

POST OAK SAVANNAH WILDLIFER

TEXAS
PARKS &
WILDLIFE



July 2012 Information for landowners and hunters in and around the Post Oak Savannah Volume 4, number 1



Photo by Billy Lambert

Most wildlife made it through the drought and fires of 2011 surprisingly well.

IT RAINED, FINALLY

Billy C. Lambert, Jr.

Many folks will remember 2011 as the year it didn't rain. At least not very much. Most of the state endured one of, if not the, worst single-year droughts ever recorded. At one time during the summer, over 70% of the state was declared to be in exceptional drought conditions. Lake levels receded, stock tanks dried up, row crops were reduced or non-existent, hay prices went through the roof, and most folks with livestock were forced to either reduce their herd or sell out completely.

Accordingly, wildlife habitat in the state didn't fare much better. Although estimates vary, up to 500 million trees died in last year's drought, 5.6 million in urban areas alone. But, most wildlife species made it through the drought in surprisingly good shape, a testament to the fact that wildlife evolved with periodic drought conditions and possess the amazing ability to adapt when the need arises.

Other folks will remember the fires. From November 10, 2010 to October 31, 2011, almost 28,000 fires located throughout the state burned almost 4 million acres of Texas' landscape. Over 2,800 homes were destroyed and over 2,700 other structures were lost as well. One fire in particular, the Bastop Complex Fire, will go down in history as Texas' worst fire. Sadly, 4 people, including 2 firefighters lost their lives in the fires. Indeed, 2011 was a year of suffering.

But, as bleak as last year was, Mother Nature finally decided it was time to let it rain. And rain it did. Following the driest year ever recorded, precipitation in Brazos county was the highest ever recorded for

the months of both February and March. And, good rains continued into May, June, and July. Pastures that seemed as if they would never be green again sprang back to life and stock tanks are full once again.

There have also been a few changes within the district to tell you about since the last issue of the newsletter. Due to budget constraints, sadly we lost our Interpretive Specialist Irene Hammel based out of Tyler. Also, Nathan Garner, Regional Director for Region 3, recently resigned and Clay Brewer took over as the Interim Region 3 Director. Corey Mason was named as the full-time replacement and Corey will assume the new Region 3 Director duties in August. And finally, Aron Flanders, Diversity Biologist, took a position in Kansas last fall and Dave Holdermann was named as his replacement.

I hope you enjoy the newsletter, and as always, feel free to distribute to any and all that are interested in reading it.

If you would like to unsubscribe to this newsletter or if you received this e-mail from someone other than TPWD and would like to subscribe, please send an e-mail indicating such to billy.lambert@tpwd.state.tx.us

PLANT Profile



Photo by Billy Lambert

LITTLE BLUESTEM

(*Schizachyrium scoparium*)

Billy C. Lambert, Jr.

Of the “Big 4” native prairie grasses (big bluestem, little bluestem, indiagrass, and switchgrass) that once dominated the tall- and mid-grass prairie regions, only little bluestem (*Schizachyrium scoparium*) can still be routinely found throughout the Post Oak Savannah and Blackland Prairie. While the other species still occur, the adaptability and resilience of little bluestem makes it a frequent sight in the area.

Little bluestem is one of the most widely distributed native grasses in North America and is most prevalent in tallgrass prairies of the Central and Southern Great Plains (that once occupied an area in excess of 400,000 square miles). Despite the fact that less than 1% of the original tallgrass prairie remains today, little bluestem can be found from Canada to Mexico and in almost every state. Little bluestem is the official state grass of Nebraska and Kansas.

Although associated with the tallgrass prairie, little bluestem is usually considered more of a midgrass, reaching an average height of 3 or 4 feet (some of the other tallgrass species easily reach heights of 8 feet or more). It also falls with the warm-season and perennial classifications.

