what is something about you that may surprise people?

Robbie: I listen to NPR, I love the movie Moonstruck, and I listen to '80s alternative music. Not your typical conservative!

Bill: Kerryn, did you really break your wrist falling off a skateboard?

Kerryn: Yes. A pink one.

Bill: Is there anything you would like to add before we wrap this up?

Kerryn: Yes. We are dealing with tough questions and certainly don't have all the answers. We are trying to solve complex challenges and are undoubtedly making mistakes along the way. It's important to realize that these ideas about governance and management philosophy are idiosyncratic to the family. Our ideas have worked for now, and how we use them will probably change over time. We haven't necessarily "done" anything, but we are "doing" something. There's no single answer or solution; and with us, we won't know if we've been successful for another 30 years.

This is the second interview in our series on getting to know the managers of the quail properties in the Red Hills and Albany area. Our goal with these interviews is to spark ideas and encourage dialogue among the managers and owners to help foster exemplary land stewardship and sustainability. Bill Palmer, PhD, is the Director of Research and President/CEO of Tall Timbers Research, Inc.

A Covey's Calling

By Theron M. Terhune

A bobwhite's coterie assembles for the night
vigilant, still yet ready to take flight.
Roosted and cuddled tightly wing touching wing,
to eschew predators seeking to sting.

The falling cool air settles atop their circular formation,
giving rise to early morning dew but not their location.
The uneventful night confirms the covey's selected position,
whilst a few anxiously await to broadcast disambiguation.

As the rufescent tinged horizon breaks the quiet dark,
songbirds rustle the leaves and scuttle amongst the bark.
Pips, chirps and tweets cut through the rising white moist air,
a precursor to what the Bobwhite's about to share.

Hark! A tsunami of calling fast approaches from the east,
And suddenly a rumpus exceedingly increased!
The irruption of "Koi-lee" "Koi-lee" "Koi-lee"
overwhelms the soul,
and the reverberating calls inundate thee
as the "Prince" extols.

While coveys exchange pleasantries and territory information,
one can hastily count and jot down each location.
For as quickly as its arrival the melody crescendos,
in unison the calling abruptly comes to a close.

The covey retreats from its site of declaration
seeking out food while trying to avoid predation.
In far too many places bobwhite and covey numbers are falling
so, awake my friend, and take part in a Covey's Calling!

Tribute to a Complete Bird Hunter

BY LELIA REYNOLDS AND BILL DUPRÉ

THE MAN RESPONSIBLE FOR OUR ABILITY to donate a conservation easement on the Leary Farm to Tall Timbers is our Dad, William A. DuPré III. Dad has held a passion for growing wild quail, improving their habitat and, yes, hunting them for most of his 80+ years.[1] He grew up hunting birds with his father and even raised tame quail as young boy. He is one of the few men still alive who can say they have met and talked quail with both Herbert Stoddard and Walter Rosene. Dad says he met Stoddard on the way to Florida when dad was in college (early 1950s). He remembers sitting on Stoddard's porch and they heard a bobwhite call nearby that sounded slightly raspy and off key. Stoddard said that he had caught the bird the day before and painted his throat because it was sore.[2]

Early Education—the Johnson Farm

Dad bought his first farm in the 1960s, with some friends and his sister, a 2,400-acre farm in Floyd County, known as the Johnson Farm, located just a few miles East of Rome, Georgia, bordered on the North by the Etowah River and split by U.S. Highway 411. Dad quickly became a devoted student of the bird, its habits and management of its habitat. He bought, read and studied Rosene's book *The Bobwhite Quail, Its Life and Management*, soon after it was published. He convinced Rosene to come over to Rome from Gadsden, Alabama and visit the Johnson farm. Dad was the only one of the owners with any real interest in bird hunting, and he quickly became the manager of the property by acclamation. After a few years of haphazard planting of pea patches and other cosmetic, half-measures, Dad's interest in quail management accelerated and soon became an obsession from which he, his children, grandchildren, countless other hunters, and most importantly the birds themselves, would all benefit. He implemented a good controlled burning program, planted countless bicolor patches, thinned the woods, and created and maintained transition bands around field edges and woods lines.

