



Oaks and Prairies Wildlifer

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

TEXAS
PARKS &
WILDLIFE

Summer 2019

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Our Wildlife Biologists

District Field Notes

BY DAVID FORRESTER

I visited with a couple out of DeWitt county a few weeks back at a Texas Big Game Awards scoring school and banquet in New Braunfels, TX. They indicated they had only received 7 inches of rain in their part of DeWitt county since the first of the year. As wet as we are around La Grange and other parts of the district, I was astonished. Although I think most of the district is in fantastic shape regarding rainfall and habitat conditions are excellent, there may be pockets out there not quite as wet. However, we're not nearly as bad as we were in 2011, so we can be happy about that. We are heading into what is normally a very hot and dry period, but it looks like most of the district is set up to make it through in pretty good shape.

Biologists have been running white-wing and mourning dove surveys, as well as, trapping and banding. Trapping is going a lot better than last year with birds readily coming to bait. Quail surveys start in August, as well as, dove lease set up for our public hunting opportunities. The LMA enrollment deadline (June 15th) has come and gone. Biologists worked to make sure folks got enrolled properly. Biologists will be working to complete their own state deer population estimates (DMU lines) and working with landowners and coops to run the local population estimates. All of this starts about mid-July and runs through September.

Senate bill 733 passed the legislature this past session and this gives Texas Parks and Wildlife Department authority to charge a fee for the Managed Lands Deer Program. The bill also allows TPWD to use the money raised within the wildlife division. Basically, those participating in the conservation option and harvest option may see a fee for participation in the future. Right now, discussions are in the works on how the fee structure will look and what will be charged. This may impact our wildlife management association participants.



David Forrester is the District 7 Leader in La Grange. He has been with TPWD since 2001 when he started his career as the TPWD wildlife biologist for Fort Bend and Wharton counties. David has a Bachelor of Science in Agricultural Economics and a Bachelor of Science in Wildlife and Fisheries Sciences, both from Texas A&M University, and a Master of Science in Range and Wildlife Management from Texas A&M University-Kingsville.

Avian Jewelry—Using Leg Banding to Aid in Dove Management

WRITTEN BY MARK LANGE

Like many of you notice in your respective careers, times change and with that so does your job description and day to day operations. That is definitely true in the field of wildlife biology. One aspect of the job that hasn't changed much over the years is bird banding. This method has stood the test of time and proven to be one of the best ways to collect data on various species of both migratory and non-migratory birds as well as game and non-game birds.

The United States Fish and Wildlife Service started a national mourning dove banding program in 2003. In that program banding quotas are set by state as well as Bird Conservation Regions. The reason for that is to proportionately distribute bands to collect the soundest data nationwide. White-winged dove banding began in Texas decades ago. In 2006 the banding program was adjusted, as part of a TPWD research project, which led to a state-wide banding program that still occurs today.

While banding data plays a vital role in monitoring dove populations, there is an assortment of methods used to monitor populations annually as well as estimate annual survival and harvest rates. Those methods include rural call counts, urban visual surveys, Harvest Information Program (HIP) Surveys, and parts collection surveys. Rural call-count surveys are just what it sounds like, driving to set points in rural areas and listening for dove calls as well as visual observations of dove. Urban dove surveys are much the same except the set points lie in urban areas and instead of calls, biologists only collect data from visual observations. HIP surveys are completed when you buy your hunting license. You should be asked how many individuals of various bird species you harvested the previous year. This data is important and is used to estimate total harvest per state. Parts collection surveys are conducted after each hunting season when participating hunters supply wings from harvested birds which provides age ratios of that year's harvest.

You may be asking, "what information do we gain from dove banding"? By having a subset of the population "marked" with leg bands biologists are able to determine annual survival rates, harvest mortality, and demographics of these species. Simply put, if you recapture (capture previously banded birds) a high number of animals than you know you have sampled a large portion of the population. If they were marked in previous years, then you know that a high number of the population survived. Recaptures of dove banded in previous years are rare which doesn't mean that survival is necessarily low, but that the population is high and a lower percentage get banded. Reported bands, coupled with HIP survey data, help biologists determine harvest rates and population estimates. Population demographics are another valuable source of data collected during the banding process. Once dove are captured, by the presence of breeding plumage and/or eye ring coloration biologists are able to determine if the dove hatched that year or a previous year and based on molting patterns assign an estimated age. It is valuable to understand what portion of the population survived from previous years and to have a measure of reproduction for the current year.



Top: Dove trap set-up.

*Bottom: Banded White-winged dove.
Photos©Mark Lange, TPWD.*

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Avian Jewelry—Using Leg Banding to Aid in Dove Management, continued

Many people make the assumption that the primary reason for banding dove is to determine movement. While biologists can determine that a bird was banded at point X and reported at point Y, movement data is less meaningful than annual survival and harvest rates. If the bird was harvested at point Y, we don't know if the bird was just passing by or was staying in that area for a reason. So while scientifically movement data doesn't mean as much, it is still interesting. The short answer to "how far does a dove move" is not far typically. Dove are banded from June-August so in reality they have a short amount of time to move before the September hunting season opens and that is intentional. While we know some dove will suffer natural mortality before hunting season, we assume the vast majority of banded dove will survive until the hunting season opens if we band them as close to hunting season as possible. By doing that, as close to 100% as possible of banded dove should be distributed in the population to potentially be harvested. Like I mentioned before, a large majority of returned bands are reported not far from the original banding site and +/-90% of reported bands are in the month of September (the opening month of dove season). Dove that survive a longer period of time, obviously have the potential to move greater distances. The included maps show points from both mourning dove and white-winged dove that were banded in Texas in 2017 and the location the band was reported at. While many of the dove were both banded and recovered in Texas, it is somewhat common for white-winged dove to move into northern and central Mexico with fewer as far as Panama. Mourning dove regularly make more significant movements north into more central and eastern states.

While mourning dove are banded throughout the nation, Texas plays a large role in that effort and leads the way in white-winged dove banding. Dove harvest is also highest in Texas with an estimated annual average of 330,000 hunters harvesting an estimated 7 million dove. Texas makes up approximately 1/3 of the nation's dove hunters who are responsible for 35-40% of the mourning dove and 80-85% of the white-winged dove harvested annually in the nation. While the number of harvested doves may seem extremely large, that is 4-5% of the estimated population. Since 2003, there has been just over 30,000 mourning dove banded in Texas with approximately 1800 (6%) of those bands ever being returned. From 2006 to 2017 there have been just over 5100 white-winged dove bands reported, with approximately 100,000 white-winged dove having been banded in Texas over that time.

*Mourning dove—Presence of "buffy" tips (dove on right) on wing feathers indicates the bird was hatched in the current year.
Photo©Clint Faas, TPWD.*



White-winged dove hatched earlier than year captured. Photo©Clint Faas, TPWD.