Individual plant heights can range from 20-80 inches with multiple hairy stems originating from a single fibrous root system. The basal shoots are flat and the stems are grooved above each node with a smooth sheath. The leaves are also smooth, but hairy near the sheath. Leaves range from 3 to 10 inches in length and 1/16- to 1/4-inch wide and frequently fold, or droop, with maturity. White, fluffy seed head clusters develop in the late summer and are about 3 inches long. The seed heads mature in October and November and there are roughly 255,000 seeds per pound.

Little bluestem is long-lived and has a deep, fibrous root system (5 – 8 feet), making it very drought-tolerant and able to withstand periodic burning. Although a bunchgrass, it can be semi-sod forming in sub humid areas. The plant reproduces through tillers and seeds.

Growth begins in late spring and continues through summer until the first killing frost in the fall. In accordance with the name, leaf and stem color during the growing season is a light blue or aqua color. But, most people are more familiar with the rust or light brown coloration of fall and winter.

Little bluestem prefers upland sites with dry or well-drained soils and full sunlight. But, it can grow on a variety of different soil types. Likewise, it also has some shade tolerance. But, with little flooding tolerance, it is rarely found in bottomland habitats that routinely flood.

In addition to its prevalence and importance in native prairie ecosystems, little bluestem is also a very popular ornamental plant and is commonly used in landscaping. It can also be a useful plant for erosion control and tends to prefer sites with a pH of 5.5-7.5.

As with many herbaceous plant species in the Post Oak Savannah and Blackland Prairie, the seed bank should contain viable little bluestem seeds in areas where conditions are suitable for growth. Exceptions may be sites that have been continually row-cropped for many years, sites where excessive herbicides have been applied, and pastures overgrazed for many years.



Photo by Billy Lambert

If reseeding is necessary, little bluestem should be seeded early in the spring. Sites should not be fertilized as this tends to encourage growth of non-native invasives (such as bermudagrass and bahiagrass) as well as weeds. Drilling the seed no more than 1/4-inch deep is preferred. But, the seed can be broadcast as long as a packer is used to ensure good soil-seed contact. The seeding rate should be around 10 pounds of seed per acre. Remember that when reseeding, it is always better to include little bluestem in a diverse mix with other native prairie species rather than a monoculture of only bluestem.

Once established, stands can typically be maintained and managed through periodic prescribed burning, flash grazing (high intensity-low frequency grazing), and infrequent mowing/haying. But, do



Photo by Billy Lambert

got graze the site during the year of establishment and preferably for the year following. As with most grass species, do not graze more than 50% of the current year's biomass or growth.

Little bluestem is a highly desirable grass species, both for livestock and as wildlife habitat. The grazing value is medium-high and is readily used by livestock, although it tends to decrease with heavy or continuous grazing pressure.

From a wildlife perspective, little bluestem provides quality thermal, hiding, and nesting cover (lack of suitable bunchgrass habitat that bluestem provides is a major factor limiting the recovery of quail and turkey populations in the area) and the seeds are readily used by many small mammal and bird species.

TROPHY Corner



Photo by Scott Jenkins

Jim Rogers harvested this tremendous low-fence 11-point from Robertson county with a bow last November. The deer had 26-inch mainbeams, a 24 1/2-inch inside spread, and grossed 177 1/8.



Photo by Billy Lambert

Julie Lambert recently killed this nice feral hog, her first, in Robertson County.



Photo by Seth Anderson

TPWD Game Warden John Thorne killed this public land 11-point with a bow last year on the Richland Creek WMA in Freestone County. With an inside spread of 21 7/8, the deer grossed 177 even.

BIOLOGIST Bio



Photo by Terry Lange

Stephen Lange was born in Mesquite, Texas and as a young child beckoned to leave urban sprawl for the rural outdoors. Most of his family still bodes in the small towns of the Hill Country and South Texas Plains near San Antonio. Coming from rural ranching roots he grew up around firearms and was introduced to hunting and

fishing at an early age. His personal interests and inquisitive nature eventually grew his passions into a career. As a teenager he and his Father were avid public hunters frequenting the areas just east of Dallas. Good maps and aerial photography was the key to unlocking the secrets of public lands. This interest in “maps” paved the road that he followed into his work.