By the early 1970s, the Johnson Farm had become the best wild quail hunting north of Macon, Georgia. At its peak, the Johnson Farm carried around 1,500 birds. It was not uncommon from the late 1970s forward to find eight or more coveys in an afternoon, on foot. Even recently the hunting remains remarkably good, though the Johnson Farm is now an island in the heart sickening shadow of suburban development. Dad sold his interest in 2003, but his former partners still let him run his dogs and hunt there most anytime he wants.

The Leary Farm

In 1973, forty-two years ago this fall, Dad convinced two business acquaintances to buy 2,000 acres in Calhoun County, Georgia, between Leary and Morgan from John Phipps. Dad says he tried to talk to an officer of the Federal Land Bank about borrowing some money to help finance the project. The man told him "Mr. DuPre, I am quite familiar with that swamp you bought and I would not lend you a dime on it." One of Dad's partners went down there and got stuck and immediately insisted on being bought out. The other remaining partner suffered some financial setbacks and nearly took dad down with him after dad borrowed everything he could to buy him out in the late 1970s.

Dad has never been afraid to borrow money for good land. Both the Johnson Farm and the Leary Farm were bought with borrowed money. Dad was stretched pretty thin in the late '70s, and he went to Atlanta so he could talk with Trust Company Bank about renewing their loan to him. They knew nothing about the property, and were not impressed when he told them he could pee in the Ichawaynochaway Creek, and it would wind up on "Mr. Woodruff's place." They nonetheless agreed to renew the loan, and he was able to weather some tough economic times and rebound with the economy in the 1980s.

When dad bought Leary it consisted of agricultural fields and extremely rough impenetrable heads of mixed pine, hardwood and cypress ponds that had not been managed for quail or anything else. The place arguably had a decent, huntable bird population back then, but most of the property was not productive bird habitat, and the birds were of course mostly found on the edges

of the agricultural fields. Dad called Walter Rosene and told him that most of the birds he was killing had nothing but pine mast in their crops. Rosene snapped, "What does that tell you? …the birds are starving to death."[3] Rosene went on to explain that while quail would certainly eat pine mast, so did everything else in the woods and that it would all be gone by January.

Dad started burning, disking, thinning, and planting bicolor patches. In the late 70s we had a disastrous hatch and had almost no birds. Then things began to turn, and before long the property was carrying a bird population of around one bird per acre, what was then considered "saturation," and, hunting on foot we were often finding three to four coveys per hour in good conditions. Encouraged by this success, dad soon decided that it was tough to get a farmer to implement and maintain his management plan for optimum bird habitat. He planted loblolly strips to break up the larger agricultural fields and eventually decided to stop leasing the farming rights out so that the place could be more intensively managed for birds.

He hired a multi-talented man from Lindale, Georgia named Cary Brooks to work on both farms. Cary learned a lot about the bird and land management from Dad. He knew how to fix just about any type of equipment and could do almost anything within a reasonable budget. He was practical, generous and big hearted. Everyone loved Cary. He quickly became known as "bird man" in Leary, Morgan and surrounding areas. He handled the burning, disking, planting of patches, fertilizing and other practices for improving habitat. One of Cary's more memorable projects was gathering and seeding enough wild plums by hand to plant (also by hand) and establish countless small, wild plum thickets (for midday loafing/escape cover) on the property. In the late 1980s, Dad hired Brad Mueller to help design a plan for putting in rotational fields of partridge peas and a multitude of meandering long leaf pine strips that further broke up

Mr. DuPré III. with his daugher Lelia Reynolds, and his hunting dog, Sam – December 2009. Photo courtesy of the DuPré family.

the old fields and created more "edge" cover. Dad also stepped up efforts to control hardwood growth where it was unwanted and interfered with the overall management plan.