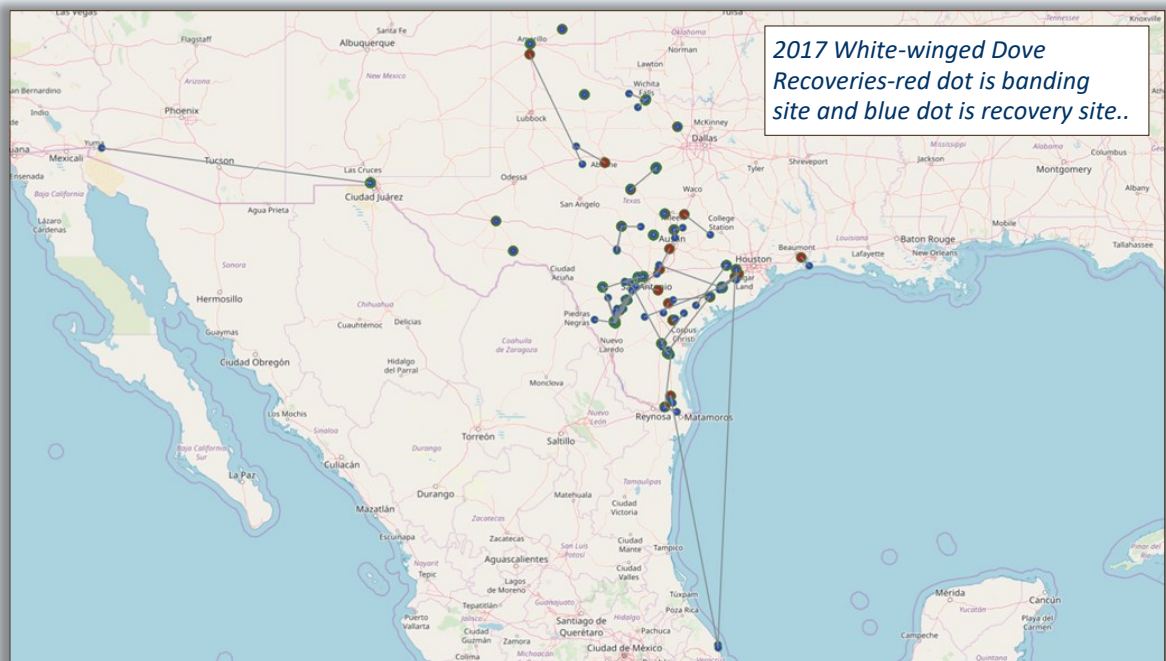
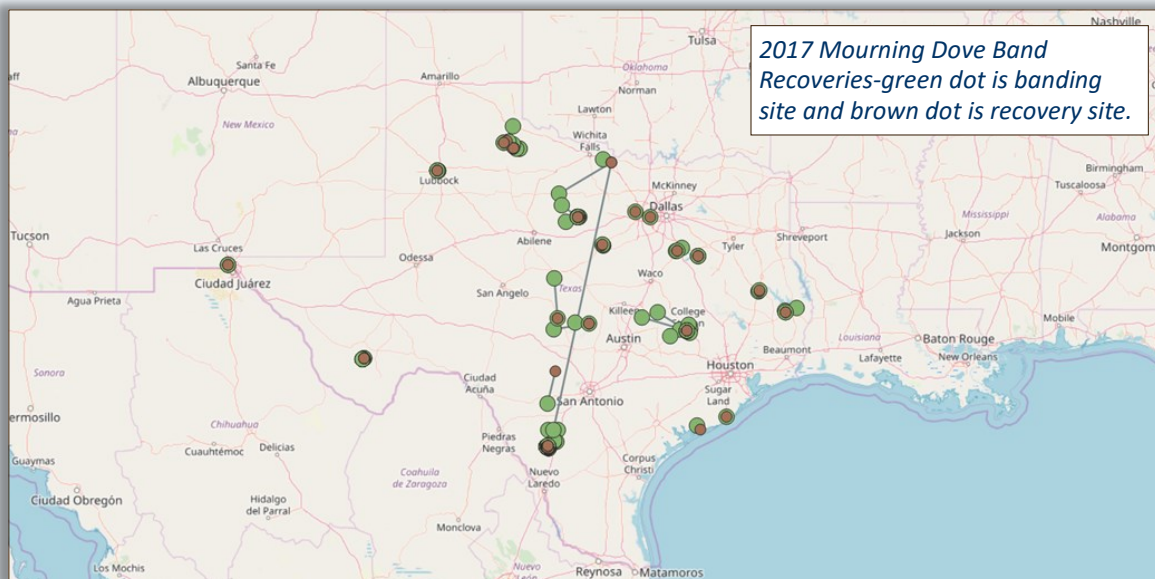
White-winged dove hatched the year of capture. Photo©Clint Faas, TPWD.



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Avian Jewelry—Using Leg Banding to Aid in Dove Management, continued

So how does this relate to dove hunting? Monitoring population demographics, survival rates, and harvest rates are the building blocks for analysis that determine bag limits, season dates, and season lengths. With all the data combined from across the nation, state and federal biologists are able to develop management strategies that will both provide hunting opportunity and ensure healthy dove populations for years to come. So the next time you take to the field and 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.



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: Big Bluestem

WRITTEN BY ZNOBIA WOOTEN

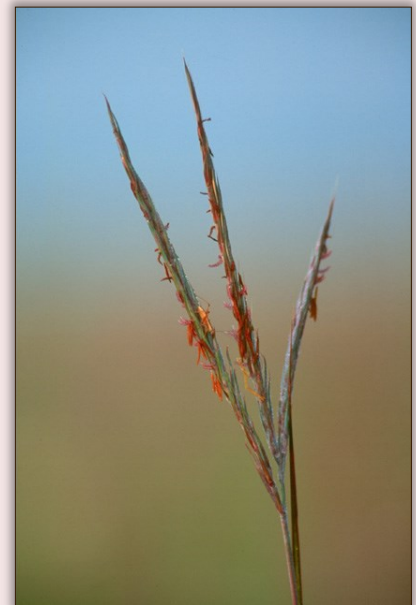
Early settlers crossing the prairie on horseback wrote of a tall prairie grass that brushed their knees. The undisputed “King of the Prairie” is big bluestem (*Andropogon gerardii*). It is the tallest of the native prairie grasses, ranging in height from 2 to 10 feet. What the early settlers saw above ground was only 1/3rd of the plant. The other 2/3rd of the plant was below ground. Their fibrous root systems reach down into the earth an astonishing 10 to 12 feet.

The Chippewa Indians used the roots for stomach pains and the leaves for fevers. Natural building materials were made from bundles of leaves and stems fastened to the support poles of their dwellings. This King of the Prairie along with a diversity of other native prairie grasses are vital in protecting valuable topsoil from the winds which constantly blow across this region. Some still remember experiencing the results of plowing under vast native prairie grasses in the 1930s with the beginning of the dust bowl.

Big bluestem is a perennial warm season grass that forms dense stands that gradually increase in size over time. Multiplying by seeds and tough rhizomes 1 or 2 inches below the soil, over time plants can form a very strong sod. These stands were kept in check by naturally occurring wildfires that would sweep across the prairie. After these wildfire events, big bluestem would regenerate from its tough rhizomes. Carbon leftover from burns was washed into the soil by rain to help feed the production of lush, healthy new growth.

Big bluestem has blue green stems that turn blue-purple as it matures. It will grow slow in the cool weather of spring with most of its growth occurring in mid-summer into fall. Big bluestem is a high-quality forage species that has a crude protein content of 16%-18% in the summer which decreases in late fall. Cultivated for sustainable grazing and hay production, this grass can yield 2 to 4 tons of hay per acre without chemical pesticides or fertilizers.

Another common name for big bluestem is Turkey Foot. The seed head is branched into three parts that looks like a turkey’s foot. These seed heads make attractive fall accents in prairie meadows. Big bluestem seeds are often used in restoration projects from prairie restoration to highway revegetation, mine reclamation, logging restoration, pipelines, road cuts and detention basin slopes. Its dense structure protects the disturbed soil from wind erosion and deep roots anchor the soil in place from water erosion as well. This native grass thrives in deep soils from the Gulf of Mexico to Canada and prefers full sun but will tolerate part shade. Because of its deep root structure, it is highly drought tolerant and lives happily with the natural rainfall. Big bluestem provides cover for numerous species of wildlife. The sedge wren and meadowlark use it for their nesting sites, and it is a larval host for at least two butterfly species, the Delaware skipper and the dusted skipper.



Top: Dense stand of Big Bluestem plants.

Bottom: Flowering turkey foot-shaped inflorescence with an unidentified grasshopper.

Photos©Carolyn Fannon, Lady Bird Johnson Wildflower Center.

Considerations for Planting Native Seed for Wildlife on Rights-of-Ways

WRITTEN BY DOUG JOBES, TEXAS NATIVE SEEDS

The Texas Native Seeds Program is a statewide effort working to improve native seed availability and provide guidance on native habitat restoration.



TEXAS NATIVE SEEDS

Introduction

Increasingly, many Texas landowners are faced with energy rights-of-way passing through their property, or having to deal with an easement of some kind. In many cases there may be opportunity for interested landowners to plant these disturbed areas with wildlife and pollinator-friendly plants. Native plants are beneficial to a host of wildlife and pollinator species, and while native seeds are readily available there are several things that the landowner should consider and keep in mind before purchasing. Vast amounts of information exists on the internet concerning native seed, and coupled with conflicting advice based on regional differences, a difficult decision can be made even harder. The Texas Native Seeds Program (TNS) is a statewide effort working to improve native seed availability and provide guidance on native habitat restoration. One of our goals is to ensure that landowners who are interested in restoring native habitat for wildlife understand the fundamental elements of the seed purchase and the planting process. We believe that outreach and education is vital in promoting the use of regionally adapted native species, which is important from both ecological and practical standpoints. While it may not be for everyone, Texas landowners who choose to plant natives should have a reasonable expectation of quality, and favorable results. This article is designed to give guidance to those who have made the decision and may be interested in planting native seeds in their right-of-way.