Stephen attended Texas A&M University-Commerce completing two degrees in natural resource related fields. He graduated with a BS degree in Geography and a Texas Teachers Certificate in 1992. During his graduate work he was a high school teacher and track coach at a 3A school in Dallas. He graduated with a MS degree in Earth & Environmental Sciences in 1997 and began his first resource work as a volunteer with the U.S. Army Corps of Engineers on the Buffalo Creek Wetland mitigation project in Ellis County. His work earned him the Commanders Award for Public Service in the spring of 1998 and he was also offered a summer ranger position at Joe Pool Lake in Grand Prairie. After one month of service, Stephen interviewed and was offered his first full time position with TPWD at the Old Sabine Bottom Wildlife Management Area near Tyler as a Wildlife Technician. He had been a public hunter on this area since 1995 successfully merging his hobbies and career for good. For six years he worked conducting public hunts, research projects, maintaining facilities, organizing canoe trips, and developing an extensive set of corresponding maps and global positioning system data (GPS).

In the fall of 2001 Stephen went back to school to learn more about GPS and GIS (geographic information system) technology. In 2003 Stephen graduated with an Associated of Applied Science degree from Tyler Junior College and a Certificate of Proficiency in Geospatial Technology. In 2004 he accepted a position at the TPWD regional office in Tyler as the first GIS Specialist with the Wildlife Division. He served District 5 and 6 along with three ecosys-

tem project offices assisting 64 employees and 21 wildlife management areas covering 60 counties in the Post Oak and Pineywoods of East Texas. Here he produced literally thousands of maps supporting public and private lands with their wildlife management efforts. Since then he has been on the cutting edge of new computer technologies as applied to natural resource and wildlife management with programs such as ArcView, ArcMap, Google Earth, MapSource, SAS, and TWIMS. In 2006 he returned to college again at UT Tyler to finish three post-graduate courses to qualify him as a wildlife biologist with TPWD and The Wildlife Society. Subsequently he was promoted to a bi-regional program specialist for information science for the division in August of 2008.

As the current GIS/TWIMS Program Specialist for Regions 3 and 4, he over sees the application and maintenance of geospatial and database technologies as it applies to wildlife operations, technical guidance, and public use. He currently supports 117 TPWD staff covering 99 counties and 39 of the state’s 50 wildlife management areas in the Post Oak, Pineywoods, South Texas Plains, Rio Grande Valley, and the entire Gulf Coast. With 15 years of resource experience and 5 years of secondary education he is the head trainer and instructor for many department programs. He has the pleasure of working across all the areas of Texas covering family, hobbies, and education. His passion for learning has also earned him another 40 plus hours of post graduate work in recreation and park science.

Stephen’s other interests include birding and kayaking with conservation work centering on rivers and streams. In 2009, with Gina Donovan and Adrian Van Dellen, he co-authored the *Neches River User Guide*, a paddlers guide and natural history of the Neches River in Texas. The guide contains over 40 detailed maps and insets for access, navigation, and recreation along the Neches River from the Lake Palestine Dam in Smith County to the Downtown Dock and Lawn in Beaumont, Texas. The project was edited by Andrew Sansom, former executive director of TPWD, and funded by *Texas A&M Press*.

Stephen met his future wife Terry in church in 2001 and they were married in the fall of 2003. They live in Tyler where Steve is an ordained deacon. Terry is also an avid outdoor enthusiast and loves to hunt, fish, and kayak. Their family now owns property in Cherokee and Houston counties and you could almost say Stephen’s part time job is being his wife’s full time hunting and fishing guide. You can contact Stephen at 903-566-1626 ext. 208 or by e-mail at stephen.lange@tpwd.state.tx.us.