Cary eventually decided it would be better for his marriage and general health not to be running up and down the road between the two farms; he retired, at least from the South Georgia portion of his career. We were very fortunate and thankful to have Lester McNair of Edison (and his lieutenants, Terry and Burnett) to agree in the late 1990s to step in and pick up where Cary left off. Lester was a quick study and he soon caught the Quail contagion from dad; like Cary, Lester has also become a dear friend to dad and our family.[4] Cary just passed away in January of this year. He will always be remembered as "bird man;" both places have Cary's fingerprints all over them. We miss him.

The hallmark of a true steward is that he leaves whatever is in his care better than he found it. The Leary Farm is carrying an estimated population of 2000 birds on its 1500 upland acres in recent years, a wonderfully sustainable number that is ample for our hunting needs. Thanks to dad, the bird population is thriving.

Bird Dog Lover

From the time he got married in 1957, Dad has also raised and kept his own bird dogs. Our Mom will tell you there is a correlation because he often needed a dog house to sleep in during their early years of marriage. Dad has kept countless bird dogs in the kennel at his house over the last 50+ years (with remarkably little complaints from the neighbors). Everything from the fully papered, highly pedigreed thoroughbred to mixed breeds of dubious lineage dogs with names like Claude, Sue, Trey, Sally, Putt, Jane, Polly, Star (who developed a love of box turtles, which she would retrieve and gently stack in the bed of dad's truck most anytime she was turned loose in the yard), Leary, Morgan, Dan, Past, Due (when the note on Leary was "past due"), Queen, Spec, George, Cookie and Dot. Dad has always loved his dogs and they have loved him.

Though Dad often used a trainer to help "finish" his dogs, he always maintained direct daily contact with them, feeding them, petting and loving them, and getting them in shape in the fall before the season opened. Dad has never cared much for nice cars and many of his bird dogs enjoyed the privilege of riding inside his car or truck with him. Most every vehicle Dad drove as his own over the last 50 years — from his 1972 Buick LeSabre, which he drove way past its life expectancy (and which once had to be retrieved from the middle of a muddy cotton field by a tow truck) through and including his present Toyota Tacoma — have all carried prodigious amounts of bird dog hair, muddy paw prints, ripped upholstery and the attending, unmistakable aroma of his many faithful tail wagging companions over the years.

Dad's all-time favorite was undoubtedly a hard running, very persistent lemon pointer named Dan.[5] When Dan died, Dad wrote a letter to him. The letter hangs on the wall in Dad's bedroom at Leary that makes most of us tear up whenever we read it.

How Did He Do That?

One of the many truly remarkable aspects of Dad's lifetime commitment to quail management is that he managed to achieve great success without having an unlimited budget. Dad got out of the service and got married in 1957 with no money to speak of.[6] He got started in a small independent insurance agency; he and mom lived hand to mouth. They started having kids three years later. They had two kids (and twins were on the way) when he decided to make life even more interesting by borrowing money to buy an interest in the Johnson Farm. A few years later with kids in private school and college on the horizon, he decided to borrow more money and buy Leary. Not only did he buy and pay for the two farms, he spent a great deal of time personally devising, and quite successfully, implementing the management plans for both properties.

He did this while at the same time buying and growing his insurance agency, speculating in raw land, Bojangles® fried chicken, Puma® tennis shoes and some other business ventures (many profitable, some not) staying happily married to the love of his life, maintaining active leadership roles in his church and community, raising four children, training bird dogs, and going quail hunting on average at least one, often two days per week and maintaining a single digit golf handicap. During those years, he stood over thousands upon thousands of covey rises and picked up thousands of birds (though he will tell you he quickly learned that the shooting is secondary compared to the satisfaction and rewards of being a good steward).

DuPré, Linginfelter, and Reynolds Families. Photo courtesy of the DuPré family.

Wisely recognizing every man has his limits, dad postponed picking up a turkey hunting obsession until about 25 years ago. Soon after all of the kids were out of the house, he added turkey hunting to his outdoor pursuits, and dusted off his fly rod as well. He quickly became a dedicated, highly accomplished turkey hunter and avid trout fisherman.

