



# Oaks and Prairies Wildlifer

A newsletter for landowners in the Post Oak Savannah  
and Coastal Prairies Regions of Texas

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WILDLIFE

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## District Field Notes

BY DAVID FORRESTER

Habitat conditions in the Oak Prairie District continue to be good. However, we've gone from experiencing historic wet conditions across most of the district to hot and dry. We are in the middle of July and this is summer in Texas, so hot and dry is what we should expect. Hopefully, soil moisture can remain decent and stock tanks full through this dry period. Due to the extreme wet conditions through the spring, most vegetation is in good shape and abundant. If we can make it through the major part of July and August, I think we can look forward to some refreshing fall rains that will set the stage for a good winter.

This is normally the time of year that most of our biologists take family vacations and catch a bit of R&R. By the end of June or first of July, we've completed our mourning dove surveys, urban dove surveys, and most of our dove trapping activities. The latter part of July and into August begins our deer surveys—these include our regulatory survey lines that we've conducted for decades, plus individual property owner surveys and wildlife management association surveys. Additionally, biologists will be conducting quail surveys in portions of District 7. We will be getting ready for dove season by setting up our public dove leases in August. We get these set up a couple of weeks prior to the opening of dove season. Finally, cooperators interested in the Managed Lands Deer (MLD) Program require attention and site visits need to be set up and conducted. MLD continues to ramp up thru the fall until about mid-November. Like last year, we will be concentrating on Chronic Wasting Disease (CWD) sample collection across the district as well. Road kills increase as we get into September and October, and CWD monitoring will be a priority for our biologists.

As mentioned above, we do have some public dove lease properties located in District 7. Access to these properties and others is granted by purchasing the Annual Public Hunting (APH) Permit. More information on the APH permit and public hunting can be found on the TPWD website at [tpwd.texas.gov/huntwild/hunt/public/annual\\_public\\_hunting](http://tpwd.texas.gov/huntwild/hunt/public/annual_public_hunting). Additionally, the public hunt draw system is up and running, and you can apply for different hunts on some of our wildlife management areas, state

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***DISTRICT FIELD NOTES - CONTINUED***

parks, etc. online. These hunts do have deadlines, so you want to take a look at what is available and get your name in the hat for those you are interested in sooner rather than later. The process is very simple online and you can find information at [https://www2.tpwd.state.tx.us/huntwild/hunt/public/public\\_hunt\\_drawing](https://www2.tpwd.state.tx.us/huntwild/hunt/public/public_hunt_drawing).

If you do make use of these public hunt opportunities, particularly the dove leases, please remember that some of these properties are privately owned and the APH permit is your “ticket” for access. Respect these properties and treat them like your own. It is challenging for us to find landowners willing to enroll their properties into our public hunt dove lease program. We would like to keep those we have and only have positive experiences to report. Respect property, structures, fences, etc. Pay attention to signage and pick up trash and hulls. On state-owned lands, we would hope for the same conduct. These properties belong to every citizen in the state of Texas. Basically, our conduct as hunters could fall under closer and closer scrutiny as the population of the state becomes more and more urban. Publicity, in general, is way too easy to create in this mobile and connected society. Negative publicity tends to rule the day. As hunters, we need to be aware and vigilant that we conduct ourselves safely, ethically, and respectfully at all times for all to see.

As mentioned, biologists will again be concentrating on collecting CWD samples from road-killed deer and hunter-harvested deer. The most recent developments on the CWD front have 13 new cases of chronic wasting disease confirmed at a Medina County captive white-tailed deer breeding facility on June 29, 2016.

Texas Animal Health Commission (TAHC) and Texas Parks and Wildlife Department (TPWD) discovered these cases while conducting an epidemiological investigation on the quarantined facility after a 3½-year-old captive white-tailed doe tested positive for CWD in April 2016. This initial positive doe was tested for CWD due to increased surveillance testing required by the facility’s TAHC herd plan. The herd plan was developed to assess the risk of CWD in the facility for its association with the first Texas CWD positive herd. USDA diagnostic sampling funds were utilized to conduct the testing. Of the 33 samples submitted to National Veterinary Services Laboratory (NVSL) for testing, 13 of these samples revealed the presence of CWD prions. TAHC and TPWD will be working closely with the facility owner to develop future testing strategies to assess the CWD disease prevalence within the facility.

With these new positive cases, 25 total white-tailed deer originating from captive white-tailed deer breeding facilities have been confirmed positive for CWD in the state, including the initial CWD-positive deer detected in June 2015. Although the above CWD status isn’t the best news, we still have not detected CWD in free-ranging white-tailed deer. All positives are still associated with breeding facilities.

It’s hot and dry, and these conditions will continue this way for a few weeks. However, this is still a great time of year, so please get out and enjoy the wildlife and habitat on your piece of Texas. It may be more pleasant and productive earlier in the morning or late in the evening. Just remember to stay hydrated and maybe have a lake, pond, or pool in the vicinity for a cooling dip.



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# A Tool of the Trade: Weather Permitting

WRITTEN BY ROBERT TRUDEAU

**Once upon a time, large herds of bison grazed extensively across the grassy plains of Texas and most of the United States. The passage of such hefty animals disturbed the soil with hoof action, spread seeds, and generally caused alterations to the landscape that set succession back and fostered a rich plant and animal diversity. This wasn't the only source of disturbance on the landscape. Weather and weather patterns contributed to disturbances that ranged from minor to major which also impacted the biodiversity on the landscape. The influence of weather patterns created conditions for one of the greatest contributors to a unique grassland biodiversity. Even the Native Americans realized the benefits of one of the most influential factors that shaped the world we live in today... FIRE!**

When weather conditions produced little moisture, low relative humidity, some wind and a lightning bolt, the spark was started that shaped the landscape. These naturally occurring wildfires recycled the nutrients back into the soil, stimulated the germination process of a wide variety of plants, and kept the encroachment of brush from dominating the different habitats that were found across the country. A good fire tended to make things greener and increase the population of the diverse flora and fauna within the area. These natural wildfires burned until they ran into the geography that inhibited spread, or the weather conditions finally aligned to produce the moisture needed to extinguish the flames.