WILDLIFE Profile



Photo by Billy Lambert

TIMBER RATTLESNAKE

(*Crotalis horridus*)

Billy C. Lambert, Jr.

“Don’t Tread on Me.” This statement accompanying a coiled timber rattlesnake has quite an interesting history dating back to pre-Revolutionary War days. While the snake motif is generally attributed to Benjamin Franklin (with origins dating back to the very first political cartoon in press), the origins of the motto is a little more uncertain. But, it seems to have first appeared on the drums of Marines enlisted for the newly-created Continental Navy in 1775.

Shortly thereafter, after seeing the drums, an anonymous writer (that most scholars now agree was most likely Benjamin Franklin) made a case for the rattlesnake as a symbol of America. First, it was found only in America. It has sharp eyes (vigilant), isn’t aggressive unless cornered, never surrenders, and never attacks without advance notice. And then there were the rattles (original versions of the snake showed 13 rattles, representing the 13 colonies), each distinct, but working together as a whole. When you think about it, the rattlesnake may have worked well as the National symbol. Regardless, the symbol had come to represent American unity, independence (in the case of the Revolution), and defiance.

The timber rattlesnake (*Crotalis horridus*), also known as the canebrake rattlesnake or velvet tail, is a large venomous snake found throughout the eastern United States from Minnesota and New Hampshire south to Texas and Florida. Found only in the eastern third of Texas, timber rattlesnakes are the second largest venomous snake in Texas and the third largest in the US. The scientific name is Latin for “dreadful bell, or rattle”.

Most adults average 3-4 feet in length and weigh 1-2 pounds, although larger specimens can reach sizes of 6 feet or more with weights approaching 10 pounds. The maximum reported length is 74.5 inches. While most wild timber rattlers live up to 10-15 years, captive animals have lived for 37 years.

Timber rattlesnakes are a very striking snake (pun intended). Designed for camouflage, the dark brown or black V- or M-shaped zigzag bands on the gray body work well as concealment in understory habitats. A copper/bronze vertebral stripe runs the almost the length of the body, wider near the head, and tapering down towards the tail. The final few inches of the body leading to the rattle is completely black (hence the nickname velvet tail). Color variations do exist and some individuals appear almost black.

Habitats vary across their range, but the snakes generally prefer deciduous forest and dense woodlands with relatively closed canopies. Rough and rocky terrain is also preferred, where available. In colder climates, timber rattlesnakes den in rocky crevices, often with other snake species. Activity is mainly diurnal and crepuscular (active during daylight hours, especially mornings and evenings), although nocturnal activity is common as well, especially during hot summer months.

Prey items mostly include small mammals, birds, frogs, and other snakes. Like other pit vipers, timber rattlesnakes have a heat-sensitive opening, or pit, on either side of the head between the eye and nostril. This sensory organ is used to detect prey and potential predators.

Males reach sexual maturity in 3-5 years, but for females it can be as long as 10-11 years depending on location.



Photo by Billy Lambert



Photo by Billy Lambert

Because of the late sexual maturity, the relatively short lifespan, and because females only reproduce every 2-5 years, females produce relatively few litters over their lifetime. Population growth, therefore, is very slow.

Mating season occurs in the spring. Gestation is 4-6 months, meaning that young are born in late summer or fall. The young are born live (encased in a protective membrane that is shed shortly after birth) and typically consist of 5-20 individuals that are 10-17 inches in length. No parental care is given from the adult snakes, and the offspring have fully functional venom glands and fangs.

Rattlesnakes are born only with the first segment (button) of the eventual rattle. Each time a rattlesnake sheds its skin, a new segment is added to the rattle. While many assume that a snake can be aged by the number of rattles, the variability in molting tends to make age estimates inaccurate. Molting depends on the age of the snake (young snakes shed more often than older snakes) and how often each individual consumes prey. On average a timber rattlesnake may molt 3-6 times a year.