Negotiating for natives

When it comes to lease agreements there is no room for vagueness in your desire for native reseeding. Remember that it is your land and you can demand that the area be planted with what you want. Increasingly, most pipeline and utility easement holders will be receptive to your desires, but they must be addressed in the easement agreement. If the proper steps aren't taken during your lease agreement negotiations then you may be out of luck.

Basically, you have two options for planting. One choice is to get a seed mix recommendation from TNS or another qualified organization and request it be planted by the right of way owner. The specific seed mix desired can be written into the agreement and will ensure that what you are getting is the best adapted and of the best quality for your region. A recommendation from TNS will include specific information regarding the native species to be used, percentages of each species in the mix, and planting rate (Figure 1). If you are more of the do-it-yourself type then you can opt for compensation to conduct restoration yourself. This may come in the form of a payment in addition to the easement payment, in which you will buy the seed and pay for the planting. If you choose the latter it is important to know that reseeding costs associated with natives are higher than those of traditional agricultural seed and exotic grasses. Also, keep in mind that some native grass varieties are more expensive than other varieties of the same species. Seek advice and or a recommendation from TNS to be better informed about the cost before your agreement is finalized.

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Considerations for Planting Native Seed for Wildlife on Rights-of-Ways, continued

Figure 1. A seeding recommendation provided by Texas Native Seeds will contain the names of each species as well as Pure Live Seed (PLS), the planting rate, and PLS/acre.

seed variety/ species	% of mix (PLS)	lbs. PLS/acre	seeding rate PLS lbs/ac
Carrizo germplasm Little bluestem	20	4	0.08
Wilson germplasm Yellow Indiangrass	15	5	0.08
Lavaca germplasm Canada Wildrye	15	10	0.15
Welder germplasm Shortspike windmillgrass	10	1	0.03
Mariah germplasm Hooded windmillgrass	10	2	0.15
Duval germplasm Red lovegrass	15	1	0.1
South Texas germplasm Sideoats grama	10	5	0.15

In addition to the exact seed mix, easement agreements should address timing, management, and planting details. Other common negotiation points include steps to be taken in the event the initial seeding is unsuccessful and regarding verification of use of the proper seed mix. Landowners must also use some diligence to ensure that the items outlined in the agreement are followed.

What natives should you choose for your Right-of-Way

Most landowners interested in planting natives already understand the importance of native plant species for wildlife, however, many lack confidence in knowing what plant species to purchase for their project. This can become problematic when you are attempting to buy or specify native seed mixes because many don't realize or even know what native species exist in their area. TNS recommends that you speak to someone who understands and can explain to you the details associated with such a purchase. One easy way to determine what plant species would occur in your area is to ask one of your local Texas Parks and Wildlife Biologists or one of the TNS staff.

Be an informed consumer

When investing in native seed it is extremely important to consider what it is you are buying. If you do not, planting costs can increase, and results can be misconstrued or incorrectly interpreted. Simply put, not all commercially available seed is equal, and those buying native seed should be aware of this. Relying on second hand information or other unformed advice has led to lackluster results on many Texas properties.

When researching native seeds you will likely notice they are a relatively expensive product, especially when compared to the traditional non-native seeding options such as bermudagrass or Kleingrass. A typical and very basic seed mix could cost around \$50/acre whereas a more diverse mix can easily total over \$100/acre. The most expensive option of all are usually listed as a Wild Harvest, and these products labeled as "Texas Native" or "Wild Harvest" should be closely examined for quality assurance. Serious issues of Wild Harvest mixes contaminated with non-native grasses or unwanted weeds have been documented, and is one of the many reasons that TNS strongly encourages landowners to avoid this option. Another potential product you may encounter are those containing variety names listed as "Native" (Figure 2) or "VNS" which stands for Variety Not Specified. If you see this listed you should ask more questions or reconsider the purchase all together (Figure 3). You can request a copy of the seed report analysis for each species in the mix.

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Considerations for Planting Native Seed for Wildlife on Rights-of-Ways, continued

This will give you important information such as variety name, germination, and dormancy that will help you determine the quality of your potential purchase.

For more information check out the YouTube video at the following link:

Reseeding Natives in South Texas: Reading Tags, Storage and Handling

<https://www.youtube.com/watch?v=0k7HEmlRYqO>

The origin of purchased seed can have two very distinct meanings. The most important of which is not the location of the seed dealer, but the origin of the seed product itself. A term that is used to help understand the importance of seed source is “local ecotype”. In the native seed industry, this describes species of a particular seed source that was collected within a particular eco-region. Texas for example, has 10 major eco-regions that in some cases have dramatically different rainfall amounts, soil types and temperatures from one another. Even in the case of significant overlap in plant species distribution within these eco-regions, there exists observable differences in populations of the same plant species. For example, a common component of most native seed mixes in Texas is little bluestem (*Schizachyrium scoparium*) (Photo 1). Little bluestem is a dominant native grass species that has a distribution roughly encompassing the entire US mainland. However, native little bluestem plants in Oklahoma, Nebraska, or New Mexico exhibit differences from those growing naturally along the Texas Gulf Coast. This is referred to as a regional or local adaptation and has been observed globally among most plant species. In evaluation plots across the state, TNS staff have documented that these differences can manifest greatly in physical characteristics such as plant size, or phenology such as flowering time which influences seed set, and timing of plant dormancy. So, it is reasonable and logical to conclude that a planting recommendation for near Austin, Texas should not include a little bluestem that is sourced from Nebraska because these seeds are not well suited for the extreme climate differences.

Kind:	Curly Mesquite	Variety:	Native
Lot:	204557MOT099	Origin:	AZ
Date tested:	10/09	Pure Live Seed:	89.07%
Pure seed:	94.75%	Germination:	92.00%
Inert:	05.25%	Dormant seed:	2.00%
Other:	0.00%	Total Germ:	94.00%
Weed:	0.00%	Noxious:	None

Little Bluestem	45%
Sand Lovegrass (Bend)	15%
Switchgrass (Blackwell)	15%
Indiangrass (Lometa)	10%
Sideoats Grama (Haskell)	10%
Big Bluestem (Earl)	5%

Left: Figure 2. Varieties listed as “Native” should be avoided. While this particular example has been lab tested for germination, dormancy etc. its origin is from Arizona and has not been tested for performance in the area you intend to plant. **Right: Figure 3.** A native seed recommendation should include a variety name. If it is not included the buyer should ask the seed company for more details. In this case, 45% of the mix (little bluestem) could have originated from anywhere and its potential adaptation to the specific planting site is unknown.



*Photo 1: Examples of little bluestem (*Schizachyrium scoparium*) differences in plant performance at an evaluation site. Plant differences can be expected based on seed origin, and it is one reason why locally adapted species should be a top choice in plantings. (Left) Evaluations of several commercially available varieties and local collections of little bluestem show a remarkable difference in plant growth even when grown under the same field conditions. (Right) Little bluestem that is not locally adapted may flower and seed several weeks before those of local collections. Photo©Tony Falk, TNS.*

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Considerations for Planting Native Seed for Wildlife on Rights-of-Ways, continued

Understanding the need for regionally adapted species in restoration and reclamation plantings is a fundamental reason that Texas Native Seeds Program was initiated. This statewide program collects, evaluates and commercializes native species that are well suited for soil and climate conditions within the ecoregions of Texas. To date, approximately 40 species or releases have been developed by TNS. While the majority of species have originated from South Texas, TNS has expanded to a statewide program and is working towards releases within other regions, and several suitable seed options are available for most parts of the state.