It would seem that the ecoregion names of central Texas, Post Oak Savannah, Blackland Prairie, and Gulf Coast Prairies and Marsh, would give some indication of what one would expect to see if in that given ecoregion. However, what we see today is not what once existed. The Post Oak Savannah was historically wide-open exposures of tall grasses such as little bluestem, Indiangrass, switchgrass, and an incalculable amount of wildflowers; with the occasional motte of post oaks scattered throughout. The Blackland Prairie ecoregion gets its name from the fertile, dark clay soils which are regarded as some of the richest, most naturally fertile soils in the world. This prairie system exposes itself to rapid drainage characteristics and was predominantly a tall grass prairie consisting of little bluestem, big bluestem, Indiangrass, eastern gamagrass, switchgrass and sideoats grama. An individual could find pecan, cedar elm, various oaks, soapberry, honeylocust, hackberry and Osage-orange scattered across the landscape and within riparian forests. The Gulf Prairies were also mostly tall grass prairie lands, intermingled with some post oak savannah. Big bluestem, little bluestem, hairawn muhly, Indiangrass, multiple species of panicgrass, eastern gamagrass and others dominated the prairies. Several species of cordgrasses and seashore saltgrasses were dominant within the salt marshes, along with a wide variety of reeds and canes. As well, the Gulf Coast prairies contained a variety of tree species within the riparian zones of creeks, streams and rivers. In each of these regions, native bunchgrasses allowed for forb growth between grass clumps. These forbs are important food sources for many wildlife species from grassland birds to white-tailed deer and everything else in between. Bunchgrasses also provided quality nesting cover for a variety of ground-nesting birds, including quail and turkey, and provided fawning cover for white-tailed deer. The loss of fire as a rejuvenating factor on the landscape reduced plant diversity, allowed for brush and woody encroachment, and negatively impacted wildlife populations.

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### *A TOOL OF THE TRADE: WEATHER PERMITTING - CONTINUED*

Today, these valuable and essential ecoregions face additional issues. With the installment of fences, the addition of livestock above the appropriate stocking rate, and the introduction of improved-exotic grasses, the roots of the native grasslands have subsided. As encroachment and changes have progressed, the perception that fire is bad for the land has progressed. As the prairies become overgrazed, we face erosion and the rapid depletion of minerals and nutrients within the once stable soils. This paves the way for encroaching species that thrive in these diminished soils. The continual spread of exotic grasslands and brushlands changed the landscape. Our healthy grasslands and forests became overrun with yaupon, cedar, huisache, mesquite, prickly pear and other brush species so thick that the sunlight could not reach the ground. The gently swaying tall grass prairie was eaten down to the bare soil or was continually plowed under. This contributed to the decrease of the phenomenal diversity that existed on the open range. With the rapid degradation of the landscape and the introduction of exotic grasses, these once thriving diversities became dreaded monocultures.

Thankfully, we have made wonderful progress in our understanding of the value of conservation and we are realizing that we have the tools to do things right. As Aldo Leopold stated in his book, *Game Management* (1933), our tools consist of the ax, cow, plow, gun, and of course the most misunderstood and overlooked... Fire. The progressive fear of fire through the eras has been associated with extensive economic loss; however, times are once again changing and we are beginning to see that fire can improve the quality of the landscape for an economically valuable cost. The reintroduction of fire into an ecosystem can effectively manage the encroachment of brush while stimulating the production of our native grasses and forbs. The implementation of fire within a forested system can allow for the effective management of the understory brush buildup and allow the sunlight to reach the forest floor. All of these introductions allow for the recycling of minerals and nutrients back into the soil for continual use in the years to come, while dramatically improving and increasing the plant and wildlife diversity and their associated habitats. Additionally, periodic burning removes old dead fuels that can build up over time. This decreases the chances of catastrophic fires and mitigates the negative impacts when we do experience a wildfire.



*TPWD and Texas Forest Service employees conduct prescribe burning operations to achieve habitat management objectives for the Houston Toad and to reduce combustible fuels that could produce a wildfire. Photo © Robert Trudeau*

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***A TOOL OF THE TRADE: WEATHER PERMITTING - CONTINUED***

*With the proper fuel accumulation and weather, prescribed burning can be an effective tool for brush control projects.*

*Photo © Robert Trudeau*



*A well-prepared firebreak is the best friend one can have when implementing fire upon the landscape.*

*Photo © Robert Trudeau*



*TPWD employees help demonstrate prescribed burning operations to interested landowners. Prescribed burning can be an effective tool to use when preparing for native grass restoration projects.*

*Photo © Robert Trudeau*

No matter who we are, or where we come from, it is up to us to implement sound management practices on the landscape. The health of the flora and fauna depends on the health of the land itself. By using prescribed fire as a tool, we help promote a healthy landscape that then promotes the unique diversity of plants and animals that exists. After a burn, the effects of fire on the landscape can immediately be seen. The herbaceous litter burns, giving way to the sunlight's ability to reach the soil surface. This, in turn, stimulates the germination and regrowth processes. The blackness of the landscape is temporary. The soil awaits some moisture so that nutrients can be absorbed and plant growth can proliferate. Progressively, the landscape keeps getting greener and greener, day by day. Within a short period of time, the post-fire differences and the increase in the overall health can be seen. It is our responsibility to ensure a healthy and vibrant world, including the knowledge to improve it, for those who will follow us.

As a proactive conservation agency, we continue to stress the usefulness of prescribed fire as a management tool. However, one must know that prescribed fire involves extensive planning and coordination to ensure a safe and effective burn. It is recommended that landowners should work closely with Texas Parks and Wildlife, Natural Resources Conservation Service, United States Fish and Wildlife Service, Texas Department of Agriculture, Texas Forest Service, private burn contractors, or local prescribed burn associations to develop a comprehensive burn plan. The burn plan helps the landowner to make sure all facets of the burn have been considered.

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*A TOOL OF THE TRADE: WEATHER PERMITTING - CONTINUED*

*This photo was taken in Bastrop State Park approximately 10 months after the catastrophic September 2011 wildfire. This area of the park had undergone several years of prescribed burning prior to the wildfire. Notice the high survival rate of the loblolly pine. This was due to the previous prescribed burns thinning and removing much of the undesirable understory, and thus eliminating the crown fire which killed many pines in previously unburned areas.  
Photo © Bobby Eichler*

*This photo also demonstrates the effects post-wildfire in a previously prescribed burn area of Bastrop State Park. The area has a high diversity of herbaceous vegetation beneficial to many species of wildlife.  
Photo © Bobby Eichler*



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**A TOOL OF THE TRADE: WEATHER PERMITTING - CONTINUED**

I hope, for those that have read this article, there has been a spark ignited in your mind and that you consider the idea of using prescribed fire on your property. To those that are interested in or are serious about burning, and/or have questions about prescribed burning in general, please contact your local natural resource agency.