Always Learning, Rarely Satisfied

Dad has never stopped studying and learning about the bird, its habits and increase. He followed with intense interest the work of the Albany Quail Project and continues to closely follow the work of Tall Timbers. He relishes talking with people who truly know and care about the bird, while displaying little patience for people who are only about the killing and have no genuine interest in the bird and its welfare. He has been to many of the Tall Timbers Field Days, and has taken friends in hopes of getting them committed to protecting and improving the bird's habitat and long term survival. Dad never misses an opportunity to thoroughly question Clay Sisson [Director of the Albany Quail Project] to obtain the latest and best field data. As what we "know" about the bird has changed, Dad has adapted and changed his own management for the bird's (and his children's) great benefit.

Dad became a dedicated, old-school conservationist who practiced sound, sustainable, long-term wildlife conservation and land management, decades before it became fashionable. His dedication to quail and good land stewardship may well have started simply because many years, dogs and covey rises ago he developed a passion for hunting and shooting birds. Regardless of the reasons, his lasting commitment and contributions to the bird and its increase through good land stewardship are inarguable and result from spending more than 70 years of recreating outdoors, a genuine passion for the bird and an obsessive pursuit of factual knowledge about its habits, management and increase. He has passed his love and knowledge on to his children and grandchildren in many ways. We, the bird and the land have all greatly benefited from Dad's wonderful obsession.

We are undoubtedly biased, but we think God truly "broke the mold" after Dad came into the world. We are thankful for him and, as you can tell, love telling his story. It is ambitious to think we'll ever have Dad's level of knowledge and experience, but we hope we can continue his legacy. It is a great privilege to be able honor him and continue his work by donating a conservation easement on the Leary Farm to a premier organization like Tall Timbers that has done so much for the bird.

Notes

1. He was born November 19, 1933, in Marietta, Georgia, the son of a bird hunter, who was also the son of a bird hunter. Our grandmother proudly told us that she took it as a compliment when her husband, our grandfather, used to tell people that her eyes were "far apart, just like a good bird dog's." Dad once said that he saw some family papers indicating that his great grandfather paid way more than he should have for a bird dog more than a hundred years ago, so the DuPre bird hunting gene goes back at least four generations. The tradition continues. Dad's grandchildren all share his love of the outdoors, and the two oldest go bird hunting every time they get the chance, are good shots and are already well on their way to becoming bird hunters themselves.

2. Dad also remembers that Stoddard was studying field larks at the time and he had a room full of them.

3. As reported conversations with Dad and Rosene might suggest, those truly committed to the bird and its increase can sometimes be pugnacious on its behalf.

4 . Lester's sons Lee and Cole have also become good friends and each are making their own contributions to the farm's Quail production and overall continued improvement.

5. Dan was a travelling man and sired several fine drop puppies ("poinsetters") by "accident", at least three: Dixie, Belle and Spec, were very nice gun dogs.

6. He graduated from Georgia Tech, did his two years in the army and then married our mom in 1957. He used to joke that he married Mom for her money and birds and she didn't have either. Actually though, Mom's dad, our grandfather Larrabee D. Hand did have a few hundred acres in Mitchell County around Pelham that Dad found to be very worthwhile hunting for many seasons.

William A. DuPré III with his son Steve Reynolds with Ichawaynochaway Creek in the background. Photo courtesy of the DuPré family.

KIM SASH

About the Conservation Easement

1329 acres of Leary Farm, the DuPré/Reynolds property, is under a conservation easement. Located in Calhoun County, Georgia, the easement property has many conservation values including the protection of water quality in the Flint River basin with 2 miles of creek corridor and over 260 acres of floodplain on Ichawaynochaway Creek placed under easement. The property also harbors many species of wildlife by providing high quality habitat for gopher tortoises, bobwhite quail, and has a rich plant diversity with beautiful cypress domes, the carnivorous hooded pitcher plant and the native longleaf-wiregrass community.

William A. DuPré III in his own words

MY CHILDREN HAVE GIVEN ME MORE credit than due. I have made about every mistake that can be made over the years. The following remarks I think are important and hope to encourage people with somewhat limited budgets to still manage for a huntable bird population.