While caution should always be used where timber rattlesnakes occur, they are typically shy and not aggressive (perhaps the least aggressive of all rattlesnakes). Striking is not their first line of defense; most seem content with relying on their camouflage. Even after being confronted, most would still rather try to escape than strike. A majority of snakebites (not just rattlesnakes) occur when people try to handle, disturb, or kill the snake.

But, rattlesnakes are venomous, and because of their larger size and venom yield, bites from a timber rattlesnake can be life-threatening. The venom varies by geographic location, ranging from neurotoxic in the south, hemorrhagic and proteolytic in the north, to combinations of both. In some areas, the venom contains none of the above and is considered relatively weak.

If bitten by a timber rattlesnake, seek immediate medical attention by going directly to a hospital. Most "field treatments" (cutting into the bite, tourniquets, etc.) usually do nothing to help and quite often cause more damage.

While abundant in localized areas, the timber rattlesnake is listed as Threatened in Texas, meaning that it is illegal to possess, harm, sell, or disturb these snakes. Despite this, many are indiscriminately killed each year. This, combined with automobile mortality and massive habitat loss, in association with slow population growth, has led the snake to become a species of concern over much of its range; a situation I imagine Ben Franklin would disapprove of wholeheartedly.

UPCOMING Event!

WILDLIFE TAX VALUATION WORKSHOP

August 2, 2012

CSFD Fire Station 5

1601 William D. Fitch Parkway, College Station

Topics will include habitat management, erosion control, predator control, supplemental shelter, supplemental food, supplemental water, wildlife surveys, and preparing your management plan. Space is limited, registration will be limited to the first 30 participants. For more information, contact Billy Lambert at 979-279-9693 or billy.lambert@tpwd.state.tx.us

RESEARCH Summary

GRAZING AND WILDLIFE

Billy C. Lambert, Jr.

Merrill, L. B., J. G. Teer, and O. C. Wallmo. 1957. *Reaction of Deer Populations to Grazing Practices*. *Tex. Agric. Prog.* 3(5): 10-12.

Probably no greater factor in the Post Oak Savannah and Blackland Prairie affects wildlife density and distribution more than livestock management. Although livestock management and wildlife management can be compatible, improper livestock grazing practices can have disastrous effects on wildlife.

Aside from habitat manipulation, over-clearing land, and conversion of native habitats to non-native pasture grasses, many assume that livestock consume different foods than native wildlife species and that competition is minimal. While some livestock, such as sheep and goats, are known to compete directly with deer and other wildlife, even cattle display dietary overlap, especially when preferred food are limited (as often occurs during drought or on overstocked pastures).

Although countless research projects concerning the effects of livestock and grazing on wildlife species have been conducted, and volumes have been written on the subject, some of the early research appears to be as valid today as it was back then. As a case in point, Merrill et al. conducted research at the Sonora Experiment Station beginning in 1949 to examine the effects of livestock management on habitat and white-tailed deer.

Specifically, the study looked at the effects of 3 different stocking rates (low, medium, and high) and 5 livestock types (including combinations of cattle, sheep, and goats) on habitat condition and white-tailed deer densities. The study also compared continuous grazing versus a rotational grazing strategy that included pasture deferment.

The 3 stocking rates were 13.3 acres per animal unit (AU), 20 acres per AU, and 40 acres per AU, for high, medium,

Quotable Quote

I recognize the right and duty of this generation to develop and use our natural resources, but I do not recognize the right to waste them, or to rob by wasteful use, the generations that come after us.

Theodore Roosevelt



Photo by Billy Lambert

and low stocking rates, respectively. Livestock combinations included cattle only, goats only, sheep only, cattle/goats, and cattle/sheep/goats. The rotational grazing pasture utilized cattle, sheep, and goats at a the moderate stocking rate. Prior to beginning the research, the deer density across the area was estimated at 16 acres per deer.