If you would like to contact your local TPWD biologist, see our website at:  
[www.tpwd.texas.gov/landwater/land/technical\\_guidance/biologists/](http://www.tpwd.texas.gov/landwater/land/technical_guidance/biologists/)

**Other Resources**

<b>Texas Parks and Wildlife:</b>	<a href="http://www.tpwd.texas.gov/landwater/land/technical_guidance">www.tpwd.texas.gov/landwater/land/technical_guidance</a>
<b>Natural Resource Conservation Service:</b>	<a href="http://www.nrcs.usda.gov/wps/portal/nrcs/site/tx/home">www.nrcs.usda.gov/wps/portal/nrcs/site/tx/home</a>
<b>United States Fish and Wildlife Service:</b>	<a href="http://www.fws.gov/fire">www.fws.gov/fire</a>
<b>Texas Department of Agriculture:</b>	<a href="http://www.texasagriculture.gov">www.texasagriculture.gov</a>
<b>Texas Commission on Environmental Quality:</b>	<a href="http://www.tceq.texas.gov">www.tceq.texas.gov</a>
<b>Prescribed Burn Alliance of Texas:</b>	<a href="http://www.pbatexas.org">www.pbatexas.org</a>
<b>South Central Texas Prescribed Burn Association:</b>	<a href="http://www.sctpba.org">www.sctpba.org</a>
<b>Coastal Bend Prescribed Burn Association</b>	<a href="http://www.prescribedburn.org">www.prescribedburn.org</a>
<b>The Nature Conservancy:</b>	<a href="http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/index.htm">www.nature.org/ourinitiatives/regions/northamerica/unitedstates/index.htm</a>



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## Pictures ARE Worth a Thousand Words

WRITTEN BY BOBBY EICHLER

This past January and February, Texas Parks and Wildlife Department (TPWD) biologists conducted two days of prescribed burning on the M.O. Neasloney Wildlife Management Area (WMA) in Gonzales County. The WMA covers 100 acres of typical post oak savannah with about 75 percent of the property in upland hardwoods and the remainder in an open meadow. Prescribed fire has been implemented on this property for at least 15 years as a habitat management tool.

As an agency, TPWD promotes the use of prescribed fire for multiple purposes. The intent of this article is to show some of the effects of a prescribed fire program. The following pictures were taken in May, approximately 3-4 months after the prescribed fires on the Neasloney WMA. All photos © Trent Teinert, TPWD



An important aspect of prescribed burning is to 'set back' problematic understory species such as yaupon. On the right, yaupon has been top-killed by the fire. Regrowth has already started and will provide more palatable browse for white-tailed deer. Prescribed fire is not a 'one-time' fix and will be needed periodically to keep yaupon and other understory species under control.

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*PICTURES ARE WORTH A THOUSAND WORDS - CONTINUED*

A periodic prescribed burn will 'open up' the understory and provide more sunlight to the forest floor. Here you will notice an American beautyberry (lower left) as well as many clumps of little bluestem responding to the increased sunlight and reduced competition from undesirables. This area will provide excellent nesting and brood-rearing habitat for wild turkey as well as many nongame species.



The wildflower response after the prescribed fire was phenomenal. These flowering plants provide habitat for many pollinating insects, a seed source for various birds, and forage for white-tailed deer.

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*PICTURES ARE WORTH A THOUSAND WORDS - CONTINUED*

After several prescribed burns, there is a noticeable difference between the burned (left of road) and unburned (right of road) areas. While the unburned area does provide habitat, it is a matter of time before the understory will be choked out by various tree and shrub species.

As with any habitat management tool, proper education is vital before 'experimenting' with a prescribed fire on your property. TPWD encourages you to use all available resources whether it is your local TPWD wildlife biologist or other conservation resources before implementing a prescribed fire program.



*Bobby Eichler is the Technical Guidance Biologist for the Oak Prairie District. He has Bachelor and Master of Science degrees in Forestry both with emphasis in Game Management, from Stephen F. Austin State University. A native of Giddings, Bobby started his TPWD career in East Texas before moving to La Grange in 2007.*



# Species Spotlight: Doves of South Central Texas

WRITTEN BY MARK LANGE

**Whether dove played a symbolic role in your wedding or you are an avid wing-shooter, doves seem to be appreciated by all for a variety of reasons.**

Many do not realize the diversity of doves in Texas. Seven species of dove call Texas home in different extents. Those species include common ground dove, Eurasian collared dove, Inca dove, mourning dove, ruddy ground dove, white-tipped dove and white-winged dove. For the rest of this article I will focus on the five species that can be seen in our area which are white-winged dove, mourning dove, common ground dove, Inca dove and Eurasian collared dove. All of these species share similar forms of the brown/gray coloration with most of the color variation in the wings.

**White-winged doves** are easily recognized by the white patch on the wing, seen as a narrow strip on the lower edge of the wing when the bird is perched. Adults are slightly larger than mourning dove and have more rounded tail feathers. Mature white-winged doves will have bright blue coloration around the eye and bright pink legs while juvenile birds lack that bright coloration. In the early 1920s, the white-winged dove population was estimated to be several million. Due to habitat loss from agriculture and heavy hunting pressure, populations declined to just 500,000 by 1939 (Texas Parks and Wildlife). Populations hit a low in 1951 with just 110,000 birds estimated in Texas (Taylor et al. 2006). Populations have recovered well and are currently strong, likely benefiting from urban sprawl. White-winged doves are a social species that can be seen in flocks of more than 50 birds in urban areas and surrounding agriculture areas.



Photo © TPWD

**Mourning doves** are very similar to white-winged doves in general appearance with the most obvious difference being the absence of the white bar on the leading edge of the wing and a more brown coloration. Mourning doves are the only species in which the tail feathers come to a point. Mourning doves can be found in all areas of Texas and due to their expansive range, the estimated population of mourning doves in the United States is drastically higher than any of the other dove species. The large range of this species has enabled the population to be less impacted by factors that have greatly influenced populations of other species in the past. Like white-winged doves, mourning doves are also a social species. Mourning doves are more commonly seen in large numbers in rural areas and select for areas with bare ground (dirt roads, agricultural fields, grazed areas). While they are still present in urban settings, they do not typically occur in large numbers like white-winged doves commonly do.



Photo © TPWD

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**SPECIES SPOTLIGHT: DOVES OF SOUTH CENTRAL TEXAS - CONTINUED**

**Ground doves** are considerably smaller than mourning doves or white-winged doves, size more comparable to a sparrow. They are easily distinguished by their size, rufous color patch on their wings seen in flight, and their short black tail feathers. Ground doves are not as common as white-winged doves or mourning doves but can be seen somewhat frequently in farmlands, dirt or gravel roads, and open areas near brush.



Photo © Trey Barron

**Inca doves** are a petite species and differ in appearance from the ground dove with their more scaled pattern. The tail of an Inca dove is longer than that of a ground dove and forms more of a square shape unlike the short tail of a ground dove. Inca doves also have a rufous-colored wing that is easily noticed in flight. Like ground doves, Inca doves are a relatively uncommon species therefore no hunting is allowed for either species.