Planting and follow-up maintenance

Now that you understand the importance of purchasing quality seed there are a couple of things you should consider before and after planting your right-of-way. First of all, the seed bed must be favorable for seed germination and plant establishment. As stated earlier, seed bed preparation is one of the most important factors in a successful native planting. The best way to describe an adequate seed bed is that it's not too soft or too firm. It is important to know that native seed comes in all shapes and sizes, and those that are just a few millimeters in size shouldn't be planted too deep. However, other seed that is larger should be placed deeper in the soil. To help with this, most recommend the use of a specialized seed drill designed for planting natives. These drills have different boxes designed for specific types of native seed and have features that allow for correct planting depths. A traditional one box seed drill will not plant most native seed mixes properly. Another option that can be used and may be more applicable for smaller plantings is a broadcast spreader. This type of seed spreader attaches to the three-point hitch and PTO of a tractor and spins the seed out across the planting area. One important note about this method is that a culti-packer or a heavy rolling object may be necessary to press the seed into the soil after broadcasting.

Once you have planted an area, it is likely that some follow-up maintenance will be required. The native seedlings require careful attention as you monitor for the presence of non-native weeds. It is typically recommended that you treat any unwanted species via Individual Plant Treatment (IPT) with a herbicide. In cases of dense weed infestations, shredding or herbicide applications could be warranted, but care should be taken to ensure that the chemicals used will not injure planted species. Again, any of the local professional resources should be able to provide insight regarding the identification of these unwanted species as well as their recommended treatment. If possible, grazing should be avoided at least for the first year after planting or at least until after the first seed set to ensure that the plants have developed adequate root systems for plant survival.

To sum things up, if you are interested in buying native seed, or having it used on a right-of-way crossing your land, but feel that the process is a bit overwhelming, TNS staff are willing and able to help you through the process. If you have questions about a potential purchase, or what species to choose please feel free to contact any of the regional TNS staff. A complete list of contacts is available at the following link.

<https://www.ckwri.tamuk.edu/research-programs/texas-native-seeds/teams>



Doug Jobes- Assistant Director Coastal Prairies Native Seed Project

A graduate of the University of Georgia, Doug received his B.S. in Wildlife Resources Management. In 2008, He attended Oklahoma State University for his M.S. in Wildlife Ecology and Management. An appreciation for native plants, their foundation in wildlife conservation and a growing interest from those in the region led him to pursue a career in the applied research field associated with Texas Native Seeds. Private landowner groups and other interested stakeholders are an important part of the project and his particular interests are in educating and demonstrating various aspects of native habitat restoration.

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A Remarkable Milestone: Colorado County WMA Supporting Local Youth

WRITTEN BY MARK LANGE

In the spring of 2012 I was at a crossroads in life. Fresh out of college with a master's degree I was searching for the next road to take. That next road came in the form of a phone call from my current supervisor David Forrester offering me the position in Columbus covering Colorado and Austin counties. My start date was scheduled for June 1, so the last couple weeks of May I was sorting out the few things I couldn't live without and that would fit into a one bedroom apartment in Columbus. That apartment was to be my home temporarily while my wife held down the fort in Amarillo until she could find employment here. The day came that I had to leave the first ever home we had bought, and then drive just about all the way across the state, I clearly remember a strong feeling of complete terror coming over me. I was asking myself, was this the right thing to do? Pack up and leave my wife and life as I knew it to move across the state to an area and job I knew very little about at the time. That fear stuck with me every mile of the 623 mile journey to Columbus with my belongings.

My first day on the job was a Friday and David scheduled a district meeting so the staff could meet their new co-worker. David informed me during the staff meeting there was a Colorado County Wildlife Management Association (CCWMA) board meeting scheduled for the next Monday evening outside of Columbus. Monday evening came and David attended the board meeting with me. Just so happens this meeting was to coordinate the 6 individual fall WMA meetings scattered across the county. So there I sat, second day on the job, not knowing anybody or anything about what was going on, and scheduling 6 meetings that I was going to need to speak about something at come September. I also clearly remember David sitting towards the back of the room with a smile on his face as I was being overwhelmed with information and commitments and I know he was thinking "poor guy". At that point I was really questioning my decision to move from Amarillo.

What I did learn that night was that the volunteers that made up the CCWMA board were passionate about their organization and had a clear plan as to what they wanted their WMA to stand for. By the end of the night I could remember a couple of names, one was just abbreviated to "Z" so that wasn't too tough and the other was Royce Jurries. Wayne Zimmerhazel, otherwise known as "Z", was the CCWMA president at the time and had been for many years and Royce had been the TPWD biologist in the county for decades before me. Both were very personable and welcoming but more importantly started helping me learn how CCWMA operated and its history. Wayne was quick to tell me that the first ever CCWMA meeting involved less than ten people, Wayne being one of them, and they grilled pork chops. Fast forward to the present and I have learned at least a few more names and even more faces, but now CCWMA is several hundred members strong, having all the meals catered, and ran by a group of volunteers that truly care about the image and purpose behind CCWMA. The group of volunteers that either have stepped up over the years to be a president of one of the 6 separate WMAs or CCWMA president, or offer their time to assist in selling raffle tickets, conducting the spring banquet, or organizing the whitetail contest every hunting season are all remarkable people and in their own way have aided CCWMA in recently achieving what most would say is a remarkable milestone. I would like to list at least all the names I know but they are too numerous and I would have to look in a phone book to see how to spell some of them.

CCWMA President, Chad Emmel, and scholarship recipient. Photo@CCWMA



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A Remarkable Milestone: Colorado County WMA Supporting Local Youth, continued

I started this article talking about me moving here not to put any attention on me, that is not where the credit is due, but to lead to the fact that over the years I have lost the strong feeling of complete terror I had when moving down. I now enjoy as well as feel very lucky to work with a wildlife-based organization that is doing great things not only for wildlife and its members but also for the local youth.

A few things have changed with the times to make CCWMA more efficient and offer more benefit to its members, and those changes have just made CCWMA stronger. This year the board decided to essentially double its scholarship awards that are given to graduating seniors at each of the Colorado County high schools as well as any youth that are related to CCWMA members but attend school outside the county. This year alone CCWMA, along with donations originating from Alvin Emmel's memorial, awarded \$19,000 in scholarships. While that alone may seem remarkable, CCWMA has now awarded over \$100,000 in scholarships in its history. While WMAs have met challenges in the past and likely will in the future, CCWMA has remained strong not only because of outstanding leadership over the years but most importantly because of the loyal and generous members that support it. There are many benefits being a WMA member, some take advantage of them and some don't, but either way if you have supported CCWMA in the past you should be proud of being part of this remarkable milestone.

Visit CCWMA's website at www.ccwma.org



CCWMA President, Chad Emmel, and scholarship recipients. Photo@CCWMA



CCWMA-Harvey Creek President, Brian Emmel, and scholarship recipients. Photo@CCWMA



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.

Landowner Tools for Conserving Rare and At-risk Species

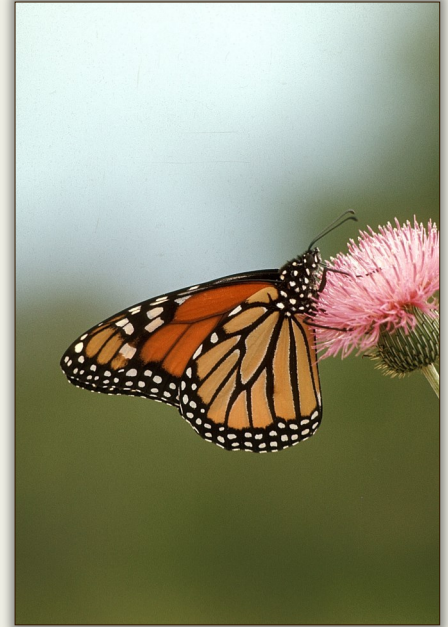
WRITTEN BY ELIZABETH BATES, TPWD

Texas is home to a rich and diverse assembly of wildlife species and their habitats. Some of these species are rare and threatened with extinction. Many of these species are endemic to the State. Since Texas is over 93% privately owned we rely on our landowners to help conserve our natural resources and heritage. There are conservation tools designed to assist landowners in managing for these rare and threatened species while simultaneously protecting landowner interests. This article gives a brief overview of those tools.

If you have a candidate species or a species that is being proposed for listing on your property, then a Candidate Conservation Agreement with Assurances (CCAA) might be of interest to you. This agreement is designed to help conserve candidate or at-risk species and prevent the need for listing under the Endangered Species Act. A CCAA provides landowners with assurances that if they implement certain conservation practices for a candidate species they will not be held to any additional restrictions or actions should the species become listed. These assurances are conveyed through an Enhancement of Survival permit which goes into effect if the species becomes listed and allows for a certain level of incidental take associated with the activities included in the agreement.

