

Post Oak Savannah WILDLIFER

TEXAS
PARKS &
WILDLIFE



Summer 2009 • Information for landowners and hunters in and around the Post Oak Savannah • Volume 1, Number 2

CHANGING TIMES

Billy C. Lambert, Jr.

Well folks, it appears that the inaugural issue of the *Post Oak Savannah Wildlifer* newsletter was a success; thanks to many of you for the kind words and commentary after the first issue. I hope you continue to enjoy future issues as well. The current distribution list now contains over 350 names and hopefully will continue to rise. As always, feel free to distribute the newsletter to any and all who may be interested in reading it.

There are a few changes that have occurred since the last issue. Jesse Oetgen, co-creator of the *Post Oak Savannah Wildlifer* newsletter, has moved up the food chain and outside the district to the technical guidance biologist position in the Weatherford area. So, for now at least, you're stuck with me. After nine years as the regulatory biologist in Brazos Valley area, I have moved over to the private lands biologist position covering the same area (plus a few additional counties). My contact information listed in the first issue has changed, and I can now be reached at (979) 279-9693 or at billy.lambert@tpwd.state.tx.us. We hope to have the vacated regulatory biologist position for the Brazos Valley area filled by September 1. Also, Jared Laing has been hired as the waterfowl and wetland specialist for East Texas, including the Post Oak Savannah. He is located in Tyler and can be reached at (903) 566-1626 or at jared.laing@tpwd.state.tx.us.

One thing that hopefully will change for the better is the weather. As I write this, the northern Brazos Valley area has received less than 1.5 inches of rain since May 1, a period in which we normally receive close to 10 inches. A lack of rain combined with 100+ degree daily temperatures is taking its toll on habitat conditions throughout the area. Now more than ever, low livestock stocking rates, good rotational grazing

strategies, and light deer densities are critical to maintaining quality wildlife habitat.

I was going to start shooting my bow the other day to prepare for the upcoming archery season. But, after noticing that even the ants were sweating, I decided I could probably put it off for a little while. While the current hot temperatures make it difficult to get too excited about the upcoming season, it is almost time to get the game cameras and spotlights out for the fall deer surveys. As always, if you have questions regarding habitat or wildlife management, or need assistance with the surveys, give your local biologist a call.



A rare sight recently in the Post Oak Savannah, hopefully precipitation will increase through the summer months.

Photo courtesy Billy Lambert.

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PLANT Profile



Robert H. Mohlenbrock. USDA SCS. 1991.

American Beautyberry

(*Callicarpa americana*)

Billy C. Lambert, Jr.

Few plants in the Post Oak Savannah region are as recognizable, or as beneficial, as American beautyberry (*Callicarpa americana*). Popularly known as French mulberry or Spanish mulberry, the American beautyberry is a medium-large native shrub found throughout the eastern two-thirds of the state and throughout the southeastern United States.

Beautyberry is primarily noted as an understory shrub, best suited to semi-shaded areas. However, it can grow in a variety of habitats and soil types (including low-fertility soils) and is an excellent choice for native landscaping. In many places, beautyberry does so well that some consider it as "invasive," although it is hard to consider a beneficial native plant as invasive. Typical of many native species, beautyberry is drought-tolerant and is rarely affected significantly by insects or diseases.

Beautyberry has a "stemmy" appearance, especially during the winter, with multiple long arching branches, or sprouts, originating

from the root collar. Larger plants typically reach heights of 6 to 8 feet. The leaves are fairly large at 6 to 8 inches and are slightly toothed. The leaves wilt easily during hot summer periods with limited precipitation, although they recover nicely after rainfall. Rarely will the plant defoliate during the summer. Leaf color is green to yellow-green during spring and summer, turning to chartreuse during the fall. As a deciduous plant, the leaves drop in late fall or early winter after a freeze.

American beautyberry blooms in early-to-mid summer and the white or pinkish flowers give rise to berries in late summer or fall. These clusters of pink-purple berries are very distinctive and are what most people recognize about the plant (a variety of beautyberry called *lactea* has white berries). The berries can last into winter and are a favorite of many small mammal and bird species, especially cardinals. Consumption by these animals is important for seed dispersal.