Photo © Trey Barron

**Eurasian collared doves** are an exotic species that also prefer to inhabit rural areas. This species was first observed in Texas in the mid-1990s and since has quickly spread throughout the state. They are larger than both the mourning and white-winged doves, and are commonly seen sharing areas with both of those species. The introduction of an exotic species poses obvious problems to the native species. The competition for food and nesting sites is increased therefore native species have less availability of vital habitat components for their survival and proliferation. Since collared doves are an exotic species, TPWD does not regulate their harvest, so they do not count toward the daily dove bag limit during hunting season.



Photo © TPWD

**References:**

Taylor, B., D. Rollins, J. Johnson, J. Roberson, T. W. Schwertner, N. J. Silvy, and R. J. Linex. 2006. 'Dove management in Texas.' Texas Cooperative Extension B-6185, College Station, Texas, USA.

Texas Parks and Wildlife. 'South Texas Wildlife Management: White-winged Doves.' n.d. Web. 2 June 2016.



*Mark Lange is the wildlife biologist for Colorado and Austin Counties where he started in June 2012. He grew up in the Texas panhandle in the small town of Nazareth. He attended West Texas A&M University where he completed his Bachelor of Science Degree in Biology/Wildlife Science in 2006 and his Masters of Science Degree in Biology in 2011. Mark offices out of the Columbus field office. Mark has diverse interests and enjoys working with landowners towards their management goals.*



## Plant Profile: Common Sunflower

BY NATIVE AMERICAN SEED WITH MAJOR CONTRIBUTION FROM ZNOBIA WOOTAN

The **common sunflower** (*Helianthus annuus*) is one of those natives that we all take for granted. We see them here, there and everywhere, but almost always at a distance. We have forgotten how attractive those big yellow blooms are when seen up close. Sunflowers are a “nostalgic” flower that make us think of farms and country gardens of the past. They turn up on everything from clothing to pot holders in the kitchen.

They’ve never been out of fashion to the wild things, either. Common sunflowers are a terrific habitat plant! They attract a variety of bees and butterflies, and are a larval food of choice for the gorgone crescent spot (*Chlosyne gorgone*), painted lady (*Vanessa cardui*), silvery crescent spot (*Chlosyne nycteis*), and bordered patch butterflies (*Chlosyne lacinia*). Common sunflowers are also a major food source for seed-eating birds in the fall. To top it all off, they are hardy enough to withstand drought conditions, and if you allow them to re-seed, they will be there to feed wildlife and provide beauty every year.

The common sunflower is as much a part of our heritage as the buffalo, Native Americans and the prairies on which they depend. Lewis and Clark mentioned the Indians use of common sunflower in their journals. This evidence suggests that nearly 3,000 years ago Native Americans began domesticating the common sunflower by hand selecting the largest seeds for replanting the next year. This eventually yielded a product with larger seeds, that the Indians used for food, oil, crafts and medicine and that thankfully we enjoy today as well. Native Americans would pound and boil the flower for dyes which they used in weaving and basketry. Some medicinal usages for common sunflower are for snakebites, spider bites, pulmonary ailments, burns, malaria, high fevers, diuretics, and expectorants. Not only are the seeds edible but the sprouts and the yellow petals make a tasty addition to salads.

Wild cousins of this early domesticated stock are still found along roadsides and in fields throughout North America. It is the most abundant wildflower in Texas probably because they thrive in full sun and require very little water. The bloom of this species faces east as the morning sun rises and follows the sun through the sky until sunset with its face turned towards the west. The name common sunflower in Spanish means “looks at the sun.” In Greek, the scientific name *Helianthus* comes from “helios” which means sun and “anthos” meaning flower thus the name sunflower. The common sunflower is an annual that begins blooming the end of May continuing through the fall. It is an allelopathic species that produces a chemical that reduces competition from other plants. Common sunflowers can grow from 2 to 8 feet tall with numerous branches that have flowers ranging from 2 to 5 inches across. The seeds are eagerly eaten by doves, quail, turkey, and various songbirds. It is a favored seed of the American goldfinch. Pollinators rely on common sunflower as a dependable nectar source during the hottest part of the summer. Winter and early spring are the perfect time to plant seeds so that you can experience the uplifting site of the bright blooms during hot summer months. I know the birds enjoy their fall bounty of delicious seeds.



*Flowers range from 2 to 5 inches across and follow the sun throughout the day.*

*Photo © Native American Seed*



*Sprouts and bloom petals are edible by humans. Winter and early spring are the perfect time to plant seeds.*

*Photo © Native American Seed*

# The North American Wildlife Model: Wildlife Ownership

WRITTEN BY BOBBY EICHLER

Wildlife conservation in the United States is unique compared to many other parts of the world. The North American Model of Wildlife Conservation is the guiding principle in wildlife management today in the United States and also Canada. The Model consist of various laws, principles, regulations, and policies that have evolved over time. Although the model is based on tenants primarily developed during the 19th century in North America, some of its roots date back to the Roman Empire.

The Model is based on two guiding principles; 1) fish and wildlife belong to the people and 2) wildlife are to be managed in ways that will sustain healthy populations forever. These two guiding principles are further supported by seven pillars known as the Seven Sisters of Conservation (RMEF).

The Seven Sisters of Conservation are as follows; 1) wildlife is to be held in the public trust, 2) there is a prohibition on commerce of dead wildlife, 3) the allocation of wildlife is by law, 4) there should be opportunity for all, 5) the killing of wildlife should be for legitimate purposes or non-frivolous use, 6) wildlife is to be considered an international resource, and 7) wildlife policy should be managed by science [RMEF]. Due to the lengthy discussion on each one of these principles, the goal of this article is to cover Sister #1 and the topic of public trust.

## **To understand the principle of public trust, one must follow centuries of law that set the precedence for the public trust doctrine.**

Roman law classified property as either, 1) belonging to the gods, 2) belonging to the state, or 3) belonging to the individual. Property could also be classified as common property, meaning that it could not be privately owned and it was for the common use of everybody. Within the Roman society, wildlife was included in the property group that was to be owned by no one, thus being common property (Organ et al. 2012).

In A.D. 1215 the English established the Magna Carta and used portions of Roman law within its development. At this time, since the English did not like the idea of ownerless property, the ownership of public resources was placed under the king (Horner 2000). Under the Magna Carta, the king was entrusted with the public resources and given the responsibility to oversee it; this often meant only the wealthy and those closely aligned with the king were able to enjoy the natural resources.

In the early period of the American colonies English law was the law of the land. After independence and after the formation of the United States, there was no king to be the trustee (Organ et al. 2012). Also during this time of great expansion, wildlife populations were being decimated by massive habitat loss and wide scale market hunting due to no regulations. It was not until the Supreme Court decision in 1842 of *Martin v. Waddell* that public resources were entrusted to the government (Organ et al. 2012). This court case set the foundation for the modern Public Trust Doctrine. The Public Trust Doctrine has since become a pillar for wildlife management and conservation in the United States and Canada.