While some of the methods used in the this older research wouldn't quite hold up to today's peer-reviewed research standards, it does provide interesting, informative, and useful data. The authors describe the deer response to grazing pressure as changes in "density". But, due to the relatively smaller pasture sizes (60– to 80-acres), a more accurate description in today's terminology might be "preference", a measure of whether deer tended to avoid, or be attracted to, a certain pasture.

Looking at the continuous grazing strategy (no pasture deferment) using goats only, after only 2 years, the high stocking rate showed considerable over-use of browse species, plus an increase in grass utilization for the second year. Moderate continuous grazing with goats only also resulted in heavy browse use. The deer densities for both of these pastures showed a significant decrease from 8 acres per deer prior to the study to 40 acres per deer. Even in the light grazing with goats only pasture, the deer density decreased to 32 acres per deer.

Similar findings were observed for the continuously grazed sheep only pasture. As quoted in the publication, "heavy grazing with sheep alone has resulted in marked range deterioration", and this was observed in both the high and moderate stocking rates. Only the light stocking rate did not noticeably degrade the habitat. But, deer densities declined across the board, averaging 40 acres per deer, 20 acres per deer, and 20 acres per deer for the high, moderate, and light stocking rates, respectively.

UPCOMING Event!

LANDOWNER WORKSHOP

A ONE DAY COURSE THAT WILL FOCUS ON THE NEEDS OF THE LANDOWNER

Featured Speakers

Dr. Dale Rollins - Founder, Rolling Plains Quail Research Ranch will discuss "Maintaining Habitat Quality"

Michael Brooks - Natural Resources Conservation Service will discuss "Erosion and Drought Management"

Billy Higginbotham - AgriLife Extension Faculty will discuss "Pond Management and Weed Control"

Brett Johnson - Texas Parks and Wildlife will discuss "Wildlife Tax Valuation"

David Sierra - Texas Parks and Wildlife will discuss "Prescribed Burning"

PRE-REGISTRATION \$50.00 LATE REGISTRATION \$75.00

Friday, July 27, 2012 - 8 a.m. to 4 p.m.

Texas AgriLife Research & Extension Urban Solutions Center
17360 Coit Road - Dallas, Texas 75252

For more information and registration visit: NTMN.org/landownerworkshop

Persons with disabilities who require special accommodations and/or alternative means for communication of program information (Braille, Large print, audiotape, etc.) associated with this meeting should contact Fred Burnett at 214/595/9920 at least two to three weeks prior to the meeting with his/her specific request.

Educational programs of the Texas AgriLife Extension Service are open to all people without regard to race, color, sex, disability, religion, age, or national origin. The Texas A&M University System, U.S. Department of Agriculture, and the County Commissioners Courts of Texas Cooperating.

Grazing by cattle alone was the best of the continuously-grazed pastures, based on deer response. But, although deer densities for both the high and moderate stocking rates remained at 15-16 acres per deer, the authors point out that these pastures joined a pasture that was lightly stocked and this may have influenced the density. The light cattle stocking rate resulted in pasture improvement and a resulting high deer density of 7.3 acres per deer.

For the combinations of livestock, the heavy stocking rate for the continuously-grazed pasture with cattle and goats resulted in a significant decline in habitat quality, resulting in elimination of deer from that pasture (other than an occasional buck spotted during the rut). The moderate stocking rate with cattle/goats caused a slight decline in deer numbers, with a density of 20 acres per deer. Only the light stocking rate showed habitat improvement for this animal grouping, with a resulting increase in the deer density to 11.4 acres per deer.

As expected, the high stocking rate for the pasture containing cattle, sheep, and goats caused considerable habitat damage (although not as high of browse use as on the goats only high stocking rate), resulting in the near-elimination of deer from that pasture. Only 2 deer were occasionally observed in this area. The moderate stocking rate with cattle, sheep, and goats did not cause significant habitat damage, although the deer density declined slightly to 20 acres per deer. Similar to the pasture grazed lightly by cattle and goats, the pasture grazed lightly by cattle, sheep, and goats did not cause a decline in habitat quality and the deer density increased to 11.4 acres per deer.

