



United States Department of Agriculture
Natural Resources Conservation Service

Helping People Help The Land
May/June 2011 Issue No. 9



The Reverchon Naturalist

Recognizing the work of French botanist Julien Reverchon, who began collecting throughout the North Central Texas area in 1876, and all the botanists/naturalists who have followed ...

Indian Blanket “Firewheel”

*Story by James Demoin
NRCS Rangeland Mgmt. Specialist
Goldthwaite, Texas*

Indian Blanket (*Gaillardia pulchella*) is a native, annual forb that can be found in various soil types throughout the state of Texas, and is most commonly identified along roadsides. This species develops from a tap root and grows to 24 inches high. The stems are pubescent and the shoots possess a mild, resinous odor. The leaves are aromatic, simple, alternate, and pubescent; the blades are lanceolate to oblanceolate, 3/4-3 inches in length, and grayish green; the margins are entire or slightly wavy; and the petioles are usually present, but sometimes absent. The involucre contains phyllaries, which are in three rows, appearing to be pubescent and grayish-green. Within the receptacle, the chaff acuminate at the apex; the heads are solitary and radiate, 1.5-2 inches wide; and the peduncles are pubescent. The ray florets are pubescent on the back side, three lobed, and the corollas are yellow above and red below, occasionally, solid yellow or red almost to the apex. The disk florets are best described by the reddish-burgundy corollas with anthers having yellow pollen. Each flower produces an achene.

Indian Blanket is just one of many important conservation species. This flower species attracts an array of pollinators, such as bees, wasps, flies, butterflies, and other insects. The leaves are moderately palatable and consumed mostly by whitetail deer. Additionally, the foliage provides cover to an extent, for many species of wildlife. *Description derived from the use of the Field Guide to the Broad-Leaved Herbaceous Plant of South Texas, Plants of the Texas Coastal Bend, and the USDA-NRCS Plants Database.*





By Ricky Linex
NRCS Wildlife Biologist
Weatherford, Texas

Diversity

Diversity is a good thing. With greater diversity—any group, work place, or ecosystem is healthier. The subjects covered in this May/June issue of the Reverchon Naturalist are quite diverse.

If you are a traditional Reverchon reader, and like to learn about native plants, there are excellent articles in this issue by new contributors James Demoin, Aron Flanders, Jason Singhurst, and Bruce Kreitler, as well as our regular contributor Znobias Wootan.

If you want to learn more about the history of the Cross Timbers region, then Robin Cole-Jett will bring you up to speed. Ron Sosebee will give you excellent information on timing mesquite control, which is a species both loved and despised in Texas. Those near the suburban and urban areas will find great joy in reading Gary Valentine's article on Grackle Rage.

Did I mention that diversity was a good thing. We have a great diversity of topics in this issue. We are always looking for new topics and contributors. Enjoy.

Aerial Spraying Mesquite for Control

*Story by Ron Sosebee, Ph.D., Professor Emeritus
Texas Tech University*

If you are interested in spraying mesquite aerially for control, now is the time to begin planning for that application. By the time that you read this, the mesquite will be fully leafed out, and probably in flower. May I remind you of the progression of development of mesquite throughout the growing season from dormancy to senescence, and its physiological changes throughout the growing season.

Mesquite is very well adapted to the environmental conditions where it is growing. The cliché that when “mesquite leafs out, spring has sprung” is a truism. Rarely does mesquite leaf out before the last freeze of the year, although it will occasionally happen. Mesquite's timing in the Rolling Plains is determined by the number of consecutive days during either December or January in which the daily minimum temperatures are below 30 F. The more consecutive days with the low temperatures below 30 F, the earlier the mesquite will break dormancy in the spring.

A tell-tale sign that bud break is right around the corner is when many of the mesquite twigs and young branches begin to turn a salmon or yellow green color. This color change is indicative that the physiological activity has been initiated and that bud break will soon occur. If you are planning to aerially spray mesquite, both the soil temperature at depths of 12-18 inches must be 75 F, or higher. If both soil temperature and phenological/physiological stages are not optimum, root-kill will be minimal and the results will be unsatisfactory.

