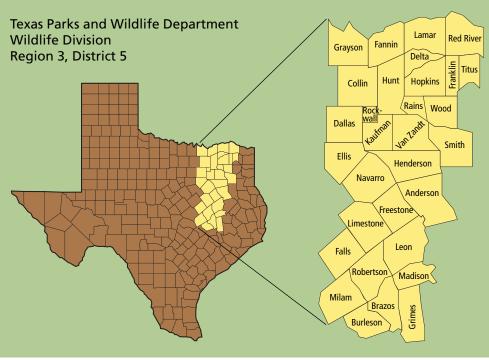
Post Oak Savannah WILDLIFER



Much of the Post Oak Savannah ecological area falls within TPWD's Wildlife District 5.

Post Oak Savannah Wildlifer

by Billy C. Lambert, Jr.

One of the more difficult challenges as a biologist is to find the most effective way to provide accurate information to user groups within the wildlife field. For some things, face-to-face communication is best. For others, a field day or seminar is useful for providing information to larger groups. Yet another simple, but effective, method is to provide the information in writing.

We've been playing around with the idea of providing folks with an informational newsletter relative to our area for quite a while now. But, something more urgent always seemed to get in the way. Funny how that happens more often than not. After running out of excuses, we finally decided that now was the time to just bite the bullet, so to speak, Bio, we plan to give you some information on a resource professional in the area; not only contact information in case you need to contact them, but a little insight into who they are, as well. Plus, some issues will have a Trophy Corner featuring a monster deer, an exceptional duck hunt, or a successful youth hunter with his/her first squirrel or fish. There might even be an interesting fact or two along the way.

So, we hope that you enjoy it and that it provides useful and entertaining information. If not, you can always line the bird cage or puppy box with it. While the material is not necessarily intended to be all-inclusive, hopefully it will prove entertaining and informative, and perhaps stimulate new thought. Let us know how you like 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 jesse.oetgen@tpwd.state.tx.us.

and get it done. So, at long last, here is our first attempt at the *Post Oak Savannah Wildlifer*.

TEXAS

WILDLIFE

Our plan is to provide a guarterly informational newsletter to any and all who are interested in reading it. Some of the features that we intend to include in each newsletter are Plant Profile. Wildlife Profile, Research Summary, and Biologist Bio. For the Plant and Wildlife Profiles, we intend to pick species important to the area and provide you with information such as descriptions, life history, and management needs. For the Research Summary, we plan to choose a groundbreaking or significant research paper from a peer-reviewed professional journal and summarize it in layman's terms. For the Biologist

WILDLIFE Prof le

Gray Squirrel

(Sciurus carolinensis)

by Jesse Oetgen



Recently, I sat face to face with a "cat squirrel" as it debated its next move. I sat motionless, wondering what I would do if this bushy-tailed creature, complete with sharp, tiny claws decided to lunge into my lap. Last fall I had the opportunity to spend many hours perched in a water oak tree waiting for deer to travel down a trail which meanders through the woods just feet from the Navasota River. While deer sightings were few and far between, gray squirrels were abundant in the river bottom and provided hours of entertainment as they scampered from limb to limb, chattering and barking as they feverishly searched for, ate, gathered and buried acorns.

Gray squirrels are scientifically classified in the Order Rodentia along with porcupines, rats, mice, beavers and other gnawing mammals. Their scientific name is *Sciurus carolinensis* although they are more commonly called "cat squirrels" because of their agile movements and nervousness which resembles that of a cat. The gray squirrel is a medium-sized squirrel with dark yellowish-rusty upper parts, especially on the head and back. The legs, arms, sides of neck and sides of rump have gray-tipped or white-tipped hairs, giving these parts a gray appearance. Hairs of the tail are dull yellow at the base, then blackish, and tipped with white. The belly is white and ears have a conspicuous white spot at the base in the winter. The gray squirrel averages 18 inches in total length with a tail averaging about 8 inches. Adults weigh between 11 and 21 ounces. Cat squirrels are highly gregarious and noisy. When the woods are otherwise quiet and still, these squirrels can be heard "cutting" acorns and constantly "barking." The voice is described as being a c-h-u-c-k c-h-u-c-k c-h-uc-k repeated rapidly, and followed by a buzz and finished with a grunt. When one squirrel is alarmed, it will sound a warning "bark" as if to instruct the others to remain quiet until the danger has passed.