Beautyberry is also considered a first-choice browse plant for white-tailed deer. As a highly preferred food item, deer will readily consume the non-lignified twig tips and leaves of the plant. Protein levels during the growing season are very good at 21.2 percent and 15.4 percent for leaves and stems, respectively, although the levels

drop considerably near the end of the growing season. Because beautyberry is also readily browsed by livestock, it is important to minimize competition for this important food source by deferring livestock grazing from wooded areas.

Not only is beautyberry an important food source for wildlife, but people also seem to enjoy the berries as well. It is reported that the berries make very good jellies and jams, fruit topping for pancakes, and even wine. And, aside from the food value, beautyberry may also have medicinal value. Native Americans reportedly used the roots and leaves in baths used to treat rheumatism and fever, and the roots were also used in a tea as a treatment for dysentery, stomach aches, and colic.

Another benefit of beautyberry is the plant's ability to repel biting insects, especially mosquitoes, ticks and ants. Long known only as a folk remedy in the southeast, researchers at the United States Department of Agriculture-Agriculture Research Service at the National Center for Natural Products Research at the University of Mississippi identified and extracted three compounds (callicarpinal, intermedeol and spathulenol) useful for repelling the insects. Bowhunters fighting those irritating biting insects during October may find some relief by crushing leaves of the beautyberry to rub on their skin.

Management of beautyberry is as important as it is easy. One of the benefits of the plant is that it can withstand heavy pruning or browsing pressure. In fact, pruning significantly increases leaf and berry production on the new growth. Beautyberry is also fire tolerant and usually increases in abundance following prescribed burning. Depending on the severity of the burn, plants will typically regenerate through the seed bank (for hotter fires) or by sprouting from the root collar. Severe or repeated fires, how-

ever, can negatively affect the plant. Very hot burns that remove organic layers and scar the roots can kill the plant, and several years of annual burning have also been shown to decrease beautyberry density and distribution.

So, whether you eat it, rub it on your skin, plant it in the garden, or watch deer, squirrels, and cardinals eat it, keep an eye out for the pinkish-purple berries over the next few months. But, I'm sure most of you do already.



Ted Bodner, Miller, J.H. and K.V. Miller. 2005.

QUOTABLE QUOTE

"The oldest task in human history: to live on a piece of land without spoiling it." —Aldo Leopold

TROPHY Corner



Chuck Kroll

Pepper Kroll harvested this great buck from Robertson County in December. A typical 11-point with a split brow tine, the buck's gross B&C was 140 1/8.



Billy Lambert

Chris Gregory killed this large feral hog from Madison County in November. With a live weight of 255 pounds, this boar also sported impressive cutters.



Jesse Oetgen

Texas A&M student Andrea Walker harvested this nice doe, her first deer, from Brazos County in December.

BIOLOGIST BIO – Heidi Bailey

Although **Heidi Bailey** grew up an avid outdoors-woman, prior to coming to work for TPWD in 1999 her work and educational background was more agricultural than wildlife-related. She worked through her high school and college years as a horse trainer, wrangler and general ranch hand and in 1995 graduated Summa Cum Laude from Texas A&M University with a degree in Animal Science. After working several more years breaking and training horses, and later as an assistant manager at a feedlot, it wasn't until she interned at Fossil Rim Wildlife Ranch that she decided to "shift gears" and pursue a career in wildlife management.

Heidi started her career with TPWD in 1999 as a wildlife technician, and after gaining several years of experience and picking up some master's-level wildlife courses, she moved on to become a regulatory wildlife biologist for seven counties in the middle Post Oak Savannah. As a biologist, her responsibilities include conducting wildlife surveys, providing technical guidance to landowners/managers and hunters, preparing management plans, conducting outreach programs, and performing periodic habitat management and restoration activities. Heidi feels that her real-world experience in ranching

has been an asset in being able to communicate knowledgeably about livestock management practices in relation to wildlife and habitat management in the region.