A Safe Harbor Agreement is designed for landowners that have a threatened or endangered species and/or habitat for that species on their property. It is a voluntary agreement between a landowner and the United States Fish and Wildlife Service (USFWS) designed to aid in the recovery of a listed species. The landowner agrees to management practices that contribute to the recovery of a listed species and in exchange the landowner is given formal assurances that any additional management practices or activities will not be required without the landowner's consent. The landowner is also issued an Enhancement of Survival permit that authorizes incidental take of the species resulting from any of the actions described in the agreement including returning the property back to baseline conditions at the end of the agreement. Currently there is a Houston toad programmatic Safe Harbor Agreement for landowners in Austin, Bastrop, Burleson, Colorado, Lavaca, Lee, Leon, Milam, Robertson counties. Under this agreement, Texas Parks and Wildlife (TPWD) is the agreement administrator and permit holder and can enroll landowners into the program. Landowners are issued a Certificate of Inclusion which conveys the assurances and incidental take coverage authorized by TPWD's permit.

Habitat Conservation Plans (HCP) allow for development or other lawful activities that would result in the incidental take of a listed species while simultaneously conserving the species. Landowners, corporations, Tribes, States and counties may receive an incidental take permit allowing for development in areas occupied by listed species provided they submit an HCP. An HCP addresses the anticipated effects of the proposed action on the species, how those effects will be minimized or mitigated and how the plan will be funded. The species benefits from the minimization of incidental take and from conservation of its habitat through mitigation.



Monarch butterfly. Photo@TPWD.

Continued on page 13

Landowner Tools for Conserving Rare and At-risk Species, continued

Landowners are provided with “No Surprises” assurances that if unforeseen circumstances arise the landowner will not be required to commit any additional land, water, or financial resources or have any additional restrictions placed on those resources without the landowner’s consent.

Landowners wishing to protect their property from future development can place the property under a conservation easement (CE). A CE is a written agreement between the landowner and the holder of the CE which is typically a nonprofit organization or a land trust. Under a CE, landowners voluntarily restrict certain uses or activities to protect the natural and cultural features of the property. Some conservation easements may result in significant property tax savings.

Conservation banks are another tool available to conserve listed species and provide benefits to the landowner. Conservation banks are properties that are permanently protected and managed for listed species and are used as mitigation to offset adverse impacts to the species that occurs elsewhere. The landowner or “bank owner” is issued a certain number of credits in exchange for protecting and managing their land for an endangered or threatened species. The bank owner can sell those credits to developers or others looking to meet their mitigation requirements for adverse impacts to that same species. The species benefits from maintaining larger parcels of land with intact ecological functions rather than smaller isolated parcels of mitigation land.

This article provided a brief summary of some of the tools available to landowners wishing to manage and conserve the natural resources of Texas. If you are interested in learning more about any of these tools you can contact Elizabeth Bates, Conservation Initiatives Specialist at elizabeth.bates@tpwd.texas.gov or 512-389-8759.



Houston toad calling. Photo@TPWD.



Monarchs. Photo@TPWD.



Elizabeth Bates is the Conservation Initiatives Specialist for TPWD. She graduated from the University of Delaware with a Bachelor of Science degree in Wildlife Conservation and traveled to Texas where she received her Master’s degree from Texas A&M University-Kingsville in Range and Wildlife Management and her Ph.D. in Wildlife Science.

White-tailed Deer Surveys: August and September

WRITTEN BY ROBERT TRUDEAU

By the early 20th century, whitetail deer populations were threatened because of the commercialized over harvest of this wildlife resource. With populations estimated at only a few hundred thousand across the nation, concerns of sustainability led to the beginning of conservation efforts. Now, a century later, deer numbers are in the millions and an untold number of acres are being managed for this and other wildlife resources. Continuing efforts to improve the quality of the whitetail deer herd and its habitat is based in the implementation of white-tail deer surveys.



Beginning a spotlight survey. Photo©TPWD.

Deer surveys should form the foundation of any well designed whitetail management program. They allow us to capture population data on an annual basis. Annual survey data, collected over time, is compiled to create trend data of the deer herd. Trend data allows us to monitor changes in both the white-tail population and their habitat. Fortunately, white-tail deer surveys have evolved over time with the refinement of the survey process and the advancement of technology. When done properly and at the right time of the year, white-tail deer surveys can give us the herd's composition ratios (does:buck and fawns:doe) and their densities (acres per deer). For the Oaks and Prairies region, August and September are our survey months.

As with any type of survey method, consistency is the key. Unfortunately, as humans, our minds tend to play tricks on us. This trickery can also ruin our attempts to collect sound population data. Constantly changing survey methods, routes, and times can affect the accuracy of the data. Observational bias, when considering deer surveys, is our mind telling us what we think we are seeing and recording it as such; though, we are not completely sure it is or isn't. This normally doesn't occur with our observations that are close, but usually with distant observations. To avoid observational bias, we only record observations that we are 100% certain of. If there is any uncertainty of it being categorized, then we must mark it as an unidentified deer and not make an assumption as to what it may be.

Herd composition surveys tend to focus on identifying bucks, does, and fawns at the individual level; while, population density surveys focus on the amount of deer in a given area. Except in a select few surveys, most basic deer surveys tend to give one or the other. Therefore, it is always recommended to utilize a combination of surveys. The goal should be to have one survey be able to collect data on the herd composition, while the other focuses on the population density. Some basic surveys include incidental observations, stand counts, game camera surveys, and spotlight lines. Incidental observations, and stand counts, provide herd composition data. Game cameras can also help collect herd composition data depending how they are utilized. For density data collection, spotlight lines work quite well. It is important to note, that the size of the area surveyed and the fencing of a property has a major influence on how proficient a game camera survey or spotlight line might be.

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White-tailed Deer Surveys: August and September, continued

In any case, we should take the time to evaluate each type of survey to see how applicable it will be for the property.

Incidental observations, also referred to as herd comp or mobile counts, is a highly simplified survey that doesn't require a special amount of time allotted to surveying. Observations can be made any time of the day. The only equipment required, besides a pen or pencil and a data sheet, would be a set of binoculars. Information collected includes bucks, does, and fawns. This type of survey involves recording what you are seeing as you are out and about on the property, being sure to take the time to identify what you are seeing as accurately as possible. The more observations you collect, the more precise your data will be. Ideally, decent data can be calculated with a hundred or more observations; however, the minimum number of observations collected should take into consideration the size of the property. At the end of the survey, the surveyor will be able to calculate the doe:buck and fawn:doe ratios.

Stand counts, also referred to as stationary counts, are also a simplified survey method. They are much the same as incidental observations; except, you sit in one location for a specified period of time and record what you are seeing without double counting deer. When surveying deer in this manner, it is usually recommended that you survey for a minimum of two hours and, if possible, have additional people surveying at other locations to increase confidence in the results of the survey. Observation periods are usually in the early morning and/or in the evenings when the deer are most active. The only equipment required, besides a pen or pencil and a data sheet, would be a set of binoculars. Information collected includes bucks, does, and fawns. Again, the more observations you collect, the more precise your data will be.

Game camera surveys have more financial expenditure associated with them and when it comes time to extract the data, can be more time consuming. Fortunately, with the advancement of technology and everything having gone digital, there is no more need to constantly be buying film and having it developed. They can also operate 24 hours a day. The size of the property being surveyed will determine how many cameras should be used. When utilizing game cameras for white-tail deer surveys, it is usually recommended that they remain operational for at least a two-week period during the survey season. All photos taken during the survey period will be sorted through. Photos that contain deer are used to calculate the total number of bucks, does, fawns, and unidentified. During this time, any photos that have a buck in them are placed into a separate pile. The surveyor will then go through all the buck photos again and identify individual, unique bucks. These numbers will identify the herd composition ratios and, depending on the size of property, possibly the deer densities within the survey area. The accuracy of the data produced dramatically increases when other surveys are used to complement the data collected from a camera survey.