(Continued on page 5)

Is there a Remedy for My Grackle Rage?

*Story and Photos by Gary Valentine
Retired NRCS State Wildlife Biologist
Temple, Texas*

Have you ever suffered from bouts of road rage? Well, I'm suffering more and more with moments of grackle rage. Splatters of bird excrement on our vehicles, whether parked in the driveway, Whataburger, or shopping mall, are the cause of my intense feelings.

Admittedly, I can't prove that those black devils are the source of the paint-eating uric acid splotches, but I'll bet that DNA analysis would prove that my accusations are correct. If so, what can I do about it?

Inquires about controlling these feathered delinquents usually yield the heart-rending reply that they are protected by the Migratory Bird Treaty Act (MBTA), a treaty that dates all the way back to the administration of Woodrow Wilson. Almost all birds in our country are protected by this treaty, the Endangered Species Act, or hunting regulations administered by the U.S. Fish and Wildlife Service (USFWS) and state fish and wildlife agencies.

There are a few exceptions. Feral (wild) pigeons, house sparrows, and starlings are afforded no protection by treaties, laws or regulations in our country. If one were tempted to dispatch these critters by firearm, they might be constrained by city ordinances or feelings of neighbors. The Texas Parks and Wildlife Department (TPWD) will require a hunting license, but otherwise, the feds and state boys will stay out of it.

Pigeons, house sparrows and starlings were brought to this country by Europeans as they settled our country. More recent introductions, such as the Eurasian collared dove, are increasing in number without the benefit of protection. As other exotic birds establish feral populations, they will probably not be protected by treaty, statute or regulation.

Under the MBTA, no one may kill or harm protected birds, including destruction of nests and eggs, unless they possess a permit issued by the USFWS. This federal agency issues several permits to qualified individuals for a variety of activities. The permit that I thought might apply to my problem is a depredation permit, which is issued to deal with protected birds for damage control purposes, such as protection of personal or public property or for human health or safety reasons. My vehicles are private property.

Upon downloading an application for a migratory bird depredation permit from the Internet, I quickly became discouraged. A fee of at least \$50.00 is required along with a waiting period of 60 to 90 days (bird poop can do a lot of damage to a vehicle's paint job in two months), plus I would be required to certify that I have read and understand Title 50, Part 13 of the Code of Federal Regulations. I did look into Title 50, Part 13, which led me to Title 50, Part 21, Subpart D – *Control of Depredating Birds*.

(Continued on page 6)



Great-tailed, Female Grackle

Antelope Horns (*Asclepias asperula*)

Story by Znobia Wootan

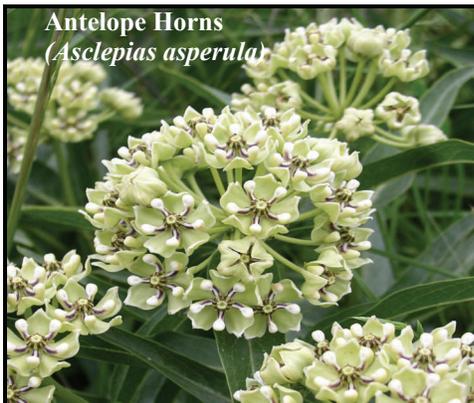
Photos by Native American Seed Company

Junction, Texas

No matter which direction I head out of Junction, I have seen Antelope Horns dotting the roadsides of central Texas. This milkweed is not finicky about water. It has a large tap root that develops quickly, which allows it to flower even during years like this one when rainfall has been pretty scarce. It prefers to grow in well-drained soil in full sun. The easiest method for planting is to sow the seeds outdoors in September-November. This gives the seeds the exposure to the moisture and cold temperatures that it prefers, so once the temperature is warm enough in the spring, the seeds will germinate. Beginning in June, aggressively trim back one plant at a time, which will provide fresh foliage for butterfly larvae all summer long. Another method includes a careful cold stratification in the refrigerator before spring planting.