Heidi is the top Wildlife Tracker within TPWD and has received Level 3 Track and Sign Interpreter certifications in two regions of the U.S. from CyberTracker International. Besides tracking, her other passion within the job is native range restoration. She has conducted prescribed burns across the state and considers educating landowners about the benefits of fire a top priority. Likewise, she actively works to promote the eradication of exotic pasture grasses and the restoration of native grasses and forbs. As she likes to put it, "I spent five of the best years of my life learning how to grow the cleanest high-quality Bermudagrass pastures possible, and now I teach people how to kill them."

Heidi has been married to her husband Larry for eight years, and when she is not working she enjoys wind-surfing, fly-fishing, hog hunting, running and cooking "if it don't hurt going down it's no good" Tex-Mex food. Contact Heidi at (903) 881-9684 or by e-mail at heidi.kryger@tpwd.state.tx.us.

QUOTABLE QUOTE

"We abuse land because we regard it as a commodity belonging to us. When we see land as a community to which we belong, we may begin to use it with love and respect."

—Aldo Leopold



WILDLIFE Profile

Rio Grande Turkey

(*Meleagris gallopavo intermedia*)

Jay Whiteside and Billy C. Lambert, Jr.



Ted Bodner

the Eastern has a larger range and population size as compared to the Rio Grande.

The Rio Grande turkey is a large bird, with males (gobblers)

weighing up to 25 pounds and females (hens) weighing up to 12 pounds. Mostly flightless, Rios only fly relatively short distances, usually to elude predators or to fly up to roosting sites. Males are easily distinguished from females by their larger size, darker and more iridescent (shiny) feathers and long spurs, and usually by the presence of a beard protruding from the center of the chest (although as many as 10 to 20 percent of hens can have a small, thin beard). Relative to hens, gobblers also have more pronounced dewlaps (a fold of skin extending from the head to the front of the neck), caruncles (fleshy growths occurring below the dewlap but above the feathers on the neck), and snoods (a fleshy growth originating from the top of the head just forward of the eyes and drooping downward). Vocalizations include yelps, purrs and clucks for both sexes, with males emitting loud gobbles, especially during the spring mating season.

As day length increases, the turkeys' biological clocks begin to steadily wind towards the spring breeding season. Turkeys will begin to separate from their winter flocks, which are typically segregated (male and female), from late March to early

April. They will then scatter throughout mostly upland habitats to begin their annual mating ritual. During this time, the male turkeys are constantly trying to win the favor of eligible hens by gobbling and strutting.

Following courtship and mating, bred hens will begin scouting the uplands for suitable nesting sites. Hens look for nest sites that provide concealing herbaceous cover and are within a quarter of a mile from a permanent water source. Good nesting cover for turkeys includes areas with tall grasses and forbs, or woody cover that is adequately screened with herbaceous vegetation or vines. Research has shown that a majority of nesting hens (87 percent) select sites that contain herbaceous or woody cover that is greater than 18 inches tall in order to help hide the nest from predators, reduce wind movement at ground level, and provide favorable climatic conditions (lower temperature, and higher humidity) for incubating the eggs. Some common plants associated with good nesting sites include little bluestem, big bluestem, yellow indiagrass, Canada wild rye, Texas wintergrass, and sunflowers.

Once hens have selected nesting sites, they will begin laying clutches of eight to 12 eggs. The hen will typically lay one egg per day until she has a full clutch. After the hen has completed laying, it usually takes about 26 days for the eggs to complete incubation, at which

The recovery of the wild turkey ranks as one of North America's most successful wildlife management stories. By the 1920s it was estimated that as few as 30,000 turkeys existed within the entire United States. But now, due to the efforts of state and federal wildlife agencies, private landowners and conservation organizations, there are more than 7 million birds in North America. The Rio Grande turkey (*Meleagris gallopavo intermedia*) is one of five subspecies of wild turkey found in the United States, three of which are found in Texas.