Spotlight surveys take time and manpower but are efficient at determining deer densities. Three people are needed to properly conduct a spotlight survey; one to drive and two to operate the spotlights and collect the data. When planning a route for a spotlight survey, you want to make sure that the line is representative of the habitat on the property. You will also want to make sure that it doesn't promote double counting of deer already observed. Ideally, spotlight lines are at least a couple miles long and will be able to be navigated; regardless of the weather. Once a line is established, the number of acres observed is calculated by using a rangefinder to record the distance measurements every tenth mile to both the left and right of the vehicle and plugging those numbers into the total-visibility equation. The distances should be recorded on a data sheet each season; in some cases, distances can be taken every couple seasons, depending on changes in the vegetation structure.

Continued on page 16

White-tailed Deer Surveys: August and September, continued

The actual spotlight runs will consist of a driver and two spotters, with each spotter covering their side of the vehicle and the driver maintaining a speed of 12 miles per hour or less. When animals are spotted, the spotters should use the binoculars to identify if they are deer and how many there are. Spotlight line surveys should be conducted a minimum of three times each season, and preferably on fair weather nights.

Successful white-tail deer management starts with accurate survey data. The above-mentioned survey methods are some of the more common surveys for the Oaks and Prairies region. Determining the survey method or methods that work best for you will be beneficial in compiling population trend data and making the best decisions when it comes to white-tail management. The accuracy of the data relies upon repeating the same process, the same way, each time. Texas Parks and Wildlife biologists are available to assist you in determining what surveys may be the most beneficial and they can also assist you in modifying them to fit better with your management objectives. If you have any questions on survey methods or calculating the collected data, I urge you to reach out to your local biologist. They will be glad to assist you.



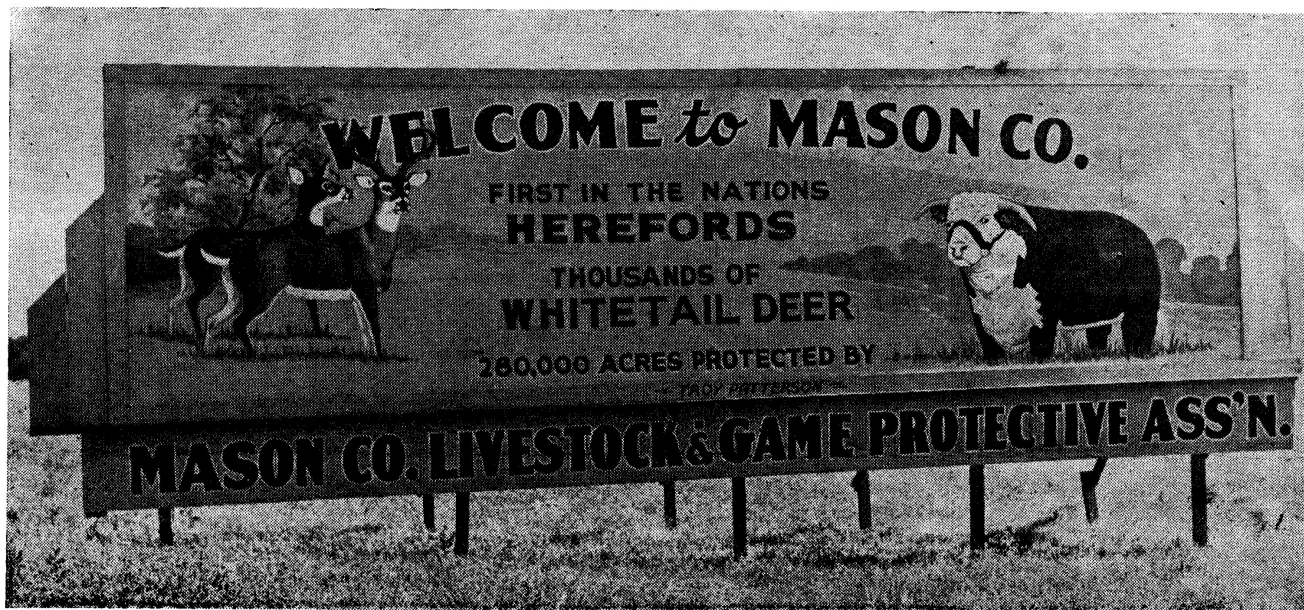
Robert Trudeau is the Wildlife Biologist for Bastrop and Caldwell counties and offices out of Bastrop. He graduated from Tarleton State University in 2011 with a Bachelor of Science in Wildlife Management and a minor in Biology. Robert was hired by TPWD in 2013, where he filled the position of Resource Specialist for the Lost Pines Complex until accepting his current biologist position in 2014. Prior to working for TPWD, Robert has also worked as a Biological Science Technician for the US Fish and Wildlife Service in South Dakota, Illinois, and Nebraska.

Some facts on white-tailed deer:

- 50-80% of the male population leave their natal home range as yearlings, known as dispersal
- the gestation period for doe averages 210 days
- deer have a 310 degree field of view without moving their head
- olfactory communication is likely the most important form of social communication
- peak scraping activity normally occurs about 2-3 weeks prior to peak breeding

Hewitt, D.G. 2011. Biology and Management of White-tailed Deer. Boca Raton, FL. CRC Press.

Rare Billboard Shows Deer as Well as Cattle Bring Prosperity to Landowners



SEEK HUNTERS' AID IN FINDING TAGS

Since the Texas Game, Fish and Oyster Commission has banded several thousand quail, several hundred doves, both mourning and white wings, and has also tagged a large number of deer and turkeys during the last year, an appeal is being made to all sportsmen who kill any of these species of game which are tagged to send the information to the Game Department at Austin.

Game Department biologists know they can obtain considerable valuable information if reports on deer, turkey, quail and dove tags is obtained from hunters. They will eventually be able to tell the sportsmen how far game travels from the point of release and to gather valuable information on the condition of the birds and the length of their lives. This, of course, applies particularly to quail. As far as deer and turkey are concerned, much can be ascertained concerning the length of productive life.

Hunters killing game which has been tagged will help if they send the number of the tag or band, the kind of bird or animal wearing it, sex of the bird or animal, the place it was taken (distance from nearest town) and the date of the kill.

Valuable information has already been secured through the banding of white wing doves and the returning of dozens of the bands to the Game Department in Austin. Among other things, biologists have a good estimate of the total white wing population by knowing the percentage of bands retrieved and the number banded. For example, it is logical to believe that if you band 100 birds and retrieve 10 per cent of them that you have killed approximately 10 per cent of the population.

Billboards like the above are not common. In fact, very few are seen in the entire United States. The significant "catch" is that the landowners of Mason County, Texas, are so thoroughly sold on the idea of wildlife as a crop that they advertise the abundance of deer on their lands as well as the abundance of cattle. The protective association mentioned in the billboard protects not only cattle but deer and other wildlife, and, in Mason county, which is in excellent deer range, protection was all that was needed to bring the deer population from practically nothing 30 years ago to the present state of abundance. Conservationists are continually preaching the idea of game as a crop. Treated as such, it will prosper. Will you help spread the good word around?

Prairie Chicken Increase

While the prairie chicken has a long road to travel before there could be an open season which would not destroy the few remaining birds, good hatches of Attwater Prairie Chickens were reported this year in Colorado, Austin, DeWitt and Refugio counties by Game Department officials. Young birds in Refugio county flourished so well they were difficult to distinguish from the adult birds in June. Birds have been located in several sections where they had not previously been, but in other sections the converting of more land to rice fields each year is cutting down the range of those fine game birds, Game Department biologists report.

Squirrels Using Bridge

An old bridge across the Neches River between Angelina and Trinity has served its best days for pedestrians and motor cars and was abandoned when a new highway was put through. However, squirrels still make use of the bridge, going back and forth over the river by using the iron framework of the bridge.

TEXAS RANKS 6TH IN DUCK HUNTERS

Texas is the sixth leading duck hunting state, figures released by the U. S. Fish and Wildlife Service show. Texas sold a total of 63,460 migratory waterfowl stamps last year. Minnesota was the leading state with a total of 120,034 stamps being sold, according to word received by the Texas Game, Fish and Oyster Commission.

Other states in the big ten of duck hunters are Michigan, 86,064 stamps; Wisconsin, 84,075; California, 74,644; Illinois, 66,434; Washington, 50,796; Iowa, 39,143; Louisiana, 33,870 and New York, 32,304.

A total of 1,111,561 hunters purchased the \$1 duck stamps which must be carried by all migratory waterfowl hunters over sixteen years of age. The stamp must be in the hunters' possession when they are in the field. Texans usually stick the stamp on the back of their state hunting license. It must be canceled by the holder writing his name across the face of the stamp.