From the results so far, it is apparent that the stocking rate and type of livestock should both be considered when deer management is a consideration. Only pastures lightly stocked were able to show an increase in deer, and even

then only for cattle only, cattle and goats, and cattle/sheep/goats.

Of all grazing strategies examined, the system incorporating pasture deferment, or rest, performed the best and showed the most range improvement. Discounting 2 areas that had significant brush removal due to a tornado, the deer density for the remaining 2 pastures averaged 10 and 6.7 acres per deer, the highest deer density observed during the study. Plus, despite the good results, pastures were rested only 4 months followed by 12 months of grazing. Current recommendations for the Post Oak Savannah and Blackland Prairie suggest that herbaceous vegetation (grasses and weeds) should be rested following grazing for at least as long as they are grazed, and woody vegetation be rested for at least twice as long as grazed.

The results from this study indicate that the type of livestock, the stocking rate, and type of grazing system are all important considerations in areas where landowners are interested in attempting to manage white-tailed deer populations. From a deer management perspective, luckily, sheep and goats are not typically used in grazing strategies in the Post Oak Savannah and Blackland Prairie regions. But, proper cattle grazing strategies that incorporate light stocking rates and pasture deferment should benefit white-tailed deer, as well as other wildlife species.

UPCOMING Event!

Northeast Texas Prescribed Fire Initiative

Joint Meeting with Red River Eastern Turkey Cooperative

Date: July 17, 2012

Time:
6:00 to 8:15 p.m.
Dinner is provided.

Location: McKenzie Methodist Church, Family Life Center, 1809 S. Donoho, Clarksville, TX

RSVP by:
July 12, 2012:
Lynn Golden at
(903) 427-3867
Red River County
AgriLife Extension



You are invited to attend a joint meeting of the Northeast Texas Prescribed Fire Initiative and the Red River Eastern Turkey Cooperative.

Program Items:

1. Welcome and Introductions
2. Red River Eastern Turkey Cooperative Business
3. 2013 NWTF Prescribed Fire Cost Assistance
4. How to Select a Burn Contractor
5. Open Discussion

The goal of this meeting is to provide an update to RRETC members and the general public on the 2013 prescribed fire cost assistance program.



This initiative is being presented in partnership by Texas Parks and Wildlife Department, Texas Forest Service, Texas AgriLife Extension Service, Natural Resource Conservation Service, U.S. Fish and Wildlife Service, National Wild Turkey Federation and The Nature Conservancy.

RESEEDING NATIVE PRAIRIE VEGETATION



Photo by Billy Lambert

Billy C. Lambert, Jr.

Both the Post Oak Savannah and Blackland Prairie ecoregions evolved as prairies supporting a dynamic mix of various tall and mid-grass species along with a diverse mix of forbs (weeds). As such, wildlife species found throughout the area included many prairie-adapted species, such as jackrabbits, bobwhite quail, wild turkey, loggerhead shrikes, roadrunners, horned toads, and many others (and even bison and pronghorn if you go back far enough).

But, over the years, most of these prairie and savannah habitats have been significantly altered to the point that true prairie systems are virtually non-existent. Much of the scattered oak/hardwoods that once dominated the Post Oak Savannah have been cleared for livestock production. Due to a lack of fire and prescribed burning, the wooded habitats that remain have become far too dense to be of much value. And, just about all of the diverse prairie habitat has either been converted to exotic pasture grasses (such as bermudagrass, bahiagrass, and KR bluestem), is overgrazed, or both.

As a result, most of the wildlife species that occur in the area now are considered habitat generalists (meaning they are adaptable and can survive across a variety of habitat types). Any species that rely heavily on prairie habitat have largely disappeared. Now, rather than being a common occurrence, many people are excited to see such animals as the quail and horned toads that they remember from when they were younger. While predators, such as fire ants, most often get the blame, large-scale population changes are almost always habitat-related.