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**THE NORTH AMERICAN WILDLIFE MODEL: WILDLIFE OWNERSHIP - CONTINUED**

The Public Trust Doctrine, as explained by Sax, has four fundamental concepts (Sax 1999). Concept # 1 states that public trust is common law. This means that there is no legal code specific to the doctrine. All the early guidelines for the doctrine were 'judge-made law' and evolved through court decisions. Early development of the Anglo-American legal system was mainly from court rulings and common law. Concept # 2 states that public trust is state law. Within this, there is no single law but many laws and the laws unifying principle is the fundamental rights of all citizens. Concept # 3 states that public trust is property law. This means that states are asserting their own property rights or rights that belong to the public. Concept # 4 states that public trust is a public right. The meaning of concept 4 is that trust property is owned by the public and held for the benefit of the public.

Why is it important to understand the history and basic principles dealing with ownership of wildlife? Today in the United States, game laws cover a wide spectrum when dealing with 50 states. As stated previously, the Public Trust Doctrine has been created mostly through judicial decisions and not as much on legislative decisions. In the past, this type of decision making has consistently favored the Public Use Doctrine. While the North American Wildlife Model will surely evolve more over time, it is important to understand the foundation of the model so that there are some guiding principles. In today's culture, wildlife ownership and the principle of wildlife being held in public trust seems to be under attack every legislative session throughout the United States. Whether you are for or against the Public Trust Doctrine, it is your democratic right to have a voice by letting your state and federal representatives and judges know your stance. Don't sit idly by then realize it is too late.

## Literature Cited

Horner, S.M. 2000. Embryo, not fossil: breathing life into the public trust in wildlife. University of Wyoming College of Law, Land and Water Law Review 35:1-66.

Organ, J.F., V. Geist, S.P. Mahoney, S. Williams, P.R. Krausman, G.R. Batcheller, T.A. Decker, R. Carmichael, P. Nanjappa, R. Regan, R.A. Medellin, R. Cantu, R.E. McCabe, S. Craven, G.M. Vecellio, and D.J. Decker. 2012. The North American Model of Wildlife Conservation. The Wildlife Society Technical Review 12-04. The Wildlife Society, Bethesda, Maryland, USA.

Rocky Mountain Elk Foundation [RMEF]. The North American Wildlife Conservation Model. Missoula, Montana, USA. < <http://www.rmef.org/Conservation/HuntingIsConservation/NorthAmericanWildlifeConservationModel.aspx>> Accessed June 21, 2016.

Sax, J.L. 1999. Introduction to the public trust doctrine. Pages 5-12 in G.E. Smith and A.R. Hoar, editors, The public trust doctrine and its application to protecting instream flows. Proceedings of a workshop sponsored by the National Instream Flow Program Assessment. NIFPA-08. Alaska Department of Fish and Game and U.S. Fish and Wildlife Service-Region 7, Anchorage, Alaska, USA.

# Non-game Notes: Houston Toad Programmatic Safe Harbor Agreement

WRITTEN BY MEREDITH LONGORIA



Photo © Chase Fountain, TPWD

Texas Parks and Wildlife Department (TPWD) recently submitted an application to the U.S. Fish and Wildlife Service (USFWS) for an Enhancement of Survival Permit in association with a Programmatic Safe Harbor Agreement (Agreement) for the federally endangered Houston toad (*Anaxyrus houstonensis*). The Agreement is still in draft form until it is reviewed by USFWS, posted to the Federal Register for a 60-day public commenting period, and all comments are addressed. The final draft will then be returned to TPWD officials for the final signature that will set the Agreement into action, opening a new door for landowners who wish to do good things to the land in Houston toad country.

Some of the very conservation measures provided by the Endangered Species Act (ESA) that are intended to protect critical habitat for a federally listed threatened or endangered species can be interpreted by some as disincentives for maintaining or creating quality habitat for that species. Some landowners are skeptical about managing their land in ways that might benefit a listed species for fear that they might attract that species to their property or increase the number of individuals of that species on their property.

As the number of individuals of a listed species increases on a given property, the risk of accidentally harming one or several becomes greater. In other words, implementing management practices that benefit wildlife in potential habitat for a listed species can result in an unintended increase in liability under the ESA for landowners. As a result, many landowners hesitate to improve habitat for a listed species (or for any species) out of fear of increased liability under the ESA.

To alleviate this issue, Safe Harbor Agreements (SHA) and Habitat Conservation Plans (HCP) were developed to protect cooperating landowners from increased liability under the ESA as they implement practices that benefit a listed species. In short, when a landowner agrees to do good things to their land to create a net benefit for a listed species, an SHA protects that landowner from any increased liability under the ESA that might result during or after those actions are carried. Safe Harbor Agreements provide landowners with assurances that they will not be held liable for incidental take (accidentally harming/killing an endangered species) in turn for agreeing to improve habitat for the listed species.

*Continued on page 16*



**NON-GAME NOTES: HOUSTON TOAD SAFE HARBOR PROGRAMMATIC AGREEMENT - CONTINUED**

The Houston toad is in dire need of a program like this. An SHA can provide the necessary incentives to encourage and enable landowners to improve and protect habitat to bring it back from the brink of extinction and actively contribute to its recovery. A Houston toad SHA will enable landowners to work directly with TPWD to enroll in the program and receive ongoing technical assistance throughout the lifetime of their Cooperative Agreement.

An additional benefit for both landowners and the Houston toad is that a larger number of cooperators can enroll in a shorter amount of time, increasing the net benefit received by the species over that time-frame. A range-wide environmental assessment has been completed by USFWS, which greatly reduces the length of time it takes to complete the enrollment process when compared to an individual SHA between USFWS and a private landowner.

Texas Parks and Wildlife Department will serve as the permit holder, will enroll landowners by developing a Cooperative Agreement with them after completing a baseline habitat assessment, and will issue Certificates of Inclusion to landowners who enroll. A baseline habitat assessment documents the conditions of the land at the time of enrollment which helps measure the response of the Houston toad to the management activities.

A landowner can also return their property to its original baseline habitat conditions without penalty, if they should so desire, at the end of their Cooperative Agreement period. The Certificate of Inclusion will be issued once the enrollment process is complete, providing the landowner with coverage for incidental take throughout the term of their Cooperative Agreement. This Programmatic SHA is a completely voluntary agreement between the landowner, TPWD, and USFWS, and the landowner can terminate the Agreement at any time. However, if a landowner chooses to terminate their Agreement early, they will no longer be provided with the associated assurances.