The Rio Grande population is estimated at slightly over 1 million birds, with the majority found in Texas, Oklahoma and Kansas. The majority of Texas Rios are found throughout the Cross Timbers, Edwards Plateau, Panhandle and South Texas Plains ecological areas, but they can also be found within the western edge of the Post Oak Savannah and Blackland Prairie regions as well. Due to range expansion and state-sponsored transplanting, populations outside the state can also be found in Mexico, Colorado, New Mexico, Nebraska, South and North Dakota, Utah, Washington, Nevada, Idaho, Oregon, California and Hawaii. Of all the wild turkey subspecies, only

time the poults hatch one by one. Hatching typically occurs from late May to early June. If the first nesting attempt is not successful due to nest predation or a weather event, the hen will relocate to another area and lay a second clutch of eggs smaller than the first (8 to 10 eggs).

After all eggs have hatched, it will take the poults about 12 to 24 hours to completely dry and become fully coordinated. At this time they are able to follow the hen and begin foraging on their own. Because the newly hatched poults require a high-protein diet, the hen will lead them to areas with plentiful insects. It is also important that foraging areas for poults have ample amounts of tall bunchgrasses and low-growing woody brush for protection from predators. The hen and poults will continue to utilize this type of habitat almost exclusively for the first two to three weeks of the poults' lives.

Once the poults are two to three weeks old, they begin replacing their natal down with juvenile plumage. This is important because newly acquired plumage will allow them to fly short distances and evade predators. Additionally, at this stage of development the poults' diet begins to switch from insects to plant material. This added versatility in the diet makes finding nutritious foods much easier, which will greatly help in survival throughout the remainder of the summer. From this point on, poults will continue to grow and become less and less reliant on the hen for protection. By early fall, the poults will be fully grown and begin molting into their sub-adult plumage.

Maintaining a stable population of wild turkeys is heavily reliant on reproductive success from year to year. Therefore, the number one management priority should be

to ensure that the habitat remains suitable for successful nesting and brood rearing. Fortunately, this is one of the easiest habitat types to manage for, unless an overall habitat overhaul is in order.

Grazing management (and associated habitat conversion to "improved" grasses) is the single most important land use practice affecting habitat quality for Rio Grande turkey. The most efficient and sustainable way to manage livestock that doesn't compromise habitat for wild turkeys is by properly stocking your rangeland and rotating livestock through multiple pastures. Relatively light stocking rates prevent overuse and elimination of plants important to turkey, and a good rotational grazing strategy allows the plants time to recover from the grazing pressure.

Deferring pastures, or portions thereof, from grazing for one or more years is a relatively quick and easy way to provide nesting cover for wild turkeys (assuming there are ample native species). To ensure that areas are large enough to prevent excessive predation, it is generally recommended that deferred areas be at least 100 acres in size (smaller if there is good nesting cover adjacent to, or very close to the chosen

site). While deferment is important, and needed in most cases, it is recommended that the areas be grazed every two to three years between the months of July and August, and that grasses be allowed to recover before going dormant (provides suitable nesting cover the following spring).

Another important management technique involves shallow strip-disking during the fall, which encourages growth of seed-producing and insect-attracting forbs without harming the warm-season bunchgrasses important for nesting cover. Minimizing mowing practices is also important in order to encourage residual grass and forb cover, as well as allowing woody cover to become established in larger openings.

Many area landowners and hunters lament the decline of turkey in the Post Oak Savannah and Blackland Prairie. Indeed, there is nothing like the sight and sound of a big gobbler on a still April morning. While massive native habitat loss and alteration has made turkey population recovery a challenge, with good native habitat management and diligence from landowners, hunters and conservation organizations, we may once again see populations increase in western Post Oak Savannah.



Billy Lambert

POST OAK SAVANNAH TURKEY RELEASE

Billy C. Lambert, Jr.

Several biologists convened in February to trap Rio Grande turkey in the Panhandle and relocate them to Navarro County as part of an effort to increase turkey numbers in the area. Jay Whiteside, technical guidance biologist for the Post Oak Savannah, and David Sierra, Post Oak Savannah district leader, spearheaded the effort, which went surprisingly smoothly.