In Texas, gray squirrels' native range is confined to the eastern one-third of the state. Within this range, they are confined to the river and creek bottoms. They make their homes in large, forested areas of mature hardwoods where the canopy is dense enough to permit them to leap from tree to tree through the crowns, without descending to the ground. Optimum habitat includes a mixture of mature hardwoods including oak, sweetgum, pecan, hickory, beech and elm with an understory of mulberry, hornbeam, yaupon, huckleberry and holly. As with most wildlife species, habitats with greater variety of trees, shrubs, and vines are home to a greater number of squirrels.

Although young gray squirrels may be found anytime of year, there are two main breeding periods - winter and summer. With a gestation period of 42 to 44 days, most young are born in February to March, and August to September. Litter sizes vary from one to four young per litter. Young are born naked, blind and deaf, without any teeth. They are completely dependent on their mother until they gradually grow teeth and hair and their eyes and ears are opened. At 14 weeks of age, they become independent of the mother. Gray squirrels prefer to raise their young in tree cavities 20 to 30 feet above the ground. During the summer or where tree cavities are limited, adults may bring forth young in leaf nests carefully constructed of twigs and leaves and lined with shredded bark, plant fibers and grasses. There are usually two openings to these nests. Nests are used throughout the year as resting places and for refuge. They are strongly built to withstand wind and rain.

Gray squirrels spend tireless hours obtaining food both for now and

later. Their primary food source is hard mast such as acorns, pecans and hickory nuts, so they must bury these items when available in the fall and uncover them throughout the year. Other food items included in their diet include: fruits of yaupon, hawthorn, blackberry, mulberry and grape; maple and elm buds; moth and butterf y larvae; fungi; and grass seeds. To maintain proper body condition a gray squirrel must consume 0.2 pounds of food per day. According to one calculation, it would take seven water oaks and 15 red oaks to produce enough acorns to feed two squirrels for a year. This calculation does not take into account the competition these squirrels have with deer, fox squirrels, raccoons, opossum, woodpeckers, f ickers, bluejays, f ying squirrels, crows, rats, mice and feral hogs for these same acorns. As a result, it is vitally important to the existence of gray squirrel populations that forests be managed to maintain an abundance of mature, mastproducing oaks and pecans.

Land fragmentation, timber harvest and competition with increasing populations of white-tailed deer and feral hogs in the river and creek bottoms of east Texas pose a real threat to gray squirrels. Many who have childhood memories of hunting gray squirrels in the woods behind their parents' or grandparents' homes have given up the sport in pursuit of more productive endeavors because of reduced squirrel populations in recent years. Mature hardwoods have been cleared or thinned to make room for home sites, subdivisions, roads, or for profit from timber harvest. However, where dense stands of mature oaks and pecans remain in and along the river bottoms, gray squirrels thrive—especially after a good mast producing autumn. When clearing timber on your property, remember the cat squirrels and other creatures that rely on the acorns for food and the natural cavities for den sites. When sitting in the woods, hunting deer, hogs, or ducks, take a minute

to recognize the barks of cat squirrels and their constant feeding activity accentuated by nervous movements and agile leaps from treetop to treetop.



UPCOMING Event

Native Prairie Restoration Workshop Clymer Meadow Preserve - Celeste, Texas Friday, May 29, 2009

Items presented will include history of the Blackland Prairie, the value of native rangeland, grassland management, cost-share programs and assistance, restoration techniques and equipment, and follow-up management. For more information contact Jeff Goodwin at 903-874-5131.

QUOTABLE QUOTE

"A thing is right when it tends to preserve the integrity, stability and beauty of the biotic community. It is wrong when it tends otherwise." —Aldo Leopold

BIOLOGIST BIO – Meet the Editors



Billy Lambert began his wildlife career in 1988 when he enrolled at Texas Tech University (TTU), majoring in Wildlife Management. As an undergraduate, he conducted a two-year white-tailed deer supplemental feeding research program in the Hill Country and became one of the first undergraduates to present research findings at the Texas Chapter of The Wildlife Society meeting in 1992. After receiving his B.S. degree later in 1992, Lambert stayed at TTU for his master's degree in Wildlife Science. Although the degree came from TTU, the research was actually conducted in Kingsville in a collaborative effort between TTU and the Caesar Kleberg Wildlife Research Institute (CKWRI) at Texas A&M University – Kingsville. His thesis was entitled Growth of White-tailed Deer Following Dietary Protein Restriction, and Lambert received the Outstanding Student Presentation Award at the Southeast Deer Study Group meeting in Florida in 1996. After completing his M.S. degree, Lambert went to work for CKWRI in Kingsville as a Research Associate studying the effects of habitat diversity on guality and seasonal stability of white-tailed deer diets. While in Kingsville, Lambert also had the opportunity to consult for ranches in south and central Texas. Lambert was hired by TPWD in June 2000 as a regulatory wildlife biologist and has spent his entire time with the agency working the

southern end of the Post Oak Savannah. His job duties are varied but include assisting landowners and hunters with habitat and wildlife management, preparing management plans, conducting county wildlife surveys, assisting with state hunting and wildlife regulation changes, and leasing private lands for public hunting opportunities. Lambert was married to his wife. Julie, in August 2007, and enjoys photography, fresh- and saltwater fishing, shooting sports, and just about any kind of hunting. Contact Billy at (979) 690-3527 or by e-mail at lambert69@verizon.net.