We have 2000 acres in Calhoun County [Georgia] of which 1500 is managed for quail. Our estimate is that we have about 2000 birds on the place. We bought the place in 1973with two partners. We had an agreement with the older partner we would take him out at his request and give a 6% annual return on his money. He made one trip, got his jeep stuck and came home and wrote us a demand letter. Sixty days later my other partner went broke in the cattle business. So instead of owning one third of something I could not afford, I owned three thirds of something I could not afford.

The place was in an estate and tenant farmed. All the woods areas were grown up so badly there was no fuel to burn. The place still had a lot of birds—just very tough hunting. We got two big breaks on cleaning up the place. Hercules Powder came and removed all the (pine) lighter stumps. They knocked down enough brush so we had some fuel to burn woods. We have a great neighbor, Bob McLendon, who lent us a bulldozer all winter with an operator for almost nothing. Our first efforts at managing were strictly seat of the pants. The first real help I got was Walter Rosene agreeing to give me a half-day windshield inspection of the place. He was very helpful. At his suggestion we broke all the large fields up with eight rows of loblolly pines and then added 100-foot borders on each side. My only other management was to plant 50 bicolor patches, which the birds used but was difficult

Leary Farm's open, piney woods with native groundcover. Photo Kim Sash

shooting. Soon after, I started planting 150 lbs. of partridge pea seed — for about 15 years. This was all we could afford, but we have infested the farm with partridge peas. In 1996, we increased our bicolor lespedeza to 168 patches. As you know, bicolor has fallen out of favor for many reasons. I still like it for hawk cover. We have a Cooper's Hawk problem. Half the time riding around the place I will flush a covey which sails to the nearest bicolor patch, which tells me I am getting some benefit. You will note we plant all perennials. This is mostly from a cost standpoint. We think the most important thing in quail management is to have your woods right. We burn 60% each year and chop, mow or herbicide behind it. Woods make up 60% of the bird hunting, with 40% open or edges. We need the timber income so we have a higher basal area than recommended — somewhere between 50 and 60.

We think the most important thing in quail management is to have your woods right. We burn 60% each year and chop, mow or herbicide behind it. Woods make up 60% of the bird hunting, with 40% open or edges. We need the timber income so we have a higher basal area than recommended — somewhere between 50 and 60.

We have a 25-mile feed trail. We have cut feeding back because of cost and are feeding mid-November to mid-May. We know this can hurt us in drought years, but costs rule. We think our heavy infestation of partridge peas and bicolor will help sustain populations. We pretty much disc all the open land; we do no cross-hatching because of cost. This does not affect number of birds, just number of finds.

We trap 60 days a year. We do not have time or expertise for foot hold traps. Our trapping is probably not too effective, but really do not know.

After getting the woods right, we think our pine strips and transition borders are most important. We have planted nothing but longleaf pines since 1996. I will not bore you with all the advantages, but they are great trees. Our borders are made up of various weeds, grasses, briars and partridge peas. We manage them with mowing, chopping and burning. If we do not want to walk through it, we think it is time to take it down. We fall disc the open land; this creates brood habitat and reduces cover when we are hunting. We absolutely believe in supplementary feeding, but it could become unaffordable for us. We continue to manage for wild foods so we can have a huntable supply of unfed birds. We grow about 1000-plus acres for timber and birds on a 75-year rotation, so we need to average planting 15 acres per year to maintain our timber. We could not do this without Lester McNair, who manages the place. He is in the agricultural services business and has extra equipment and men at certain times so it works for both of us.

I have several friends who bought places and want instant gratification. It will not work. Do what you can do each year correctly, and be satisfied, regardless of how little gets done. We have been at it for 40 years and may be half done. This has been a labor of love for me. I think I get more pleasure out of managing than hunting. It is great to see my children and grandchildren love it and enjoy it. We have always been walking hunters until age put me in a Kawasaki Mule. When you go to horses you get in an entirely different budget.