This milkweed gets its name from the seed pods that look similar to the horns of an antelope. *Asclepias asperula* is its scientific name derived from Asklepios the Greek word for the god of medicine and asperula the Greek word for rough. In Greek mythology, the Greek god Asklepios brought Orion back to life. The Greeks believed that Asklepios could use his powers to bring any of the dead back to life. The constellation Asklepios is also called the serpent holder. As the scientific name seems to suggest Antelope Horns is credited with many medicinal properties. Cardiac glycosides that are present in the sap of the milkweed are allied to digitalins used in treating some heart disease. Native Americans made a tea from milkweeds as a tonic to strengthen the heart, and the Navahos used it as a treatment for the bite from a rabid animal. The same milky sap that the Native Americans used for medicinal purposes can also be toxic like so many modern medicines today.

Not surprisingly, antelope horn is normally deer resistant and livestock also tend to leave it alone because of the bad taste. The Monarch caterpillars capitalize on this toxic trait because once the milkweed is ingested the caterpillars also taste bad. The leaves of milkweeds are the primary food source for the Monarch caterpillar, and the flowers provide a nectar source for the adult butterfly having a high glucose content. One other interesting bit of milkweed trivia is that during WWII the silky down attached to the seeds was used for both regular life jackets and aviation life jackets. Milkweed silk is five to six times more buoyant than cork.



Antelope Horns
(Asclepias asperula)

Lush green slender leaves and blooms, left photo, provide a primary food source for the Monarch Butterfly, which is one of many pollinators, right photo, attracted to Antelope Horns. (Photo Credit: Native American Seed Company)



(Continued from page 2—Aerial Spraying Mesquite for Control)

Phenological development and physiological changes occur according to the following schedule:

- 1) Initially the new leaves and flower spikes emerge from the same meristematic region, and begin growth simultaneously. The leaves are initially pea green in color and unfurled. The flower spikes are initially closed, but soon open and develop into white flowers. It is during this period that the root carbohydrates, or energy reserves in the roots decline because of the new growth that is occurring during bud break and initial growth of the leaves and flower spikes. The carbohydrates from which the new leaves and flowers obtain their energy for growth and development has been stored in twigs and young stems within the proximity of the aerial buds, and do not come from the roots. **Aerial spraying mesquite during this period will be unsuccessful, regardless of what the soil temperature is at this time.**
- 2) After an average of 42 days or post-bud break, the leaves turn dark green and the flowers become yellow. Many of the yellow flowers will abort or fall from the flower spike. A maximum average number of pods that develop from yellow flowers/flower spike are six to eight, and often less.
- 3) From an average of 63-72 days or post-bud break, pod or bean elongation occurs. Pods will develop from about one-quarter inch to 6-8 inches in length. They will not be fully mature, but they will be full length and obtain these lengths in about 10 days.
- 4) After an average of 86 days, the pods are fully developed and mature and change color from green to reddish-purple to, ultimately, brown. After some period they fall from the tree.
- 5) The trees begin to reduce photosynthetic activity sometime from about mid-September to frost. The leaves will fall from the trees after a hard freeze (air temperatures drop to about 28 F and remain there for four hours, or more), but might hang onto the tree for some time after a light freeze. Leaves have hung onto some trees in the Rolling Plains until after Christmas, if the area has not had a hard freeze.

Therefore, usually the best time to spray mesquite is during the first two weeks of July if the soil temperature is more than 75 F at 12-18 inches deep, and the flowers have advanced to the pod elongated stage. If the soil is going to warm up, it will be warm by the first of July.

During a wet year, which is not the case this year, heavy soils might not warm up to 75 F even by mid-summer. In a dry year, such as this year, the soils might be sufficiently warm by the last week of May or the first two weeks of June.