An SHA is a boon for landowners – they can improve wildlife habitat on their property without fear of increased liability under the ESA, actively contribute to the recovery of an endangered species, receive ongoing technical guidance for free, and can rank higher for cost-share assistance for habitat improvement practices as a bonus for managing land for an endangered species. And through their efforts, they will improve habitat for many other wildlife species, including white-tailed deer, turkey, songbirds and other species that will also benefit from a well-managed habitat. It's a win-win situation for everyone! Now who's ready to sign up?



Photo © Chase Fountain, TPWD



*Meredith Longoria was Private Lands Biologist with TPWD for Bastrop and Caldwell counties from 2005 through 2014. In August of 2014, Meredith Longoria began her current position as Conservation Initiatives Specialist in the Nongame and Rare Species Program within the Wildlife Division of TPWD, where she continues to work on the Houston Toad Programmatic Safe Harbor Agreement as well as develop and implement conservation programs to assist private landowners across the state with enhancing habitat for other rare and at-risk wildlife species.*

# Oak Prairie Wildlife District 7 Facebook Page

WRITTEN BY MARK LANGE

We commonly talk about the toolbox we use to manage habitat. As the world of technology progresses, more and more tools become available for us to inform people of what we do as biologists, interesting pictures we get, or upcoming events open to the public. While some of you may be addicted to social media, there are others that avoid it like a high-pressure car salesman. Realizing that this is another effective way to distribute information to our cooperators, TPWD District 7 staff has added this means to our toolbox. For those of you that already follow our page, thank you for your interest. For those of you who haven't been exposed to our page, we encourage you to take a look at it. Much like Mark Zuckerberg (co-founder of Facebook) said, "We get excited about you following us on social media but in real life we get scared and run away."

Use this link to see our Facebook page: [www.facebook.com/OakPrairieWildlife](http://www.facebook.com/OakPrairieWildlife)

Photos from some of our popular Facebook posts are shown below. If you have an interesting picture you would like to share with us email it to [mark.lange@tpwd.texas.gov](mailto:mark.lange@tpwd.texas.gov). \*\*No personal information or location will be disclosed with provided pictures\*\*

*Wood duck hen captured on a nearly flooded trail camera after the recent heavy rains (photo used with permission of landowner)*

*District 7 biologists Doug Jobes and Mark Lange banding white-winged dove  
Photo © Kelly Norrid*



*Bobcat taking a look at a landowner's trail camera (photo used with permission of landowner)*



# Dove Hunting: Agency Efforts, How Hunters Can Help, and Additional Opportunities

WRITTEN BY MARK LANGE

**If I said the word “Huntember” most hunters would immediately be able to tell me the exact date I am speaking of, September 1.**

September 1 is opening day of dove season for the majority of the state and represents the start of hunting opportunities to be enjoyed by Texas hunters for several months to follow. Hunters mark their calendars for the opening day of dove season in their respective zones and count down the days.

Dove hunting in Texas is a long-standing tradition and one that is only getting more popular. An estimated 276,800 Texas dove hunters tested their wing-shooting skills in 2014, distantly followed by California with an estimated 52,600 active dove hunters that year. With over 830,000 estimated dove hunters taking to the field nationwide in 2014, it comes without saying that dove hunting is a popular sport that contributes significantly to the local and state economies (Seamans 2015).

Mourning dove populations were estimated to be 274 million in 2014. Hunter harvested mourning doves for the 2014 season was estimated at just over 13 million birds nationwide. Texas hunters harvested more doves than any other state with an estimated 5.2 million mourning doves being harvested in the lone star state (Seamans 2015). Unfortunately, there is no way to determine how many shots it took to harvest those birds, many hunters are hesitant to admit such numbers.

Many do not realize that all state wildlife agencies work with the United States Fish and Wildlife Service to set hunting dates and bag limits for all migratory species including dove. Information gathered from all the states is used to determine season lengths and bag limits which are in the best interest of both the birds and hunters nationwide. As the interest in dove hunting has grown, so have the regulatory and research efforts. Every year population surveys in both urban and rural areas, as well as dove banding efforts, are conducted to monitor populations of dove. My goal for the rest of this article is to shed light on national and state monitoring and banding efforts, as well as additional dove hunting opportunities available that you may not be aware of.

## Monitoring Efforts

Throughout the nation, state and federal wildlife agencies perform various annual surveys to monitor dove populations. While data on all dove species is recorded in areas where they exist, the nationwide survey efforts are centered on mourning doves as they are the most widespread and hunted species. The United States is divided into three dove management units, Texas is included in the Central Management Unit. The results of all these surveys play a vital role in season lengths, bag limits, and dove management.

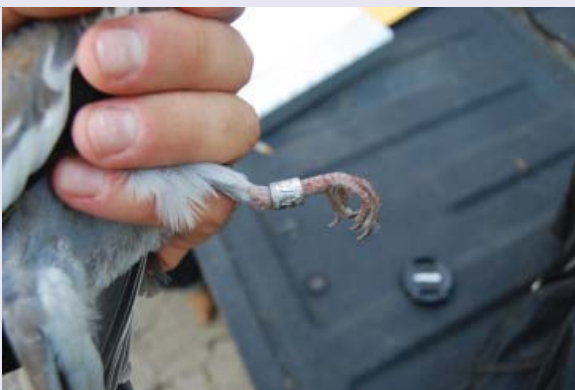
**Urban and rural dove surveys:** The urban surveys consist of biologists driving to predetermined points in urban areas and counting the number of individual dove of each species they see during a set amount of time. It is a relatively simple sampling method that is repeated annually to determine if either overall numbers of doves seen changed or if the composition of the dove species seen changed over time. Dove call counts are much the same

*Continued on page 20*



**DOVE HUNTING: AGENCY EFFORTS, HOW HUNTERS CAN HELP - CONTINUED**

except the obvious difference that biologists are listening for calls. So if you see a Texas Parks and Wildlife (TPWD) pickup in your neighborhood or on your rural county road making frequent stops in the early summer months, wildlife biologists are likely contributing data to these efforts.



*Dove banding*  
Photos © Mark Lange, TPWD

**Dove Banding:** TPWD biologists, as well as trained volunteers spend much of the summer trapping and banding both white-winged and mourning doves. White-winged dove trapping takes place primarily in June and early July while mourning dove trapping is conducted during July and early August. Efforts begin by pre-baiting sites where the desired dove species seem to be frequenting. Most white-winged dove trapping occurs in urban areas where birds are roosting or coming to residential bird feeders. Mourning dove trapping occurs in more rural areas typically on the edges of roads or any clearing where bait can easily be found by the birds. Once dove are frequenting the baited areas, walk-in funnel traps are set to capture them. Once we have captured dove, the data collection process begins.