Raccoons Help Coyotes

Raccoons in Motley County have, in at least one instance, helped an enemy of theirs, coyotes, to get meals. A state game warden, after hearing noises in a wild turkey roost of tall cottonwood trees, investigated and found raccoons in the trees. The turkeys took flight. At least two of them were caught by coyotes after being forced off their roost by the raccoons.

Biologists believe, and can prove, that practically every bird or animal has a place in the balance Mother Nature attempts to maintain against the influences of man's depredations, but in this instance they have recommended control of the number of offending raccoons.

Game-changing, Bipartisan Wildlife Legislation Introduced in Congress

WRITTEN BY KELLY SIMON

Fish and wildlife populations are under increasing pressure from habitat loss, invasive species, emerging diseases, and extreme weather events in Texas and throughout the country. As many as one-third of our nation's species are on the brink of becoming threatened or endangered. A bill introduced in Congress last Friday seeks to reverse this trend.



www.txwildlifealliance.org. Photo©TPWD.

House Resolution 3742, known as the Recovering America's Wildlife Act, would provide \$1.3 billion annually to state initiatives, and \$97.5 million to tribal nations, to support at-risk fish and wildlife populations and their habitats. The funding would come from existing revenues, and would not require any new taxes. Texas is estimated to receive more than \$50 million per year.

U.S. Representatives Debbie Dingell (D-MI) and Jeff Fortenberry (R-NE) introduced the bipartisan legislation with 60 original cosponsors (including 4 Texans!) and with nationwide support from conservationists, hunters, anglers, businesspeople, oil and gas company representatives, and the outdoor recreation industry.

Texas is home to more than 1,300 of the 12,000 species identified nationwide as Species of Greatest Conservation Need. Many iconic fish and wildlife are in decline, including the much-loved Texas horned lizard, Pronghorn antelope, Guadalupe bass, sea turtles, and many kinds of grassland and coastal birds.

H.R. 3742 represents a once-in-a-generation opportunity to change the course of history for these wildlife species, thus providing more regulatory certainty for businesses, land developers, the oil and gas industry, and governmental entities.

"H.R. 3742 would be a game-changer for fish and wildlife – in Texas and across the country," said John Shepperd", a spokesman for the Texas Alliance for America's Fish and Wildlife. "The Recovering America's Wildlife Act is a cost-effective way to recover fish and wildlife populations without the more reactive, "emergency room" measures of the Endangered Species Act. Once a species reaches the need to be listed as Threatened or Endangered, the process of recovery is more difficult and expensive. It is much smarter to act before these at-risk populations reach a critical point.

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Game-changing, Bipartisan Wildlife Legislation Introduced in Congress, continued

“Healthy fish and wildlife populations are the backbone of Texas’ fast-growing outdoor recreation economy, which includes hunting, angling, wildlife watching, kayaking, nature tourism, and hiking. Research has proven children do better in school when they have a connection to nature. Functioning ecosystems provide food, fiber, timber, pollination, and clean air and water which benefit all of us.”

Janice Bezanson of Texas Conservation Alliance notes that “the Recovering America’s Wildlife Act would bring much-needed funding to Texas for projects designed to keep species off the endangered species list, without raising or creating new taxes. This legislation is good for wildlife, good for business, good for Texans.”

H.R. 3742 directs existing federal revenues to the Wildlife Conservation and Restoration Program, established in 2000. State wildlife agencies will distribute the money through grants and partnerships within the conservation community for habitat restoration, research, land protection, establishing conservation easements, reintroducing wildlife, and other initiatives listed in each state’s Wildlife Action Plan.

Particularly interesting for a private lands state like Texas, the funding could expand cost-sharing programs for private landowners to conduct voluntary wildlife and habitat stewardship activities on their property. It will also be used to fund educational programs and introduce more Texans to outdoor recreation opportunities.

The Recovering America’s Wildlife Act gained a lot of support in the last congressional session; 116 Members of Congress cosponsored the House bill, evenly split between Republicans and Democrats. Texas had the second highest number of cosponsors of any state, 13 total, including 6 Republicans and 7 Democrats.

The Texas Alliance for America’s Fish and Wildlife is a coalition of more than 160 organizations and businesses which actively supports this important legislation. Every citizen can help, by urging their Member of Congress to co-sponsor H.R. 3742.

You can learn more about the Texas Alliance for America’s Fish and Wildlife and the Recovering America’s Wildlife Act by visiting www.txwildlifealliance.org.



www.txwildlifealliance.org. Photo©TPWD.

Upcoming Events

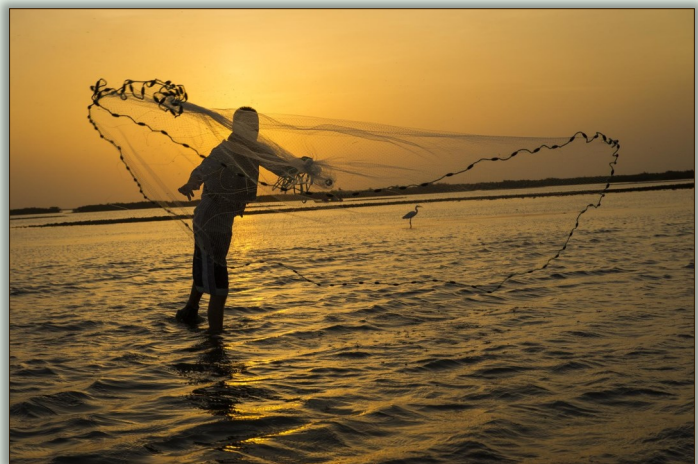
July

- 27 Alum Creek WMA**
 Blue Bonnet Headquarters
 155 Electric Avenue, Bastrop, TX 78602
 Begins at 3:00 p.m. - 5:00 p.m.
 Contact Robert Trudeau at 512-332-7280 or
Robert.trudeau@tpwd.texas.gov

August

- | | |
|---|---|
| <p>16 Washington County Wildlife Society Semi-Annual Fall Meeting
 Washington County Fairgrounds Event Center
 1305 E. Blue Bell Rd., Brenham, TX 77833
 Begins at 5:30 p.m.
 Contact Texas A&M AgriLife Extension Service
 at 979-277-6212 to RSVP or visit
 www.washingtoncountywildlifesociety32.wildapricot.org</p> | <p>24 Goliad County WMA Annual Meeting
 Memorial Auditorium
 935 South Jefferson St., Goliad, TX 77963
 Registration begins at 8:00 a.m.
 Meeting starts at 8:30 a.m. - 1:00 p.m.
 (LUNCH INCLUDED)
 Contact Brian Yanta or Alethea at the Goliad
 County Texas A&M AgriLife Extension Office at
 361-645-8204 or alethea.albrecht@ag.tamu.edu</p> |
| <p>16 Gonzales County WMA Fall Meeting
 GVEC Training Center
 917 CR 242, Gonzales, TX 78629
 Begins at 6:30 p.m.
 Contact Trent Teinert at 830-203-0896</p> | <p>24 Texas A&M AgriLife Extension 1st Annual Wildlife Expo
 WCJC Campus
 4000 Avenue F B, Bay City, TX 77414
 Begins at 9:00 a.m. - 3:00 p.m.
 Contact Arron Sumrall at 979-245-4100</p> |
| <p>17 Central DeWitt County WMA Annual Meeting
 VFW Hall
 934 US-183, Cuero, TX 77954
 Doors open at 5:00 p.m.
 Contact Jon Marie at 361-564-4671</p> | |
| <p>23 Guadalupe County WMA Fall Meeting
 Texas Agricultural Education & Heritage
 Center (Big Red Barn)
 390 Cordova Rd., Seguin, TX 78155
 Begins at 6:00 p.m.
 Contact Brenda Montague at 830-303-2550
 or guadcountywma@gmail.com</p> | |

Photo@Chase Fountain, TPWD.