Of course, the proximity of cotton or other susceptible crops might play into one's decision to spray mesquite. If susceptible crops present a problem, and you want to spray mesquite, then you must be willing to usually accepting less than satisfactory control.

If, however, the soil temperature and phenological/physiological stages are optimum, one can expect a very satisfactory control.

As always, one should hire a reputable applicator to assure that the application is correctly done and label directions are followed, or the environmental conditions and the stage of development of the trees will make no difference.

(Continued from page 3—Is There a Remedy for My Grackle Rage?)

Eureka! I thought that my cyber-search had proved most fruitful. Section 21.43 --*Depredation order for blackbirds, cowbirds, grackles, crows and magpies* – states that a federal permit will NOT be required to control these species when found committing or about to commit depredations upon ornamental or shade trees, agricultural crops, livestock, or wildlife. Also, when concentrated in such numbers and manner as to constitute a health hazard or other nuisance which should cover about every situation.

No notification of USFWS is required but there are provisions:

- 1) Dead birds may not be sold, but can be disposed of or utilized.
- 2) Either federal or state wardens must be permitted during the operation, if they so request, and will be provided with any information they request to justify the operation. That should be no problem, for when are these demons of dung not a nuisance.
- 3) State rules and regulations must be obeyed and TPWD does NOT require a permit, but requires a hunting license.

Wait! I may have cleared the federal and state hurdles, but what about the city. Ordinances prohibit the discharge of firearms within city limits with few exceptions. I doubt the city would grant an exception for me to shoot grackles. Even if they did, my nearby neighbors might become disgruntled with the incessant sound of my 20-gauge shotgun.

While owners of downtown businesses and the shopping mall might agree to allow me to shoot-up roosts in their landscaped trees during the night, our police would probably arrest me, throw me in jail, and throw the key away.

Maybe I could purchase or fabricate a trap and attract them with bait. I wouldn't sell them and, rest assured, I would dispose of them. Another impediment raises its ugly head. What if I trapped a mockingbird, our state bird, or a cardinal, the beloved mascot of the St. Louis MLB team? I had best release them alive and in excellent condition. Otherwise, I would become a criminal in violation of the MBTA and everything else legal and moral.

Dare I consider poisoned bait? With their obnoxious behavior, I'll bet I could design a structure that would exclude other birds, but probably not starlings because they're not protected anyway. Not a good idea - many citizens of our city would be greatly alarmed at the sight of dead grackles in their yards, streets and parking lots.



Grackles take flight in the early morning hours within many urban settings, such as this one in Dallas.

Remember in January when folks found thousands of dead blackbirds in Arkansas and Louisiana. The events made national news for several days and, while many folks may have thought good riddance, others were greatly alarmed and anxiously awaited findings of the experts as to the cause.

I suppose I could park my vehicles in the garage and walk about to conduct my daily business. What if the grackles made me the object of their defecations? Now, that would be outrageous!

Crossing the Timbers: A Historic Overview of the Cross Timbers Region

Story by Robin Cole-Jett

Educator, Author and Red River Historian

Photos by Ricky Linex, NRCS Wildlife Biologist

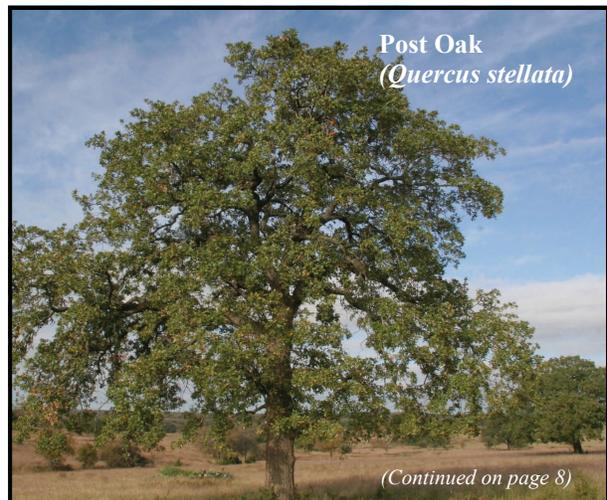
Stephen F. Austin was not just an enterprising immigrant to Texas – he was a surveyor and map maker, too. On one of his early maps of Texas, he coined the narrow bands of forest that crossed North Texas into Indian Territory the Cross Timbers, the first Anglo- American to do so. Before him, Spanish and Mexican geographers referred to the area as the Monte Grande, or big forest. Subsequent travelers would agree that the Spanish term did not do the forest justice – the oaks, walnut, and cedar trees that intertwined to form a stoic barrier amidst the edges of the Great Plains definitely proved a cross to bear. In 1832, Washington Irving poetically depicted the region as the cast iron forest because it was so difficult to traverse.