As you might imagine, it can be a pretty involved process to trap, house, transport and release wildlife from one area to another. First and foremost, Whiteside needed to identify and quantify available habitat to make sure the birds would not only survive initially, but also be able to successfully reproduce. Area biologists frequently receive requests to transplant birds onto their property, but rarely are we able to find large enough blocks of suitable habitat to justify the actual moving of birds.

Luckily, in the Navarro County area, there is a large cooperative of properties that have banded together to manage native habitats for upland game bird recovery. According to Whiteside, "Since its inception in 2006, the Western Navarro Recovery Co-op has grown to 33 members with a cumulative land base of close to 30,000 acres." Within this area, Whiteside was able to locate three release sites that displayed the "right" habitat conditions. "Each release site had a good combination of winter and summer habitat types (wooded riparian areas and native grass uplands) and a demonstrated dedication by the landowners to manage their property to maintain healthy habitat conditions," Whiteside said.

Although there were a limited number of birds that already resided in the area, the population had remained low for many years. As Whiteside explains, "The purpose behind this transplantation project was to increase the population to a density level that could become sustainable and to interject new genes into the existing population."

Next, Whiteside needed to locate areas that were willing to give up some of their birds, and this is where cooperation from Panhandle biologists was crucial. They were able to identify four areas where turkey numbers had increased to the point that they had become a nuisance. In one case, turkey were decimating peanut crops, and in another case, the birds were playing havoc with golfers on a golf course. While the intent wasn't to eradicate birds from those areas, the populations were certainly high enough and stable enough to provide a few of them with "free transportation" to the Post Oak Savannah.

Over the course of three days, a little over 130 wild turkey were caught using rocket nets and walk-in traps. The birds were sexed, aged, banded and placed into transportation boxes. After a few unintentional "get-aways" at the trap site, 130 birds made the trip to Navarro County and were released. Multiple news agencies covered the releases, and many of the area landowners were on hand as well. As summed up by Whiteside, "The Rio Grande turkey transplantation from the Texas Panhandle to western Navarro County would not have been possible without the dedication to conservation demonstrated by the Western Navarro Recovery Co-op." Initial reports indicate that the birds have settled in nicely and new poults have already been seen.

QUOTABLE QUOTE

"If we lose our wilderness, we have nothing left worth fighting for." —Aldo Leopold



Sue Price

RESEARCH Summary



Billy Lambert

EXOTIC MAMMALS COMPETING WITH THE NATIVES

by Billy C. Lambert, Jr.

with feral hogs and fire ants. But with other species, such as exotic ungulates (like axis, sika, fallow deer, aoudad sheep, blackbuck antelope, etc.), their presence seems to gain the favor of hunters and landowners because of their year-round hunting potential and aesthetics. This doesn't lessen, however, the potential negative impacts on habitats and other wildlife species.

Research was conducted by the Texas Parks and Wildlife Department on the Kerr Wildlife Management Area in the 1970s to determine the effect of exotic ungulates on white-tailed deer in the Hill Country of Texas. There were essentially two phases to the research. First, food habit studies were conducted to determine diet preferences of white-tailed deer and some species of exotics. Second, select species of exotics were placed into enclosures with white-tailed deer to determine how the populations would respond.

For the food habits part of the research, diets were determined for white-tailed deer, axis deer, sika deer, fallow deer, blackbuck antelope and aoudad sheep. Not surprisingly, it was determined that white-tailed deer preferred forbs (broad-leaved herbaceous plants) and browse (leaves and stems of woody plants), while grasses made up very little of the deer's diet. It was also determined that diet preferences for the exotic species were the same as that of the white-tailed deer. But, what was interesting was

that when preferred forages were less available, the exotics were able to switch over to a grass diet whereas the white-tailed deer could not. In a practical setting, this means that exotics compete directly with white-tailed deer for food resources even under the best of conditions, and as preferred foods become less available through competition or other factors, the exotics are able to thrive on lesser quality food while native white-tailed deer cannot adjust. For the white-tails, this means reduced diet quality and all of the negative effects associated with it (decreased reproductive success, decreased body weights, reduced antler quality, increased susceptibility to parasites and disease, decreased physiological condition, etc.).