The date and location of capture is recorded as well as the species of dove captured. The age of the individual is determined based on physical characteristics (plumage color, eye ring color and leg color) and molt pattern. A bird lacking more colorful plumage or the brightly colored eye ring and legs would be classified as a hatch year bird meaning a bird that hatched that current year. A bird having the brighter color characteristics would be a bird that hatched earlier than the present year. Molt pattern is determined by counting down the primary wing feathers to see which feather is currently being replaced by molting as it will be shorter than the other feathers or appear missing. The 10 primary feathers are replaced in order starting from the inside (#1) and progressing to the last outside feather (#10). For example, this white-winged dove is a hatch year bird as it lacks the bright eye ring and leg colors. It is replacing the seventh primary feather so it would be recorded as a "hatch year 7" aged bird suggesting it hatched approximately 90 days before capture. After the age is determined, the band number is recorded and the band is placed on the right leg of the dove.

### **DOVE HUNTING: AGENCY EFFORTS, HOW HUNTERS CAN HELP - CONTINUED**

Ask any waterfowl hunter what the trophy of waterfowl hunting is and almost all will respond with harvesting a banded bird. Most waterfowl hunters, when they are retrieving downed game, will immediately look for a band on the leg. Unfortunately, that is not the same practice for the majority of dove hunters. Nationwide banding data show that 501,774 mourning doves were banded from 2003-2014 with only 26,322 (5 percent) of those bands being reported by hunters (Seamans 2015). While there are many potential reasons for the low number of bands being returned, it is likely that many bands on harvested birds are overlooked by hunters. The data gathered from banding dove and returned bands helps biologists determine population estimates, harvest rates, survival, movement of dove, and is vital in the regulation making process. So the next time you take to the field to test your wing-shooting ability on dove, take a split second to check for a band. If you are lucky enough to harvest a banded bird, please take the time to report it at [www.reportband.gov](http://www.reportband.gov) or call toll free 1-800-327-2263 (BAND). When you report the band you will find out when the bird was banded, whether it was an adult or juvenile when banded, and where the bird was banded.

### **Hunting Opportunity**

As dove hunting grows in popularity and hunting land gets harder to find, the opportunity to hunt dove becomes increasingly precious. Hunters looking for limited dove hunting areas have created a growing market for dove leases. TPWD has recognized this dilemma and developed a program to offer landowners the ability to lease their land to the state. Across Texas, approximately 900,000 acres are leased by TPWD and offers hunters a wide array of legal game to be harvested. Most of the public leases in our area offer only dove hunting, but as competition increases for a good dove hunting location, I encourage you to take advantage of this opportunity. To legally hunt these areas you must possess a valid Texas hunting license as well as an Annual Public Hunting (APH) permit valued at \$48. Those permits can be purchased at any location that sells hunting licenses and can be used to access any TPWD public hunting lands in the state. To learn more about public hunting lands and the opportunities available to you in your area visit [www.tpwd.texas.gov/huntwild/hunt/public](http://www.tpwd.texas.gov/huntwild/hunt/public). If you are interested in leasing your land to TPWD, contact your local biologist or Kyle Thigpen at [kyle.thigpen@tpwd.texas.gov](mailto:kyle.thigpen@tpwd.texas.gov) or call at 979-696-4148 (office) or 979-255-2761 (cell).

Reference citation and for more information on the status of mourning dove see:

Seamans, M. E. 2015. Mourning dove population status, 2015. U.S. Department of the Interior, Fish and Wildlife Service, Division of Migratory Bird Management, Washington, D.C.

<https://www.fws.gov/migratorybirds/pdf/surveys-and-data/Population-status/MourningDove/MourningDovePopulationStatus15.pdf>

*Hunters take advantage of a public lease in Waller County on opening day of the 2014 season, Photo © Mark Lange, TPWD*



# Upcoming Events

## AUGUST

### 10-11 South Texas Wildlife Conference

Cotulla Convention Center, 117 N Front, Cotulla. Contact Clint Faas at 979-541-9803 or [cfaas@texas-wildlife.org](mailto:cfaas@texas-wildlife.org) or visit [www.texas-wildlife.org/resources/events/south-texas-wildlife-conference](http://www.texas-wildlife.org/resources/events/south-texas-wildlife-conference).

### 11 Pesticide License Training

Jackson County Services Building Kitchen, Room 119. 8:00 a.m. to 12:00 p.m. Contact Mike Hiller at 361-782-3312 or [mrhiller@ag.tamu.edu](mailto:mrhiller@ag.tamu.edu).

### 19 Washington County Wildlife Society Semi-Annual Meeting

1305 East Blue Bell Road in Brenham. Social: 6:00 p.m. Dinner: 7:00 p.m. Contact the Washington County Wildlife Society c/o Texas A&M AgriLife Extension at 979-277-6297 or visit [www.wcwildlife.org](http://www.wcwildlife.org).

### 26 Feral Hog Workshop: Demonstration of Remote Trapping Technology

Catholic Parish Hall in Goliad, 8:30 a.m. Contact Doug Jobs at 361-576-0022 or Brian Yanta at 361-645-8204.

### 26-27 Hunter Education Class

Dime Box Fire Station beginning at 6:00 p.m. on Friday, 8:00 a.m. on Saturday. Contact Roger Wubbenhorst at 979-820-5001.

### 27 Alum Creek Wildlife Management Association Summer Meeting

Bluebonnet Electric headquarters in Bastrop, 3:00 - 5:00 p.m. Dr. Michael Forstner will give his annual "State of the Houston Toad" presentation. Contact Robert Trudeau at [robert.trudeau@tpwd.texas.gov](mailto:robert.trudeau@tpwd.texas.gov).

## SEPTEMBER

### 10 Colorado River Wildlife Management Association Meeting

Schneider Hall south of Columbus, 6:00 p.m. Contact Jared Rutta at 979-732-7779.

### 10 Jackson County Wildlife Management Association Fall Meeting

Jackson Co. Services Building in Edna, 10:00 a.m. Contact Wade Watkins at 361-771-2401.

### 10 Lee County Outdoor Extravaganza

Giddings High School, 8:00 a.m. Contact Larry Spitzenberger at 979-542-6245.

### 10 Western DeWitt Wildlife Management Association Fall meeting

Contact Larry Vasbinder at 361-564-4185.

### 16 Central Colorado County Wildlife Management Association Meeting

Beason's Park in Columbus, 6:00 p.m. Contact Ryan Beane at 979-732-9533.

### 17 Goliad County Wildlife Management Association Fall Meeting

Contact Doug Jobs at 361-576-0022 or Brian Yanta at 361-645-8204.