QUOTABLE QUOTE

"...the recreational value of game is inverse to the artificiality of its origin..." —Aldo Leopold

From a young age, Jesse Oetgen had a keen interest in the outdoors. He enjoyed camping, fishing and hunting with his family and friends. When the time came for him to declare a field of study in college, he decided to work toward being a wildlife biologist, like the ones that were often quoted in the newspaper and his favorite magazines. He enrolled at Texas A&M University (TAMU), and as a TAMU student, spent his summers working for the Texas Parks and Wildlife Department (TPWD) in Port Arthur, Texas: Delta Waterfowl Foundation in Saskatchewan; and an environment consulting company in Arlington, Texas. Upon completion of his B.S. degree in Wildlife Ecology from TAMU in 2000, Jesse conducted research and wrote a thesis on the Effects of Repeat Sampling in the U.S. Waterfowl Parts Collection Survey, which earned him a Master of Science degree from Louisiana State University. In 2002, Jesse hired on with TPWD as the wildlife biologist at Peach

Point Wildlife Management Area (renamed the Justin Hurst WMA) near Freeport, Texas. There, he managed more than 15,000 acres of brackish marshes, wetland impoundments, and surrounding woodlands to create and maintain beneficial habitat for migratory and resident wildlife. In July of 2006, Jesse married his wife, Renee, and accepted his current position as a private lands biologist where he offices on the campus of his alma mater in College Station. He now visits ranches, writes management plans, provides technical assistance regarding habitat management, makes recommendations for proper deer harvest, and assists with wildlife property valuation plans for landowners in seven southern Post Oak Savannah counties. His favorite part of the job is the interaction it provides with a variety of landowners and the opportunity to share his passion for healthy wildlife populations, quality wildlife habitats, and people who enjoy quality time in the outdoors. Jesse and his wife enjoy attending Aggie sports events, playing tennis, running, visiting their families in the Dallas area, and throwing birds and bumpers for their retrievers, Dixie and Gunnie. Jesse's hobbies include dog training, bow hunting, duck hunting, fishing and a number of other outdoor activities. Contact Jesse at (979) 845-5798 or by email at jesse.oetgen@tpwd.state.tx.us.



Management Assistance in the Post Oak Savannah

by Billy C. Lambert, Jr.

One of the most frustrating aspects of any project or undertaking is finding the appropriate person or agency from which to seek guidance. Wildlife and habitat management is no exception. Unfortunately, many folks receive their information from the major media outlets, such as hunting magazines or television hunting programs. While some of the information obtained from these outlets is dead-on accurate, other information is, well, let's just say "lacking."

Fortunately, there are a variety of qualified individuals and agencies available that can assist with management advice. Depending on the specific questions to be asked, you may seek answers from the Texas Parks and Wildlife Department (TPWD), Texas Animal Heath Commission (TAHC), Natural Resources Conservation Service (NRCS), Texas Agrilife Extension Service (TAES), or many others.

For example, if you have a question regarding soils on your property, your local NRCS agent can provide the answer. Need to know how to control an invasive weed in your stock tank? Your local Extension agent would be happy to help. Have a question on hunting, fishing, or boating laws? The TPWD Law Enforcement Division can fix you right up. Interested in finding out if your property qualifies for the wildlife management use under the ag valuation, how to grow bigger bucks, attract more doves, or control feral hogs? TPWD biologists are always there.

Texas Parks and Wildlife Department Wildlife Division – Region 3, District 5

Regional Director Nathan Garner (903) 566-1626

District Leader David Sierra (903) 566-1626

Technical Guidance Biologist Jay Whiteside (northern counties) (254) 578-3786

Private Lands Biologist Jesse Oetgen (southern counties) (979) 845-5798

Wildlife Diversity Biologist Aron Flanders (903) 945-2129

Urban Biologist Brett Johnson (972) 293-3841

Regional GIS Specialist Steve Lange (903) 566-1626

Wildlife Interpretive Specialist Irene Hamel (903) 566-9394

Waterfowl Biologist (903) 566-1626



Rather than specializing in only one area, most of the agencies can assist with many questions related to natural resource management. If they don't know the answer, they can usually point you in the right direction to find someone who can.