Geographically speaking, the Cross Timbers consist of groups of trees that stretch in several rows across the northern Texas and southern Oklahoma prairies. These rows tend to be between only five to thirty miles wide but several hundreds of miles long, clustering in larger groups around the Arbuckle Mountains before once again extending, like fingers, towards the Kansas border. To explorers and settlers coming into the region, this oddly-shaped forest made for a wary landscape. The copses of trees appeared oddly out of place as they nestled against the savannah of the plains. The oaks clustered so tightly together that the stands seemed impenetrable. In the years after Euro-American settlement, dense brush of ivy and scrub oak beneath the trees of the Cross Timbers further impeded movement. Much of the undergrowth could be traced back to the pioneers themselves, however, Plains Indians had started fires to clear the brush and keep the prairies open, a practice that American settlers ignored. That is why, according to historian and geographer Richard V. Francaviglia, many settlers built their communities at the edges of the great forest instead of creating clearings within.

The woods of the Cross Timbers are comprised of post oaks, blackjack oaks, bois d'arcs (also called Osage Oranges), and cottonwoods. Interspersed throughout are also walnut, pecan, and cedar trees. The trees exhibit complicated, shallow, and twisting root systems that seem to claw at the sandstone outcroppings, as if hanging on for dear life lest they topple from the oft-times strong prairie winds. In comparison to the huge forests east of Texas and west of the Rocky Mountains, Cross Timbers' trees are very short, which indicates extreme growing conditions of fluctuating temperatures and periods of drought.



Post Oak Acorns



Post Oak
(*Quercus stellata*)

(Continued on page 8)

(Continued from page 7—Crossing the Timbers)

The trees look almost tortured with gnarled limbs and contorted trunks. The pioneers saw the trees as indicative of the whole region beautiful, but not an easy place to live.

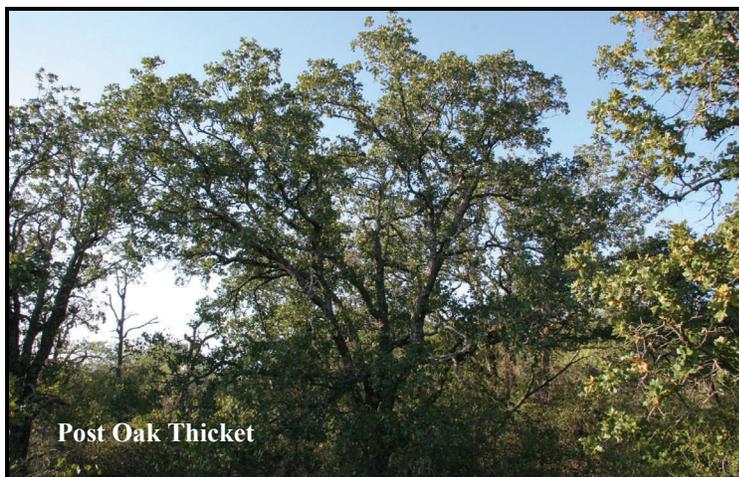
The Cross Timbers also represent a region in transition. In his diary documenting the journey to discover the headwaters of the Red River in 1852, Captain Randolph B. Marcy commented that the forest “forms a boundary line, dividing the country suited to agriculture from the great prairies which, for the most part, are arid and destitute of timber. It seems to have been designed as a natural barrier between civilized man and the savage.”