Fortunately, many individuals are now interested in re-seeding prairie vegetation. While the short-term economic return may not be as significant, many take great comfort and satisfaction in attempting to reclaim prairie habitats and the resulting wildlife populations.

The first obstacle in establishing natives is usually to kill existing non-native vegetation, such as bermudagrass, in order to reduce competition. During the summer prior to planting, apply glyphosate at a rate of 5 quarts per acre over the area to be reseeded. A second application and/or spot-spraying may be needed before the growing season is over. When sprayed, the vegetation should be actively growing to ensure the chemical is circulated down to the root system; spraying drought-stressed vegetation typically is not effective.

The native seed mixture should be planted between December and February. Planting can occur as late as April, but the earlier the better. When possible, seeds should be planted using a no-till seed drill no more than ¼-inch deep (some species, such as eastern gamma grass, should be planted as deep as 1 inch, but ¼-inch should be fine for most species).

Do not use fertilizer on the seeded area as this tends to promote exotic grasses (like the bermudagrass) and other invasive weeds. Herbicides typically are not needed using the no-till method, although high-mowing (>8 inches) can be utilized, if necessary, to reduce competition. The re-seeded area should not be grazed for at least 2 growing seasons to ensure plant survival and growth.



Photo by Billy Lambert

A common sight throughout the Post Oak Savannah, much of the native prairie vegetation has been replaced with tame pasture grasses that provide little habitat for wildlife.

While the cost associated with re-establishing native vegetation can be high (usually around \$100 per acre for glyphosate and seed, plus planting and spraying labor costs), cost-share programs, depending on the availability of annual funding, exist through both the Texas Parks and Wildlife Department (PUB program) and the Natural Resources Conservation Service (EQUIP, WHIP, etc.). For information on the PUB program (Pastures for Upland Birds), contact Dave Holdermann at 903-566-1626 or at david.holdermann@tpwd.state.tx.us. For information on current NRCS programs, contact your local NRCS agent at 254-742-9800 or at <http://www.tx.nrcs.usda.gov>.



UPCOMING Event!



The Lonestar Longbeards Chapter of the National Wild Turkey Federation will hold their annual fundraising banquet at the Brazos Center in Bryan, TX at 6:00 pm on 21 August 2012. Silent and live auction, door prizes, and raffle items are up for grabs, including guns, limited edition prints, sculptures, feeders, blinds, knives, and many more outdoor-related items. Tickets include membership to NWTF and meal with open bar. Purchasers of a Hunters Table have a chance to win a gun and Table Sponsors are *guaranteed* a \$400 gift certificate to The Great Texas Gun Company. For information, contact Darrin Allen at 979-219-0286.

Species		% Mix	Pounds/acre	Adj. Rate	Price/pound	Price/acre
(Native) Little Bluestem	PER	40	4.5	1.800	\$11.00	\$19.80
Haskell Sideoats Grama	PER	15	5.0	0.750	\$9.00	\$6.75
Blackwell Switchgrass	PER	5	3.5	0.175	\$7.50	\$1.31
Cheyenne Indiangrass	PER	20	4.5	0.900	\$10.00	\$9.00
Sand Lovegrass	PER	4	2.0	0.080	\$8.00	\$0.64
Common Sunflower	ANN	3	5.0	0.150	\$15.00	\$2.25
Englemann Daisy	PER	1	18.0	0.135	\$34.00	\$4.59
Partridge Pea	ANN	4	13.4	0.536	\$10.00	\$5.36
Cuero Purple Prairie Clover	PER	4	9.0	0.360	\$16.00	\$5.76
Aztec Maximillion Sunflower	PER	5	3.0	0.135	\$25.00	\$3.38
		100%				\$58.84

A good, basic native plant mix for the Post Oak Savannah and Blackland Prairie ecoregions; additional species may be added.

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