### 17 North East Colorado County Wildlife Management Association Meeting

Saint Peter and Paul Catholic Church in Frelsburg, 6:00 p.m. Contact Terrell Maertz at 979-732-1727.



# Upcoming Events

## SEPTEMBER CONTINUED

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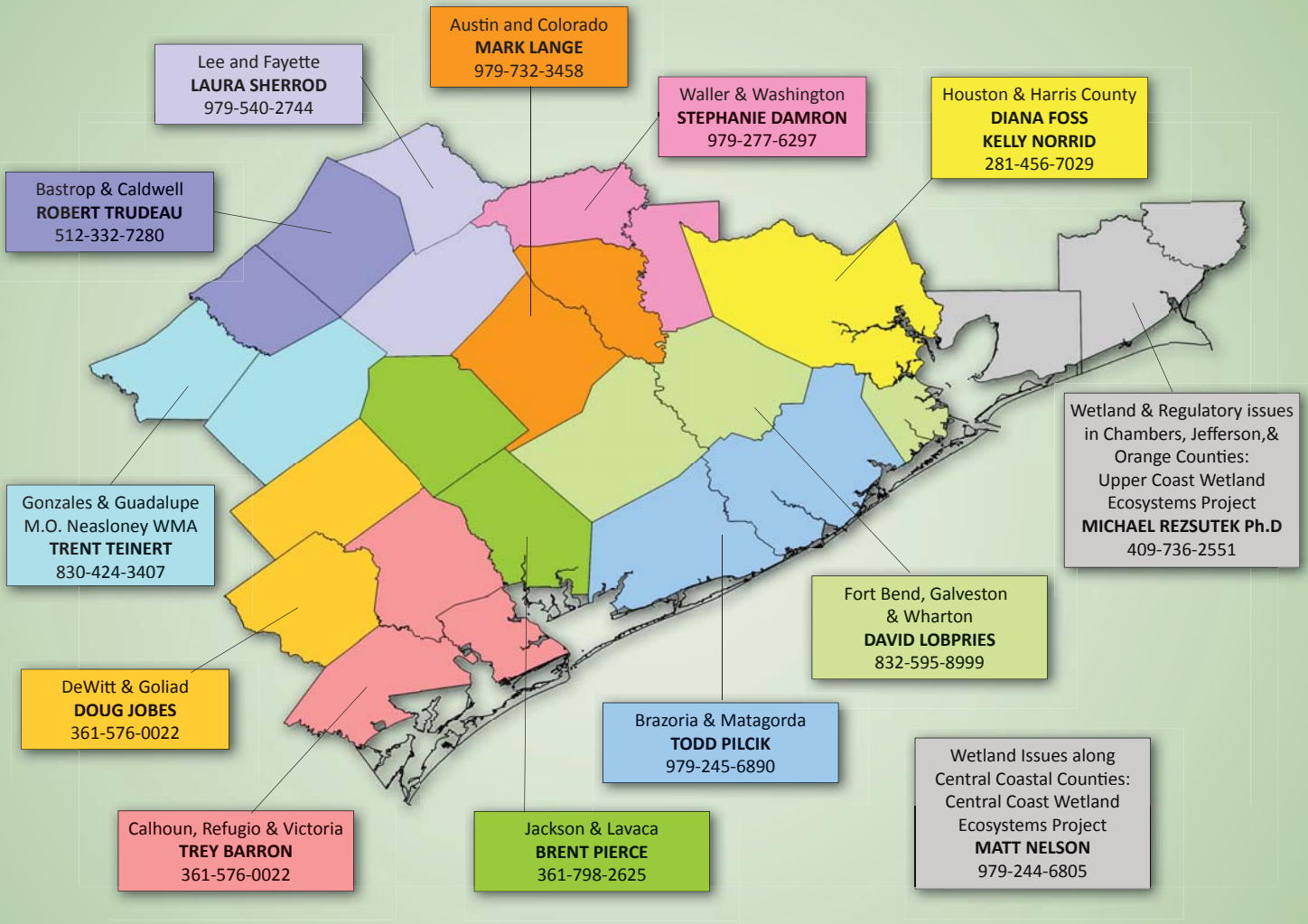
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| <b>17</b> | <b>Sandy Creek Wildlife Management Association Meeting</b><br>K.C. Hall in Columbus, 10:00 a.m.<br>Contact Charlie Haines at 979-758-1947.  | <b>24</b> | <b>Meyersville Wildlife Management Association Fall Meeting</b><br>Waskow's Barn, 5:00 p.m.<br>Contact Clay Haun at 361-243-6026.                        |
| <b>17</b> | <b>FireSmart: Wising Up to Wildfires</b><br>A field day to kick off a new wildfire preparedness education program at Bluebonnet Electric Cooperative headquarters in Bastrop. For more information visit <a href="http://www.bluebonnetelectric.coop/firesmart">www.bluebonnetelectric.coop/firesmart</a> . | <b>24</b> | <b>Oakridge Ranch Wildlife Management Association Meeting</b><br>Oakridge Community Center/Fire Station, 10:00 a.m. Contact Jack Jetton at 281-910-1432. |
| <b>18</b> | <b>Lavaca County Wildlife Management Association Fall Meeting</b><br>K.C Hall in Hallettsville, 10:00 a.m.<br>Contact Joel Wagner at 361-798-6506.  | <b>24</b> | <b>Harvey Creek Wildlife Management Association Meeting</b><br>K.C. Hall in Columbus, 6:00 p.m.<br>Contact Brian Emmel at 512-750-8777.                  |
| <b>23</b> | <b>Guadalupe County Wildlife Management Association Meeting</b><br>Big Red Barn (near Seguin at Highway 123 and Cordova Road), 5:30 p.m. Contact Trent Teinert at 830-424-3407.   |           |  |

## OCTOBER

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| <b>15</b> | <b>North Central Fayette County Wildlife Management Association Meeting</b><br>Cooper Farm in Ledbetter, 4:00 p.m.<br>Contact Norman Schultz at 979-249-7159. | <b>18-19</b> | <b>Lee-Washington County Youth Firearms and Hunter Safety Field Day</b><br>Nails Creek State Park, 8:30 a.m.<br>Contact Laura Sherrod at 979-542-2744. |
|-----------|---|--------------|--|

# Our Wildlife Biologists



<p>District 7 Leader <b>DAVID FORRESTER</b> 979-968-3501</p>	<p>Technical Guidance Biologist <b>BOBBY EICHLER</b> 979-968-9942</p>	<p>Wildlife Diversity Biologist <b>BRENT ORTEGO Ph.D</b> 361-576-0022</p>
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*"To manage and conserve the natural and cultural resources of Texas and to provide hunting, fishing and outdoor recreation opportunities for the use and enjoyment of present and future generations."*

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**FOR MORE INFORMATION**

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