Likewise, historian Walter Prescott Webb pointed out that the 98th Meridian, which forms the western boundary of the Cross Timbers, is the line where rainfall drastically diminishes. That line is easily spotted in soil maps of Texas. The eastern Cross Timbers, nestled between the Blackland Prairies to the east and the Grand Prairie to the west, tend to have straighter trunks and larger limbs than do the trees of the western Cross Timbers, which lie between the Grand Prairie to the east and the North Central Prairies to the west.

Of course, a large portion of the Cross Timbers landscape is the open prairie. The Blackland and Grand Prairies, which have limestone and shale bases, provide fertile soil suitable for cotton, corn, and peanut farms. The North Central Prairies have clay and sandy soils, and cattle ranches that have become the agricultural mainstay. In fact, one of the largest operations in Texas, the Waggoner Ranch, got its start along the western Cross Timbers near Decatur, where bluestem, Indian, and gamma grasses dominate the prairies. The Cross Timbers themselves only grow along the sandstone outcroppings between the seas of grass, and along the many streams that bisect the region.

Understanding exactly what and where the Cross Timbers are today, though, can prove challenging, for the forest has been reshaped numerous times. Because of the trees’ contortions, most homesteaders tended to use the timber for firewood or building picket barns and small log cabins, but not in building larger homes. Many relied instead on the underlying sandstone to erect their structures, or had straight timber shipped to them to build clapboard houses.

The changing human landscape caused the Cross Timbers to grow farther and denser in some places, while agricultural activities cleared large portions of the forest altogether. The advent of strip malls, subdivisions, and roads have further obliterated the ancient landscape of the past. The Cross Timbers have given a whole region an identity, even if the very people who bandy the name about have destroyed thousands of acres to build namesakes to this unique geographic feature.



Bugs Beware

*Story by Aron Flanders, Wildlife Biologist &
Jason R. Singhurst, Plant Ecologist/Botanist
Texas Parks and Wildlife Department (TPWD)*

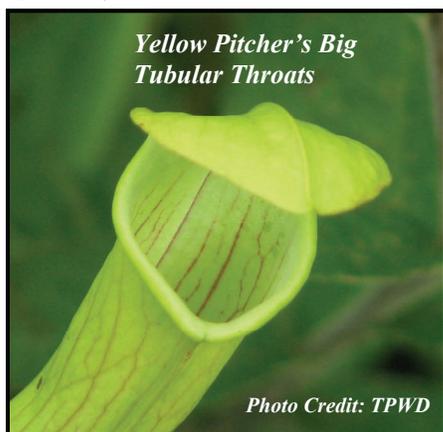
Quagmire may be a term used by a casual observer to describe a Texas bog. Upon closer inspection, one may discover an exceptional diversity of plants that are far from the norm. Indeed, deep muck bogs, quaking bogs, and hillside seepage slopes are among the most unique and rare plant communities of Texas. They are restricted to small, highly localized areas that are only formed when the proper configuration of upland sandy soils filter water downward until lower impermeable layers, such as clay, cause the groundwater to seep out and saturate an area. Where bogs form, rainfall often exceeds evapotranspiration. This hydrology causes basic soil cations (i.e. Ca, Mg, K) to be gradually leached out, and replaced by acidic elements (i.e. iron and aluminum), creating acidic saturated soils. Specialized bog plants are adapted to these conditions.

Over 34 plant species occurring in West Gulf Coastal Plain bogs are recognized as rare and very few of these communities are protected. Only around 248 acres of this community type are on state-owned conservation lands. On private lands, bogs easily go undiscovered and unmanaged. A healthy herbaceous bog is open and rich in species, especially grasses and sedges. However, they are best known for hosting orchids and carnivorous plants, such as sundews (*Drosera brevifolia*), pitcher plants (*Sarracenia alata*), bladderwort (*Utricularia* sp.) and butterwort (*Pinguicula* sp.) that feast on insects.