Frequently, TPWD is the primary agency that fields many wildlife and habitat-related questions, and we're more than happy to do so. One of the attractive aspects of the job is the diversity of issues that we deal with.

The role that a TPWD biologist plays in assisting a cooperator can be as varied as simply answering a question over the phone, assisting with the preparation of tax paperwork, meeting with landowners on a property, helping to organize a wildlife cooperative, or even showing a youngster how to field-dress a deer. Because the relationship is all strictly voluntary, the role of the biologist is only what you want or need it to be. Plus, it is all confidential. So, if you need some type of assistance, or simply have a question, feel free to give your local biologist a call. We'd be glad to help.

IMPORTANT CONTACTS

Texas Agrilife Extension Service Texas Animal Health Commission Texas Commission on Environmental Quality Texas Department of Agriculture Texas Forest Service Texas Parks and Wildlife Department Texas Wildlife Services	(979) 845-7800 (800) 550-8242 (512) 239-1000 (512) 463-7476 (979) 458-6606 (800) 792-1112 (210) 472-5451	http://www.tahc.state.tx.us http://www.tceq.state.tx.us/ http://www.agr.state.tx.us
	• •	
USDA Natural Resources Conservation Service	• •	http://www.tx.nrcs.usda.gov

PLANT Prof le



Post Oak (Ouercus stellata)

by Jesse Oetgen

As the name suggests, the Post Oak Savannah was once a landscape dominated by grassland prairies containing a scattering of post oak trees. The post oak (Quercus stellata) is the widest-ranging oak tree in Texas. It is a native tree that can be found growing in the Pineywoods of East Texas, the Gulf Prairies and Marshes, the Blackland Prairies, and into the Edwards Plateau to our west and north. The post oak grows up to 75 feet tall and has a dense, rounded top. As a member of the white oak group, post oaks have highly variable, rounded leaves that are dropped each fall. The bark is thick, scaly, and gray to reddish brown. It is often called "iron oak" in reference to its hard, durable, heavy, decay-resistant wood which is often used for fence posts, construction timbers, siding, and railroad ties. Like many other oaks, the trees will begin to bear fruit at 25 years old and will produce a "good" crop every two to three years. The fruit, an acorn, matures in one year and drops to the ground or is carried away by birds and squirrels during September through November. Acorns that come in contact with moist soil and are buried under 2 to 3 inches of leaf litter will germinate and sprout during that same fall. Post oaks are primarily restricted to

upland sites, but are tolerant of a wide range of elevations and slopes. They sprout prolifically after being burned or cut, thus, spreading rapidly into former grasslands when periodic burning is stopped. They grow well in loamy, sandy, gravelly and rocky soils with pH values that range from highly acidic to slightly alkaline. This makes them a good choice for soil stabilization on dry, sloping, or stony sites where other trees will not grow. Their root system does not, however, withstand soil compaction, so care should be taken when using heavy equipment such as bulldozers to clear brush or build home sites near post oak trees.

The post oak is an excellent source of food and shelter for wildlife. Although acorn crops of post oaks can be much smaller than those of other white and red oaks, post oak acorns provide a valuable source of food for turkeys, deer, squirrels, and a variety of upland and non-game birds. The leaves and twigs of the post oak are considered a second choice browse for white-tailed deer — meaning they will eat it, but only after more preferred browse has been consumed. Raccoons, birds and squirrels readily use the leaves to build nests and cavities in the tree's trunk and limbs as den and nest sites.

Maintain healthy Post Oak Savannah sites and provide valuable forage and nesting habitat for wildlife by protecting mature post oaks from harvest for timber or firewood. It is also important to reduce or eliminate faster growing, non-native, or invasive woody plants such as cedar, yaupon or mesquite that will shade out post oak seedlings. Finally, maintain a quality Post Oak Savannah ecosystem using prescribed fire to reduce shrubby growth and encourage native grasslands dotted with mature post oak trees that once dominated our local landscape.



Steve Baskauf - http://bioimages.vanderbilt.ed

RESEARCH Summary

Growth of white-tailed Deer Fawns Following Dietary Protein Restriction

by Billy C. Lambert, Jr.



Billy Lambert

In recent years, money generated through sport hunting and leasing has become a significant portion of ranch income. As such, many landowners have implemented management strategies to increase the quantity or quality of white-tailed deer herds.