Entrance to Leary Farm. Photo Kim Sash

Keep Coveys Rising

The Tall Timbers Game Bird Program sets the national standard for Northern Bobwhite management through dedicated long-term research. Given the socio-economic importance of bobwhite to the Red Hills and its conservation value regionally, we conduct research on a wide variety of topics and sites to establish best management practices for bobwhites.

Beyond the Red Hills region, the Albany Quail Project in southwest Georgia focuses on best managment for its habitat type, and the South Carolina Quail Project research focuses on habitat restoration. Restoration projects are also being conducted on the eastern shore of Maryland and other areas in the northern range of bobwhites.

To learn more about the Game Bird Program visit, talltimbers.org/gamebird.html.

To give to a specific Game Bird project click here.

TALL TIMBERS
Research Station & Land Conservancy

The Last Word

TALL TIMBERS IS GOING THROUGH STRATEGIC planning this winter. So far as part of this process, we have hosted some 80 landowners, conservationists, managers, and researchers from around our region, and from around the country, and benefited from their wisdom. Their job is to help us explore proposed directions for the organization and determine which ones Tall Timbers is most suited for, and could make the greatest difference for conservation. Part of this process is taking stock in what we have accomplished and why we have been successful. Some of our accomplishments include:

- Over 120 scientific publications written on prescribed fire and wildlife management in the last 10 years
- Over 127,000 acres permanently protected through conservation easements
- Exemplary management of upland ecosystems for wildlife and sustainable forestry has resulted in
  - –Healthy populations of fire-dependent plant and animal species in Red Hills
  - –High sustainable bobwhite populations, a social keystone species for our region
- Our model of exemplary land stewardship extended to public lands
- Model quail management being applied to leading Wildlife Management Areas
- Conservation planning implemented regionally and nationally

Tall Timbers is recognized for prescribed fire and wildlife research, and conservation of the Greater Red Hills region. Long-term applied research produces a robust knowledge of fire-adapted ecosystems and is a hallmark of Tall Timbers. Key to each aspect of our success is bridging science to management. We remain relevant because we engage with our constituents and as a result become part of the management process. We have identified our collective knowledge as "exemplary land stewardship" to indicate management for multiple resources while protecting biodiversity of the region.

So what's next for Tall Timbers? Ideas we are exploring include expanding our fire research program to help increase the use of fire through improved policy, as well as the addition of a prescribed fire team and fire associations for north Florida and southwest Georgia to put fire on the ground and train landowners to burn. A new focus of our game bird program is on bobwhite brood ecology in the Red Hills and Albany regions—a missing link in quail research. We are expanding exemplary land stewardship into other regions of the Southeast where fire-dependent species are disappearing, and improving our outreach to landowners and managers on exemplary land stewardship, and building a stronger network of managers to share information. For our conservation program we are testing the idea that Tall Timbers could be more proactive in land conservation by adding new financial tools and programs, as well as expanding conservation planning to the greater Red Hills region.

So far, the enthusiasm for a Tall Timbers to be a leader in prescribed fire, conservation, and wildlife management has been a resounding "yes". The new strategic plan is to be completed by April and our directions will be set. It will be a Happy New Year at Tall Timbers. Hope you have one too.

–BILL PALMER

Stoddard Bird Lab

The Stoddard Bird Lab conducts problem-solving research designed to reverse the population declines observed for many birds associated with fire-maintained ecosystems. Over the decades, the lab also has provided important information on the bird mortality associated with communication towers and the unique characteristics of rare old-growth pine forests, and special monitoring programs developed by the lab are used to track rare birds on scores of public lands.

The lab also makes use of innovative tools that have been developed to help conserve habitat on private lands. This effort focuses primarily on the large population of endangered Red-cockaded Woodpeckers found in the Red Hills region and extends to over 130,000 acres in Georgia and Florida. The lab also has received numerous awards for other scientific contributions, conservation initiatives, and effective outreach.

Donations are essential for developing data-driven solutions to the problems confronting many pineland birds. To learn more about the Stoddard Bird Lab and to contribute to the program, visit the lab's web pages.

Photos courtesy of Tara Tanaka.