If plants turning the tables on bugs do not impress you, then try jumping on a quaking bog, which derives its name from deep, saturated peats that bounce like a trampoline. Plants commonly found in a bog include *Rhynchospora* spp., pitcher plants, Virginia iris (*Iris virginica*), bogbutton (*Lachnocaulon* spp.), various ferns, and *Sphagnum* mosses. These communities are highly susceptible to hydrology changes, logging, overgrazing, fire suppression, impoundments, and brush encroachment.

Historically, many large bogs were mined for peat. Today, conversion to small water impoundments and invasion by woody species are extremely common occurrences causing their decline. Bogs are shade intolerant, fire-dependent plant communities. Unimpeded woody canopy closure promotes shade tolerant species that replace the bog species. Sweetgum (*Liquidambar styraciflua*), wax myrtle (*Myrica cerifera*), and red maple (*Acer rubrum*) are common invaders of bogs. Regular applications of prescribed burns are by far the best management tool available to maintain an open herbaceous bog and associated upland habitat. Reclamation of openings can be further assisted by frilling (e.g. hack and squirt) woody stems.

(Continued on page 10)



(Continued from page 9—Bugs Beware)

Extensive research completed by Jason Singhurst, TPWD plant ecologist/botanist and Edwin Bridges, botanical and ecological consultant, describes undocumented sites and types of bogs and seepage areas with plant communities endemic to Texas. They reported an exceptionally high species diversity, and a divergence in species composition between the piney woods and post oak ecoregions. In fact, approximately 690 species were recorded on sites in Texas and Oklahoma. Rare plants recorded included Chapman's yellow-eyed grass (*Xyris chapmanii* G3S2), rough-stemmed aster (*Symphotrichum puniceum* var. *scabricalle* G5T2), roughstem yellow-eyed grass (*Xyris scabrifolia* G3S2), small-headed pipewort (*Eriocaulon koernickianum* G2), and large beaksedge (*Rhynchospora macra* G4S2). Look to their reports for more in-depth information.

Texas bog hot spots reside in Anderson, Angelina, Henderson, Freestone, Jasper, Leon, Nacogdoches, Newton, and Rusk counties, and hosting bogs included TPWD Gus Engeling WMA, Flynn Bog, Ottine Swamp, Angelina National Forest, and Kisatchie National Forest. So go visit a bog and maybe you'll recognize that diamond in the muck next time you pass by one, and visit these websites below for more information.

http://www.tpwd.state.tx.us/huntwild/hunt/wma/find_a_wma/list/?id=10

<http://botany.csd.tamu.edu/FLORA/flynnbog/FB1.HTML>

<http://www.nps.gov/bith/index.htm>

Post Oak Savannah and the Storm

Story and Photos by Bruce Kreidler
ISA Certified Arborist, Broken Willow Tree Service
Abilene, Texas

As a tree person, I think that one of the more unusual and individualistic trees that grows in the Big Country region is the post oak (*Quercus stellata*). I grew up in Callahan County, so even before I knew very much about trees, I had a real acquaintance with post oaks.

The Big Country is on the western edge of a region that is referred to as the post oak savannah, so there are a lot of these trees scattered throughout our area and Callahan County. While post oaks don't reach the massive sizes that live oaks and bur oaks are capable of, under the right conditions they can still become a very big tree.

Post oaks are slow-growing, deciduous, roughly barked trees that foliage usually has much less distinct lobes when compared to red oaks or even white oaks. The majority of post oaks develop with a single, main center leader, but since they have a tendency to sprout and grow in close proximity of each other, they don't always have a classic upright shape. As I have never seen one successfully do it, they apparently do not have the ability to grow nearly sideways to escape their nearby larger neighbors like live oaks.