As the evidence concerning the importance of nutrition grows, food management is often incorporated into overall management plans to correct for seasonal nutritional deficiencies. These deficiencies often arise throughout the year, and can result from overstocked livestock, improper rotational grazing strategies, habitat conversion to "improved" pastures, having too many deer and/or exotics, periodic drought, and so on. Supplemental feeding is becoming commonplace in an attempt to correct seasonal nutritional deficiencies, but are cost and/or labor intensive. These expensive corrective techniques may not be needed if deer are able to adequately recover from period of nutritional stress when given access to well-managed native habitat that corrects the nutritional deficiencies.

The general effects of inadequate nutrition on white-tailed deer have been extensively studied and include decreased survival, decreased reproductive success, reduced antler growth in males, decreased health, decreased body condition, and increased susceptibility to diseases and parasites. However, the ability of deer to eventually recover from periods of poor nutrition is not well-understood. As a result, a twoyear research study was initiated in the summer of 1996 to see if whitetailed deer fawns could adequately recover following a period of nutritional deprivation, specifically a protein deficiency.

Three groups of fawns were used in the study (62 total fawns). In the first group (HP), fawns were placed on a 15 percent protein diet to encourage growth to act as a control for comparison. In the second group (LPHP), fawns were initially fed a low-protein diet (6.6 percent) for eight months to stunt the growth of the fawns, and then placed on the 15 percent protein diet to potentially stimulate recovery. A third group (LP) was placed on the low-protein diet (6.6 percent) for the duration of the study to serve as a lower control for comparison. All deer were captured at four- to six-week intervals to monitor growth and development.

As suspected, following the first eight months of the study, the LPHP group showed significant declines in skeletal growth and body weight compared to the HP group. Live body weight, chest girth, and hindfoot length all lagged behind the group fed higher levels of protein. But, when placed on the higher protein diet for the second half of the study, growth began to increase. By the end of the study, there were no meaningful differences in body characteristics as compared to the HP group, meaning that the deer had exhibited compensatory growth and had recovered.

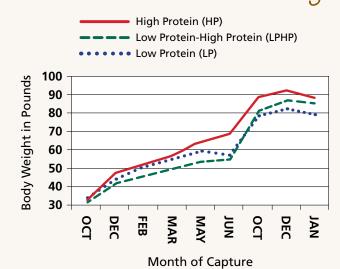
Unfortunately, the analysis was

complicated by the fact that the LP animals (the fawns that remained on the low-protein diet for the duration of the study) also did not show any meaningful differences in body characteristics at the end of the study. But, the reason may lie in how the study was conducted. During the study, many of the animals in both the LPHP and LP groups died as a result of being fed the lowprotein diet (most deaths were the result of increased susceptibility to diseases). Therefore, the LP animals that made it to the end of the study may have been those that were inherently able to cope with a protein deficiency naturally, an unintended and unfortunate by-product of the study design. Plus, this phenomenon decreased the ability of the analysis to detect differences between groups. For example, there was a 10-pound difference between LP and HP animals at the end of the study, but this seemingly-large difference could not be declared significant statistically.

At the end of the study many different skeletal measurements, body condition indices (such as fat levels, gland weights, etc.), antler measurements, and reproductive indices (number of fetuses, fetal weight, etc.) were also compared between the three groups. No differences were found for any of the parameters measured between treatment groups, except that the HP animals completed antler growth and shed their velvet faster than both the LP and LPHP groups.

From the study, it appears that white-tailed deer fawns can recover from a relatively short-term protein deficiency, assuming adequate nutrition becomes available. In a practical sense, short-term protein deficiencies are relatively commonplace in the Texas landscape, usually as a result of periodic drought combined with improper land management practices such as high livestock stocking rates, continuous grazing, presence of exotics, and high deer densities. But, with sound habitat management practices, good grazing management, proper deer herd management, and good-quality native habitat, the deer should be able to recover from short-term nutritional deficiencies.

Fawn Research Diagram



By June, body weights of both groups of fawns on the low-protein diet were lower than fawns fed the high-protein diet. After placing the LPHP fawns on the high-protein diet (in June), the fawns were able to recover and achieved weights comparable to the fawns fed the high-protein diet.

TROPHY Corner



James Curtis killed this fantastic deer during opening weekend in Anderson County. Although the gross B&C score of 138-5/8 is impressive enough, the unique coloration (piebald) makes it truly a once-in-a-lifetime trophy.



Emmy Webb displays an impressive largemouth bass from Grimes County last October; 25-¾ inches and estimated to weigh 11+ lbs.



Brian Bender harvested this great trophy from Burleson County back in November. The deer has 19 scorable points and a gross B&C score of 181-2/8.

Executive Director Carter P. Smith

Editors, Post Oak Savannah Wildlifer Billy C. Lambert, Jr. Jesse Oetgen



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www.tpwd.state.tx.us

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