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*Upcoming Events, continued***September**

- 7 North East Colorado County WMA Fall Meeting**
St. Peter and Paul Catholic Church-Frelsburg,
1031 Church Ln., New Ulm, TX 78950
Begins at 6:00 p.m.
Contact Terrel Maertz at 979-732-1727
www.ccwma.org
- 7 Buckners Creek WMA Fall Meeting**
St. Peter and Paul Church
126 Plum Church Rd., Plum, TX 78952
Social at 2:00 p.m.
Meeting begins at 3:00 p.m.
Contact Paula Thompson at 979-549-5828 or
paula_thompson52@yahoo.com
- 13 Colorado River and Central Colorado County WMA Joint Fall Meeting**
Schneider Hall
4351 TX-71 South, Columbus, TX 78934
Begins at 6:30 p.m.
Contact Scott Beauchamp at 979-255-1740 or
Ryan Beane at 979-732-9533
www.ccwma.org
- 14 Sandy Creek WMA Fall Meeting Colorado County**
Columbus Hall
3845 I-10, Columbus, TX 78934
Begins at 10:00 a.m.
Contact Ronnie Stock at 979-732-1004
www.ccwma.org
- 14 Harvey Creek WMA Fall Meeting Colorado County**
Columbus Hall
3845 I-10, Columbus, TX 78934
Begins at 6:00 p.m.
Contact Brian Emmel at 512-750-8777
www.ccwma.org
- 14 West Navidad WMA Fall Meeting**
Rockin' W Sale Barn
2510 N. Hwy. 77, Schulenburg, TX 78956
Social at 6:00 p.m.
Meeting begins at 7:00 p.m.
Contact Jessica Wick at 979-743-1903

*Dust off those shotguns, it's DOVE SEASON!
Photo@Chase Fountain, 2015, TPWD.*



- 15 Oakridge Ranch WMA Fall Meeting**
Oakridge Fire Station
Begins at 9:00 a.m.
Contact Jerry Rogers at 832-622-9034
www.ccwma.org
- 15 Lavaca County WMA Fall Meeting**
Knights of Columbus Hall
321 US Hwy. 77 S., Hallettsville, TX 77964
Begins at 10:00 a.m.
Contact Joel Wagner at 361-798-6506 or
lavacacountywma@gmail.com
www.lcwma.org
- 21 Jackson County WMA Fall Meeting**
Jackson County Service Center located at
411 N Wells St., Edna, TX 77957
Begins at 4:00 p.m.
Contact Jim Theiss at 713-253-1135 or
jtheiss13@comcast.net
<https://www.facebook.com/jacksoncowildlife/>
- 22 Rabbs Creek WMA Fall Meeting**
Holy Cross Lutheran Church (Warda)
5603 US 77, La Grange, TX 78945
Social at 4:00 p.m.
Meeting begins at 5:00 p.m.
Contact Ryan Hentschel at 210-632-3185

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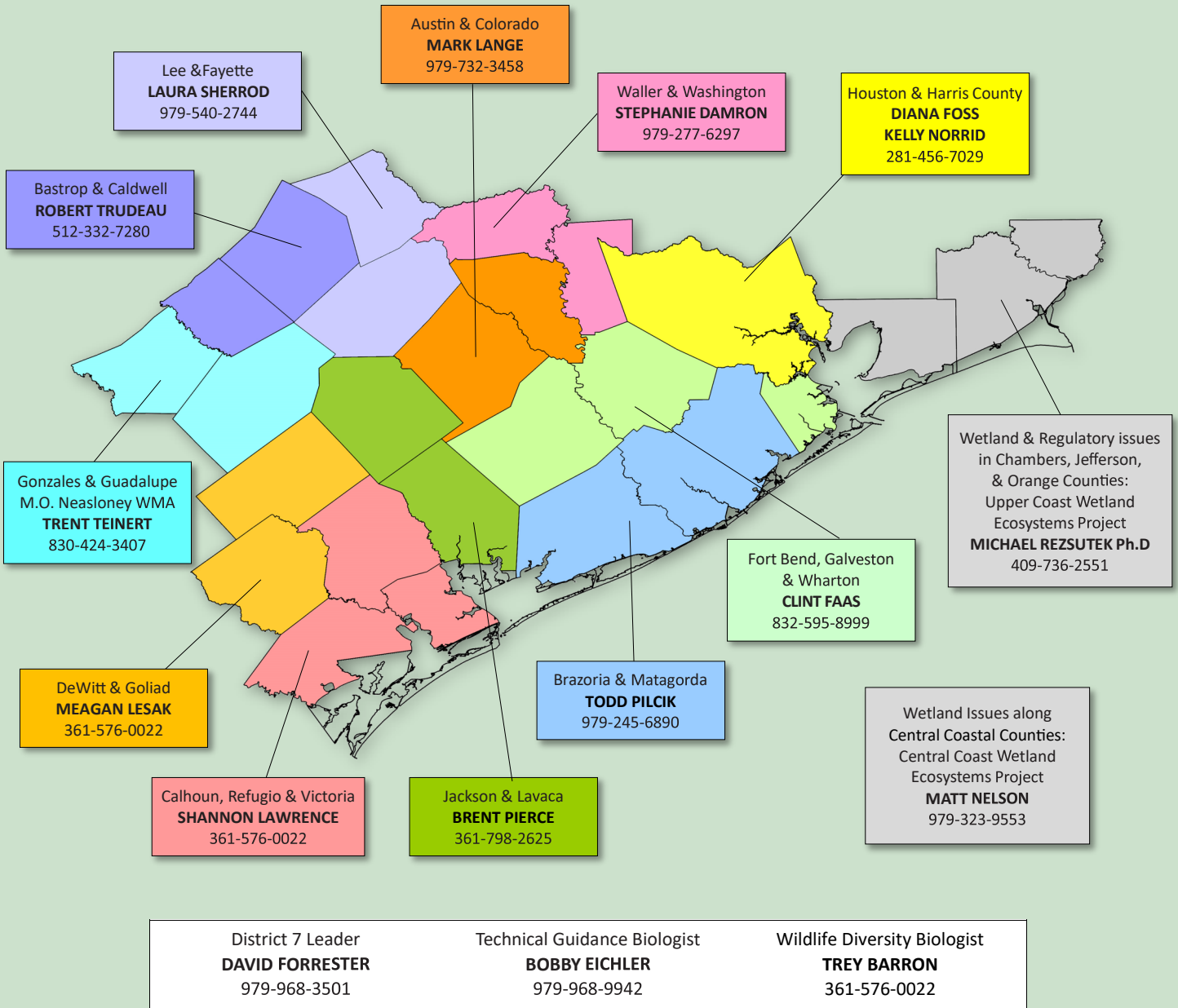
*Upcoming Events, continued***October**

- 8 Clear Fork WMA Fall Meeting**
Meeting location and time TBD
Contact Robert Trudeau at 512-332-7280 or Robert.trudeau@tpwd.texas.gov
- 12 Pin Oak WMA Fall Meeting**
Paige Community Center
117 Main St, Paige, TX 78659
Begins at 1:00 p.m. - 4:00 p.m.
Contact Robert Trudeau at 512-332-7280 or Robert.trudeau@tpwd.texas.gov
- 12 Red Rock WMA Fall Meeting**
Red Rock Community Center
114 Red Rock Rd., Red Rock, TX 78602
Begins at 6:30 p.m.
Contact Robert Trudeau at 512-332-7280 or Robert.trudeau@tpwd.texas.gov
- 12 North Central Fayette County WMA Fall Meeting**
Camp Kubena
2001 Waldeck Rd., Ledbetter, TX 78946
Social at 4:00 p.m.
Meeting begins at 5:00 p.m.
Contact Norman Schultz at 979-249-7159
- 12 East Navidad County WMA Fall Meeting**
Dubina Church Hall
3201 FM 1383, Schulenburg, TX 78962
Social at 6:00 p.m.
Meeting begins at 7:00 p.m.
Contact Tommy Koenig at 512-567-7922



Photo©Chase Fountain, TPWD.

Our Wildlife Biologists



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Carter P. Smith

Editors
David Forrester
Bobby Eichler
Stephanie Damron



Life's better outside.®

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TEXAS PARKS AND WILDLIFE DEPARTMENT MISSION STATEMENT

"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."

You may view this publication, as well as other newsletters created by the department, through the TPWD website. Please visit www.tpwd.texas.gov/newsletters/ for more information.

FOR MORE INFORMATION

All inquiries: Texas Parks and Wildlife Department, 4200 Smith School Rd., Austin, TX 78744, telephone (800) 792-1112 toll free, or (512) 389-4800 or visit our website for detailed information about TPWD programs:

www.tpwd.texas.gov

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