The post oaks are interesting to me because they seem to be the hardheads of the local tree world. These plants seem to prefer the worst soils where even mesquite trees don't want to grow. Even the cedar trees appear to shy away from the places where post oaks like to thrive. I find post oaks in dry, deep sand, and other poor soils that you wouldn't reasonably expect to support trees.

(Continued on page 11)

(Continued from page 10—Post Oak Savannah and the Storm)

Another thing about these oaks is that they don't handle irrigation and fertilization well at all. I have seen very few post oaks that were purposefully planted in landscapes, but the ones that I have seen all failed or are doing very poorly. Unlike their red oak cousins, post oaks don't appear to be able to utilize abundant water and find it harmful. To some extent, this is also a trait of live oaks, you can overwater a young live oak to the point it drowns, although the larger live oaks can take that kind of treatment a little better.

Most of the time, when people look at a large tree they assume it is quite old. As far as trees go, we tend to equate large size to long age. The fact that lots of people who should know better use inflated numbers to talk about tree age doesn't help.

I often look at trees where people tell me the particular large example we are standing by must be really old. In fact, a common phrase that people use is - *this tree must have been here before the house was built*. I find that train of thought to be intriguing, because when I hear it, I'm often standing on a piece of property that I know was an open field before it was developed. Sometimes we are looking at a species of tree that is almost incapable of living beyond 40 years, but the house was built in the 1940s or 1950s. On the other hand, when I'm on a property where there is a large post oak, I'm certain of two things - one, that tree was almost certainly there before the house was built, and secondly, if it's a large post oak, it is indeed an old tree.

Since post oaks are a species of tree where I never get to talk to the person that planted it, I seldom get to observe them in landscaped yards. I have a very poor feel for the actual age of the individual trees, or what their true growth rate is. I have been personally acquainted with some individual specimens for over 40 years and by picture comparison, they have not increased greatly in size during those years. Since they are big trees now, and they were big trees forty years ago and that really makes me wonder about their true age.

Additionally, I find these trees an object of personal fascination and curiosity, what they actually are is a potentially large, semi-stately tree that is capable of growing completely uncared for in dry poor soil areas. Those factors alone make the humble post oak a tree worthy of admiration.

(Continued on page 12)



Two Post Oak trees in Clyde, Texas, prior to the heavy storms that took the canopy clean off the largest and oldest one, left photo, during 80 mph winds in May 2011.



(Continued from page 11—Post Oak Savannah and the Storm)

I originally wrote this article at the beginning of February 2011, when somebody suggested that I submit it to the Reverchon Naturalist. It seemed like a pretty good idea, and as I had business out at Clyde, Texas, I took my camera with me to get some pictures of large post oaks I'm personally familiar with.

While the Clyde Independent School District now has several campuses scattered around the town, when I grew up there all the schools were combined in one campus and that happens to have a lot of post oaks on it and surrounding it. As I attended that school from the fourth grade on, I have at least a passing acquaintance with all of those post oaks. Since I personally knew these plants had been there for over 40 years, they would be good subjects for photos to go with this article.

I took the pictures on April 29 that I now call before pictures. As it happened, I was able to catch one of the homeowners near the school that had a nice tree with a large trunk diameter, and get permission to take pictures. So, on the first of May 2011, less than 48 hours later, the city of Clyde suffered a wind downdraft that has been reported as having straight line wind speeds of 80 miles per hour.



Naturally, there was a lot of harm to trees, and as it happens, the large front yard post oak that I photographed on Friday, suffered extensive damage due to losing the main central leader.

While the tree under discussion (see photos) will be diminished in vigor and health for the rest of its life, it should survive if the homeowner doesn't remove it out of frustration or concern over its structural stability.

So next time you look at a tree that you know has some age on it, don't just see the tree—realize you are looking at the survivor of harsh circumstances that removed many of its neighbors.

This Post Oak, left photo, is the largest and oldest tree in this front yard in Clyde, Texas, after 80 mph winds destroyed the upper canopy in May 2011.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all of its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). USDA is an equal opportunity provider and employer.