For the second part of the research, three separate 96-acre high-fenced enclosures were used and all grazing animals were removed from the enclosures three years prior to the beginning of the research (to make sure the pastures were healthy going into the study). At the start of the study, two white-tailed deer bucks and four does were placed into an enclosure with two sika bucks and four sika does. Similarly, six white-tailed deer (two bucks and four does) were placed into the second enclosure with two axis bucks and four axis does. For the third enclosure, only two white-tailed deer bucks and four does were added (to serve as a control for comparison). After this point, no additional outside animals were added and none

This article summarizes research conducted on the Kerr Wildlife Management Area by biologists William E. Armstrong and Donnie E. Harmel. The original TPWD publication number is PWD LF C2000-0103 (11/81) and can be found on the web at www.tpwd.state.tx.us.

The popularity of exotic wildlife remains high despite the well-documented negative effects of introducing animals into ecosystems from which they did not originally evolve. Disease and parasite transmission; competition with, and displacement of, native species; habitat destruction and alteration; and predation have all been documented to occur following the introduction of non-native organisms. Researchers at Cornell University have estimated that as many as 50,000 exotic species have been introduced into the United States, causing losses adding up to almost \$120 billion annually. Plus, this does not include forms of damage to which monetary value cannot be assigned, such as animal extinctions.

The downside of some introduced species is readily apparent, such as

were removed. Deer were allowed to compete freely for available food resources.

In the sika enclosure, nine years after the study began the number of sika deer had increased to 62 animals while all of the white-tailed deer had died. The white-tailed deer herd initially increased for three years to a maximum of 15 animals, but numbers dropped thereafter until none remained after nine years.

In the axis enclosure, the axis deer increased to a maximum herd size of 21 animals after eight years. A die-off followed, leaving 15 axis deer in the enclosure. After white-tailed deer in the enclosure increased to just 11 animals during the study, only three non-breeding

animals remained after the nine years.

In the control enclosure (where only white-tailed deer were added), the population increased initially and remained relatively stable thereafter, with numbers ranging from 11 to 17 total animals. After the nine years of the study, 14 white-tailed deer remained in the enclosure.

From the study it is apparent that when white-tailed deer have access to available foods, populations respond positively. But, as quality foods become less available, they are not able to adjust their diet to lesser-quality foods, and populations suffer. The exotics, however, are able to adjust their diet to lesser-quality foods, at least to the point that they can sustain populations. As one of the keys to success-

ful deer management is to minimize competition for the very best food items, presence of exotic ungulates do not appear to be a desirable management option, especially when the white-tails already have to compete with themselves, and usually livestock as well, for food items. Plus, a manager must consider other potential negative effects that occur on overstocked range (whether by livestock, excessive white-tailed deer numbers, addition of exotic ungulate species, or combinations thereof), including habitat damage and elimination of preferred food items. If exotic species are desired, it is important to diligently control their numbers to reduce competition for food resources.

UPCOMING Events

Small Acreage Landowner Workshop

Texas Parks and Wildlife Department • Tyler Nature Center, Tyler, TX
August 29, 2009 • 8:00am-5:00pm

Items covered will include presentations and demonstrations by TPWD and Texas Agrilife Extension staff on habitat and wildlife management techniques applicable to East Texas. This is a free seminar although pre-registration is required. For more information, contact Larry LeBeau at (903) 566-1626 or at larry.lebeau@tpwd.state.tx.us.

Quail Restoration Workshop

Lane Ranch • Blooming Grove, TX
September 4, 2009 • 8:00am-3:00pm

Items covered will include quail biology and population management, quail restoration, a Western Navarro Quail Restoration Initiative overview, brush sculpting for wildlife habitat, rangeland planting and seeding equipment, grazing management, and tour of quail habitat on a local property. Lunch is provided; please RSVP by September 1 by calling (903) 654-3075.

Executive Director
Carter P. Smith

Editor, Post Oak Savannah Wildlifer
Billy C. Lambert, Jr.



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